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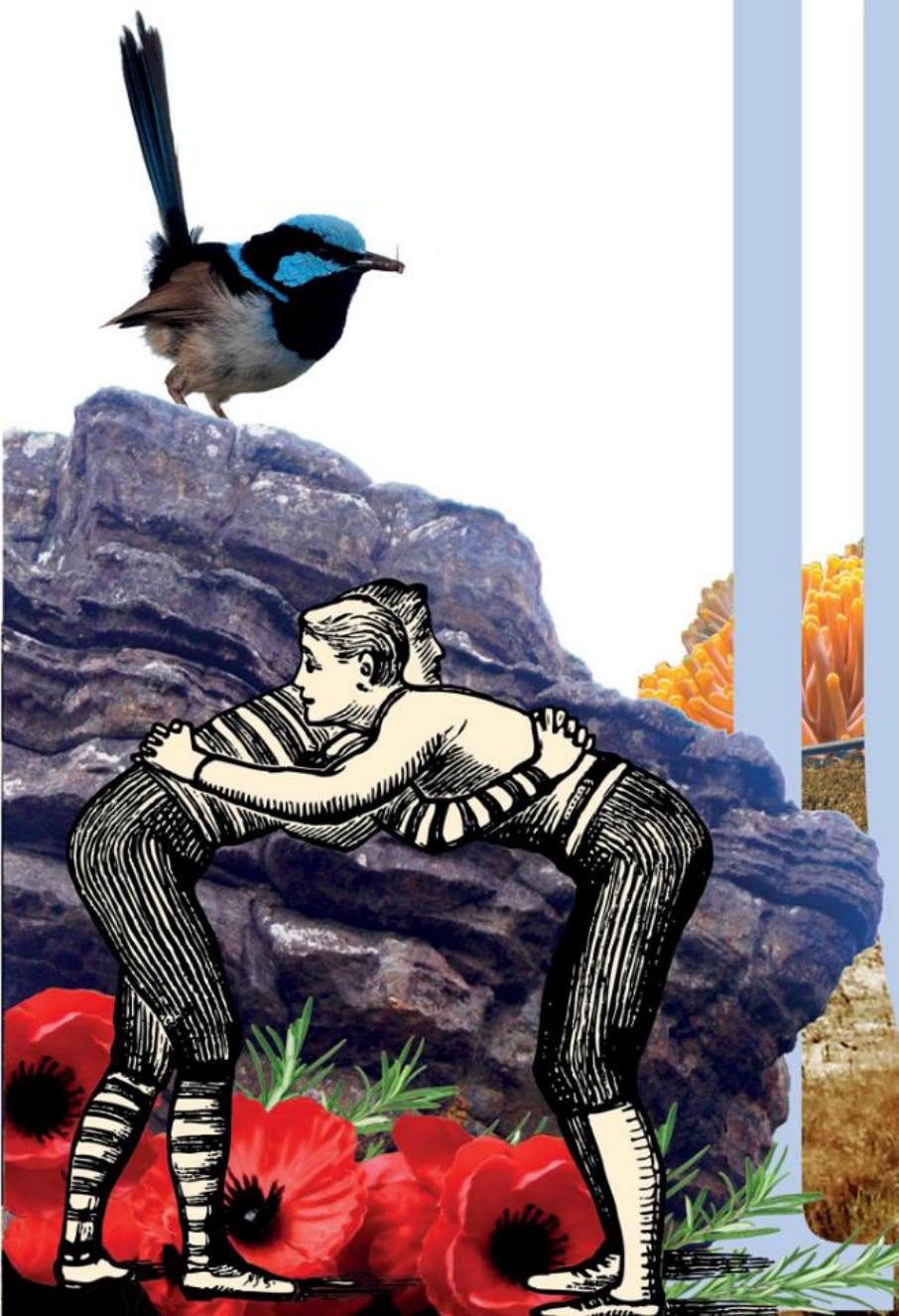

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Pearson Humanities Victoria 7–10

Engaging students of all levels

A new series designed to support Victorian students and teachers with comprehensive curriculum coverage of history, geography, economics and business, civics and citizenship. It's been created to engage and captivate students of all levels as they learn about humanities, to help them reach their full study potential.

Student Book

A visually engaging spread-based design, with each chapter featuring images, illustrations, infographics and source materials to engage and captivate all learners. The **student book** includes self-contained toolkit chapters for each discipline, covering key concepts and skills. All core chapters are supported by additional worksheets, solutions, teaching strategies, instructional rubrics, chapter tests and online interactives.

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We know you want to check the readiness of your students and keep track of their progress. With **Lightbook Starter**, you get an innovative digital learning and assessment resource that prepares students and assesses them against outcomes. It's all about helping you guide your students and helping them take control of their learning.

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Reader+ is our next generation eBook. Students can read, take notes, save bookmarks and more—anywhere, anytime. Integrated resources and interactive activities enhance and extend the learning experience, helping to engage students, and give them choice and flexibility in their learning.

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Teacher Reader+ aids lesson preparation by combining student book page references with a wealth of teacher support, to help you meet the demands of the Victorian Curriculum for humanities.

As the world's learning company, we're inspired by the way education changes lives.

We're creating innovative products and services to help all learners stay on the path to a better education.

Contents

Contents *continued*

SECTION 3

CIVICS AND CITIZENSHIP

SECTION 4

ECONOMICS AND BUSINESS

How to use this book

Student resources

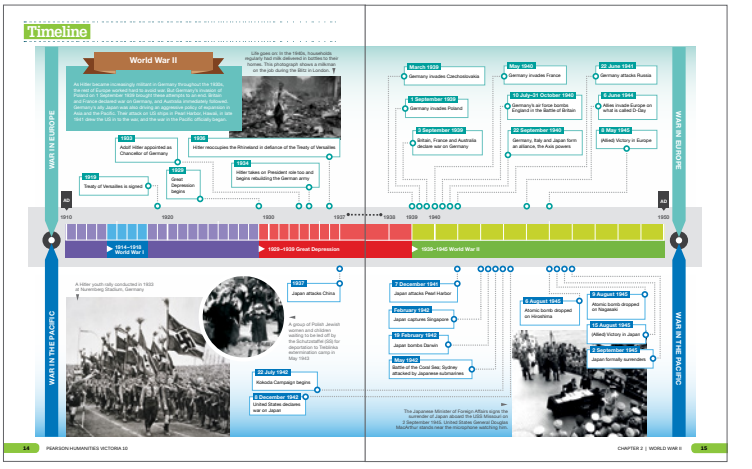
Pearson Humanities Victoria 10 uses subtle learning strategies to introduce, reinforce, differentiate, deepen and accelerate learning for Year 10 students. The student resources provide a comprehensive coverage of the **Victorian Curriculum for humanities** and are fully supported by an innovative digital offering. Elective chapters are available in print, digital or through customisation, and all the content chapters are fully supported by Lightbook Starter and Student Reader+ resources. Students are set for success with this complete solution for humanities learning!

Be set

The **chapter opening page** sets the context for the chapter by engaging students through ideas that get them thinking about the content and concepts to come. The key vocabulary for each chapter is presented in the **chapter glossary**, which helps students to prepare for discipline-specific terminology. The stunning chapter-opening imagery and overview questions help to frame students' thinking about the chapter before they begin.

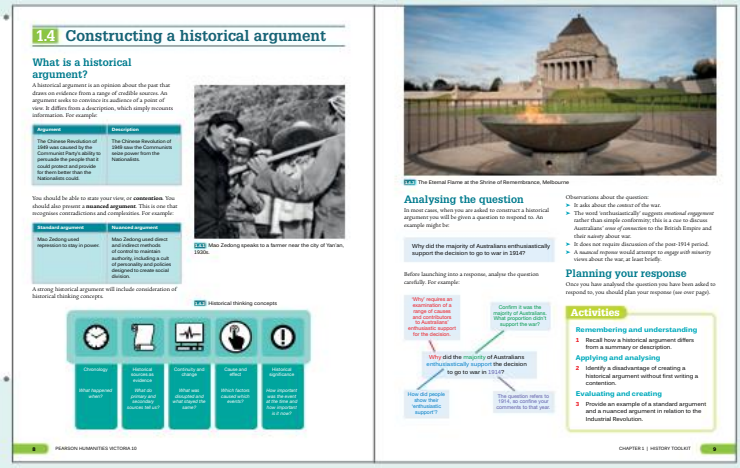
Be engaged

The spectacular **photos**, **illustrations**, **maps**, **timelines** and **infographics** are relevant and purposefully selected to build students' understanding of the text. A dedicated series literacy consultant, Dr Trish Weekes, has helped to craft the content so that it is accessible and contains enhanced scaffolding and explanation for students. The content's design is also geared towards **improving readability and navigation** of the text, and the maps comprise inset **locator maps** to aid students' understanding of physical geography.



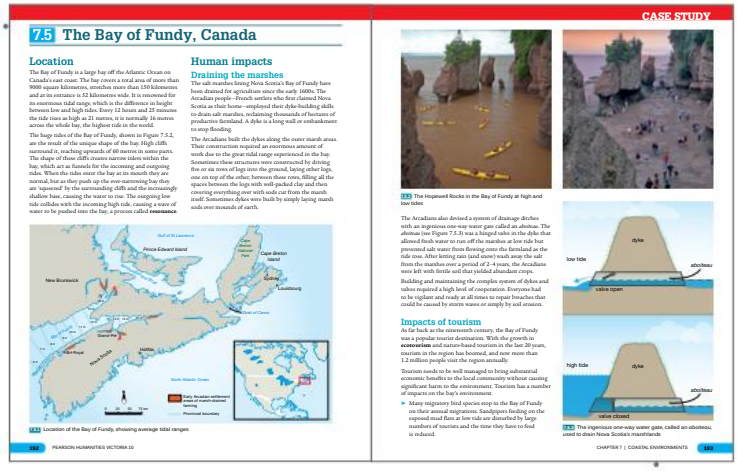
Be skilled

Each **skills builder** outlines a subject-specific method or technique for students to master; they are instructive and self-contained, and step students through key skills to prepare and build student fluency and application. **Toolkit chapters** for each discipline cover key concepts and skills from the Victorian Curriculum and are tailored for Level 10. There are also additional graphic organisers and useful templates available for students via the Student Reader+.



Be extended

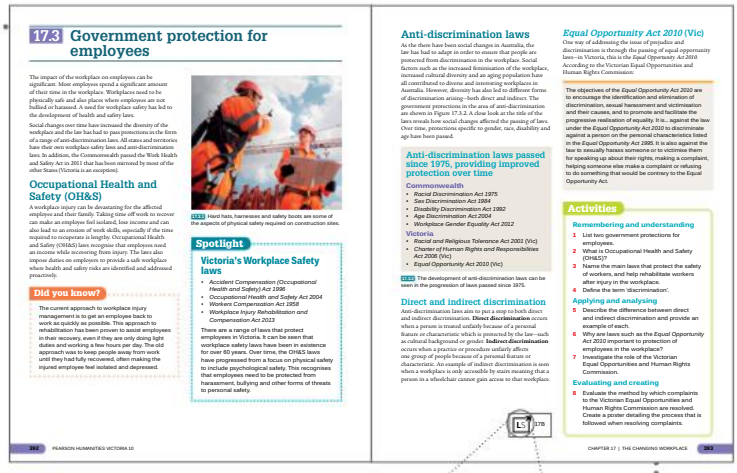
The **case study** units relate to a specific event or location, and are written to extend students' knowledge and understanding. The **spotlight** boxes focus their attention on a place, an issue or a concept relating to the unit; they are designed to develop students' knowledge and understanding of the ideas and processes that are central to the Level 10 study of the humanities. The **in the field** units in the geography section provide a step-by-step guide to undertaking and evaluating fieldwork; they have been written as a guide and are not tied to a specific location, so they can be used with fieldwork studies the class is undertaking.

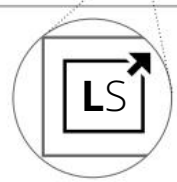


Be progressed

The student book **activities** reinforce key understandings and extend students beyond the text by involving them in a variety of learning experiences; they are crafted using Bloom's taxonomy to cater for the full range of learning abilities to move learners towards what they are expected to know and to help them consolidate that knowledge. Many of the activities are based on the stimulus material presented in the chapters, to facilitate the development of the skills.

There are handy icons in the student book to indicate the best time for students to engage with the corresponding Lightbook Starter assessment module. These formative assessment modules link back to overview questions at the start of the chapter.





Lightbook Starter

The **Lightbook Starter** is a cutting-edge **formative** and **summative** assessment platform, containing **complementary sets of questions** for reviewing the student book's units and chapters. These digital questions serve as an alternative or additional assessment opportunity for students who enjoy the benefits of **instant feedback**, **hints** and **auto-correction**.

Students and teachers can enjoy the visibility of learning through a progress tracker that shows each student's achievement against selected curriculum learning outcomes.

Be ready

The **before you begin** section includes useful preparatory material and questions to **activate** the **prior knowledge** of students and to establish their knowledge baselines. In addition, the expected **learning outcomes** present the key knowledge of the chapter in a student-friendly manner.

Be assessed

A variety of **interactive question types** with **hints** and **solutions** help students to check their understanding of what they are learning; these tools provide scaffolding and guidance to students so that they can confidently attempt review questions in class or at home. The module reviews are useful as a revision device to help students identify their areas of weakness or as a **formative assessment** to inform teachers in their lesson planning. The Lightbook Starter can also be used by students to check their understanding throughout the chapter; students benefit from the Lightbook Starter's **auto-corrected** responses that re-teach key concepts and provide them with instant feedback.

Be in control

The Lightbook Starter enables teachers and students to use a digital assessment tool as an alternative or addition to the questions in the student book. The Lightbook Starter's structure mirrors the overview questions on each chapter opening of the student book so that it provides a **fully integrated approach to digital assessment** and feedback.

Be reflective

An integrated set of **reflection** questions support students in considering their progress and future areas for focus. Students are frequently prompted to reflect on what they've learnt, and how they've worked.

Be tracked

Students can enjoy seeing progress through the learning outcomes that are updated instantly in the **progress tracker**; the progress tracker **teacher dashboard** shows where the learners are in their learning and is mapped to Victorian Curriculum content descriptors.

Teacher Reader+

The **Teacher Reader+** makes lesson preparation easy by combining additional teaching strategies and ideas for class activities along with differentiation and EAL/D support. Suggested solutions are also included, as well as all the answers to the student book activities.

Be prepared

The **chapter resource summary** for each chapter provides an easy reference point and overview for teachers; there are also categorised activity references for each student book unit to help make tailored lesson planning easier. Full **answers**, including suggested alternative solutions, to all the activities are also supplied. Further, each unit's **learning objectives** are clearly stated.

Be supported

The **teacher guide** offers a range of ideas to introduce students to each new topic, as well as to spark and activate their prior knowledge in the subject area. There are skills continuum rubrics also available for each separate discipline. Further, students can be encouraged to track their progression on the continuum throughout their learning.

Be differentiated

The **differentiated rich task worksheets** help learners to increase their fluency in using specific skills and to demonstrate their understanding of key concepts. The rich tasks are differentiated along three complexity levels to support different entry points for students. There is an accompanying rubric for each task that teachers can give students upfront to explicitly define their goals.

Be report-ready

Students' understanding can be tested by using the ready-made **Lightbook Starter chapter assessment**. This **summative assessment** can be assigned by teachers; alternatively, teachers can use the **printable and editable chapter test** format available via the Teacher Reader+.

Student Reader+

Reader+ is our next generation eBook. Students can read, take notes, save bookmarks and more—anywhere, anytime.

Be equipped

Integrated resources and interactive activities enhance and extend the learning experience, helping to engage students, and give them choice and flexibility in their learning.

History toolkit 1

The history of the modern world, and Australia's place within it, has been recorded by different people in different ways. Historians must **analyse** and **evaluate** the many sources of evidence to construct an accurate account of what occurred. However, these accounts are always open to interpretation. **Historical evidence** can change as new information comes to light. The twentieth century is an excellent case study in analysing and evaluating evidence, as it involved a clash between competing ideologies and worldviews.

OVERVIEW QUESTIONS

- **1A** What do historical sources of evidence say about the making of the modern world?
- **1B** How do historians interpret contested events?
- **1C** How do you construct a strong historical argument?

GLOSSARY

analyse to break down into parts and to study the interrelationships of those parts

contention a key argument or position, expressed concisely

contested the subject of debate or controversy

corroboration confirming information in a source by finding supporting evidence elsewhere

ephemera items intended to be used for a short time only

evaluate to judge the accuracy or reliability of a source

graphic organiser visual display demonstrating relationships, concepts or ideas

historical evidence primary or secondary sources used to interpret the past

historical interpretations views of people after the period of study, usually found in secondary sources

historical perspectives views of people in the period of study, usually found in primary sources

imperialist tendencies attempts to gain control over other countires

monopolistic capital dominance based on commercial power

national integrity control of or protection of one's nation

nuanced argument an argument that acknowledges complexity or contradiction

totalitarian regimes governments that seek to control all aspects of their citizens' lives

1.0.1 The making of a modern icon, the Sydney Harbour Bridge

1.1 Examining sources of evidence

What is historical evidence?

There are many historical sources: documents, buildings, artwork, even **ephemera** such as train tickets. These sources provide information about the past. However, sources only become historical evidence when they are used by someone, usually a historian, to interpret the past. One source might be used as evidence of more than one thing. For example:

Letters from the Great Depression are donated to a library

↓

One letter details the experience of living on the 'susso' (sustenance payments)

↓

One historian uses the letter as evidence of Australia's welfare state, while another uses it as evidence of social impacts of the Depression

↓

The remaining letters are not used as evidence by anyone and remain simply 'sources'

Examining sources with 'ADAMANT'

In order to examine a source thoroughly, it is useful to follow a series of steps. Ideally, you should go through the same set of steps with each source you examine. The steps should allow you to extract as much as you can out of the source. The ADAMANT method addresses the key components of a source:

- **A**uthor/creator: Who created the source? Were they attached to a particular institution or group?
- **D**ate: When was the source produced? What was the context? Were there any events that might have shaped the subject matter?
- **A**udience: For whom was the source originally created?
- **M**essage: What view or information is presented?
- **A**genda: What might have been the author's motivation for creating the source? Does the source express a particular point of view?
- **N**ature: What type of source is it? (For example, diary, news report, declaration, speech, survey results, photograph, cartoon)
- **T**echniques: How does the author communicate their message? Do they use imagery, symbols, expressive language? If so, why?

See how the ADAMANT method helps to illuminate a key primary source from the twentieth century—the *Universal Declaration of Human Rights*.

Author: United Nations General Assembly (drafted by committee, chaired by Eleanor Roosevelt)

Date: 1948, 3 years after the end of World War II

Audience: All people everywhere

Message: Everyone is entitled to basic human rights no matter where they live or who they are (30 articles state specific rights)


THE UNIVERSAL DECLARATION OF Human Rights

UNITED NATIONS

Agenda: To strengthen protections after the 1945 United Nations Charter, an international agreement to uphold human rights, failed to prevent Nazi atrocities in World War II

Nature: Declaration/charter

Techniques: The declaration uses formal, respectful language. Example: 'All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.' (Article 1)

1.1.1 The ADAMANT method applied to the *Universal Declaration of Human Rights*, 10 December 1948

1.1.2 Eleanor Roosevelt and the *Universal Declaration of Human Rights* in Spanish text

1.1.3 Depression-era breadline statue, Franklin Delano Roosevelt Presidential Memorial

Did you know?

Eleanor Roosevelt—diplomat, activist and First Lady of the United States—was a driving force in the *Universal Declaration of Human Rights*. She chaired the committee that drafted the declaration. Members of the committee hailed from countries such as France, Canada, China and Lebanon.

The declaration was adopted unanimously by the United Nations; however, several countries abstained, meaning they decided not to vote on the declaration. These were the Belorussian Soviet Socialist Republic, Czechoslovakia, Poland, Saudi Arabia, South Africa, the Soviet Union, the Ukrainian Soviet Socialist Republic and Yugoslavia.

Eleanor Roosevelt and her husband, Franklin Delano Roosevelt, the 32nd President of the United States, were prominent political figures of the twentieth century.

Activities

Remembering and understanding

1 a Explain the difference between a historical source and historical evidence.

b Name three of your own examples of using a source as evidence.

2 What was the aim of the *Universal Declaration of Human Rights?*

Applying and analysing

3 Apply the ADAMANT method to a historical photograph that appears in this book. What does the method reveal about the source?

Evaluating and creating

4 Identify the benefits of using the ADAMANT method to examine sources.

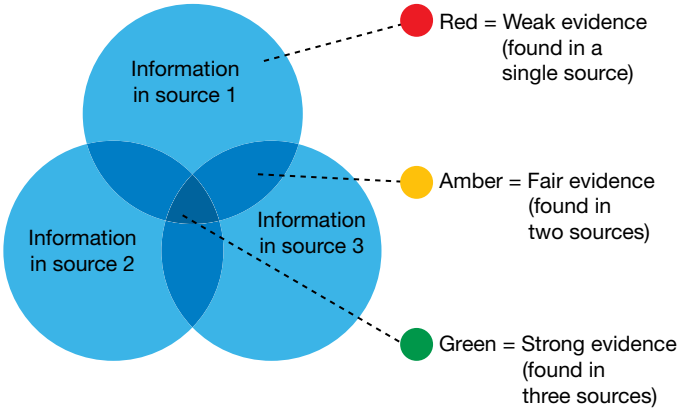
1.2 Evaluating sources

Corroboration

After examining a source in depth, you should then evaluate it to decide how useful it is. A key part of this is **corroboration**. Corroboration means finding other sources that verify the information in your source. Using corroborated sources strengthens your conclusions, allowing you to make a sound historical argument.

1.2.1 Historians must evaluate a range of sources of evidence before coming to a conclusion.

A simple way to corroborate sources is to create a Venn diagram, like the one below, about the sources you have examined.



1.2.2 The corroboration method

Reliability

After corroboration, historians come to a judgement about how reliable a source is. Some sources by their nature are more reliable as sources of evidence than others.

One example is the television footage of former Prime Minister Gough Whitlam on the steps of Parliament House on 11 November 1975, after he was removed from office (dismissed) by the Governor General, Sir John Kerr. It would be hard to argue that Whitlam did *not* say his famous line, 'Well may we say God save the Queen because nothing will save the Governor General.' The footage and the many witnesses confirm that he said it. However, we must take care to verify *all* sources of information, particularly now that 'bogus' or 'front' websites and image manipulation are common occurrences online.

1.2.3 On 11 November 1975 from the steps of Parliament House, the Governor General's secretary David Smith read a proclamation that dissolved both houses of parliament. He finished by saying 'God save the Queen.' Dismissed Prime Minister Gough Whitlam followed the announcement with his famous speech, 'Well may we say God save the Queen because nothing will save the Governor General.'

Did you know?

Historian Sam Wineburg and his colleagues at Stanford University are so concerned about misleading sources of information online that they do extensive studies on how students assess the accuracy of websites. One of their techniques is to provide students with a website that looks official and objective, but which is in fact a front for a political organisation. They rate how well students check the 'About' pages and corroborate information with other sources. One of their findings is that students have difficulty distinguishing between subtle advertising and news items.

Scandinavian historians Olden-Jørgensen and Thurén have developed guidelines on judging the reliability of sources.

1.2.4 Students should examine online sources critically.

- Human relics such as fingerprints are more credible sources than narratives
- The closer a source is to the event it describes, the more reliable it is
- Strong indications of the originality of a source increase its reliability
- An eyewitness is more reliable than second-hand testimony
- If a number of independent sources contain the same message, the credibility is high
- Sources with low tendencies towards bias are more reliable
- Sources where the creator has no direct interest in a particular outcome/agenda are more reliable

1.2.5 Source reliability as determined by Olden-Jørgensen and Thurén

Did you know?

There are a number of approaches or 'schools of thought' among historians. For example:

- cultural history tends to use artistic and popular-culture sources
- Marxist history often examines economic and political inequality
- revisionist history tends to challenge traditional accounts of history
- liberal history focuses on individual freedoms in the past
- 'big history' uses data to draw broad conclusions about life on earth
- 'counterfactual' history asks 'what if it happened differently?'
- feminist history evaluates the role of women in the past.

Activities

Remembering and understanding

1 Define corroboration and explain why historians need to practise it. Explain the dangers of not corroborating sources.

Applying and analysing

2 Compare and contrast the corroboration method with the Olden-Jørgensen and Thurén methods of assessing reliability. What are the similarities and differences between the two?

Evaluating and creating

3 Assess how the historical method of evaluating and corroborating sources could assist in combating the spread of 'fake news' and bogus websites.

1.3 Dealing with contradictory evidence

Contrasting perspectives

Historians often have to deal with contradictory evidence. Not everyone in the past had the same opinion about what was happening. Many events were **contested** at the time and continue to be contested today.

Historical perspectives are the views of people from the past about what was happening at the time. They are generally found in primary sources. Sometimes, two primary sources will present conflicting views about an event, but both can be substantiated with evidence. In other words, both are reasonably reliable but express very different opinions. How does a historian decide which one is more convincing?

Two sources on the Cold War between the United States and the Soviet Union after World War II provide a good example.

US Perspective

We shall not realize our objectives ... unless we are willing to help free peoples to maintain their free institutions and their **national integrity** against aggressive movements that seek to impose upon them **totalitarian regimes**... The free peoples of the world look to us for support in maintaining their freedoms.

1.3.1 Speech by President Harry Truman, 1947

Soviet Union Perspective

The foreign policy of the United States, which reflects the **imperialist tendencies** of American **monopolistic capital**, is characterized in the postwar period by a striving for world supremacy. This is the real meaning of the many statements by President Truman and other representatives...; that the United States has the right to lead the world.

1.3.2 Telegram to Soviet leadership from Nikolai Novikov, Soviet ambassador to the US, September 1946

GLOSSARY

imperialist tendencies attempts to control other countries

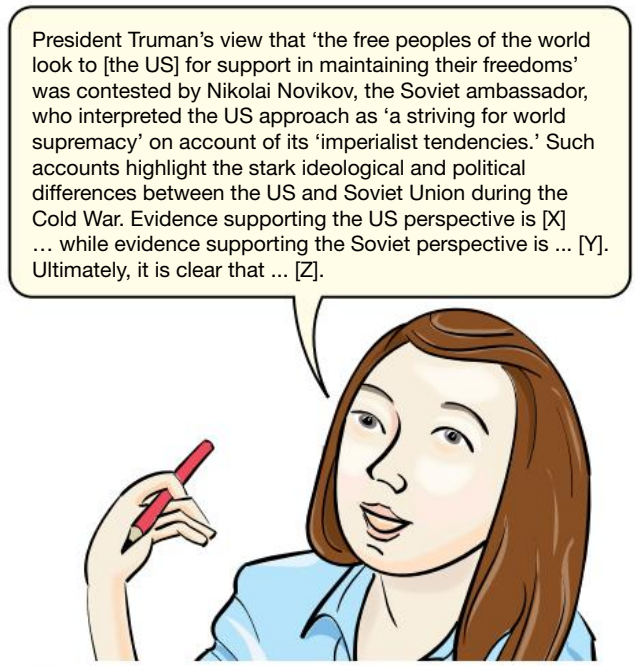
monopolistic capital dominance based on commercial power

national integrity control of or protection of one's nation

totalitarian regime a government that control all aspects of daily life

1.3.3 Glossary for US/Soviet perspectives

After researching the topic in depth, a student-historian might handle the contradictory accounts like this:



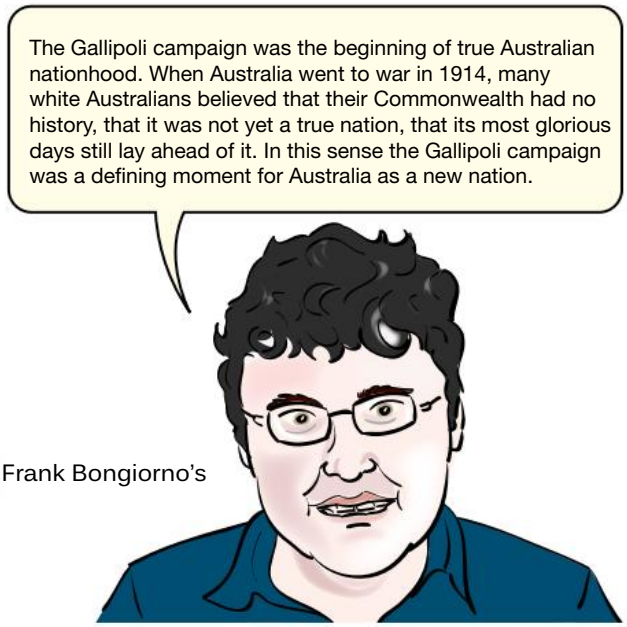
1.3.4 Sample student analysis

Note how the student considers evidence from each perspective [X and Y] before reaching her own conclusion [Z].

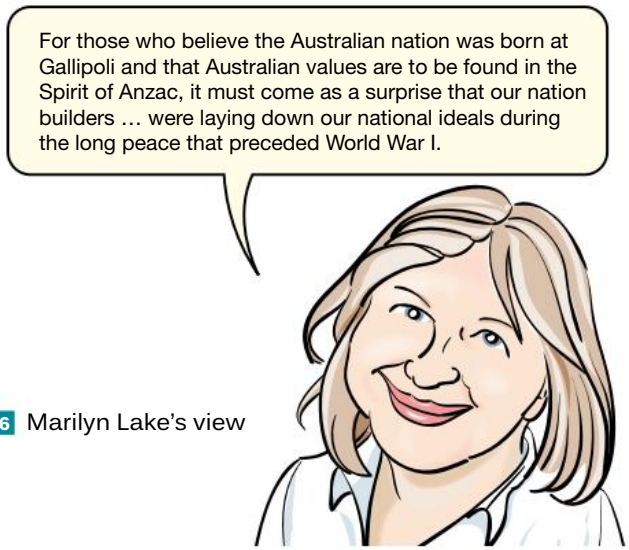
Contrasting interpretations

Historical interpretations are opinions expressed about an event, usually a good time afterwards. Interpretations are generally found in secondary sources.

As with historical perspectives, interpretations may conflict with each other. It can be difficult to decide which one is more convincing. Historians' debates about the 1915 Gallipoli campaign, in which the Anzacs attempted to seize the Turkish Dardanelles Strait on behalf of the Allies in World War I, provide a good example.

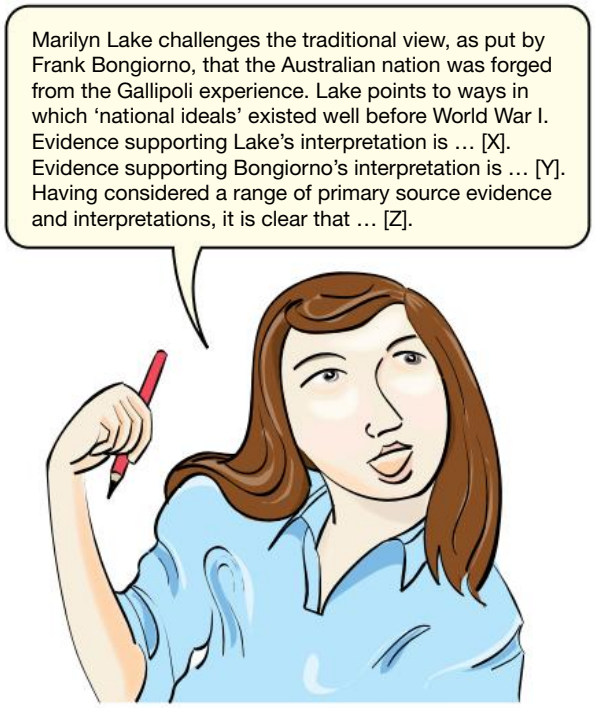


1.3.5 Frank Bongiorno's view



1.3.6 Marilyn Lake's view

After researching the topic in depth, the student-historian might approach the different interpretations like this:



1.3.7 Sample student analysis

Note the way the student-historian briefly introduces both interpretations, finds evidence relevant to each [X and Y] and then constructs her own argument based on a review of both primary source evidence and historical interpretations [Z].

Activities

Remembering and understanding

1 Explain why sources of evidence might be contradictory.

Applying and analysing

2 Discuss a challenge and an opportunity presented by contradictory sources of evidence.

3 Distinguish which one appears more convincing, the US or the Soviet perspective on the Cold War. Explore what further evidence you would need before making a judgement.

Evaluating and creating

4 Working in pairs or small groups choose one of the following events to research. Identify what might have been contrasting historical perspectives for the event. Present your findings to your class.

- **a** Winston Churchill makes his 'We shall fight them on the beaches' pledge (4 June 1940).
- **b** Martin Luther King Jr. delivers his 'I have a dream' speech (28 August 1963).
- **c** The US-led coalition invades Iraq (20 March 2003).
- **d** The Aboriginal tent embassy is constructed on the lawns of Parliament House (26 January 1972).

1.4 Constructing a historical argument

What is a historical argument?

A historical argument is an opinion about the past that draws on evidence from a range of credible sources. An argument seeks to convince its audience of a point of view. It differs from a description, which simply recounts information. For example:

Argument	Description
The Chinese Revolution of 1949 was caused by the Communist Party's ability to persuade the people that it could protect and provide for them better than the Nationalists could.	The Chinese Revolution of 1949 saw the Communists seize power from the Nationalists.

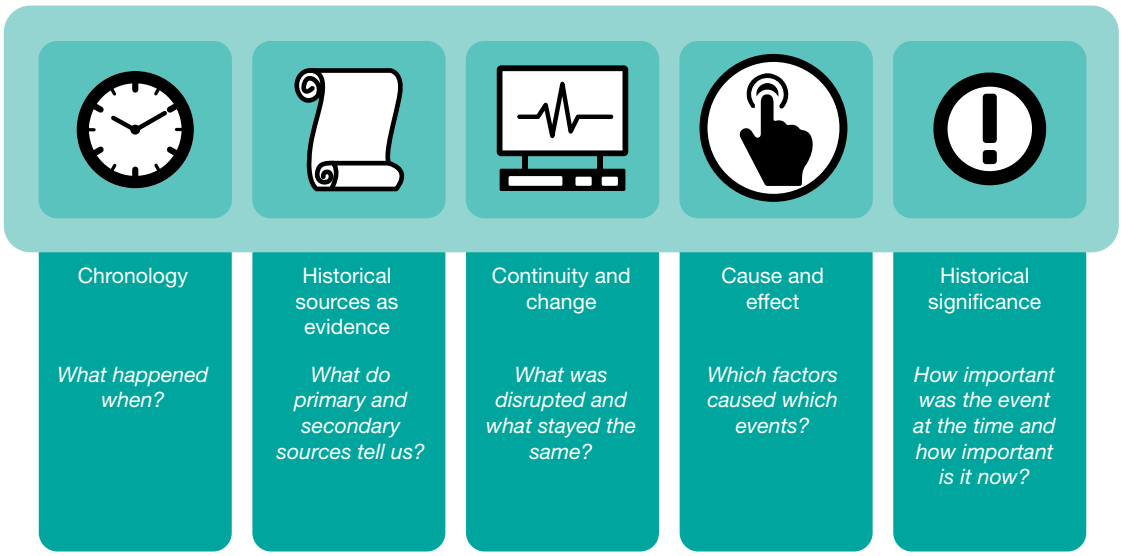
You should be able to state your view, or **contention**. You should also present a **nuanced argument**. This is one that recognises contradictions and complexities. For example:

Standard argument	Nuanced argument
Mao Zedong used repression to stay in power.	Mao Zedong used direct and indirect methods of control to maintain authority, including a cult of personality and policies designed to create social division.

A strong historical argument will include consideration of historical thinking concepts.

1.4.1 Mao Zedong speaks to a farmer near the city of Yan'an, 1930s.

1.4.2 Historical thinking concepts



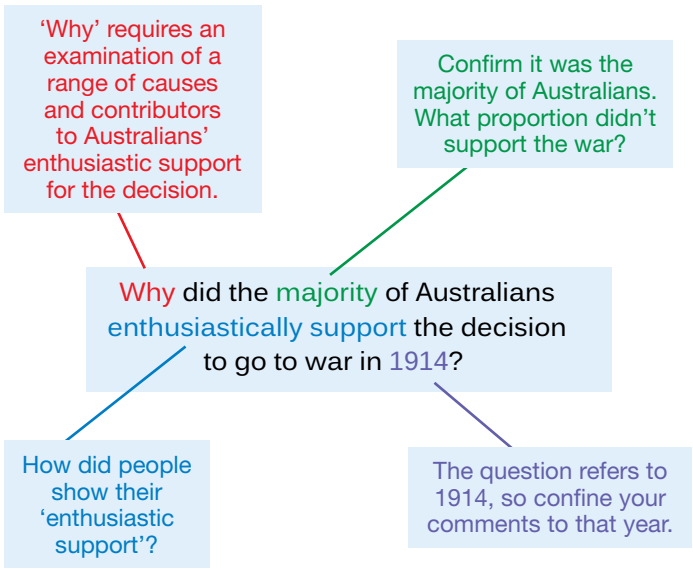
1.4.3 The Eternal Flame at the Shrine of Remembrance, Melbourne

Analysing the question

In most cases, when you are asked to construct a historical argument you will be given a question to respond to. An example might be:

> Why did the majority of Australians enthusiastically support the decision to go to war in 1914?

Before launching into a response, analyse the question carefully. For example:



Observations about the question:

- It asks about the *context* of the war.
- The word 'enthusiastically' suggests *emotional engagement* rather than simple conformity; this is a cue to discuss Australians' *sense of connection* to the British Empire and their *naivety* about war.
- It does not require discussion of the post-1914 period.
- A *nuanced response* would attempt to *engage with minority* views about the war, at least briefly.

Planning your response

Once you have analysed the question you have been asked to respond to, you should plan your response (see over page).

Activities

Remembering and understanding

1 Recall how a historical argument differs from a summary or description.

Applying and analysing

2 Identify a disadvantage of creating a historical argument without first writing a contention.

Evaluating and creating

3 Provide an example of a standard argument and a nuanced argument in relation to the Industrial Revolution.

1.5 Presenting a historical argument

Essays

A common way of presenting a historical argument is an essay. An essay provides an opportunity to explore ideas in depth, engage with multiple sources of evidence and construct a nuanced argument.

As discussed in Unit 1.4, you should go through a number of steps before writing an essay: write a contention, consider historical thinking concepts and analyse the question carefully. Then research your topic thoroughly. Once you have done these steps you are ready to begin writing.

Sample essay plan

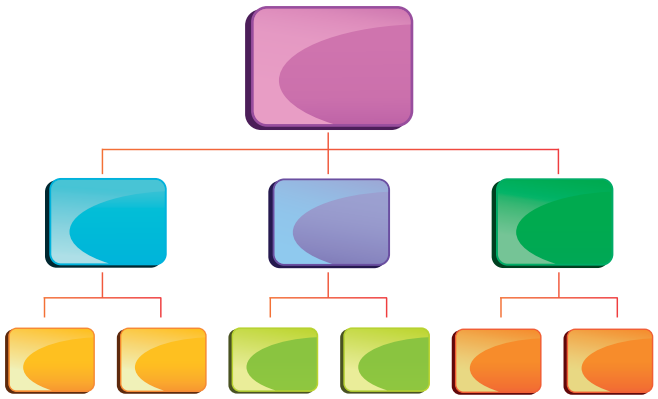
A plan is vital before beginning an essay. Here is how you might approach planning an essay on the question analysed in Unit 1.4.

> Why did the majority of Australians enthusiastically support the decision to go to war in 1914?

Contention	Most Australians enthusiastically supported the decision to go to war because of loyalty to Britain, social expectations and economic considerations.
Introduction	Following Britain's declaration of war on Germany on 4 August 1914, the majority of Australians willingly joined the war effort for three primary reasons: Australians felt a strong sense of loyalty and cultural connection to the 'mother country' and had already provided support in a number of conflicts; connected to this was a high level of social expectation and pressure in favour of enlisting; and economic pressures provided an incentive to join up.
Paragraph 1	In 1914, Australia wished to support the British Empire for cultural and practical reasons, including: • a large percentage of the population being of British descent • emotional and cultural attachment to Britain (for most) • reliance on Britain for defence • previously supporting British conflicts, e.g. New Zealand 1860s, Sudan 1885, Boer War 1899–1902, China 1900 • Prime Minister Cook believing, 'If the old country is at war, so are we' • Charles Bingham, a veteran, saying, 'England was the mother country … we were so tied to Great Britain that when she was in trouble it was just automatic [to help].'
Paragraph 2	Following on from the sense of support for Britain was a social expectation that people would enlist and support the war, including: • 20 000 people signing up in the first six weeks; over 52 000 people enlisting by the end of 1914 • gathering together, often singing 'Australia Will Be There'; recruitment posters showing bushmen, farmers and sportsmen saying, 'Show the enemy what Australian sporting men can do!'
Paragraph 3	In addition to genuine enthusiasm to support the war, there were also economic contributors, including: • drought of 1914–15, 'We haven't had any rain for months so I thought I would join the army' (Robert Antill, 1914) • relatively low wages • high unemployment • guaranteed income of six shillings per day.
Conclusion	Australians' enthusiastic support for the decision to go to war in 1914 was due to a combination of cultural, social and economic influences. While there was some opposition to the war among groups such as anarchists, pacifists and socialist trade unionists, most of these groups supported the war once Australia became involved. However, the harrowing experiences of many came to temper the enthusiasm for war significantly.
Bibliography	Cite all sources used in this format: • Beaumont, J. 2013, *Broken Nation: Australians in the Great War*, Allen & Unwin, NSW. • Holbrook, C. 2016, 'Nationalism and War Memory in Australia', in *Australia and the Great War: Identity, Memory and Mythology*, eds Walsh and Varnava, Melbourne University Press, Victoria, pp. 218–39.

Graphic organisers

A useful addition to a slideshow presentation can be a graphic organiser. They convey complex information in a succinct and engaging way. Graphic organisers are used increasingly in history, in particular cause-and-effect webs, Venn diagrams, annotated timelines, continuums and T-charts. You will find many examples in this book and online.



Presentations and debates

When presenting a historical argument in the form of an oral presentation or class debate, follow the advice on constructing an argument in Unit 1.4. Then place your points into the appropriate format such as a slideshow presentation or palm cards. For a debate, you will need to research the rules online or consult your teacher.

Did you know?

These tips can help you give an engaging presentation:

- rehearse (and time) your talk ahead of time
- start in an unexpected way
- include a personal story or observation
- use visuals such as **graphic organisers**
- speak to your audience, not at them
- finish with an original point for the audience to think about.

Activities

Remembering and understanding

1 Identify the key elements in the structure of an essay plan.

Applying and analysing

2 Identify why the structure of an essay is sometimes compared to a journey. Find another comparison.

3 Outline, in bullet points, a possible introduction for an essay on the following topic: *How was Australia changed by the experience of war in the twentieth century?*

Evaluating and creating

4 Create a graphic organiser showing the key points from the Sample Essay Plan. Do not include any sentences.

5 Construct and enter an essay or project in a history competition. Your teacher will be able to advise you on competitions.


ABBOTT

World War II

2

Twenty-one years after peace was declared marking the end of the 'war to end all wars', the world was once again at war.

The war quickly spread across Europe, North Africa, Asia and the Pacific and for the first time, Australia came under direct threat. Almost a million Australian men and women served in the war, both overseas and closer to home.

World War II would last from 1939 until 1945 and brought unimaginable horrors, death and destruction, including the **Holocaust** and the use of the first atomic bomb. By the end of the war, over 30 million people were dead and millions more were displaced.

OVERVIEW QUESTIONS

- **2A** What were the short- and long-term causes of World War II?
- **2B** How were civilians in Australia affected by the war?
- **2C** Why did the Holocaust occur and what was its legacy?
- **2D** What were the immediate and long-term effects of dropping the atomic bombs?

LS Before you begin

2.0.1 Harold Abbott painted this soldier looking over his shoulder after Singapore was defeated and surrendered in 1942. It is estimated that more than 15 000 Australians were captured and imprisoned in Changi.

GLOSSARY

Allies the countries that opposed the Axis powers, including Britain, Soviet Union (Russia), United States of America, China, France, Australia and New Zealand

anti-Semitism discrimination or hostility towards Jews

Axis powers the nations that fought against the allies—Germany, Italy and Japan

blitzkrieg German for 'lightning warfare' in which attacks were carried out at great speed, especially involving aircraft and mechanised forces cooperating

Bushido 'way of the warrior'—a code of honour and conduct for samurai warriors established in medieval Japanese history and similar to the medieval code of chivalry for European knights

camouflage military disguise of soldiers and equipment to blend in with the environment

classified in war, information that is kept secret and only available to authorised people

concentration camp brutal prison for those perceived to pose political, intellectual, religious, or racial threats to the German state

fascism an ideology of varying elements, but commonly suggesting that only those most suited to hold power should do so

genocide mass extermination, or its attempt, of an entire cultural ethnic group of people in order to wipe them out of existence

Holocaust the genocide of Jews and others, including communists and mentally-ill people, by Hitler and the Nazis; death sites include Auschwitz, Belsen, Buchenwald and others

internment camp a place where people of German, Italian and Japanese background were kept in Australia during World War II to prevent them from conducting any enemy activity

nationalism feeling of special pride in a country by the citizens of that country

propaganda materials designed to influence or present a particular point of view

Second AIF the Second Australian Imperial Force in World War II (the First AIF served in World War I)

Timeline

World War II

As Hitler became increasingly militant in Germany throughout the 1930s, the rest of Europe worked hard to avoid war. But Germany's invasion of Poland on 1 September 1939 brought these attempts to an end. Britain and France declared war on Germany, and Australia immediately followed. Germany's ally Japan was also driving an aggressive policy of expansion in Asia and the Pacific. Their attack on US ships in Pearl Harbor, Hawaii, in late 1941 drew the US in to the war, and the war in the Pacific officially began.

Life goes on: In the 1940s, households regularly had milk delivered in bottles to their homes. This photograph shows a milkman on the job during the Blitz in London.

WAR IN EUROPE

1919 Treaty of Versailles is signed

1929 Great Depression begins

1933 Adolf Hitler appointed as Chancellor of Germany

1934 Hitler takes on President role too and begins rebuilding the German army

1936 Hitler reoccupies the Rhineland in defiance of the Treaty of Versailles

AD

1910 — 1920 — 1930 — 1937

1914–1918 World War I

1929–1939 Great Depression

WAR IN THE PACIFIC

A Hitler youth rally conducted in 1933 at Nuremberg Stadium, Germany

1937 Japan attacks China

A group of Polish Jewish women and children waiting to be led off by the Schutzstaffel (SS) for deportation to Treblinka extermination camp in May 1943

22 July 1942 Kokoda Campaign begins

8 December 1942 United States declares war on Japan

March 1939
Germany invades Czechoslovakia

1 September 1939
Germany invades Poland

3 September 1939
Britain, France and Australia declare war on Germany

May 1940
Germany invades France

10 July–31 October 1940
Germany's air force bombs England in the Battle of Britain

22 September 1940
Germany, Italy and Japan form an alliance, the Axis powers

22 June 1941
Germany attacks Russia

6 June 1944
Allies invade Europe on what is called D-Day

8 May 1945
(Allied) Victory in Europe

WAR IN EUROPE

AD

1938 1939 1940 1950

1939–1945 World War II

7 December 1941
Japan attacks Pearl Harbor

February 1942
Japan captures Singapore

19 February 1942
Japan bombs Darwin

May 1942
Battle of the Coral Sea; Sydney attacked by Japanese submarines

6 August 1945
Atomic bomb dropped on Hiroshima

9 August 1945
Atomic bomb dropped on Nagasaki

15 August 1945
(Allied) Victory in Japan

2 September 1945
Japan formally surrenders

WAR IN THE PACIFIC

The Japanese Minister of Foreign Affairs signs the surrender of Japan aboard the USS Missouri on 2 September 1945. United States General Douglas MacArthur stands near the microphone watching him.

2.1 Causes of World War II

Treaty of Versailles

At the end of World War I, the major victorious **Allies** met to impose terms on Germany. The treaty, signed in 1919 at Versailles in France, aimed to punish Germany and limit future German expansion.

However, the Allies created new hostility and resentment amongst Germans because the treaty laid the blame for World War I completely on Germany. The clauses were harsh and included:

- Germany to pay huge reparations to the Allies for their military expenditure in World War I
- Germany to drastically reduce its defence forces
- territory to be taken away from Germany, including coal reserves (10 per cent), agricultural land (15 per cent), iron reserves (48 per cent) and industry (10 per cent).

Italy and Japan also believed the treaty was not fair on them, in terms of not gaining enough territory from the Germans.

Economic Depression

In post-war Germany, poverty and unemployment, combined with the economic impact of the treaty conditions, were extreme. Germany suffered hyperinflation (very high inflation that quickly erodes the real value of the currency as prices quickly increase) and the German Mark became worthless. In addition, Germany was still paying huge reparations as a result of their defeat in World War I.

2.1.1 Hyperinflation in Germany in 1923 caused their paper money to become almost worthless.

In October 1929, the stock market in the United States collapsed, triggering a worldwide economic depression that became known as the Great Depression.

The rise of fascism in Europe

Fascism is a broad term that refers to a group of political ideas that emerged in Europe following World War I.

Fascism grew as a particular response to the social and economic crises in Europe after the war and especially during the Great Depression. Fascist groups emerged across Europe, including in Britain. However, it was most prevalent in Germany under the Nazi party led by Adolf Hitler, in Italy under Benito Mussolini and in Spain under General Franco.

Fascism took different forms in each country, but there were certain common elements, including:

- extreme **nationalism**
- belief in a one-party state that rejected the right of people to democratically elect their government
- opposition to communism.

The rise of the Nazi party

In the 1932 elections, the Nazi party, led by Adolf Hitler, gained the largest number of popular votes. The party won on a platform that promised to invigorate the German economy and proposals to avoid paying World War I reparations. The Nazi party had enough influence to ensure that on 30 January 1933, President Hindenburg appointed Hitler as Chancellor. With the death of Hindenburg in 1934, Hitler combined the roles of Chancellor and President, to become the *Führer* (meaning 'leader').

Hitler's actions

In 1934, Hitler began rebuilding the army, building new warships and a German Air Force called the Luftwaffe. The air force gained experience and new tactics (**blitzkrieg**) during the Spanish Civil War of 1936. Germany provided support to the Nationalists, a fascist rebel group aiming to overthrow the Spanish government. In 1936, German military forces entered the Rhineland (a disputed territory on the border with France, Belgium, Luxembourg and the Netherlands that had been restored to France as part of the Treaty of Versailles), violating the Treaty. In the same year, Hitler signed alliances with the fascist leader in Italy, Benito Mussolini, creating the Rome–Berlin Axis Pact, and with General Tojo Hideki of Japan, creating the Anti-Comintern Pact.

The policy of appeasement

During the mid to late 1930s, the official policy of Britain was appeasement; that is, to avert another war with Germany and to create a barrier against the spread of communism from Russia. Britain and France sought to work with Hitler's demands and allowed his aggression to go unchallenged. In 1938, Hitler occupied Austria, which was re-unified with Germany.

When France and Britain asked Hitler to explain his actions, he promised that the Anschluss (union) of Austria with Germany was the end of Germany's expansionism. Six months later the situation reoccurred over Sudetenland—a region of Czechoslovakia (modern-day Czech Republic and Slovakia) where many ethnic Germans lived. Over the course of three meetings, the British Prime Minister Neville Chamberlain and Hitler settled on the Munich Agreement, which allowed Hitler to seize Sudetenland, provided he did not invade Czechoslovakia. Despite the agreement, Hitler invaded Czechoslovakia in March 1939. In light of Hitler's false promises, Britain and France joined forces with Poland to deter Hitler from invading Poland, but German troops invaded Poland on 1 September 1939. As a consequence, Britain and France declared war against Germany.

2.1.2 The British Prime Minister Neville Chamberlain's meeting with Hitler in September 1938 led to the Munich Agreement.

United States isolationism

After heavy financial losses in World War I and the impact of the Great Depression, the United States adopted an isolationist policy in the1930s and actively distanced itself from any involvement in the politics of the rest of the world, including the rise of Hitler and Japan's aggressive expansion in Asia. This isolationism did not extend to trade.

Weakness of the League of Nations

After the end of World War I, the League of Nations had been established to help keep world peace. However, it failed against the aggression of Germany, Italy and Japan.

Japan and Italy

In 1931, the military-led Japanese government decided to seize resources from other countries, as its own resources were limited, so the Japanese army invaded Manchuria (north China). The League of Nations condemned Japan, which resulted in Japan resigning from the League of Nations and continuing its conquests. When Italy invaded Abyssinia (modern-day Ethiopia) in 1935, the League of Nations again condemned the attack, but essentially did nothing. In 1937, needing more resources, Japan aggressively expanded its invasion of China, slowly working down the coast towards South-East Asia. Again, the League was unable to stop their aggressive expansion.

Reasons the League failed

The League of Nations failed partly because not all countries had joined, most notably the United States. In the beginning there was strong resistance to allowing Russia and Germany to join, which also weakened the alliance. By leaving the League, Germany, Italy and Japan could continue their aggressive actions. As the League had no armed forces, it relied on nations to step into conflicts on its behalf, but nations had neither the money nor the military power to do so.

Activities

LS 2A

Remembering and understanding

1. What four factors led to World War II?
2. How did the Treaty of Versailles affect Germany?
3. How did the Great Depression help Hitler to come to power?
4. What documents established Germany, Italy and Japan as the Axis powers?
5. Why did Britain and France follow a policy of appeasement towards Hitler?

Applying and analysing

6. Write a short paragraph explaining why the League of Nations could not stop conflict.
7. Explain why United States isolationism contributed to weakening the resistance to German and Japanese expansion in the lead up to World War II.

2.2 The course of the war in Europe

War begins in Poland

On 1 September 1939, Germany invaded Poland. The German blitzkrieg (lightning war) style of invasion involved a combination of land armed forces and Luftwaffe attacks. The *Einsatzgruppen* (German task forces) followed behind the regular land troops. Their prime objective was to eliminate any political or ideological enemies, including Jewish people, in preparation for German colonisation of Poland. German invasion of other territories was aimed at providing Lebensraum (living space) for the German people.

On 3 September 1939, Britain and France declared war on Germany, and Australia followed immediately after. Britain was unable to send any defensive forces to Poland. Britain's military was weak and needed time to rebuild. France decided on a defensive strategy, believing in the strength of the Maginot Line, a line of fortifications built along France's eastern border. Though Britain sent some troops (the British Expeditionary Force) to France in case of invasion, Britain and France did not carry out any major fighting during this period. For this reason, it is known as the 'Phoney War'. Soon after the German invasion, the Soviets invaded Poland from the east. Having signed a non-aggression pact in August earlier that year, the two invaders split Poland between them. Following their occupation of Poland, Germany invaded Norway and Denmark, and the Soviet Union invaded Finland.

Fall of France

Continuing the blitzkrieg strategy, on 10 May 1940, Germany attacked the Netherlands, Belgium and Luxembourg, beginning with air attacks. Germany gained control of the Netherlands and Luxembourg in only two days. Also on 10 May, the German Panzer (tank and infantry) divisions

2.2.1 The European theatre, World War II—the countries that made up the Allied powers changed during the war. Great Britain and France were the main Allies at the beginning of the war. They were joined by the Soviet Union and the United States in 1941.

2.2.2 Adolf Hitler and other German officials in Paris, 24 June 1940

burst through the forest along the Belgium–France border to invade France. They had avoided the Maginot Line altogether. German forces moved quickly through northern France, gaining control of territory. The rapid air and land attack, along with strong organisation, meant that though they were greater in numbers, the French and British troops were no match for the Germans. The Panzer divisions were particularly effective. The British Expeditionary Forces and other Allied forces pulled back to the port of Dunkirk. Over a period of eight days, 338 226 Allied troops were evacuated. German forces consolidated their occupation of northern France, including Paris, and an armistice was signed between France and Germany on 22 June. Southern France remained free from occupation and was led by the Vichy government, based in the town of Vichy. The Vichy government, led by Marshal Henri Pétain, cooperated with the German forces of the north.

During the French occupation, members of the French Resistance provided critical support to the Allies both in occupied and Vichy France. These networks carried out secret operations to provide information and perform acts of sabotage. General Charles de Gaulle played a key role in the Resistance from Britain. Some French military units that had evacuated from France also fought in the war as the Free French Forces.

Battle of the Atlantic

Britain, in particular, relied on the shipping channel between the United States and Europe to receive food, raw materials, petrol and weapons. Therefore, controlling the waters of the Atlantic was important.

The Germans sank many ships in the Atlantic by torpedoing them from their U-boats (a type of submarine). These attacks took advantage of the 'air gap'—the area in the middle of the ocean that land-based aircraft could not reach to defend the vessels.

After Germany occupied Norway and France, they controlled the ports in these countries, and U-boat attacks on the Atlantic channel increased. This caused major shortages in Britain—leading to the rationing of foodstuffs and materials—and great hardship for British people.

The tide eventually turned against the Germans when the United States joined the war in 1942. United States and Canadian forces alongside the British Royal Navy were able to provide more coordinated protection of merchant vessels in the form of armed convoys. The development of a longer-range aircraft and improved radar technology were key factors in this protection, as was the eventual decryption of German-coded messages by British intelligence, allowing the Allies to pinpoint the location of the German U-boats and thus either evade or destroy them.

Did you know?

The British technology that was used to decipher the German Enigma codes was also used in the development of computers. Alan Turing was a leading figure in the development of this technology.

Battle of Britain, 1940

With France under his control, Hitler turned his sights on Britain. The plan was to first defeat Britain in the air as a preliminary action to prevent the Royal Navy from blocking a German invasion. From July 1940, German planes fought to take control of the English Channel. They engaged Britain's Royal Air Force (RAF) in the air and targeted merchant ships sailing to Britain. Targeting ships had two advantages: it prevented supplies reaching Britain and drew out the RAF planes from their homeland skies. The next month, the Germans began bombing strategic British targets. These included airfields, factories, and the radar bases that formed the RAF's early warning system around the southern coast. Following the RAF bombing of Berlin in late August, Hitler made a speech threatening to 'eradicate their [Britain's] cities'. When Britain failed to surrender, Hitler instructed the Luftwaffe to target British cities.

2.2.3 Huge area of debris in London after heavy German air raid bombing attacks during the Battle of Britain

The Blitz

On 7 September 1940, the Luftwaffe launched a massive attack on London involving almost 1000 German aircraft. The British lost 31 fighters that day and the Germans lost 39. The attacks continued for days in a campaign known as 'the Blitz'. Gradually the British fought back. On 15 September, at the climax of the German attacks, the Germans lost 79 aircraft and the British lost 36. The tide of the battle turned.

On 17 September, Hitler postponed plans for an invasion of Britain and stopped daytime attacks on British cities. Indiscriminate night bombings of cities including London, Plymouth and Coventry continued until 31 October. Minimal bombings continued until December, but poor weather made these difficult. From July to December, the bombings killed approximately 40 000 civilians.

Axis powers

As a result of Germany's success, Italy entered the war on 10 June 1940, declaring war on Britain and France. In September, Germany, Italy and Japan signed the Tripartite Pact, officially establishing them as the **Axis powers**. Hungary, Romania, Slovakia, Bulgaria, Yugoslavia (modern-day Balkan states) and Croatia also signed later.

Greece and North Africa

Italian dictator Benito Mussolini took advantage of Italy's alliance with Germany to attempt to expand Italy's territory by invading Egypt and Greece, in September and October of 1940 respectively. Both invasions failed. However, a subsequent invasion of Greece with German military support was successful. The Axis powers held Greece from May 1941 until British forces liberated it in October 1944.

Italy had occupied part of Libya since before the war. Britain also already had bases in Egypt and controlled the Suez Canal, protecting their vital access to Middle Eastern oil and their trade route to Asia and the Pacific. Commonwealth troops, including 6th and 7th Divisions of the **Second Australian Imperial Force (AIF)**, were sent to North Africa to reinforce British defence of Allied interests. German reinforcements arrived to aid Italy in North Africa. German General Rommel led the Axis forces in North Africa from February 1941. The Axis and Allied troops fought battles throughout this territory until the Axis forces were defeated in November 1942 at the second Battle of El Alamein in Egypt. Australian soldiers played a vital role in this victory, including the well known 'Rats of Tobruk', who for eight months held back Axis forces in their siege on Tobruk, Libya. Combined Allied forces invaded Italy in September 1943. Mussolini was overthrown and King Victor Emmanuel III negotiated an armistice with the Allies.

The United States and Japan

At the beginning of the war, the United States remained nominally neutral, but they shipped goods to Britain and provided naval protection for merchant ships. When Japan bombed Pearl Harbor on 7 December 1941, the United States declared war on Japan. This prompted the other Axis powers to declare war on the United States, and so the United States entered the war against the European Axis powers, too.

The Soviet Union

Hitler had always intended to invade the Soviet Union, despite the non-aggression pact he had signed. He wanted to acquire Soviet land and resources, and defeat communism. 'Operation Barbarossa' started on 22 June 1941. The blitzkrieg attack consisted of more than 3 million men in three major prongs, along a front of approximately 2000 kilometres. The Soviets were surprised by the attack and Germany had early successes, including the destruction of Soviet airbases. Soviet leader Joseph Stalin ordered Soviet troops to fight to the death. This order, along with Hitler's use of *Einsatzgruppen* initially led to enormous numbers of Soviet deaths. German forces reached outer Moscow in November 1941, but were halted there by winter. Hitler expected the attack on the Soviet Union to be swift, but the increase in distance as troops moved further into the country stretched the German ability to supply the front. The Soviets' 'scorched earth' policy (on retreat they destroyed all resources to prevent the Germans from utilising them) worsened the situation.

> … on Friday 5 December [1941] … the snow was a metre deep [near Moscow] … [German] tanks were abandoned as engines failed to run in temperatures that had now dropped to [46 degrees Celsius] below zero. Light and heavy guns, their recoil mechanisms frozen solid, would not fire. Fingers that touched cold metal [stuck] to it …
>
> On 10 December [German Senior General Heinz] Guderian recorded a temperature of [–53] degrees [Celsius]. Soldiers lucky enough to find a soup kitchen discovered that boiling hot soup froze solid before they could finish it, while those who dropped their trousers to excrete in the open, died as their bowels were frozen solid.

2.2.4 From *Blood, Tears and Folly: An Objective Look at World War II*, by Len Deighton, 1993

The Battle of Stalingrad

In 1942, following winter, the German army focused its attention on taking Stalingrad (modern-day Volgograd) on the Volga River. Their attack began with bombings on 23 August. Several days later, German troops entered the city and the battle was fought within the city, among the streets and buildings.

In November, the Soviets launched new offensives from either side of the city, surrounding the German soldiers within. Hitler refused to allow the Germans to surrender and they attempted to bring in resources by air. The German soldiers and Soviet citizens were slowly starving. On 31 January 1943, German commander Friedrich Paulus surrendered against Hitler's orders. Approximately 2 million Soviet and Axis soldiers died during the Battle of Stalingrad. The Germans were now in retreat. They were eventually forced back by Soviet forces through Poland and Czechoslovakia all the way to Berlin.

D-Day landing

The Allied campaign to liberate France from Germany began on 6 June 1944, with the landing at Normandy known as 'D-Day'. The operation was planned six months earlier during the Allied Tehran Conference. The attack was carried out by air and sea from Britain, by more than 150 000 British, United States and Canadian soldiers. On 25 August, with the help of de Gaulle's Free French Forces, the Allies took back Paris. The Allies moved through Belgium and the Netherlands and then into Germany in September 1944. The capture of Berlin was left to the Soviet forces. They entered the city on 21 April 1945. On 30 April, Hitler committed suicide. On 7 May, Germany surrendered unconditionally. The Allies declared 8 May VE (Victory in Europe) Day.

2.2.5 During the D-Day landings in 1944. This photo was taken two weeks after the initial landing.

Activities

Remembering and understanding

1. Explain the term 'blitzkrieg'.
2. List the countries controlled by the Axis powers during World War II.
3. Which major battle led to the retreat of Germany from the Soviet Union? In which year did this battle conclude?

Applying and analysing

4. Why was control of the Atlantic important to both sides during World War II?
5. Summarise in a table the major events for Britain, Germany and the Soviet Union in World War II.

Evaluating and creating

6. Research the Australian 'Rats of Tobruk' and write an essay summarising key events and explaining why the Australians' efforts and success was so celebrated.
7. Imagine you are a Free French fighter. Write a diary entry for 8 May 1945. In your writing, discuss some of your most memorable experiences and events during the war, as well as your feelings on the day.
8. Evaluate the factors that led to Allied victory in World War II.

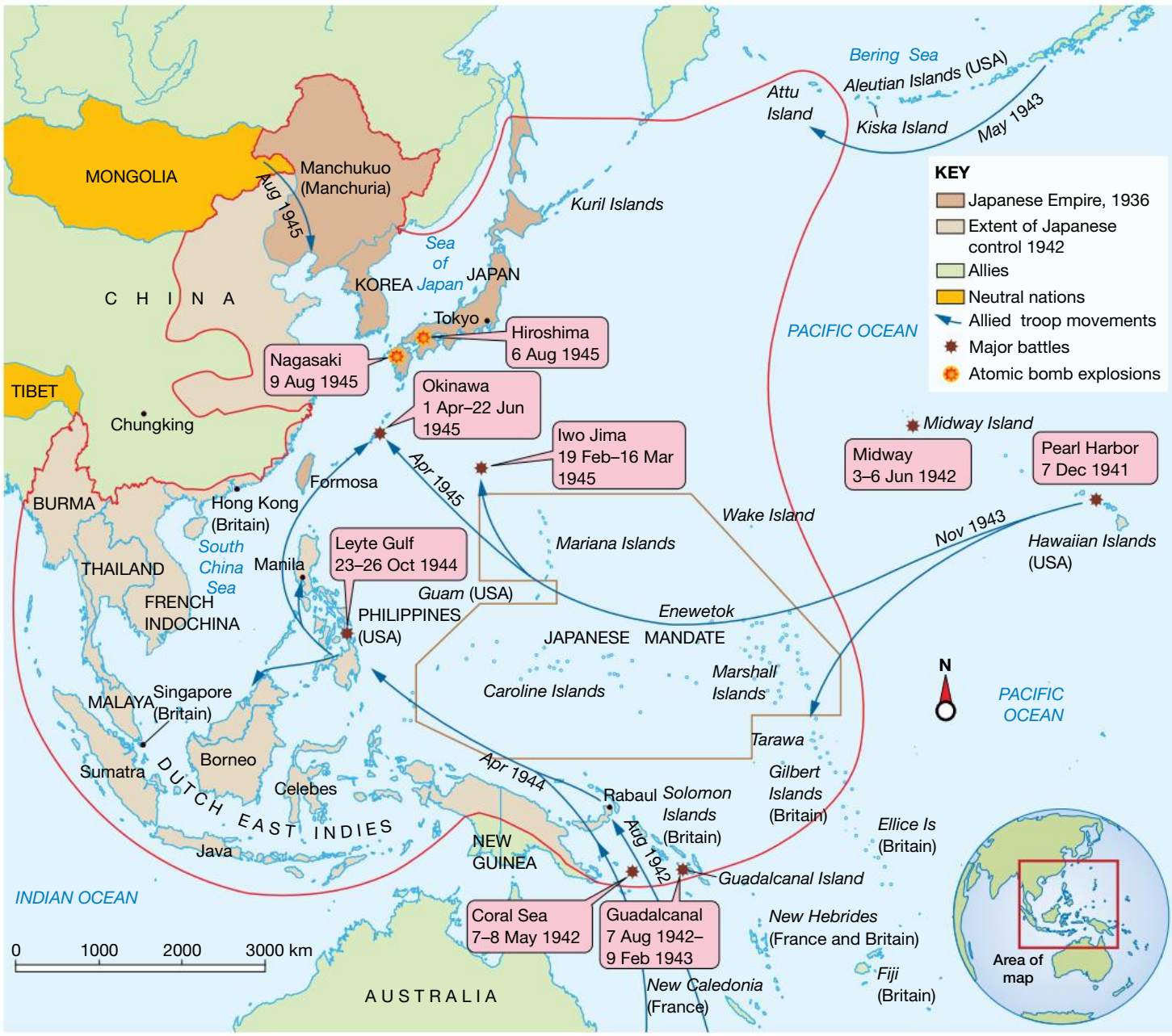
2.3 The course of the war in the Pacific

Japanese expansionism

In Japan in the late 1930s, the military-controlled government began to promote nationalist sentiment and an expansionist policy. As a small nation with few resources, Japan required imported materials to industrialise. It wanted to invade other territories to acquire these materials, as well as land for its growing population. In 1931, Japan had invaded Manchuria and in 1937 moved into China, beginning the Second Sino-Japanese War that continued until the end of World War II.

In 1939, Japan signed a non-aggression pact with the Soviet Union and in 1940 signed the Tripartite Pact with Germany and Italy. During these years, Japan also occupied the French colony of Indochina (modern day Vietnam, Laos and Cambodia) and announced its intention to create the 'Greater East Asia Co-Prosperity Sphere', a cooperative of Asian nations free of Western colonialism led by Japan.

Although European colonial powers and the United States had been concerned by the Japanese expansionism, they followed their policy of appeasement. In any case, they saw



2.3.1 The war in the Pacific

Germany as the greater threat. However, the United States, under the Roosevelt government, did lend money to China to assist in its defence against Japan.

It was not until Japan's occupation of Indochina that the Western nations began to act. Initially, in July 1940, the United States restricted the export of materials including iron and steel. Then in July 1941, it froze Japanese assets and placed further export restrictions on Japan, this time oil, an essential import for the Japanese. The British and Dutch governments followed suit. Japan attempted to negotiate its way out of the restrictions, but Japan and the United States could not come to an agreement. In September 1941, General Tojo Hideki, the former war minister and a proponent of attacks on Hawaii and Western colonies in South-East Asia, was chosen as Japan's Prime Minister by the emperor.

Bombing of Pearl Harbor

World War II began in the Pacific on 7 December 1941. That morning, Japan carried out an air strike on the United States naval base at Pearl Harbor, Hawaii. The United States had moved its naval fleet there in 1940 to deter Japanese aggression. From January 1941, the Japanese military had been planning an attack on the fleet. For Japan to move into the United States-administered Philippines and British colony of Singapore, Japan needed to ensure the United States' ability and willingness to respond was reduced.

2.3.2 United States battleship USS *Arizona* blazes shortly after blowing up on 7 December 1941

The Japanese attack was made without a declaration of war and the United States was not prepared. Almost 2500 United States personnel were killed during the attack. Eight battleships and more than 180 planes were damaged or destroyed. Aircraft carriers were not in the harbour at the time of attack, and most of the battleships were later repaired, so damage to the United States was not as great as Japan had hoped.

Later that day, Japan declared war on the United States and the following day the United States, Britain, the Netherlands and Australia declared war on Japan. On 11 December, Japan's fellow Tripartite Pact signatories, Italy and Germany, declared war on the United States, and the United States reciprocated.

Japanese invasions continue

On the same day as the Pearl Harbor attack, Japan invaded the United States territories in the Philippines, Guam and Wake; the British colony of Malaya (western Malaysia); Siam (Thailand); and seized Shanghai. Later that month, the Japanese attacked the British colonies of Hong Kong and Burma (Myanmar). By the end of December 1941, Siam, Hong Kong, Guam and Wake were in Japanese possession, and by the end of January 1942, British, Indian and Australian troops in Malaya had been pushed back to Singapore. Next, Japan set about invading the Dutch East Indies (Indonesia), the Australian colony of New Guinea, the Solomon Islands and Singapore. The occupation of the Dutch East Indies (Indonesia) provided Japan with access to oil it desperately needed and the occupation of Singapore had great strategic significance.

The fall of Singapore

The Allied forces in Singapore surrendered on 15 February, 1942 after a week-long siege. Despite having fewer troops, the British considered the fall of Singapore a humiliating defeat and a great loss to the Allied forces. Britain relied on the naval base there to house British ships and defend the South-East Asian colonies. This defensive plan was known as the Singapore Strategy. Australia, having spent relatively little on its military during the interwar years, also relied on the Singapore Strategy for its own protection.

With the fall of Singapore, this defensive strategy was no longer viable. The impact of this loss was felt in Australia immediately as on 19 February, using New Guinea as a base, the Japanese bombed Darwin. Air attacks on northern Australia continued until late 1943. By the end of May 1942 the United States had surrendered the Philippines and the British and Indian forces had withdrawn from Burma to India. By March 1942, Japan had the upper hand in the Pacific.

Changing allegiances

After declaring war on Japan, the United States moved troops to Burma and Australia among other locations. In March 1942, following the fall of Singapore, United States and Australian forces started cooperating more closely in their defence of the Pacific. Australian Prime Minister John Curtin insisted that Australian troops in the Mediterranean return to defend Australia, despite British Prime Minister Sir Winston Churchill's preference to send them to Burma.

The **Second AIF** (Australian Imperial Force) 6th and 7th Divisions returned to Australia, commanded by General Sir Thomas Blamey. In the new spirit of cooperation with the United States, Curtin allowed United States General Douglas MacArthur, Supreme Commander of South-West Pacific, to command Australian troops.

> Without any inhibitions of any kind, I make it clear that Australia looks to America, free of any pangs as to our traditional links or kinship with the United Kingdom. We know the problems that the United Kingdom faces. We know the dangers of dispersal of strength, but we know too, that Australia can go and Britain can still hold on. We are, therefore, determined that Australia shall not go, and we shall exert all our energies towards the shaping of a plan, with the United States as its keystone, which will give to our country some confidence of being able to hold out until the tide of battle swings against the enemy.

2.3.3 Extract from Prime Minister Curtin's 1942 New Year's message. He later had to backtrack on this message as it became clear that the US viewed Australia as primarily a strategic base, and an alliance would not replace the traditional ties with Britain.

2.3.4 Prime Minister Curtin shakes hands with General Douglas MacArthur, Sydney, 8 June 1943.

Did you know?

By mid 1943 over 150 000 United States servicemen were in Australia. Their presence had a significant impact on the local society, and led to tensions as they were considerably better paid than Australian servicemen. They quickly gained a reputation as 'big spenders' and ushered in changes to trends in fashion, consumer goods, films and food, especially Coca-Cola® and hamburgers. Tensions between them and Australian forces over food rations, women, race relations and fighting skills escalated to all-out riots, such as the Battle of Brisbane in November 1942.

The tide turns

Japan turned its attention to Midway Island and the Aleutian Islands after Tokyo was bombed in April 1942. Securing these islands would help defend Japan itself. The United States deciphered a coded message and knew the attack was coming, so sent three available aircraft carriers to Midway. Admiral Chester Nimitz led the United States forces. Four Japanese carriers were lost, but only one United States carrier.

New Guinea

The Battle of the Coral Sea

Port Moresby, New Guinea, was the last Allied post before Australia and the location of crucial airfields defended by Australian troops. In May 1942, the United States intercepted Japanese plans to invade through an amphibious operation (a military attack on land that originates at sea). On 7 May, Japanese and United States forces engaged in the Battle of the Coral Sea. This battle between aircraft flying from aircraft carriers was the first naval battle in which neither side's ships sighted the other. The battle ended with no decisive victor, but the Japanese fleet withdrew and the Allies held Port Moresby.

Kokoda

At the end of June, to add protection to Port Moresby, MacArthur sent a group of soldiers from the Australian Citizen Military Forces (CMF) to secure the airstrip at Kokoda and protect the northern coast of New Guinea. At the same time, the Japanese had landed near Gona, with plans to make an overland attack on Port Moresby. Both the Australian and Japanese forces advanced towards each other along the Kokoda Track, crossing the rugged, jungle terrain of the Owen Stanley Ranges. Initially, the Japanese troops forced the inexperienced and outnumbered Australian soldiers to retreat. However, the Australian soldiers continued to resist and fight until Second AIF troops

with experience in the Middle East arrived from Australia. Japanese troops were short of supplies and Australian troops started pushing them back. From September, Japan began to withdraw troops from New Guinea, instead concentrating their forces in Guadalcanal.

The Allied offensive

Following these defensive victories, the Allies began forcing a Japanese retreat. At the end of 1942, the Allies were fighting to take back control of the Solomon Islands, first recapturing Guadalcanal (where the Japanese had been attempting to build an airfield), and re-entering Burma. In May 1943, the Allies formally took an offensive approach to the Asia–Pacific campaign. They could do so due to the industrial might of the United States, which could quickly manufacture great numbers of ships, planes and weapons. The Japanese lacked the resources to compete with the United States industrial power and ran short of trained and experienced aircrew and soldiers. Nimitz and MacArthur employed a strategy of 'island hopping', in which their Pacific forces took back one island at a time in two prongs through the Pacific (MacArthur in the South-West Pacific and Nimitz in the Central Pacific) getting ever closer to the Japanese mainland. Though the Allies targeted the islands that were less heavily defended, each amphibious landing on an island resulted in many casualties.

Towards the end of the war, Australia focused on producing food and manufactured goods for the war effort, but was still involved in the Pacific battles. The Australian RAN and RAAF (Royal Australian Navy and Royal Australian Air Force) assisted the United States in numerous landings, including Hollandia in April 1944. Often though, MacArthur gave Australian forces the role of 'mopping up' after the United States forces made the initial landing. Many Australians died fighting the remaining Japanese troops in isolated garrisons in New Guinea and Borneo. These battles and the resulting loss of lives were arguably unnecessary.

Allied victory

Towards the end of 1944, the Allied dominance became even more pronounced. In October 1944, the Allies resoundingly won the largest naval battle of the war—the Battle of Leyte Gulf—in the Philippines. In this battle, the Japanese lost a total of 26 ships, while the Allies lost only six. In March 1945, Tokyo was firebombed by new B-29 bombers, which killed up to 80 000 people. These bombers could fly longer distances and bomb from greater heights than previous planes, and had a major influence on the war. The Allies used them to firebomb industrial areas of Japan, resulting in the deaths of hundreds of thousands of civilians. The Allies won bloody battles for the Japanese islands of Iwo Jima and Okinawa in February–June of 1945. The Battle of Okinawa led to more than 12 000 United States and 70 000 Japanese deaths (not including civilians), and provided the Allies with a base for invading the Japanese mainland. Despite the human loss the Japanese had endured, as well as the naval blockade cutting off their supply lines and the surrender of Germany, Japan still did not surrender when prompted to do so by the Potsdam Declaration issued by the Allies on 26 July. As a result, United States President Harry Truman ordered atomic bombs to be dropped on Hiroshima on 6 August and Nagasaki on 9 August. Both cities were devastated. Yet, still Japan did not surrender. It was not until the Soviets had invaded Manchuria and further bombings of Japanese cities that Emperor Hirohito surrendered on 15 August 1945.

Activities

Remembering and understanding

1 Why did Japan begin expanding its territory in the late 1930s?
2 Outline what happened at the bombing of Pearl Harbor.
3 Describe the strategy of 'island hopping' using amphibious landings.
4 Who signed the Tripartite Pact and in what year?
5 Name two consequences of the fall of Singapore.

Applying and analysing

6 Based on Source 2.3.3 and the text, develop an annotated concept map showing the relationships between Britain, the United States and Australia during World War II.

Evaluating and creating

7 Create a table listing the major battles fought in the Asia–Pacific region during World War II. Add columns with the date, location, participants, outcomes and consequences of each battle. You may need to conduct further research to complete the table.
8 Explain why Pearl Harbor was ultimately a failure for the Japanese.
9 Study Source 2.3.3. How did John Curtin's speech have an impact on Australia's foreign policy during World War II?
10 Research the 'Battle of Brisbane'. Explain what happened.

2.4 Australia at war

War is declared

In the evening of 3 September 1939, Australians gathered around their radios to hear Prime Minister Robert Menzies' solemn announcement:

> Fellow Australians, it is my melancholy duty to inform you officially that, in consequence of the persistence of Germany in her invasion of Poland, Great Britain has declared war upon her, and that, as a result, Australia is also at war.

2.4.1 Menzies declaring war

By the time the war ended in 1945, almost a million Australians, both men and women, had served. Over 30 000 Australians were taken prisoner and approximately 39 000 lost their lives. Australians fought against German and Italian forces in Europe, the Mediterranean and North Africa, as well as against the Japanese in South-East Asia, New Guinea and other parts of the Pacific.

Off to war

The Menzies government established the Second AIF in September 1939 and the campaign to enlist recruits began. The rate at which Australians enlisted varied according to the perception of the urgency of the situation in relation to Australia. The highest rate of recruiting for the Second AIF occurred after the German invasion of France in May 1940. A key event that saw a dramatic growth in enlistment was Japan's entry into the war in 1941.

Despite increased enlistment, the urgent need for manpower relaxed some prejudices. In 1941, the Torres Strait Light Infantry Battalion was formed and a detachment was sent overseas in 1943 to Dutch New Guinea. Women also played an important role in the war effort, including as nurses overseas with the AIF and in Australia as part of the Women's Auxiliary Australian Air Force (WAAAF), Women's Royal Australian Naval Service (WRANS), Australian Women's Army Service (AWAS) and outside the services in the Women's Land Army (WLA).

> 'Perhaps the call to adventure was the greatest motivation for volunteers.'

2.4.2 Quote from G.H. Fearnside, an Infantry soldier in World War II

Reasons for enlisting

In post-war surveys, duty was the first and foremost reason men gave as their reason for enlisting. Nationalism or patriotism was also cited, and loyalty to the British Empire rated after these reasons. In 1939, Australia's unemployment rate was nearly 9 per cent as a result of the Great Depression. Enlisting in the army provided many men with a job.

Joining the war was also seen by some men as offering adventure, excitement and the chance to see the world. One soldier wrote that when his unit returned to Australia, they would 'tell of thier [sic] adventures to a very eager crowd'.

2.4.3 Recruitment poster for the AIF, 1943

The desire for adventure reflected the desire to break away from boring or unhappy civilian lives. Australian official war historian, Gavin Long, points out that for the young, inexperienced men enlisting in the AIF, overseas travel and war were seen as a 'great adventure'.

Although a sense of duty applied throughout the war years, enlistments fell slowly after 1943, when it was perceived that the danger of invasion from Japan had dissipated.

Criteria for enlistment

The criteria to enlist in the AIF changed over the course of the war, reflecting the increasing pressure to find new recruits as the war progressed.

- 1939: age 20–35, with a minimum height of 5 feet 6 inches (167.6 centimetres)
- 1940: age 20–40, with a minimum height of 5 feet (152 centimetres)
- 1941: age 19–40, with no change to height regulations
- 1943: age 18–40, with no change to height regulations

Some soldiers lied about their age in order to enlist. More than half the volunteer recruits for World War II were industrial labourers and clerical staff. This was despite the image many had of the Australian soldier as a man from the land with a resourceful nature and many bush skills.

The typical Australian soldier

The archetypical Australian enlisting for service in the AIF was likely to be Australian-born (from 1940, Aboriginal and Torres Strait Islander peoples were rejected by the Defence Act); aged in their 20s; of good health; medium to tall; with a school-leaving age of 14; and originally a manual worker.

The RAAF was seen as the glamour service and enlistments featured a higher number of tertiary-educated men (see Source 2.4.4).

Aboriginal and Torres Strait Islander peoples

Aboriginal and Torres Strait Islander peoples also had a sense of duty to protect Australia, and many defied the ban to enlist. There was the attraction of being treated and paid as an equal with non-Indigenous soldiers, too. Along northern Australia's threatened coasts, they strongly participated (both officially and unofficially) as coast watchers spotting Japanese troops, ships and aircraft movements to relay back to authorities (see Unit 2.12).

Manpower regulations

During the course of the war, certain occupations were considered reserved occupations. People employed in these industries could not enlist because their occupations were deemed to be too important. Occupations that fell under this category were medical practitioners and certain types of miners and engineers essential for the supply of equipment for the war.

2.4.4 An RAAF recruitment poster, 1940

Activities

Remembering and understanding

1. Describe the archetype (meaning, a typical example) of the average man enlisting in the AIF.
2. Why did Aboriginal and Torres Strait Islander peoples enlist in the AIF?
3. What were the most significant motives for men to enlist?

Applying and analysing

4. Which arm of the defence forces was seen as the most desirable? Why do you think this was the case?
5. Draw a timeline of the rates of enlisting, including specific events that affected enlistment.
6. Study Sources 2.4.3 and 2.4.4.
   a. Describe the similarities and differences of each recruitment poster.
   b. Explain why you think the differences exist.

2.5 Where Australians fought

Australian Imperial Force

The different divisions of the AIF fought around the following regions:

- 6th Division—Libya (Tobruk), Greece and Crete in the Mediterranean Sea, Papua New Guinea (see Source 2.5.1)
- 7th Division— Libya (Tobruk), Syria, Lebanon, Papua New Guinea and Borneo
- 8th Division—Malaya, Singapore, Dutch East Indies and Rabaul
- 9th Division—Libya (Tobruk), Egypt (El Alamein), New Guinea, Borneo

With Japan's victory in Singapore in 1942, the Australian government, population and military assumed a Japanese invasion was imminent. The 6th and 7th Divisions were ordered to return from the Middle East, North Africa and Europe and defend Australia.

The Citizen Military Forces

Three Citizen Military Forces (CMF) battalions were sent to New Guinea to defend Port Moresby from the Japanese in 1941. The CMF was poorly armed and trained, and it was not intended that they serve overseas. They were sent to Papua, the south-eastern part of the island, which was Australian territory, thus making it legal to send the CMF there. They were the only Australian troops in New Guinea until the 6th and 7th Divisions returned from Europe and North Africa in 1942.

2.5.1 Different locations of Australian troops

Royal Australian Navy

Part of the Royal Australian Navy (RAN) served initially in the Mediterranean with the cruisers *Sydney* (later sunk by the Germans in 1941) and *Perth*, regularly fighting the Italian navy. All of the RAN's ships in the Mediterranean were later withdrawn to the Pacific and Indian oceans where they protected Australian convoys and served either with the British Fleet to protect convoys or supported United States operations in the Asia–Pacific region, notably in the Battle of the Coral Sea.

Royal Australian Air Force

The Royal Australian Air Force (RAAF) squadrons aided British and United States forces over the oceans around South-East Asia, flew from coastal airfields in Britain to attack German forces off Norway, and bombed Japanese ships and submarines along the northern coasts of Australia. The RAAF also flew many missions in support of British operations in North Africa and RAAF units remained in the Middle East for the duration of the war. Hundreds of Australians also flew with the British RAF squadrons in Britain, India and Burma.

2.5.2 Australian troops were besieged in 1941 in Tobruk, North Africa, refusing to surrender against the German Afrika Korps. They were nicknamed the 'Rats of Tobruk'.

Attacks on Australia

In 1942, Japanese aircraft attacked the northern coasts of Australia. Darwin was bombed in February 1942, with more raids occurring in April, June, July and November of that year, and in March 1943. The last raid occurred in November 1943. Towns in northern Queensland and Western Australia were also bombed during the same time period. In May 1942, Sydney was attacked by midget Japanese submarines and shelled by another submarine.

2.5.3 The bombing by Japanese carrier-borne aircraft on 19 February 1942 caused devastation to Darwin as it had at Pearl Harbor in December 1941.

Did you know?

Japanese aircraft raided northern Australia over 100 times between February 1942 and November 1943. Darwin, Townsville, Katherine, Wyndham, Derby, Broome and Port Hedland were all attacked.

Activities

Remembering and understanding

1 List the major locations where Australian forces fought around the world.
2 What happened to the 8th Division for most of the war?

Applying and analysing

3 Create a timeline of events from 1939 to 1945.
4 Study Source 2.5.2. Identify the conditions of the Battle of Tobruk.
5 Identify the key decisions Prime Minister John Curtin and the Australian government made in 1942. Why did they make these decisions?

Evaluating and creating

6 Imagine you are a newspaper reporter in Darwin at the time of the bombing in February 1942.
   a Research what happened, including how many people were killed and what was destroyed.
   b Write a newspaper article for a Melbourne paper. Remember that most readers in 1942 would never have been to Darwin.

2.6 The fall of Singapore

Defending the island

Singapore was the key to the British defence strategy in the Asia–Pacific region. It was also a naval base created by Britain as the leading naval power in the Asia–Pacific region.

The troops

In 1941, Australian, British and other Allied troops were sent to Malaya and Singapore to protect the peninsula and island. A total of 130 000 soldiers from Australia, Britain, India, Malaya and Singapore faced the 60 000 to 65 000 Japanese advancing on them. The AIF 8th Division was also protecting Australia from the southern march of the Japanese.

Air power

The defence of Singapore required many weapons and a great deal of ammunition. In particular, it needed between 350 and 550 aircraft, but there were only an estimated 150 aircraft available, which were old and out of date. Despite the best efforts of the pilots, including three squadrons of the RAAF, Singapore's defences and the city itself was bombed by Japanese air power.

> There must be no thought of sparing the troops or population; commanders and senior officers should die with their troops. The honour of the British Empire and the British Army is at stake.

2.6.2 Sir Winston Churchill sent this telegram to the troops defending Singapore on 10 February 1942.

Underestimating the enemy

> The local press [British in Malaya], by consistently disparaging the quality of the enemy's air force, and otherwise showing a poor opinion of his general efficiency, helped to build up a dangerously complacent attitude and in Malaya ease and complacency flourish without outside assistance.

2.6.3 Extract from a British report on the fall of Singapore, 1942

2.6.1 Lithograph of a Japanese painting showing General Percival (second from left, in the front row) and General Yamashita (opposite him) during the signing of the surrender in Singapore, February 1942

> Promised air parity [equality with Japanese air power] in January! Continual vague talk of counteroffensive which never happened, presumably because the Japs retained the initiative and we continued to conform to his movements … Why were beach defences not prepared? They may have been in some parts; there certainly was not as much as a strand of wire or a trench on the North East.

2.6.4 Extract from a report by an officer who escaped Singapore, 1942

The British military in Singapore had been over confident, believing they would easily defeat any Japanese attack. On 10 December 1941, two British warships—the battleship *Prince of Wales* and the battle cruiser *Repulse* had gone to the Malayan coast where the Japanese had landed. But the British RAF had lost nearly all its aircraft in Japanese attacks on Singapore by 9 December 1941, just two days after Pearl Harbor. Without RAF protection from Singapore, both ships were sunk by Japanese aerial torpedo bombers.

The attack on Singapore

The Japanese did what the British least expected. They:

- did not attack by sea as anticipated
- attacked from the north through Malaya, while the impressive coastal fortifications on the island were to the south
- entered the jungle, which the British thought impenetrable and so were able to bypass British defences blocking roads
- advanced with great speed using light tanks and soldiers on bicycles and the British had no time to re-organise defences.

When the British and Allied troops retreated to Singapore:

- beach defences had not been built so defenders were not protected and there were no obstacles to a Japanese landing
- the Japanese air force bombed key defence points and infrastructure.

With the water supply running low, constant bombing and little or no anti-aircraft ammunition, General Percival (overall commander) surrendered Singapore to General Yamashita on 15 February 1942.

Prisoners of war

All troops captured at Singapore—many tens of thousands of British, Indian, Malayan, Singaporean and 15 000 Australians troops—became Japanese prisoners of war (POWs). They were sent mainly to Changi POW camp in Singapore where they suffered terrible treatment.

Japanese Imperial Army soldiers had been taught with **Bushido** beliefs that an enemy who surrendered dishonoured their country and family. As a result, Allied prisoners were generally treated very harshly. Japan had not signed the Geneva Convention on POW treatment, which detailed the standard of humane treatment expected for prisoners. POWs lived a life of work, beatings and torture; they were deprived of food and medical attention, and suffered arbitrary death.

2.6.5 Japanese POW camps across South-East Asia

2.6.6 *Meal Time at Changi*, drawing by Murray Griffin, POW, 1943

Changi POW camp

Changi was a collection of former British Army barracks and a small civilian prison spread across several sites. The Changi complex held as many as 70 000 POWs, usually with five men in a room originally built for one person. The harsh conditions also caused illnesses such as malaria, beriberi, dysentery and infections from wounds, which increased the death rate among the prisoners. Despite their physical condition and the terrible treatment they received, POWs were forced to work for food. Groups of POWs at Changi were constantly sent to other camps in the Japanese-occupied areas to work. Failure to work to a Japanese soldier's satisfaction meant beatings at the very least. Disrespect often resulted in torture and brutal death such as beheading.

Thai–Burma railway

In 1943, Japan's military needed to send supply to its troops who were fighting the Allies in Burma so decided to build a railway to link Thailand with Burma. About 60 000 Allied POWs and 200 000 South-East Asian labourers were forced to build 420 kilometres of track by hand through dense jungle. Constant physical labour, lack of food and the unhealthy tropical environment caused the deaths of at least 2800 Australians, as well as more than 11 000 Allied prisoners and perhaps 75 000 Asian workers. Amid the suffering and death, individuals such as 'Weary' Dunlop—a courageous leader and compassionate surgeon—became famous for never giving up and always helping others.

2.6.7 An Australian POW suffering from the effects of malnutrition while working on the Burma Railway, 1945

2.6.8 *An Incident on the Burma Railway*, drawing by Murray Griffin, POW

Did you know?

Hiroo Onoda, an Imperial Japanese Army intelligence officer who fought in World War II, never surrendered in 1945. For almost 30 years he held his position in the Philippines because he was waiting for his commanding officer to order him to stop fighting. In 1974, his former commander travelled from Japan to personally issue orders relieving him from duty.

2.6.9 Soldiers standing outside huts at Changi after the camp's liberation in September 1945

Activities

Remembering and understanding

1 What was the strategic importance of Singapore for the British?
2 What tactics did the Japanese use to defeat the British in Malaya?

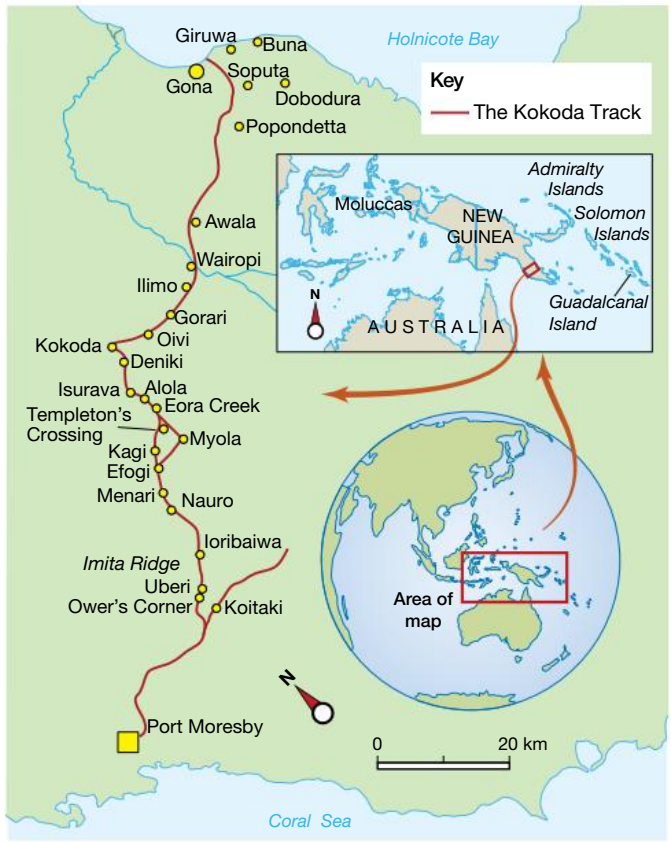
Applying and analysing

3 Study Source 2.6.1. What evidence can you find that helps prove the following assertions?
   a The British were deeply disappointed.
   b The Japanese were proud of their achievement in defeating the British.
4 Study Source 2.6.3.
   a What opinion did the British have of Japan's fighting ability?
   b How do you think this affected defence preparations?
   c What weaknesses in Singapore's planned defences are referred to by the writer?
   d Why do you think the state of the defences was as suggested by the writer?
5 Study Sources 2.6.6 and 2.6.7. What can you see in these images in relation to food deprivation, private belongings, comfort, climate effects and conditions encouraging disease?

Evaluating and creating

6 Japanese soldiers believed that being taken as a POW was dishonourable. Research Bushido, the code of the samurai, and write an article for a newspaper explaining what this meant from the Japanese point of view.
7 Research 'Weary' Dunlop and create a presentation that explains his contribution as a POW. Make sure you include your opinion of the impact such a person would have in a Japanese POW camp.

2.7 The New Guinea campaign, 1942



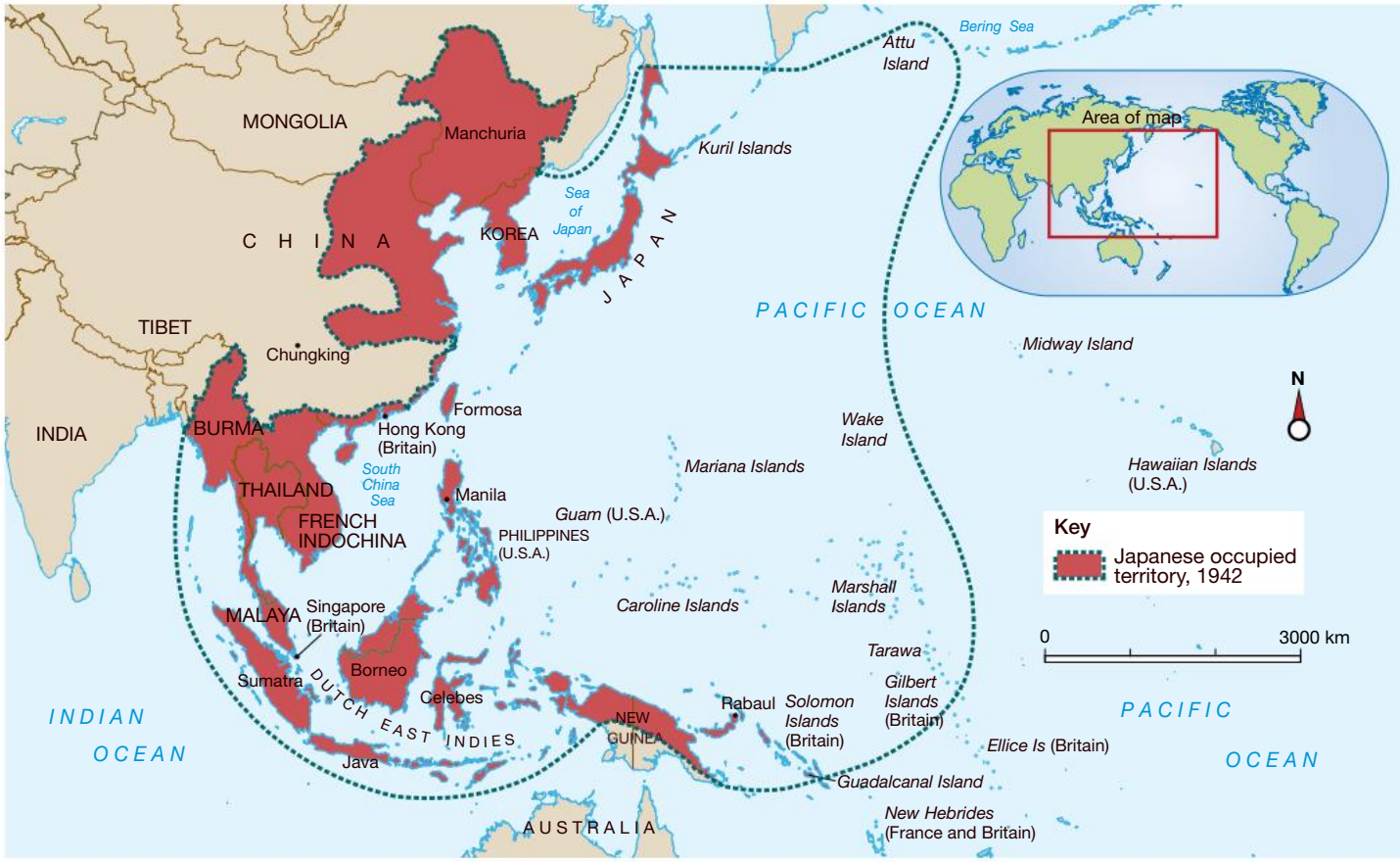
2.7.1 The Kokoda Track—the north–south route between Gona and Port Moresby

Japan advances

In March 1942, Japan developed a strategy to isolate (not invade) Australia from the United States. The Japanese conquered areas of the Pacific that shielded them from a future United States counterattack, but wanted to add Port Moresby, which was valuable for its harbour and airfields. If the Japanese took Port Moresby, they would then be able to fly bombers to attack locations in Australia as far away as Brisbane.

The Japanese navy had earlier tried to invade Port Moresby but had been turned back with a major loss in the Battle of the Coral Sea in May 1942. The Japanese were forced to land troops, well-equipped with mountain artillery and machine guns, in Papua. The aim was to march over the Owen Stanley Range and capture Port Moresby.

2.7.2 The extent of the Japanese occupied/conquered area in Pacific. Note the 'bump' in New Guinea where the airbase at Port Moresby was crucial to their security and ability to attack Australia.



Australia's response

The only troops remaining in Australia were the Citizen Military Force (CMF) or militia. A militia group called Maroubra Force, consisting of the 39th CMF Battalion, was sent to intercept the Japanese as early as possible along the Kokoda Track leading to Port Moresby. They met in the Kokoda area on 23 July 1942.

The CMF

In 1939, the government reintroduced conscription based on the *Defence Act 1903*, which allowed only for conscription for military service in Australia. Due to the direct threat from Japan, there was little public outcry. All single men aged 21 were required to join the CMF to prepare them for 'home defence'.

By late 1941, Japanese forces had begun moving south in the Pacific, taking territory and threatening Australia. This threat converted newly-elected Prime Minister Curtin from an opponent of conscription to proponent. The next year, conscription to the CMF was extended to all men aged 21–35 and all single men aged 35–45. In February 1943, Curtin enacted the Defence Act to expand the definition of 'home defence' to include a wider area of South-East Asia so militia (conscripts) could defend Australia further afield.

In 1942, as the European war worsened, the total number of militia had reached more than 250 000 men.

During 1939–1940, the keenest young men and some of the more experienced had volunteered for the AIF, lured by patriotic pride and expectations of adventure. In contrast, the CMF, being largely conscripts, was comparatively low on enthusiasm, skills and experience.

MILITIA UNITS FIGHT JAPS AT KOKODA—Enemy's Match in Jungle Warfare

Australian troops who have given such a good account of themselves in Jungle skirmishes around Kokoda are normally enlisted militia units. This can now be revealed following several weeks of stiff fighting, during which they have held up the advance of numerically superior Japanese forces, and inflicted heavy casualties in daring raids.

2.7.4 Geoffrey Hutton, war correspondent, *The Argus,* 24 August 1942

Saturday 29 August, 1942—bullets everywhere—hell on earth amongst the clouds in the mountains.

2.7.5 Extract from the diary of Private Stewart John Clarke 2/14 Battalion, describing the Kokoda Track

2.7.3 Members of the 39th Battalion, CMF, parade after weeks of fighting in the Kokoda campaign, 1942

Did you know?

CMF troops were derogatively referred to among AIF soldiers as 'chocos' (chocolate soldiers who melted under the heat of battle) and 'koalas' (a protected species, which could not be shot or exported).

2.7.6 Imita Ridge—the 'Golden Stairs', 1942. When climbing the stairs, soldiers had to lift their leg over logs and put their foot down on the step in what was frequently a puddle of mud and water up to 15 centimetres deep.

Kokoda Track fighting

The two CMF battalions numbered a total of 1600–1700 men and were vastly outnumbered by the attacking Japanese force, which was made up of 13 500 men with more troops still in Buna. The poorly-trained and poorly-equipped CMF engaged in fighting retreats slowing the Japanese advance. Despite heavy losses, the CMF battalions repelled and evaded the Japanese force until the 7th Division arrived late in August. The commander of the Maroubra Force, Brigadier Arnold Potts, aided by Lieutenant-Colonel Ralph Honner, believed that the CMF would surely lose to the well-equipped, more numerous Japanese. However, they believed that a slow fighting retreat would at least force the Japanese to advance warily and slowly as they stopped to respond to Australian-holding actions, and this would use up time.

The fighting conditions were extraordinarily difficult. The Owen Stanley Range consists of steep mountains that can rise to 4000 metres. Troops marched on steep slopes, usually covered in mud and jungle, at a terribly slow pace. Heat, humidity, vision obscured by dense jungle, malaria, frequent saturating rain, insects, mud, breathing difficulties at altitude, lack of food, lack of sleep, forever moving on, all added to the great danger of fighting a well-equipped and more numerous enemy that killed prisoners.

Victory on the Kokoda Track

By mid-September, the fight was now led by the returned 7th Division, which had quickly adapted to the jungle conditions; for example, learning to dye their uniforms jungle green for **camouflage**. The 7th Division fought the Japanese advance to a standstill just outside Port Moresby, by which time the Japanese supplies had been exhausted. Only around 5000 retreating Japanese soldiers survived to reach bases at Buna and Gona. In 1943, all Japanese soldiers were slowly, and with much bloodshed, ejected from New Guinea or killed. Famous battlefields on the northern coast of Papua include Buna, Gona, Milne Bay and Sanananda.

Factors helping the Australians

The near impassable terrain prevented military transport of food, medicines and ammunition to the troops. The difference between the Australian and Japanese supply problem was the 'Biscuit Bomber'—planes dropping supplies by parachute. The Australian forces were thus advantaged because of aircraft, which were able to drop just enough supplies. The local population also supported them. They did not fight but acted as bearers of wounded soldiers and carried supplies to the Australians. Many soldiers owed their lives to the New Guineans who they called 'Fuzzy Wuzzy Angels'.

2.7.7 The 25-pounder guns of B Troop, 14th Field Regiment, Royal Australian Artillery, being pulled through dense jungle in the vicinity of Uberi on the Kokoda Track, September 1942

Skills builder

Investigating sources

Historians analyse primary and secondary sources to explain what happened in the past. Sources help them to develop an informed explanation about places, people and events. Read the section in the Toolkit chapter (Unit 1.2) about investigating sources before doing these activities.

Apply

1 Read Source 2.7.4. How reliable do you think this source is? Give reasons for your answer.
2 Look at the photo in Source 2.7.6.
   a How does this source help you to understand the challenges the soldiers faced when fighting in New Guinea?
   b Does Source 2.7.7 provide you with the same information? Why or why not?
3 Do some research online and find two visual sources that you could use to illustrate the support the Indigenous people of New Guinea gave Australian soldiers.

Activities

Remembering and understanding

1 Why did the Japanese want to capture Port Moresby?
2 Explain why there were no regular AIF troops to help the CMF in July 1942.
3 What were the differences between the CMF and AIF?
4 Where could the CMF be sent to fight after the change to legislation in 1943?

Applying and analysing

5 Construct a timeline of the events referred to in the unit. Label clearly as CMF, AIF, United States and Japanese troops' actions.
6 'Armies march on their stomachs.' What relevance has this quote to the New Guinea campaign?
7 Study Source 2.7.4. Why do you think the skirmishes around Kokoda could 'now be revealed'?
8 Do you think the AIF would have still called the CMF forces 'chocos' and 'koalas' at the end of the war? Explain.

2.8 The Holocaust

Genocide

Genocide is the act or process used to kill an entire ethnic group or race. The German Nazi government's systematic and brutal murder of more than 6 million people during World War II is known as the Holocaust. Primarily targeting Jews, the Holocaust resulted in the death of three-quarters of Europe's Jewish population. It is one of the most dreadful episodes in human history.

German anti-Semitism

Anti-Semitism or hostility against the Jews has been recorded back to ancient times. Since being driven from their homeland by the Romans 2000 years ago, Jewish people were forced to migrate around the world (known as the Jewish 'diaspora'). As a minority group in many of the places they settled, they were treated as second-class citizens and subjected to discrimination, persecution and isolation. They were widely regarded with suspicion and often used as a scapegoat for many social problems.

Hitler's anti-Semitism

Following the humiliating defeat of Germany in World War I, and subsequent collapse of the German economy, the Jewish community was blamed for profiteering from the war. The Nazi party rose to political prominence on a platform of restoring German pride and power. The leader of the Nazis, Adolf Hitler, had outlined his anti-Semitism in his book *Mein Kampf*, which was published in two volumes in 1925 and 1926. Hitler proposed to create a pure 'Aryan' or 'master race', by eradicating those he identified as subhuman classes of people (labeled '*Untermenschen*'). These included Jews, Slavs, the Sinti/Romani people (often referred to as Gypsies), criminals, people with disabilities and homosexuals.

Germany 1933–1938

When the Nazi party came into power in 1933, at the height of the Great Depression, they increased **propaganda** against the Jews, blaming them for Germany's post-war economic problems. As the Nazi party increased its power, they began to implement policies to systematically take away the rights of Jews so that they:

- were banned from working in the government
- had their shops and businesses boycotted
- had the right to vote removed
- had their German citizenship revoked
- were banned from the army
- were banned from marrying non-Jews
- were expelled from German schools.

These and other discriminatory policies were enforced by the Schutzstaffel or SS (the 'protection squadron') and the Gestapo (secret state police). This included sending Jews and other political enemies to political prisons called **concentration camps**. Due to the increasing hostility, many Jews decided to flee Germany and migrated to other countries in Europe and around the world. Those who fled included the world-renowned scientist Albert Einstein and psychologist Sigmund Freud. However, for various reasons, including being unable to take any money or assets if they left, many Jews decided to remain at home in Germany.

Germany 1938–1941

From 1938, the persecution of Jews became extreme and the Nazi government openly encouraged violent mobs to attack Jews and their businesses and synagogues. This violence culminated in *Kristallnacht* or the 'night of broken glass' when 8000 Jewish-owned businesses and 200 synagogues were destroyed, and over 90 Jews were murdered. No one was investigated or prosecuted for these crimes.

With the outbreak of war in 1939, following the German invasion of Poland, Jews from across Germany and German-occupied areas were transported to cities in Poland and forced to live in prescribed areas known as ghettos. The ghettos were overcrowded, lacked food, fuel and medicines and as such were subject to outbreaks of disease. Movement of Jews outside of the ghettos was restricted and from 1941 all Jews had to wear the Star of David on their clothing to identify them publicly as Jews. As conditions in the ghettos worsened the number of Jews sent to concentration camps increased.

The 'final solution'

By 1941, Germany and its allies controlled Poland, the Baltic States and most of Eastern Europe, including parts of Russia. In these territories there were an estimated 4.3 million Jews, and in 1942 the Wannsee Conference held in Berlin sought a 'final solution to the Jewish problem'. The solution was the deportation or extermination of all Jews from German-occupied territories. Orders were given to execute Jewish POWs, and to establish death camps to facilitate the mass murder of Jews and other *Untermenschen* groups.

The final solution was overseen by Heinrich Himmler, the leader of the SS, who established paramilitary units and expanded the death camps dedicated to the systematic murdering of Jews, other *Untermenschen* groups and the Nazi's political enemies.

Concentration camps

The term 'concentration camp' describes a large prison camp used to intern prisoners of war. Under the Nazis, many concentration camps were established throughout the German-occupied territories. Jews and the other *Untermenschen* were rounded up and transported in overcrowded cattle trains for long distances to the concentration camps. The most physically-able prisoners were housed in labour camps, where they were forced to do manual labour and manufacturing jobs in support of the German military. Prisoners who were considered weak and unable to work, including young children and the elderly were sent to their deaths immediately. Concentration camps were brutal places and overcrowded, and prisoners often died of hunger and disease.

2.8.1 Jewish women and children on their way to their deaths at Auschwitz

Systematic death

By 1942, a number of concentration camps had been expanded to become 'death camps'. The main camps were operated by the SS. The largest one was at Auschwitz. Other sites included Chelmno, Treblinka, Sobibor and Belzec.

The death camps were purpose-built to facilitate the mass extermination of Jews and other groups. They were designed to resemble transition centres and prisoners were told they were being taken there to be transported to other camps. Large groups of prisoners were told to undress and were then sent into rooms designed to resemble shower blocks. The doors were then locked and poisonous gas pumped into the chamber until all the prisoners were asphyxiated to death. The bodies were then removed and burned in large crematoriums or buried in mass graves.

2.8.2 Czesława Kwoka, age 14, went to Auschwitz with her mother. Within three months, both were dead. Wilhelm Brasse, the photographer (and fellow prisoner) recalled, 'She was so young and so terrified ... She cried but she could do nothing.'

Liberation of camps

As the Allied forces entered German-occupied areas between 1944 and 1945 they liberated the concentration camps. In many of the camps, the German guards tried to destroy evidence of their crimes by quickly shooting the remaining prisoners or burning them alive while locked in their sleeping quarters. Many more Jews died in forced 'death marches' held between March and May 1945 as the Allied armies approached. By the time the camps were liberated, over 6 million Jews had been murdered.

Nuremberg Trials

At the end of the war, the Allies held a war crimes tribunal in the German city of Nuremberg from 1945 to 1947. At the trial, twenty-four surviving leaders of the Nazis and German Military were prosecuted for war crimes, including the systematic extermination of Jews and other groups. Twelve of the leaders were sentenced to be executed, and the remainder were given lengthy prison terms.

Activities

LS 2B

Remembering and understanding

1. Define the term 'genocide'.
2. In what document did Hitler first reveal his hatred of Jews?
3. Which group supervised the operation of the 'final solution'?

Applying and analysing

4. Explain how Hitler and the Nazis were able to take away the rights of Jewish people in Germany.
5. What other groups of people were also killed?
6. Why do you think these other groups were targeted?

2.9 Atomic warfare

Race for an atomic bomb

Prior to the war, a number of countries, including the United States, Russia, Germany and Japan, had begun research in the new area of atomic energy. The outbreak of war meant that they now turned their attention to how this new technology could be applied to building a powerful bomb. The race to build an atomic bomb began in earnest.

Manhattan Project

Many Jewish scientists, including Albert Einstein, fled Germany after 1933 and sought refuge in Britain and the United States. They were able to provide important intelligence to the Allies about Germany's program. In 1939, United States President Franklin Roosevelt established the Advisory Committee on Uranium, which was charged with determining whether the creation of a nuclear fission weapon was possible. The committee confirmed the possibility and the president made the decision to commence production of atomic bombs. In September 1942, this secret work—codenamed the Manhattan Project—commenced.

By 1943, there were more than 100 000 scientists, engineers and clerks spread across the United States working on the Manhattan Project. In July 1945, the first atomic bomb was tested successfully in New Mexico.

The German program was halted in 1943 due to the loss of their heavy water supply and the belief that developing a bomb would take some years. Both Japan and the Soviet Union were also conducting research, but had made only limited progress.

> Now I am become Death, the destroyer of worlds.

2.9.1 J. Robert Oppenheimer (chief scientist on the Manhattan Project) after viewing the atomic bomb test at Los Alamos, 1945

The end of the war in Asia

In July 1945, Japan refused to surrender unconditionally. Soon after, United States President Harry Truman stated that an atomic bomb was the only way to end World War II quickly and force Japan's unconditional surrender with minimal bloodshed.

On 6 August 1945, an atomic bomb, dropped by United States B-29 bomber *Enola Gay*, destroyed Hiroshima, Japan (see Source 2.9.2). An estimated 80 000 people were killed instantly. Three days later, the B-29 *Bockscar* released a second atomic bomb on Nagasaki and a further 50 000 people were killed.

Long-term effects of the bomb

By 1950, it is estimated that another 200 000 people had died as a result of radiation poisoning and related causes. These two bombs represent the only nuclear attack in history.

Six days after the second atomic bomb had been dropped on Nagasaki, Japan surrendered. The horrific effects on the bombs' victims shocked observers, who described cities reduced to ash and watched terribly injured people just waiting to die. The development and use of nuclear weaponry hailed a new era in war.

Divided opinions

The ethics of the decision to use atomic bombs in World War II continues to divide academics and society in general. The shocking effects, both immediate and long term, on the civilian population (including children, families and Korean-forced labourers) conflicts with the belief of many that war should target 'those responsible'. Others argue that the war, if fought conventionally, would have inflicted a great number of deaths both in Japan and the United States. However, a number of historians discount this as President Truman's main motivation in using nuclear weaponry. Other motives put forward by these historians include the desire to assert power over communist Russia, show strength in the domestic political arena, satisfy scientific curiosity and justify the immense expenditure on the research and development of the bombs.

The nature of an atomic explosion

The bomb that destroyed Hiroshima was called 'Little Boy'. Experts suggest it had 13–16 kilotons of TNT in destructive power. The Nagasaki bomb had about 21–23 kilotons of TNT and was called 'Fat Man'. As a reference, 1 megaton of TNT is enough energy to power an average household for more than 100 000 years (1000 megatons = 1 kiloton).

The atomic explosions created waves, or blasts of high pressure, that killed people instantly, as well as blowing apart buildings and structures. In Hiroshima, steel-framed buildings 4 kilometres away from the centre of the blast were destroyed. Resultant flying debris caused further death and injury.

2.9.2 A view of the devastation caused by the atomic bomb that was dropped on Hiroshima in Japan on 6 August 1945

In the first few milliseconds of an atomic blast, a wave of UV radiation is released that can raise the temperature on a person's skin by 50 degrees, even when they are nearly 4 kilometres away. This flash radiation would have instantly killed people and set fire to flammable materials in the area. The blasts also emitted gamma rays and neutrons, causing radiation injury and illness. Even if not immediately deadly to people in the area, they caused many deaths as a result of organ failure, internal bleeding and cancer in the succeeding months.

Activities

LS 2C

Remembering and understanding

1 What were the names of the planes that dropped the atomic bombs on human targets?
2 Why did President Truman believe it was necessary to drop an atomic bomb on Hiroshima?

Applying and analysing

3 Discuss the arguments for and against dropping the atomic bombs on Japan.
4 Study Source 2.9.2. Describe the scene.

Evaluating and creating

5 In pairs or groups, create an advertisement for television that is designed to convince watchers that nuclear warfare is wrong and that every country in the world should destroy their nuclear weapons and pledge never to build such weapons again.
6 Research chemical warfare and write an essay explaining why it can be just as threatening as nuclear warfare.

2.10 On the home front

During the war, it was essential to increase manufacturing of weapons and wartime goods, and to sustain production of food and other essential products. To maintain the economy and the war effort, the Australian government imposed tight wartime controls, requiring sacrifices and hard work of the Australian public.

Rationing

In response to the shortage of labour and resources, rationing was imposed on the Australian public.

From 1940, certain foods were rationed at certain times, including butter, sugar, milk and tea (normally imported from Asia). Ration book coupons were to be presented when buying food. Only one book of coupons was provided per year, so they had to be managed carefully to ensure they would last. People were encouraged to be self-sufficient and grow their own food. The purchase of items deemed luxuries or necessary to the war effort was also rationed or restricted, including clothing, petrol, furniture and firewood.

Although living conditions were generally lowered during the war period, resource shortages and rationing were not as severe in Australia as in Britain. Rationing aimed to reduce unnecessary consumption, to focus manufacturing on war necessities like weapons and to ensure that necessary resources, like food, were shared fairly among the public. In 1942, Curtin's government carried out an austerity campaign encouraging people to live simply and to make sacrifices during the war. Other restrictions included limits on travel and sporting events. The government encouraged people to invest the money they saved by rationing into government bonds called Victory Loans, which were directed to the war effort.

2.10.1 Propaganda poster of World War II, 1943

Most Australians accepted rationing and restrictions, and many invested in bonds. They did so with the understanding that they were all contributing to the war effort. Still, a black market emerged from which people purchased rationed goods without coupons.

Propaganda in Australia

In World War II Australia, propaganda was formalised in the Department of Information created by the Australian government's *National Security Act 1939*. It was guided by the Director-General of Information Keith Murdoch. The department produced propaganda in the form of posters, news articles, radio programs and films shown before the main feature at cinemas.

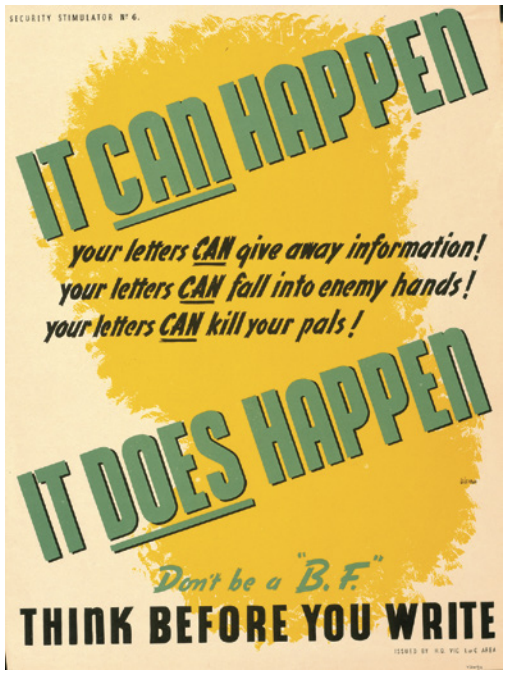
Propaganda exaggerated positive events, actions and thoughts while negative events and actions were minimised or ignored. This extended to oversimplification of difficult issues and hyperbole in place of reporting. Propaganda also manipulated the public using emotion and fear. In the early stages of the war, propaganda vilified the Germans and Italians. When the Japanese entered the conflict and Australia was directly threatened, the propaganda escalated to new levels and the Japanese were vilified to the point of stereotype and racism.

Censorship in Australia

During World War II, the Australian government amended the National Security Act so that radio, film and all printed materials could be regulated. The Department of Information was granted significant powers to withhold or release information to the public. The government even had the power to force newspapers to print the government's 'view' on issues.

The government used these powers to suppress information that might cause panic among the public or turn public support against the war effort. For example, the government tried to conceal the knowledge that Australia was ill-equipped for war and largely isolated from its Allies. A specific example of censorship occurred when Melbourne's newspaper, *The Argus*, wrote about two air raids on Darwin on 21 February 1942. The headline read, '17 killed in raids on Darwin: 6 enemy planes shot down'. In reality, almost 250 people had died. It was argued that this downplaying of negative news prevented alarm in Australian society.

The department also had the power to censor soldiers' letters. The government read private letters and could remove any information considered sensitive to the military effort (see Source 2.10.2). Telephone calls were also monitored and could be cut at any point.



2.10.2 Poster urging people to be careful not to discuss military information in private letters, 1943

'Enemy aliens'

With the coming of the war, nationals of countries at war with Australia were deemed 'enemy aliens'. As soon as war was declared in 1939, more than 1000 German men were arrested and interned in special camps for the rest of the war. When Italy entered the war, thousands of resident Italians were also interned. Similarly, Japanese nationals were later detained. During the war, as many as 7000 Australian residents were held in **internment camps** across Australia and approximately 8000 people were sent to Australia to be interned. The camps were generally located away from major cities to ensure that the potential 'spies' were isolated and unable to contact the enemy. While the idea of spies might seem fanciful, there was evidence to suggest that spying for enemy forces did occur.

Well-known large camps across Australia included:

- Enoggera, Queensland
- Harvey, Western Australia
- Hay, New South Wales
- Holsworthy, New South Wales
- Loveday, South Australia
- Rottnest Island, Western Australia
- Tatura/Rushworth, Victoria
- Cowra, New South Wales (see Source 2.10.3).

Internment camps varied in standard. Camps were often hastily built and bare of all but accommodation buildings, but in many camps the internees grew fruit trees and tended vegetable gardens.

Cowra was also a POW camp, which saw the unsuccessful revolt of the Japanese, a large majority of whom were POWs, in the Cowra Breakout on 5 August 1944. During the breakout a total of 231 Japanese and four Australian soldiers were killed.

2.10.3 Internment camp at Cowra, New South Wales, 1944

Did you know?

The Japanese prisoners who died at Cowra are buried in a specially-made Japanese War Cemetery. This is the only such cemetery in Australia.

Activities

Remembering and understanding

1. What government legislation created a department for censorship?
2. Why do you think 'enemy aliens' were kept in camps far from main cities?
3. Discuss the reasons the government censored the real details about the raid on Darwin.
4. Discuss the impact of rationing and other austerity measures on the Australian public and the military based in Australia.

Applying and analysing

5. Study Source 2.10.1. Describe how the enemy is shown. How would this make people feel?
6. Do you think censorship during the war was appropriate? Explain.

2.11 Australian women in World War II

New opportunities

World War II saw major changes in the role and status of women in Australian society. As men went to war and jobs became vacant, women became the main source of labour. By taking on roles as radio operators, mechanics, clerks and farmers, women broke free of the home and their traditional roles (see Source 2.11.1).

New roles for women

As men left for military service, women did both paid and unpaid work in military and commercial spheres. They were trained for highly-skilled positions such as radar operators and intelligence analysts, transport roles such as drivers and pilots, service roles such as cooks and nurses, and labour roles such as farmers and mechanics. Their places of work varied from production lines to shipyards, offices, airfields and farms. Tasks varied from sewing uniforms to nursing injured soldiers, answering telephones and building aircraft.

At the beginning of the war, women's pay was as low as 54 per cent of the men's rate. By the end of the war, this had risen to approximately 70 per cent. In jobs that had traditionally been male only, the rate had risen to as high as 90 per cent of the men's rate.

2.11.1 Six women workers representing the WRANS, AWAS, WAAAF, AWLA, AAMWS and a munitions worker on a wartime poster. The poster aimed to encourage women to help the war effort.

Female prisoners of war

Women were not permitted to serve in battle. However, approximately 3500 Australian military nurses served in battle zones. A number of these women became POWs in Singapore and Japan among other places. Their accounts, like those of the men, reveal the brutal and inhumane treatment they received as prisoners of the Japanese, including lack of food and filthy conditions.

> They felt, I think, that if we didn't eat we might die and that'd be a jolly good idea.

2.11.2 Military nurse Florence Syer talking about her time in a Japanese POW camp

The varied role of women in war

Women with families also had significant new roles to fill at home. They continued to perform traditional tasks of cooking, cleaning and caring for children. They also had to manage the finances and the additional difficulties of rationing and, often, smaller incomes.

Women's organisations

The federal government organised women into groups to support key military needs. The following organisations were officially sanctioned and promoted as suitable for women in Australia during World War II.

Women's Auxiliary Australian Air Force

The Women's Auxiliary Australian Air Force (WAAAF) was formed in March 1941. Women performed most air force roles, including skilled technical work such as signallers,

2.11.3 WAAAF members cleaning and overhauling a RAAF plane, 1945

pilots and mechanics, intelligence work, and service roles such as cooks and stewardesses. They made up 10 per cent of RAAF ground staff. More than 18 000 women were serving by October 1944; in total, 27 000 enlisted during the war.

Australian Women's Army Service

The Australian Women's Army Service (AWAS) was formed in August 1941. Women who enlisted were required to be single and between 18 and 45 years of age. They performed skilled technical work as telecommunications officers and mechanics, did administration work, and filled service roles as cooks and support staff. Approximately 20 000 members were serving by January 1944; in total, more than 24 000 women joined the service during the war. Members served with the Royal Australian Artillery helping in Fixed Defence positions; for example, operating anti-aircraft gun radars and searchlights. They also served overseas towards the end of the war, with 350 of their members in New Guinea.

Women's Royal Australian Naval Service

The Women's Royal Australian Naval Service (WRANS) was officially formed in October 1942, although training had begun in April of that year. Most members took on work as telegraphists, clerks, drivers, cooks, stewardesses and orderlies, but some had roles as technical specialists involved in **classified** work. Approximately 3000 women served over the course of the war.

Australian Women's Land Army

The Australian Women's Land Army (AWLA) was formed in July 1942. Members enrolled full-time for twelve months or as temporary members to assist during peak periods. More than 2000 permanent members and 1000 auxiliaries were serving by December 1943. Women performed roles in all aspects of agricultural life, and were therefore crucial to food production. The land army was a civilian organisation (government plans to make the AWLA a fourth women's military service did not eventuate before the war ended) and members were paid by the farmers who employed them, not the government. Many women worked on family farms outside the AWLA, as women already working or living on a farm were not eligible to become members.

Australian Army Medical Women's Service

The Australian Army Medical Women's Service (AAMWS) was formed in 1942. Most women were from the Red Cross or St John Ambulance volunteers. More that 8500 women served as nurses, nurse's aides and technicians in military hospitals in Australia and overseas.

Women after World War II

Immediately following the end of the war, many women had to give up their work outside the home. The government aimed to support returning servicemen to take up their former employment. However, the wartime experience and responsibilities of women, whether in government or business, were still deeply valued. And for some businesses, retaining skilled and experienced women on staff was an advantage—especially as women's salaries were lower.

Activities

Remembering and understanding

1. Explain how women helped the Australian armed forces (army, air force and navy).
2. The enemy captured some women. How is this possible if they were not allowed into battle zones?
3. Why did some businesses think it was an advantage to hire women rather than men after the end of the war?

Applying and analysing

4. How were women's lives affected by working in income-producing occupations?
5. Discuss how the war changed the lives of working women.

Evaluating and creating

6. Imagine you are a mother at home in Australia during World War II looking after your young children while your husband serves overseas.
   a. Research what life was like for people living in Melbourne during the war.
   b. Write a letter to your husband describing your day-to-day life and the difficulties that you have to deal with.
7. Research the life of Vivian Bullwinkel, an Australian nurse who was captured by the Japanese. Put together a brochure explaining what happened to her during the war and afterwards, and why she is considered a heroine.

2.12 Aboriginal and Torres Strait Islander peoples in World War II

Volunteering to fight

Despite being banned from joining the armed forces, many Aboriginal and Torres Strait Islander men still volunteered, fought and died for Australia during World War II. Aboriginal and Torres Strait Islander women also joined the four women's services; and the men who did not enlist instead worked for the military in other roles. World War II allowed Indigenous Australians to receive wages and education, and to make social contacts they had no access to previously.

> There was a job to be done … all of a sudden the colour line disappeared.

2.12.1 Oodgeroo Noonucal (formerly known as Kath Walker), poet and AWAS signaller

More than 3000 Aboriginal and Torres Strait Islander peoples served in the AIF, CMF, RAAF and RAN. To avoid the restriction against their enlistment at the beginning of the war, some men concealed their backgrounds. Another 3000 men who did not enlist worked observing the coastlines, watching for Japanese ships and aircraft movements.

Special military units in the north of Australia were set up to employ these men.

- North Australia Observer Unit (NAOU) soldiers were also known as 'Nackeroos'. They patrolled northern Australia from the Kimberley to the Gulf of Carpentaria, watching out for Japanese landings.
- Torres Strait Force was a military command unit, which patrolled the Torres Strait shipping route. Soldiers received one-third of non-Indigenous soldiers' pay.
- Torres Strait Light Infantry Battalion, formed in 1941, was the only Indigenous battalion in Australian history. Nearly every Torres Strait Islander male enlisted. Initially patrolling the Northern Territory to protect the Torres Strait, the group trained as a military unit and became

2.12.2 Indigenous volunteers in the Australian Military Forces (AMF) at Wangaratta, 1942

an official battalion in 1943. They were initially paid only one-third the rate of non-Indigenous soldiers. Their pay was raised to two-thirds after a strike in late 1943.

- Northern Territory Special Reconnaissance Unit mainly comprised Yolngu men from Yirrkala lands. The unit patrolled Darwin and East Arnhem Land and the men were paid in tobacco, pipes and fishing equipment.

Treatment in service

Aboriginal and Torres Strait Islander people employed in the unofficial military units received low wages and were subject to continued discrimination and social isolation. Those enrolled in the official military forces (the militia, AIF, RAAF and RAN) received pay equal to that of non-Indigenous enlistees. Most were treated with respect within their own units, although there were cases of discrimination—usually from people outside of their units. On returning to civilian life, Aboriginal and Torres Strait Islander peoples were usually not recognised for their efforts. They were not eligible for veteran benefits (including land allotments) received by non-Indigenous servicemen; generally, they returned to the same treatment they had experienced pre-war. Today, World War II Aboriginal and Torres Strait Islander servicemen and women march proudly on Anzac Day.

Leonard (Len) Waters

Leonard (Len) Waters, shown in Source 2.12.3, was born at Euraba Mission, New South Wales, in 1924. In August 1942, Waters joined the RAAF, first working as a member of ground crew and in 1943 began training as a pilot. He finished fourth in his course. Waters was posted to Noemfoor Island, western New Guinea, as a pilot. In his Kittyhawk fighter, *Black Magic*, he flew more than ninety sorties (missions) in service, and was promoted to Flight Sergeant in January 1945. Waters is the only known Aboriginal World War II pilot.

Civilian Aboriginal and Torres Strait Islander labour

Northern Australia was a hive of activity during World War II. Directly threatened by the Japanese, Aboriginal and Torres Strait Islander peoples of northern Western Australia, Northern Territory and Queensland made conspicuous contributions to the war effort. The coasts of northern Australia (Darwin in particular) were the bases and ports for the fight against the Japanese. Here, Aboriginal and Torres Strait Islander peoples performed valuable labour tasks for the military and helped sustain the infrastructure needed to support the huge numbers of Australian and United States forces in the area. Many Indigenous Australians had contact with visiting African-American soldiers. Although the African-Americans served in segregated units, they received higher pay and had gained certain civil rights within their society, such as the right to vote. These African-American men served as role models for some Indigenous Australians.

2.12.3 Sergeant Leonard Waters, 78 Squadron, RAAF, possibly in the cockpit of his P40 fighter plane, *Black Magic*, 1945

In Katherine, in the Northern Territory, Aboriginal people performed a variety of tasks for military units stationed nearby. They made cement, cut down trees, tended fruit and vegetable gardens, slaughtered cattle for food, stacked ammunition, worked as hospital orderlies at Katherine Hospital and dismantled machines for repair. Throughout northern Australia in general, Aboriginal and Torres Strait Islander peoples did work for the military that varied from locating unexploded bombs to recovering crashed aircraft, building roads for bases and towns and building airfields. Towards the end of the war, the army was employing approximately 20 per cent of the Northern Territory's Indigenous population.

Activities

Remembering and understanding

1. How much were Aboriginal and Torres Strait Islander soldiers paid in the Northern Territory service?
2. What was the role of the Torres Strait Light Infantry Battalion?
3. How did Aboriginal and Torres Strait Islander peoples not in the armed forces help the military?
4. Why were the coasts of northern Australia at risk from the Japanese?

Applying and analysing

5. Study Source 2.12.1. How did the actions of the Australian army prove this quote correct?
6. Discuss the impact of contact among African-American soldiers and Aboriginal and Torres Strait Islander soldiers.

2.13 Post-war Australia

World War II casualties and deaths

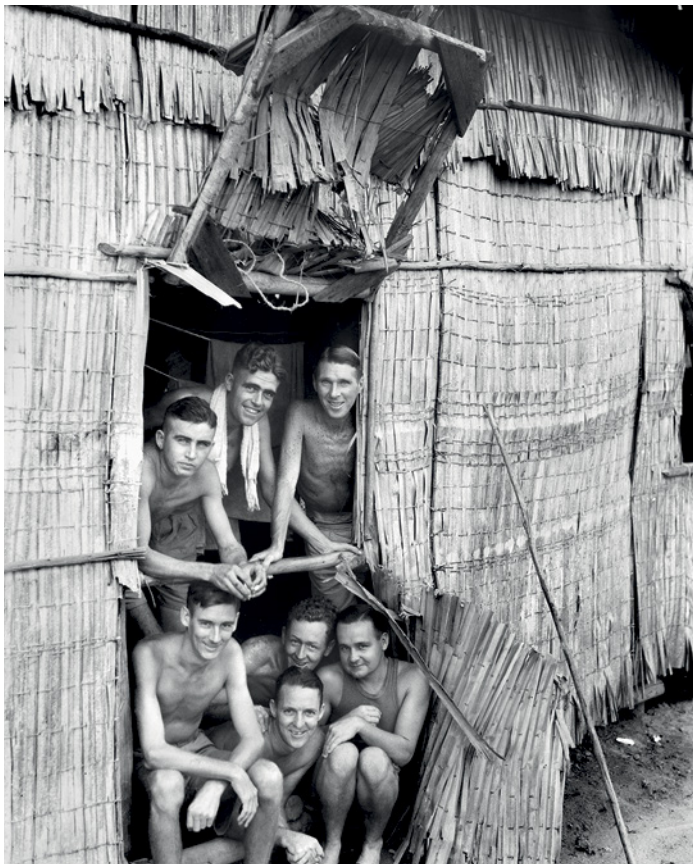
The total number of World War II deaths from all causes was more than 50 million (with some estimates placing the number as high as almost 80 million). In World War II, almost 1 million Australian men and women out of a population of 7 million served in the military. About 40 000 Australian military personnel and 700 Australian civilians died (a low number of civilian deaths compared to other countries involved in the war). More than 30 000 Australian servicemen became POWs—two-thirds of them in Japanese camps, where approximately 8000 died.

Returning soldiers and war widows

At the close of the war, Australian soldiers began returning from all over the world in various states of health. These men needed to be rehabilitated and retrained for civilian work. Returned soldiers were granted government assistance to ease the difficulties of living and working, and received war service, repatriation and disability pensions.

The Depression years had seen few houses built and, although Australia was spared the massive destruction some other countries experienced during the war, virtually no building had occurred during the war either. As a result, returning soldiers often lived with relatives and many families shared houses. A house-building boom soon began.

The war had made many wives widows and children fatherless, who also needed help. Government assistance included war widows' pensions, which had been introduced in 1942 (although they had existed in New South Wales from 1926). Organisations such as Legacy, which targeted this issue, also assisted families.



2.13.1 Australian prisoners at Changi POW camp greet Allied soldiers as they liberate the camp, 19 September 1945.

Post-war government

During wartime, the federal government had assumed control of many aspects of economic and social life, including income taxation (previously controlled by the states). After the war, Ben Chifley's Labor government continued to ensure that it had a strong presence in the everyday life of Australians. The Chifley government also used the opportunity provided by Australia's booming economy to extend more benefits to society.

The Chifley government regulated wages, rent and the banking system. Specific contributions included creating the Commonwealth Employment Service, extending the age pension, injecting federal funds into public housing, introducing the Pharmaceutical Benefits Scheme (PBS) and helping establish the Australian National University. Chifley also directed the government purchase of Qantas® and established the Snowy Mountains Hydro-Electric Scheme and the Australian Security Intelligence Organisation (ASIO).

> I try to think of the Labour movement … as a movement bringing something better to the people, better standards of living, greater happiness to the mass of the people. We have a great objective—the light on the hill—which we aim to reach by working the betterment of mankind not only here but anywhere we may give a helping hand.

2.13.2 Extract from Prime Minister Ben Chifley's 1949 'light on the hill' speech

Post-war social and economic changes

Family life changed as a higher percentage of people married and had children, and did so earlier than in previous generations. The children born in the post-war period became known as 'baby boomers'. The burgeoning housing industry extended the spread of suburbs, which required new infrastructure, and the increased use of cars required new roads to be built. With the housing boom, the rate of home ownership increased, moving from 40 per cent in 1947 to over 70 per cent in the 1960s.

Industry and commerce, which had been concentrated on war production returned to producing commodities, textiles, food and other materials needed for post-war life.

Manufacturing became a major part of the national economy, with lawn mowers, clotheslines, washing machines and refrigerators all being produced as a result of World War II production lines increasing in size and variety. For the first time, Australian agriculture was not the biggest sector of the economy; it now competed with steel production, chemicals and commodities.

2.13.3 Newborn babies in 1957, part of the post-war baby boom in Australia

New technologies

Technology first devised in wartime, or further developed to aid the war effort, spurred a great post-war boom in commodities, commerce, medicine and other areas. For instance, the development of jet aircraft and pressurised cabins revolutionised passenger travel. Penicillin was also mass-produced and distributed for the first time. Other technological developments during the war included navigation and radar systems, and the cavity magnetron—a high-powered vacuum tube that generates microwaves, which led to the invention of the microwave oven. Synthetic rubber and oil and, of course, nuclear energy were also products of the war.

Immigration

In 1945, the Department of Immigration was established and Arthur Calwell became the first Immigration Minister. World War II and the Japanese threat had shown that Australia's population was too small to defend the country. In addition, the country also required a larger labour force to achieve economic growth. Not only were Australians encouraged to start families, but immigration was also promoted. Calwell used the slogan 'populate or perish' to encourage public acceptance of the government policy.

While British migrants were still preferred by the government, Australia now accepted other Europeans. Many Europeans came to Australia to escape the devastation war had inflicted on their homelands. By 1955, 1 million new migrants had arrived.

2.13.4 European migrants arrive in Melbourne, 1950

In 1958, immigration was relaxed further with the abolition of the dictation test, which had been designed to be too difficult for non-British migrants to pass. At this time, huge infrastructure schemes, such as the Snowy Mountains Hydro-Electric Scheme and the development of the Murrumbidgee Irrigation Area, had begun. These schemes were only possible because of migrant labour, which was hugely significant in building and changing Australian society.

Alliance with the United States and the Cold War

Fear of the communist Soviet Union had greatly increased after the Soviet's crushing victory over the Germans. Following the war, the possibility of communism spreading caused alarm in capitalist countries, in particular the United States. The battle for power and dominance between the capitalist United States and its allies (which included Australia) and the communist Soviet Union and its allies was termed the Cold War. When, in 1949, the Soviet Union tested its first atomic bomb, the arms race escalated, fostering suspicion and hostility between the Soviet Union and the United States. The two superpowers never fought directly, although they did provide support to opposing sides in other nations' wars, such as the Korean War and the Vietnam War.

Within Australia, similar attitudes towards communism developed. In 1949, Liberal Robert Menzies used Australians' fear of communism in his (successful) election campaign. Once elected, the Menzies government continued to show its support of the United States' fight against communism. Australian troops were committed to the same South-East Asia conflicts that the United States entered and, in 1950, the government enacted the Communist Party Dissolution Bill in an attempt to abolish the Communist Party in Australia. The bill also allowed for the prosecution of party members and barred them from public office. The bill was later found to be unconstitutional by the High Court. In 1951, Menzies held a referendum on allowing the Dissolution Act, which was unsuccessful.

2.13.5 A 'Vote NO' poster concerning the Communist Party Dissolution Bill referendum, 1951, Communist Party of Australia, Victorian State Committee

Cultural shifts

The closer association with the United States during the war, including the arrival of nearly 1 million United States troops, brought United States technologies and trends to Australia. The arrival of television in 1956, and with it US shows, advanced the awareness of US culture (including consumerism) in Australia. This shift to a more consumerist society stimulated Australian manufacturing and business.

Rock'n'roll music arrived with television in the 1950s, as well as US fashions. Other technologies such as the polio vaccine, jet aircraft, the Victa® lawnmower and synthetic fibres (such as nylon) changed lifestyles in the areas of health, transport and living standards. Australia showcased its new wealth and technology when it hosted the Olympic Games in Melbourne, 1956.

Activities

Remembering and understanding

1. Approximately how many Australians died in Japanese POW camps during World War II?
2. What problems did the newly-returned soldiers face in Australia after the war ended?
3. What happened to Australia's birth rate after the war?
4. How was post-war immigration to Australia different from pre-war immigration?
5. What was the Cold War?

Applying and analysing

6. How did Australian culture change in the post-war years?
7. Brainstorm some of the advantages and disadvantages of increased government control.
8. How do you explain the slogan 'populate or perish' and increased migration to Australia?
9. Identify how the threat of communism dominated Australia's foreign policy after World War II.

LS 2D

2.14 The legacy of World War II

Australia's changing relationships

Before World War II, Australia was an independent country that retained strong ties with the British Empire. Due to their cultural, economic and historical connections, Australia committed to fighting alongside its ally when war broke out in 1939. However, as the war progressed Australia's ties to Britain dissipated as Japan rapidly invaded Malaya, took Britain's key naval base in Singapore and began attacking Australia. Fearing the British could no longer protect them against a Japanese onslaught, Australia turned to the strong military presence of the United States, who assumed the unofficial role of Australia's protector in the Pacific. After World War II, Australia maintained close ties with the United States. However, the Chifley Labor government (1945–49) pushed for an independent foreign policy, which would allow Australia to gain its own international voice.

Australia and the United Nations

After the League of Nations' failure to prevent World War II, there was a need for a new body to maintain world peace. In 1945, as the war came to an end, 51 nations met at a conference to establish the United Nations (UN). The UN aimed to:

- maintain worldwide peace and security
- develop relationships among nations
- foster cooperation between nations to solve economic, social, cultural or humanitarian international problems
- provide a forum to bring countries together.

It was at this conference that Australia established its voice as an independent nation. With Chifley's full support, Australia's Minister for External Affairs, Dr H.V. Evatt led the Australian delegation. Evatt was heavily involved in creating the Charter of the United Nations. Pushing for a progressive voice in international affairs, he gained respect for championing the participation of smaller nations.

Did you know?

Evatt is remembered for assisting in establishing the Universal Declaration of Human Rights, and also for the part he played in the negotiations that led to the creation of Israel. Evatt was also the first president of the United Nations General Assembly from 1948–49.

Rising tensions

The end of World War II did not bring the lasting peace the world hoped for, but instead a new era of political tension known as the Cold War, which pitted capitalism against communism. Immediately after World War II, the Chifley government sought an independent foreign policy. It pushed for closer relationships with its geographic neighbours in Asia, in order to meet its own national interests.

While Australia became more independent, it still feared invasion and was not militarily-equipped to defend itself. It recognised the need to maintain close ties with the United States to ensure protection in the Pacific and to prevent the spread of communism. After 1945, many previously colonised Asian nations fought for independence. With their struggles came Australia's fear of communist expansion throughout South-East Asia. Consequently, Australia was one of the first countries to send troops to Korea in the early 1950s to support the UN forces who defended South Korea from the armed forces of communist North Korea. To secure its defence, Australia signed two military pacts in the 1950s.

2.14.1 Evatt (left) and the UK Foreign Secretary Anthony Eden (right), examining documents at a United Nations meeting in San Francisco in 1945

ANZUS

The ANZUS pact of 1951 was signed during the Korean War. It required each of the signing nations—Australia, New Zealand and the United States—to 'coordinate their efforts for collective defence for the preservation of peace and security' in the Pacific region. Amidst Cold War tensions, the treaty aimed to stop the spread of communism. ANZUS is still central to Australia's current foreign policy.

SEATO

In 1954, under the Menzies government, Australia signed another pact designed to prevent communist expansion. The South-East Asian Treaty Organisation (SEATO) was established by Australia, New Zealand, the United States, Britain, France, Pakistan, Thailand and the Philippines. In signing SEATO, Australia returned to its traditional foreign policy relationship with Britain. Despite democratic intentions, the only Asian signatories were dictatorial governments in Pakistan, Thailand and the Philippines.

Both ANZUS and SEATO were anti-communist treaties, rather than pro-democratic pacts. While these treaties allayed Australia's fear of invasion, they also tragically led Australia to enter the Vietnam War in 1962.

Commemorating Australia's role in World War II

World War II veterans were not given their own commemorative day, or new war memorials. Their recognition was simply absorbed into existing World War I commemorations, celebrated every year on 25 April, Anzac Day. This date has come to acknowledge all Australian participation in war. Since the 1990s, there has been a significant movement to recognise Australia's World War II participation, especially in the Pacific, independently of World War I. The Pacific campaign is often overshadowed by the commemoration of atrocities in Europe and of the Holocaust.

After a decade-long campaign, the Returned and Services League of Australia (RSL) achieved success in 2008 when the Australian government proclaimed the first Wednesday of September as a day to commemorate the 'Battle for Australia'. This celebration recognises the series of battles in 1942 including the Battle of the Coral Sea, Battle of Milne Bay and the Kokoda Track that were seen to prevent Japanese invasion.

2.14.2 Australian troops move through the wreckage of a North Korean town, 1950.

2.14.3 The Shrine of Remembrance commemorates all wars fought by Australians, including World War II.

Did you know?

Many historians have criticised the commemoration of the 'Battle for Australia' arguing that there was no coordinated campaign by Japan to invade Australia and that the campaigns commemorated under the banner were, in fact, separate battles.

Activities

Remembering and understanding

1. Why did Australia turn to the United States during World War II?
2. What did the United Nations hope to achieve?
3. List the two pacts that Australia signed in the 1950s, and state one strength and one weakness of the pacts.
4. Identify the date on which Australia commemorates the soldiers who fought in World War II.

Applying and analysing

5. Explain why Australian soldiers fought in the Korean and Vietnam Wars.
6. Discuss some of the differences between the Chifley and Menzies governments in terms of foreign policy.

Evaluating and creating

7. Create a map showing the sites of the three battles that make up the 'Battle for Australia'.
8. Conduct research into the contested debate about commemorating the 'Battle for Australia'.
   - **a** Identify the two opposing arguments.
   - **b** Find a quote from a historian to represent each side.
   - **c** Explain which argument you agree with and justify your opinion.


ABORIGINAL
EMBASSY
(BOM?
WHITE INVADERS
YOU ARE LIVING ON
STOLEN
LAND
REMEMBER THE LA
KULALUK. DARWIN N.
LAND RIGHTS CLAIMS
KULALUK FOR LARRAKIA 700 ACRES.
WE WUZ ROBBED
THIS LAND BELONG TO WE. LARRAKIA
LAND RIGHTS NOW.
PERKINS
SHANGHA
DEXTER
SQUEEZED

Rights and freedoms 3

The actions undertaken by individual nations before and during World War II sparked international concern regarding human rights. The Holocaust, treatment of prisoners of war, and abuse of power by totalitarian governments, led to a demand for international cooperation and universal standards for the rights and treatment of all people.

In the decades following the war, countries such as Australia were forced to assess the way they treated particular groups within their nation. Aboriginal and Torres Strait Islander peoples lived in poor conditions, with a lack of proper accommodation, food and health care. **Civil rights** activism during this time challenged the foundation of Australia's constitution and helped to make significant gains in the rights and freedoms of Indigenous Australians.

OVERVIEW QUESTIONS

- **3A** How did the *Universal Declaration of Human Rights* come about?
- **3B** What impact did the struggle for civil rights in the US have in Australia?
- **3C** Why did Indigenous Australians have to fight for rights and freedoms?
- **3D** What rights and freedoms are Indigenous Australians still fighting to achieve?

LS Before you begin

3.0.1 Activists at the Aboriginal Tent Embassy outside Parliament House, Canberra, 1972.

GLOSSARY

activist person who actively promotes a cause

assimilate to take on the customs of another culture and to give up your own customs and way of life

boycott deliberately withdrawing from using a service, for example African-Americans refusing to travel on buses

Bringing Them Home report published in 1997 that documents findings from the Keating Labor government's national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families

civil rights rights, claimed by citizens, to freedom and equality for all

genocide deliberate and systematic attempt to eradicate an entire cultural ethnic group

Ku Klux Klan extremist right-wing group in the US who target African-Americans

pastoralist livestock farmer

paternalism policy of controlling in a 'fatherly' way

protection policies laws that enabled Australian state governments to control aspects of Aboriginal and Torres Strait Islander people's lives, such as where they could live, the wages they could receive and whom they could marry

Reconciliation an ongoing campaign to improve the relationships between Aboriginal and Torres Strait Islander peoples and the broader Australian community

referendum a direct vote by the electorate to make a change to the Australian Constitution

Social Darwinism a now discredited theory based on the belief in the laws of natural selection, which claimed that some groups will have advantage over others as the result of biological superiority

Stolen Generations groups of children forcibly removed from their families under state policies, from the 1880s to the 1970s

terra nullius (Latin) a territory belonging to no one, or a territory which no one claims ownership; the concept has been used to justify the invasion and colonisation of Australia

Timeline

Rights and freedoms

The *Universal Declaration of Human Rights* that was signed by members of the United Nations in 1948 provided a foundation for people searching to have their own rights respected. In Australia, protests by Aboriginal and Torres Strait Islander peoples led to the right to vote in Federal elections in 1962, and to an important and successful national referendum in 1967.

Red boxes indicate **Australian events**

1937
Australian policy of assimilation

1938
First Day of Mourning is held on Australia Day

1945
The United Nations is founded

1948
The *Universal Declaration of Human Rights* (UDHR) was proclaimed by the United Nations General Assembly in Paris on 10 December

1954
US Supreme Court declares that the segregation of African-American students is unconstitutional

1955
Rosa Parks refuses to give up her seat on a bus to a 'white' man in the US

1959
The UN adopts the *Declaration of the Rights of the Child*

1960–63
US sit-ins commence across the southern states

1961
US Freedom Rides commence in the southern states

1963
US Birmingham Campaign

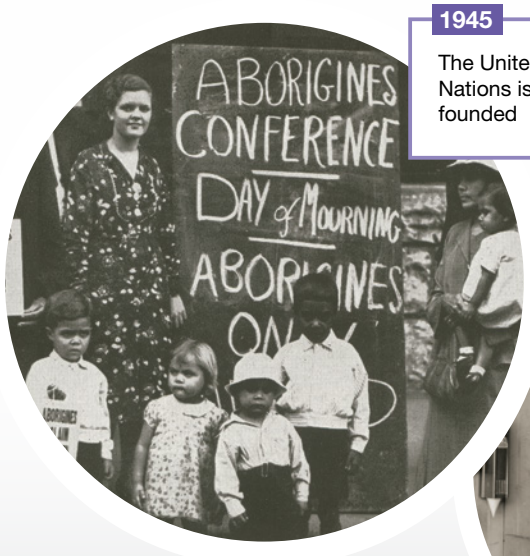
1965
Australia's Freedom Rides

1967
Federal referendum in Australia

1968
US Martin Luther King Jr is assassinated

AD 1930 1940 1950 1960 1970

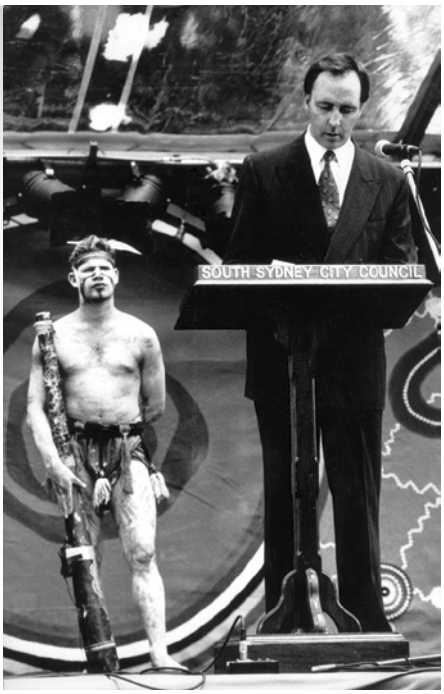
1939–1945 World War II



Outside the Australian Hall in Sydney on the first Day of Mourning, 26 January 1938, where a large blackboard is displayed by the Aborigines Progressive Association (APA)

A water cooler reserved for 'colored' people in Oklahoma, 1939

Australian civil rights activist Faith Bandler (on right) at the Sydney Town Hall where people were casting their referendum votes, 27 May 1967



Prime Minister Paul Keating delivering the Redfern Park Speech in 1992

1971

1972 Tent Embassy in Canberra

1972 Australia adopts policy of self-determination

1980

1981 Land rights conference in Townsville

1982 UN establishes the Working Group on Indigenous Populations and Rights

1985 Uluru is handed back to traditional owners

1990

1990 Australia ratifies UN Convention on the Rights of the Child

1991 Council for Aboriginal Reconciliation Act

1992 Mabo Decision; Paul Keating delivers the Redfern Park Speech

1993 Native Title Act

1996 The Wik decision

1997 *Bringing Them Home* report released

2000

2000 Large reconciliation marches held around Australia, including in Melbourne and across the Sydney Harbour Bridge

2007 UN *Declaration on the Rights of Indigenous People*

2008 Kevin Rudd delivers an apology to the Stolen Generations

2010

AD

3.1 *Universal Declaration of Human Rights*

Origins and purpose of the United Nations

The United Nations (UN) was founded in 1945 in the aftermath of World War II. It was clear after three decades of international turbulence and two world wars that there needed to be an international organisation to minimise the chance of global conflict.

The UN replaced the League of Nations, a similar organisation that had been formed after World War I. The League had been established for a similar reason, yet had failed in its purpose to stop another world war.

On 26 June 1945, fifty countries committed to this new organisation, whose purpose was to maintain international peace and security, foster positive relations among nations, and promote social cohesion and human rights. On 5 October, Poland also signed, and on 24 October 1945 the UN officially came into existence with fifty-one member nations.

Origins of the *Universal Declaration of Human Rights*

During World War II, the world witnessed violations of human rights on a scale never before seen. An estimated 50–80 million people were killed during the course of the war. As allied troops entered territory previously controlled by the Nazis, they soon discovered that millions of Jews, as well as Sinti/Romani people (often referred to as Gypsies), political dissidents, homosexuals and Slavic people, had been killed as part of the Nazi 'final solution' to exterminate the Jews of Europe and get rid of people they saw as 'undesirable'. Around 1.5 million of these were estimated to be children.

The international community was determined to avoid anything like this happening again, and believed a charter should be drawn up to complement the newly formed UN. A draft Declaration on Fundamental Human Rights and Freedoms was presented at the very first meeting of the UN General Assembly in 1946.

Drafting and adopting the Declaration

Eleanor Roosevelt, widow of US President Franklin D. Roosevelt, was a highly influential figure in the drafting stage of the Declaration. Her husband was the man who coined the name 'United Nations'; together, they had a deep interest in seeking a universal standard for the rights of all individuals.

A commission was set up to formulate a draft International Bill of Human Rights. Eighteen members—each representing various political, cultural and religious backgrounds—worked together to reflect a common understanding and write the Declaration. The members represented countries such as the US, France, the USSR, the UK and Australia, as well as other nations. The commission met for the first time in 1947, and continued to write and redraft Articles of the Declaration until its acceptance by the UN General Assembly on 10 December 1948 (see Source 3.1.2).

> ... disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind ...

3.1.1 Extract from the preamble for the *Universal Declaration of Human Rights*, referring to the atrocities committed in World War II

3.1.2 Dr H.V. Evatt, Australia's Minister for External Affairs, signs the UN Charter, 1948

Articles of the Declaration

The first ten articles of the UN *Universal Declaration of Human Rights* indicate the key rights it seeks to protect.

1 All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.

2 Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether it be independent, trust, non-self-governing or under any other limitation of sovereignty.

3 Everyone has the right to life, liberty and security of person.

4 No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

5 No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

6 Everyone has the right to recognition everywhere as a person before the law.

7 All are equal before the law and are entitled without any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimination.

8 Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamental rights granted him by the constitution or by law.

9 No one shall be subjected to arbitrary arrest, detention or exile.

10 Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

3.1.3 From the UN *Universal Declaration of Human Rights*, 1948

Significance of the Declaration

The Declaration focused on the social, economic, civil and political rights of individuals, regardless of their race or creed (see Source 3.1.3). The universal nature of these rights meant that all member nations would be accountable for upholding them. When the General Assembly voted on the adoption of the Declaration, forty-eight nations of the then fifty-eight members voted in favour. Considering the world at the time was divided into Eastern and Western blocs in a period of tension that marked the early stages of the Cold War, the completion of the Declaration in less than 2 years was an impressive feat and symbolic of a global desire to uphold such values.

Australia's involvement

Dr H.V. Evatt, Australia's Minister for External Affairs, played a significant role in the formation of the UN, and headed every Australian delegation to the Assembly from the beginning. He was the elected president of the 3rd General Assembly when the Declaration was signed and became a strong advocate for a proposed international human rights treaty. Evatt was influential in the appointment of Australian diplomat William Hodgson to the drafting committee, ensuring Australia's continued support and input into the development of international rights.

Activities

Remembering and understanding

1 Which major world event triggered the push to organise and develop the UN?
2 Who first coined the phrase 'United Nations'?
3 Outline the purpose of the UN.
4 Describe Australia's involvement in the formation of the *Universal Declaration of Human Rights*.

Applying and analysing

5 Choose the two rights listed in Source 3.1.3 that you believe are the most important, and discuss your reasoning with a partner.
6 What aspects of the Declaration make it 'universal'? Is there any wording that you find contradictory and why do you think that is the case?

LS 3A

3.2 Early Aboriginal and Torres Strait Islander activism

The struggle for rights and freedoms up to 1965

Activism by Aboriginal and Torres Strait Islander peoples has often been in response to federal government policies relating to Indigenous Australians. For over 50 000 years, Australian Aboriginal and Torres Strait Islander peoples lived in communities or language groups based on social, cultural and spiritual laws handed down to them by their Ancestors.

Government policies did not take into account these laws and customs, and failed to recognise the deep significance of Indigenous people's connection to the land. Not only were their laws and customs ignored, but severe and devastating conditions were placed on Aboriginal and Torres Strait Islander people that restricted and governed virtually every aspect of their lives. These included:

- excluding Indigenous children from schools
- making it illegal for children of mixed race to live on Aboriginal reserves
- enforcing a policy of protectionism, where Indigenous people were controlled without rights or responsibilities
- banning Indigenous people from drinking, possessing or supplying alcohol (or methylated spirits)
- banning Indigenous people from carrying firearms
- banning Indigenous people from marrying non-Indigenous people without permission
- paying lower wages to Indigenous labourers
- controlling reserves and living conditions.

Laws differed across states, making it complicated and difficult for Aboriginal and Torres Strait Islander people who wanted to move interstate.

Other measures of discrimination included:

- denying Indigenous people their civil rights by not counting them in the census and not allowing them the right to vote
- denying Indigenous people maternity allowance, old-age pensions and invalid welfare payments.

The Aborigines Protection Board

By the late nineteenth century, the ideas of **Social Darwinism** were becoming more influential. It was believed that 'inferior' races would die out and that Indigenous people needed to be 'civilised' in order to survive. The Aborigines Protection Board, a NSW government agency, was established. It was responsible for the implementation and administration of laws and policies for Aboriginal and Torres Strait Islander peoples from 1883 to 1969. It had notable power and control over most aspects of Aboriginal people's lives, including access to health, education, employment, housing on stations and reserves, and the removal of children from their families. The victims of this last practice became known in later years as the '**Stolen Generations**'.

3.2.1 Stolen Generations girls at the Cootamundra Domestic Training Home for Aboriginal Girls

Activist organisations

The Australian Aboriginal Progress Association

Known as the first Aboriginal protest movement, the Australian Aboriginal Progress Association (AAPA) commenced in 1925 under the direction of its president Fred Maynard. Maynard had fought to help families rescue their children who had been taken into custody by the board authorities.

The AAPA soon had eleven branches across NSW. The main purpose of the AAPA was fighting to stop the removal of children from their parents and to gain rights to land. The AAPA was significant as it forged links between different communities over a wide area and brought attention to the cause. It promoted the status of Indigenous Australians and sought to abolish the NSW Aborigines Protection Board.

Although the organisation grew rapidly in 1925, it began to fade out in 1928 after the failure of its appeals to both the State and Federal governments, as well as King George V. Jack Patton later reformed the group in 1937. The AAPA was to prove a significant inspiration for future civil rights **activists**.

> ... we accept no conditions of inferiority as compared with European people ... the European people by the arts of war destroyed our more ancient civilisation ... [and] by their vices and diseases our people have been decimated ... But neither of these facts are evidence of superiority. Quite contrary is the case ...

3.2.2 From a letter to NSW Premier Jack Lang in 1927, written by Fred Maynard

The Australian Aborigines League

In 1932, the Australian Aborigines League (AAL) was founded by William Cooper together with other Aboriginal people who had walked off the Cummeragunja Station. It gained active support from non-Aboriginal people as well, and in 1937 the AAL sent the federal government a petition with 2000 signatures, to be forwarded to King George VI. The petition requested that the king intervene in their situation as previous petitions to state governments had failed. They requested legal recognition and a representative in parliament to advocate Aboriginal interests. These requests were denied and the petition was never passed on to the King.

The Aborigines Progressive Association

The Aborigines Progressive Association (APA) was founded in 1937 by leaders of the Australian Workers Union (AWU) and by the Shearer's Union. It was a mixture of strong Aboriginal leaders such as William Ferguson, Pearl Gibbs and Jack Patten, who published the first Aboriginal newspaper. Their membership was well publicised and made a significant contribution to Aboriginal rights, including successfully campaigning the NSW government to inquire into the proceedings of its Aborigines Protection Board.

The 1938 Day of Mourning

The Day of Mourning was a protest organised by Patten and Ferguson from the NSW APA and Cooper from the AAL of Victoria. Its underlying message was that for 150 years, Aboriginal people had been denied basic human rights, enduring 'degradation' and 'misery' (see Source 3.2.3). Having **boycotted** previous Australia Day celebrations and found themselves ignored by media outlets and government officials, they believed that a more substantive and proactive event was required. The 1938 Australia Day sesquicentenary (150 years since British settlement in 1788) was chosen as a significant event to rally support and demand change.

The day included a march through the streets of Sydney, a meeting with the Prime Minister Joseph Lyons and a mass rally in Australian Hall. A resolution was moved that protested against the treatment of Aboriginal people and appealed for a new federal policy that included full citizen status and equality within the community. A meeting was held in Melbourne on 31 January, hosted by William Cooper and the AAL, in support of the Sydney protest.

The Day of Mourning was a significant statement to the non-Indigenous community of Australia and has continued as an annual event.

AUSTRALIAN ABORIGINES CONFERENCE

Sesqui-Centenary

DAY OF MOURNING & PROTEST

to be held in

THE AUSTRALIAN HALL, SYDNEY
(No. 148 Elizabeth Street)

on

WEDNESDAY, 26th JANUARY, 1938
(Australia Day)

from

10 a.m. to 5 p.m.

THE FOLLOWING RESOLUTION WILL BE MOVED:

"WE, representing THE ABORIGINES OF AUSTRALIA, assembled in Conference at the Australian Hall, Sydney, on the 26th day of January, 1938, this being the 150th Anniversary of the whitemen's seizure of our country, HEREBY MAKE PROTEST against the callous treatment of our people by the whitemen during the past 150 years, AND WE APPEAL to the Australian Nation of today to make new laws for the education and care of Aborigines, and we ask for a new policy which will raise our people to FULL CITIZEN STATUS and EQUALITY WITHIN THE COMMUNITY."

Aborigines and Persons of Aboriginal Blood only are invited to attend. Please come if you can!

Signed for and on behalf of
THE ABORIGINES PROGRESSIVE ASSOCIATION

J. T. Patten, President.
W. Ferguson, Organising Secretary

Address: c/o Box 1924 KK
General Post Office, Sydney

Stafford Printery, Levey Street, Chippendale.

3.2.3 J.T. Patten and W. Ferguson, Aborigines Claim Citizen Rights! A Statement of the Case for Aborigines Progressive Association, 1938

The Cummeragunja Walk-Off

Cummeragunja, on the NSW side of the Murray River, became famous for being the site of the first-ever mass strike of Aboriginal people in 1939, known as the Cummeragunja Walk-Off. Protesting cruel treatment and exploitation, over 150 residents walked off the Aboriginal Station and crossed over the border into Victoria, contravening the rules of the NSW Aborigines Protection Board.

The significance of this protest lies in the display of strength and organisational skills of the Aboriginal people and their supporters. The Walk-Off frustrated and embarrassed officials, and was supported by the media who carried their stories and exposed the conditions Aboriginal people were being forced to live under. Most importantly, the Cummeragunja Walk-Off brought changes to the Aborigines Act of NSW.

The assimilation policy

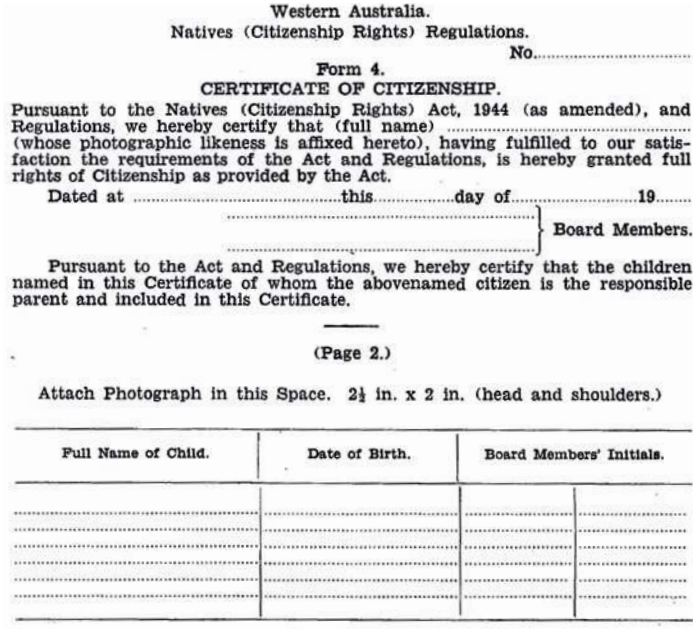
The policy of protection was replaced by one of assimilation. By 1937, each state agreed to adopt the policy that required Aboriginal people to **assimilate** into the non-Indigenous community. This required Aboriginal and Torres Strait Islander people 'not of full blood' to give up their customs and way of life, and to adopt the culture and language of British Australians. This was expected even though Aboriginal people did not receive equal citizenship rights. While the policy was enacted from the 1930s, it was not formalised or fully defined until the 1960s.

Did you know?

Certificates of citizenship required the applicant to abandon their communities and kinship groups, and give up traditional cultural practices. They also required the applicant to keep their homes clean, abide by state laws and remain sober. Certificates could be revoked at any time. Many Aboriginal people believed the sacrifice involved in getting a certificate far outweighed the benefits.

The right to citizenship

Citizenship was a fundamental right denied to Indigenous people, which limited them to a life subservient to government policies and controls. In 1941–42, some gains were made with Commonwealth benefits of child, aged and invalid payments gradually extended to Aboriginal and Torres Strait Islander peoples.



Western Australia.
Natives (Citizenship Rights) Regulations.
No.....

Form 4.
CERTIFICATE OF CITIZENSHIP.

Pursuant to the Natives (Citizenship Rights) Act, 1944 (as amended), and Regulations, we hereby certify that (full name) .....
(whose photographic likeness is affixed hereto), having fulfilled to our satisfaction the requirements of the Act and Regulations, is hereby granted full rights of Citizenship as provided by the Act.

Dated at .....this.....day of.....19.....

..... } Board Members.
.....

Pursuant to the Act and Regulations, we hereby certify that the children named in this Certificate of whom the abovenamed citizen is the responsible parent and included in this Certificate.

(Page 2.)

Attach Photograph in this Space. 2½ in. x 2 in. (head and shoulders.)

Full Name of Child.	Date of Birth.	Board Members' Initials.	

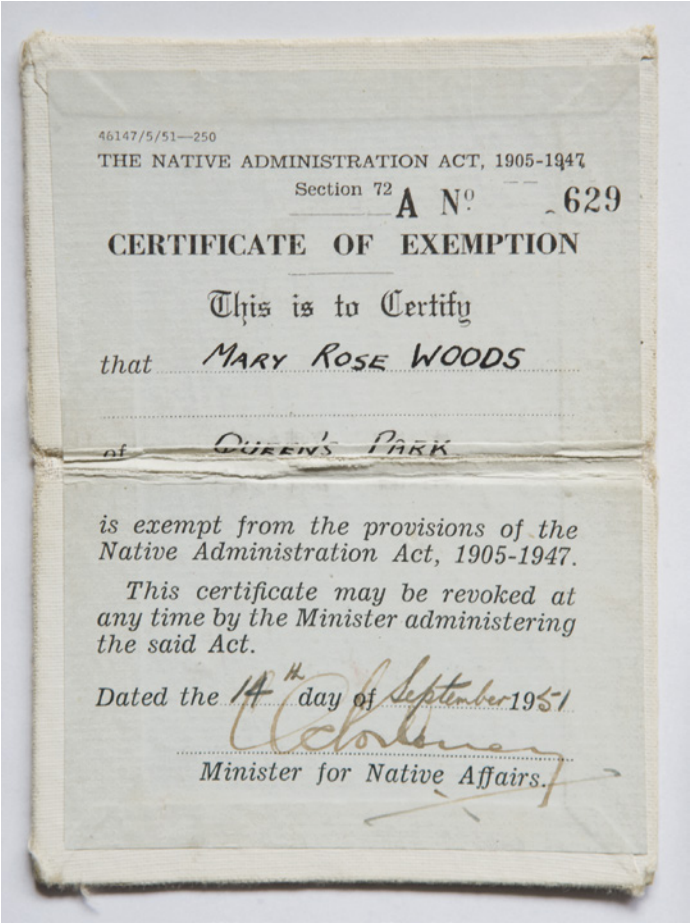
3.2.4 Certificate of citizenship form in Western Australia in 1951

Certificates of exemption

Aboriginal and Torres Strait Islander people could also apply to state governments for citizenship certificates, which provided exemption from state protection laws.

These laws, while varying from state to state, greatly restricted the freedoms of Aboriginal and Torres Strait Islander peoples. Exemption certificates allowed them the right to vote and attend school, but required them to promise to give up their traditional way of life and to not associate with other Indigenous people.

The certificates were not easy to get and at all times had to be carried and then produced when asked. Governments also had the right to revoke them. The exemption certificates were often referred to by Indigenous people as 'dog tags' or 'dog licences', which indicated how they felt about their treatment.



46147/5/51—250
THE NATIVE ADMINISTRATION ACT, 1905-1947
Section 72 A No. 629
CERTIFICATE OF EXEMPTION
This is to Certify
that MARY ROSE WOODS
of QUEEN'S PARK
is exempt from the provisions of the Native Administration Act, 1905-1947.
This certificate may be revoked at any time by the Minister administering the said Act.
Dated the 14th day of September 1951
Minister for Native Affairs.

3.2.5 A certificate of exemption was given by the government to allow an Indigenous person citizenship rights they would otherwise not have.

Activities

Remembering and understanding

1. What rights and freedoms were denied to Aboriginal and Torres Strait Islander peoples prior to 1965? List at least three.
2. What was the main purpose of the AAPA?
3. What was achieved by those who participated in the Cummeragunja Walk-Off?
4. What was the 1938 Day of Mourning and why was it significant?

Applying and analysing

5. Read the list of laws and conditions imposed upon Aboriginal and Torres Strait Islander peoples prior to 1965. In what ways and to what extent do you think these would impact on people's daily lives? Choose three of the laws and conditions and create a short presentation outlining the ways they would affect the Indigenous people they applied to.
6. Was the granting of exemption certificates a true restoration of civil rights to Indigenous Australians? Why or why not? Write two or three paragraphs giving your point of view.
7. Choose two different events or groups discussed in this unit and write a paragraph on each, explaining its significance in the struggle for rights and freedoms of Indigenous Australians.

Evaluating and creating

8. A visual essay is a collection of images or photographs that construct a view or argument on a particular subject. It uses the power of imagery to communicate with an audience. You still use the same essay structure (introduction, main points, conclusion) but are limited only to visuals and singular words.
   - **a** Start by posing a thoughtful question about an issue presented in this unit. For example, *How did the government respond to the demand by Indigenous Australians for greater equality?*
   - **b** Create an essay scaffold as you would for a written essay. Decide on your main points and what evidence you will use to support your ideas.
   - **c** Decide on your means of communication. Your essay could be presented in your workbook, as a film or slideshow, as wall art or using another creative outlet.
   - **d** Choose your images and construct your draft essay.
   - **e** Evaluate your draft. Does it follow a clear structure and communicate your argument? Have you provided multiple dimensions and layers of meaning that are reflected in your choice of colour, image and font style?
   - **f** Present your finished work to your class and place it on display. Ideally it will generate constructive discussions and inspire others to fight for greater civil rights in the future.

3.3 The Stolen Generations

The forcible removal of children

The term 'Stolen Generations' is used to describe the forced removal of over 100 000 Aboriginal and Torres Strait Islander children, who were taken from their families and placed into the care of government institutions, or adopted by non-Indigenous families, from the 1860s to the 1970s. Children of both non-Indigenous and Indigenous descent were commonly referred to using the derogatory term 'half-caste', and were sent to missions or reserves to be taught European ways.

Justification for the removals

The removal of children was supported by the laws of the time. State and territory governments had **protection policies** that gave them authority over the lives of Aboriginal people. These actions were justified as protecting the interests of the children. Children who were removed were not permitted to have contact with their biological parents and were forced to assimilate into Western culture. The practice was underpinned by the racist view that the children's Aboriginality would be 'bred out' of them.

A 'civilised' upbringing

Many Australians in the early part of the twentieth century thought that children of mixed heritage, meaning that they were of both Indigenous and non-Indigenous descent, were removed from their Aboriginal communities because they were disadvantaged. They believed they could be given what was considered a better education, a 'civilised' upbringing and be placed in a loving home or government institution (see Source 3.3.1).

The reality was a lot more complex. Reasons for removal are now considered to have been socially motivated, reflective of a young Commonwealth nation that wished to control each element of society, including 'racial purity'. This reflected the Social Darwinist thinking of the day, a belief that some groups had advantage over others due to biological superiority.

There was also much discussion regarding the 'dangers' of having too many 'half-castes' in society, as children born of mixed race were believed to lead to downward evolution of the race as a whole. Mixed races were considered to be inferior to both people of European decent and Indigenous Australians. **Paternalism**, the policy of controlling in a 'fatherly' way, was used also as a defence for the removals. Children who were removed were trained in skills so that they would be 'effective citizens', and taught work habits that would give them employment with colonial settlers. However, they were effectively used as free or cheap labour, the boys often as farm hands and the girls as domestic servants.

The Stolen Generations

In 1981, historian Peter Read shocked the Australian public with the release of a pamphlet titled *The Stolen Generations: The Removal of Aboriginal Children in New South Wales 1883 to 1969*. It was the first time the term 'Stolen Generations' had been used and his research was very much 'advocacy' in style. In other words, Read believed that something had to be done about setting right the wrongs of the past.

The pamphlet accused Australian governments of attempted genocide—an attempt to wipe out the Aboriginal people of Australia. This accusation was also made against the Commonwealth Government by the Human Rights and Equal Opportunity Commission in 1997, after the release of its report ***Bringing Them Home***. While some historians have continued to argue against this premise, steps towards **Reconciliation** have been taken, a topic discussed later in this chapter.

Sources study

The following sources provide insights into the experience of the Stolen Generations. Source 3.3.5 (on page 66) provides a first-hand account, by Margaret Tucker, of the experience of being taken away from her mother and community when she was thirteen.

Homes Are Sought For These Children

A GROUP OF TINY HALF-CASTE AND QUADROON CHILDREN at the Darwin half-caste home. The Minister for the Interior (Mr Perkins) recently appealed to charitable organisations in Melbourne and Sydney to find homes for the children and rescue them from becoming outcasts.

I like the little girl in centre of group, but if taken by anyone else, any of the others would do, as long as they are strong

3.3.1 Newspaper clipping from a Darwin newspaper c. 1930s. The handwritten text states, 'I like the little girl in the centre of group, but if taken by anyone else, any of the others would do, as long as they are strong'.

Whether the superintendents were good or bad, nothing could change the sterility of the environment. The children were emotionally, spiritually, intellectually and psychologically deprived, and scars might never heal. In a mid-western town I met an ex-Kinchela man. When he was ten he had been taken straight from school by a welfare officer, he said, and was never able to say goodbye to his father. He was placed in Kinchela … He could not, or would not, talk of his experiences there. He was divorced, had been an alcoholic, and was deeply unhappy … As the children approached the age of fourteen or fifteen the question arose of their employment. The girls at Cootamundra were better prepared for the work—described by one of them as 'slavery'—for their training in the home coincided exactly with what was needed to be done anyway. It consisted of the scrubbing, washing, ironing and sewing which the Board did not want to pay anyone to do. The same argument did not apply so well to the boys, but they still had to perform scrubbing and kitchen duties anyway, or else they worked in the vegetable gardens or dairy. In choosing a position, the Board assumed that basically blacks were stupid. Its very first Report in 1883 stated that black children after training would 'take their places with the industrial classes of the colony'. In 1938, fifty years later, it was the same: boys would become 'rural workers and most of the girls domestic workers'.

3.3.2 A description of the impact on everyday life of the removal of Aboriginal children in NSW, from Peter Read, *The Stolen Generations*, 1981

3.3.3 Students standing with their teacher at Hermannsburg Mission, Northern Territory

3.3.4 Aboriginal and Torres Strait Islander children eating at Yuendumu Native Settlement, Northern Territory, 1958

Between morning school and the lunch break, we heard the unmistakeable sound of a motorcar. Out where we were motor cars were very rare at that time, and although we were seething with curiosity we did not dare move from our desks … I cannot remember everything that went on, but the next thing I do remember was that the policeman and Mr Hill came into the school. Mrs Hill seemed to be in a heated argument with her husband. She was very distressed. The children were all standing (we always stood up when visitors came and the police were no exception). My sister May and another little girl, an orphan, started to cry. Then others. They may have heard the conversation. I was puzzled to know what they were crying for, until Mr Hill told all the children to leave the school, except myself and May and Myrtle Taylor, who was the same age as May (eleven years). Myrtle was an orphan reared by Mrs Maggie Briggs. She was very fair-skinned and pretty. I had forgotten about Brungle and the gang of men representing the Aborigines Protection Board who had visited when we were staying there. But then it came to me in a rush! But I didn't believe for a moment that my mother would let us go. She would put a stop to it! All the children who had been dismissed must have run home and told their parents what was happening at school. When I looked out that schoolroom door, every Moonahcullah Aboriginal mother—some with babies in arms—and a sprinkling of elderly men were standing in groups. Most of the younger men were away working on homesteads and sheep stations or farms. Then I started to cry …

3.3.5 The story of Margaret Tucker's removal in 1917 when she was 13 and her sister May was 11, Moonahcullah, NSW

Activities

Remembering and understanding

1 What term is used to describe the forcible removal of children of both Indigenous and non-Indigenous descent?
2 How were the removals justified at the time?
3 What happened to these children once they were taken from their families?
4 What was Peter Read's reason for writing his pamphlet *The Stolen Generations*?

Applying and analysing

5 Examine Source 3.3.1.
   a What is your initial impression of this picture?
   b What does the typed text beneath the photograph imply about the children's situation?
   c The source has handwriting scribbled under the photograph. What do the words imply about attitudes towards Aboriginal children?
6 Examine Sources 3.3.3 and 3.3.4.
   a Who do you think would have taken each photograph?
   b Describe what you think is happening in each scene.
7 Read Source 3.3.5.
   a How would you describe the removal of children from the school?
   b How might you think Australians reacted when reading this story for the first time in the 1980s? Would everyone have responded in the same way? Why?
8 a What do you think is the purpose of each source?
   b How might the purpose (motivation) of each author affect the reliability and usefulness of each source in a study of the Stolen Generations?

3.4 US Civil Rights movement

Aims and methods of the movement

The late 1950s and 1960s was a period of great division in the United States of America (US) over the struggle by African-Americans to remove the laws and attitudes that racially discriminated against them and segregated them from society. Activist groups demanded an end to racial inequality and aimed to gain equal access to education, political and legal processes, and economic opportunity. Their methods of achieving these goals included legal means, negotiations, petitions, boycotts, non-violent protests and demonstrations. It was the largest social movement of the twentieth century and inspired similar actions across the world, including Australia, where similar issues of racial inequality existed.

The Jim Crow laws

Despite the 1776 United States Declaration of Independence stating that 'all men are created equal', racial inequality existed in extreme forms across the US. Anti-African-American legislation known as the 'Jim Crow' laws were implemented in various southern states after the US Civil War, enforcing segregation—the practice of separating people of different races—between so-called 'white' Americans (as Americans of European descent were known) and African-Americans. This included attendance at public schools, theatres, hotels, restaurants, transport and even water fountains. In some states, it extended to banning 'white' Americans and African-Americans from getting married. Abolition of the Jim Crow laws was the underlying motivation of the US Civil Rights movement.

'It shall be unlawful for a negro and white person to play together or in company with each other in any game of cards or dice, dominoes or checkers.'

Birmingham, Alabama, 1930

'Marriages are void when one party is a white person and the other is possessed of one-eighth or more negro, Japanese, or Chinese blood.'

Nebraska, 1911

'Separate free schools shall be established for the education of children of African descent; and it shall be unlawful for any colored child to attend any white school, or any white child to attend a colored school.'

Missouri, 1929

3.4.1 Jim Crow laws implemented in the southern states of the US

Did you know?

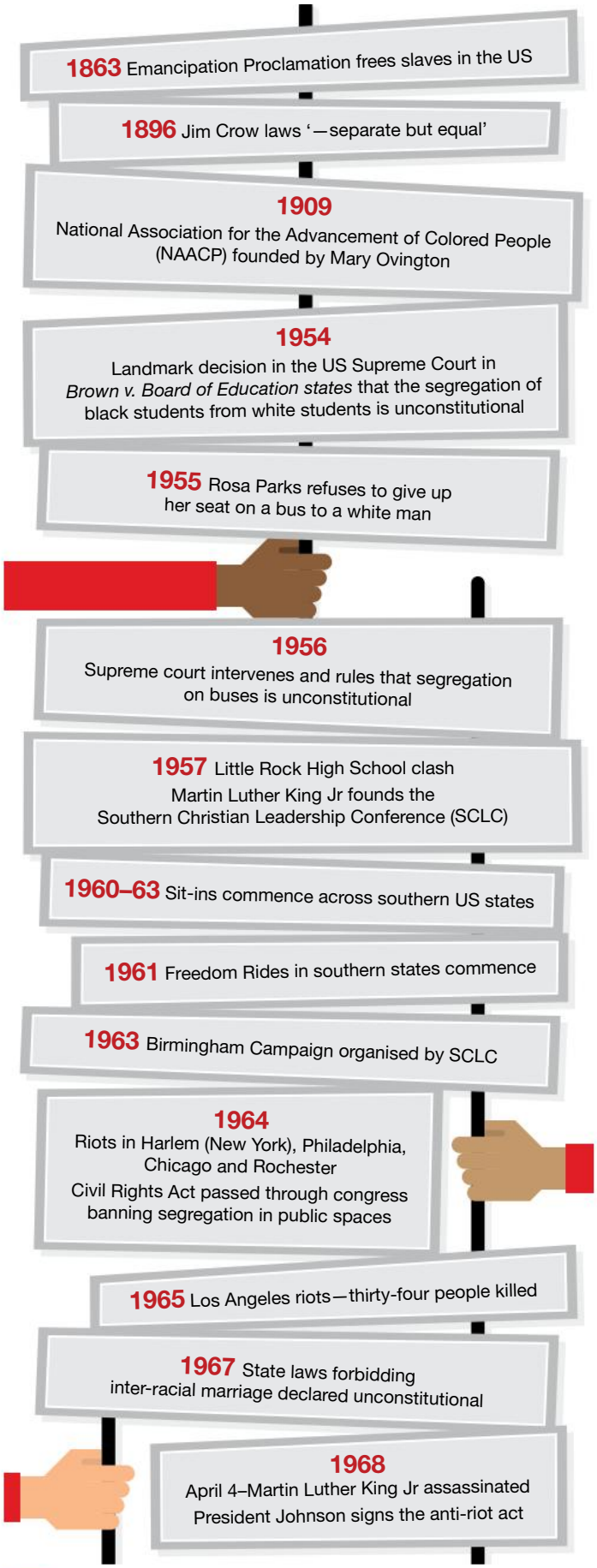
It is thought that the Jim Crow laws were named after a 'white' American man who performed with his face painted black, imitating and mocking the way African-Americans sang and danced.

Segregation in schools

Even though segregation in state schools was deemed to be illegal by 1954, some southern states refused to desegregate (allow all children to have access, regardless of the their race) their schools. Perhaps the most famous example of this is the incident now referred to as the 'Little Rock Crisis'. In 1957, when a group of African-American students arrived to attend a formerly segregated high school, angry mobs gathered to protest.

The Governor of Arkansas illegally used state troopers to block the African-American students from entering. The situation escalated and was finally resolved when President Eisenhower ordered federal troops to protect the students' entry.

3.4.2 Elizabeth Eckford entering Little Rock Central High School, September 1957



3.4.3 Important dates in the US Civil Rights movement

Bus boycotts

Despite a Supreme Court ruling in 1956 stating that segregation on interstate buses was unconstitutional, southern states continued with their own policy of transport segregation. This usually involved 'white' Americans sitting at the front and African-Americans sitting towards the back of the bus. They also had to give up their seat if a 'white' American wanted it. On 1 December 1955, an African-American seamstress named Rosa Parks quietly refused to give up her seat to an 'white' American man and was arrested.

The National Association for the Advancement of Colored People (NAACP) paid her bail and organised a boycott of all buses in Montgomery, Alabama. African-Americans made up 75 per cent of bus passengers and their boycott dealt the bus companies a serious economic blow. The boycott continued for more than a year, challenging prevailing laws and attitudes in southern states.

Martin Luther King Jr

Martin Luther King Jr was an African-American preacher of a southern Baptist church in Montgomery, Alabama. He is the most famous leader of the US Civil Rights movement and remembered for his courage and leadership in the face of racial violence and hatred.

Heavily influenced by the Indian independence leader Mahatma Gandhi, who used methods of passive resistance (non-violence) in his protest for India's independence from Britain, King recognised that great change could be achieved peacefully. King was instrumental in the Montgomery Bus Boycotts, where his non-violent approach was utilised.

3.4.4 Martin Luther King Jr addresses a crowd of angry African-American supporters willing to avenge the attack on his home.

King inspired a generation of young people of all races to protest non-violently against racial discrimination. He led a protest rally to Washington in 1963 where he delivered his 'I Have a Dream' speech—one of the most famous speeches in history—to over 200 000 supporters. In 1964, he became the youngest person to be awarded the Nobel Peace Prize at aged 35. After surviving numerous death threats and having his home bombed in 1956, King was assassinated prior to delivering a speech on 4 April 1968, while standing on the balcony of a hotel room in Tennessee.

3.4.5 Sit-in protesters against segregation at a lunch counter in Jackson, Mississippi, have drinks tipped over them, 28 May 1963.

The Freedom Rides

In an attempt to challenge transport segregation in the southern states, a group called the Congress of Racial Equality (CORE) rode interstate buses in the most segregated states of Mississippi and Alabama. The Freedom Rides as they were known, included about 1000 activists, and included a mix of people from African and European descent. They faced considerable hostility and danger as they attempted to draw attention to the unfairness of segregation. In May 1961, their bus was attacked by angry protestors and members of the **Ku Klux Klan** in Birmingham, Alabama. The police failed to protect the activists as they were beaten and their bus fire-bombed. The federal government was forced to order federal marshals to accompany the Freedom Riders.

Continued protests and activism

Emergence of television

In the 1960s, television footage became an important method of portraying images of civil injustice. Viewers

3.4.6 A 'Freedom Bus' is fire-bombed while travelling in the southern states, 14 May 1961.

were horrified at the level of violence and hostility shown by authorities towards non-violent protestors. The Birmingham campaign organised by the Southern Christian Leadership Conference in the spring of 1963 was widely publicised, and showed high-pressure water hoses and police dogs used on protestors, including over 1000 children, involved in a civil rights march. As a result, President Kennedy was forced to take action, and moved to bring a Civil Rights Bill before the US Congress, which sought to bring in legislation outlawing racial discrimination.

Protest marches

Protest marches had a significant impact because of the number of protestors who participated. The Washington March in 1963 to the Lincoln Memorial was important due to the fact that a third of the 200 000 protestors were Americans of European descent. Its aim was to put pressure on Congress to pass President Kennedy's Civil Rights Bill and demonstrated considerable support for the advancement of the Civil Rights movement.

Civil Rights Act 1964

Before Congress could pass the Civil Rights Bill, President Kennedy was assassinated in Dallas, Texas, on 22 November 1963. The new President, Lyndon Johnson, pushed on with the landmark Bill and the Civil Rights Act was passed in 1964.

The Act banned segregation in all public spaces, prevented any company without a pro-civil rights charter from applying for federal funding and enabled the Attorney-General to file a law suit against states who would not comply with the new legislation.

Voting Rights Act 1965

The *Voting Rights Act 1965* aimed to overcome discrimination in voting. President Johnson introduced the Bill as a result of highly publicised clashes between protest marchers and police in southern states. Concerned that African-Americans were being intimidated and prevented from voting, Martin Luther King had organised a march in Alabama from Selma to Montgomery. The marchers were stopped twice by state police, who arrested protestors for holding an 'illegal parade' and imprisoned hundreds of supporters. Eventually the National Guard was ordered by the President to accompany the marchers for the third stage. The original protest group of 300 grew to 25 000 people as public opinion increased in support of King and the government's actions to support change.

3.4.7 A 17-year-old student is attacked by a police dog during a mass protest in Birmingham, Alabama, May 1963. This photo appeared on the front page of *The New York Times* and was discussed by President Kennedy during a meeting at the White House.

Black Power

While the issues of desegregation and voting rights were priorities for African-Americans in the southern states, those in the north sought to address poverty, unemployment and discrimination by the police. As a result, their methods differed markedly from those adopted in the south. Younger African-American leaders in the cities were also more impatient for change.

- The Student Nonviolent Coordinating Committee (SNCC) broke away from Martin Luther King and renamed themselves Black Power. They expelled their 'white' American supporters and argued for a form of 'Black Nationalism', which involved separatism and self-determination while fighting to take control over issues that affected their communities.
- The Black Panthers adopted a militaristic style, wearing uniforms and carrying guns. They frequently clashed with police but also organised free community programs that assisted African-American children and families living in poverty. Their message to police was that they could not be easily intimidated. For African-Americans, they provided a forceful alternative to King's philosophy of passive resistance.
- The Nation of Islam rejected the concept of integration and believed that African-Americans had the right to defend themselves against violence. Their leading spokesman, Malcolm X, famously declared that African-Americans should use 'any means necessary' to defend themselves, their family and their property. Sadly, members of the Nation of Islam murdered Malcolm X after he modified his views in 1965.

Activities

Remembering and understanding

1. List the manner in which African-Americans were discriminated against.
2. Examine the people presented in Source 3.4.2. What type of emotions do you think different people are feeling? Why do you think they feel this way?
3. Who were the Freedom Riders and what did they achieve?
4. Discuss who inspired Martin Luther King Jr and what impact he had on the course of the Civil Rights movement?

Applying and analysing

5. Draw up the table as shown below. Using the information in this unit, compare and contrast the aims and methods of African-American civil rights protesters in the north and the south.

	Aims	Methods
Northern protesters		
Southern protesters		

6. Examine the sources and the text and write a 250-word report outlining the significance and achievements of Martin Luther King Jr. Include any significant historical events and people in your report.

3.5 The Australian Freedom Rides

The Civil Rights movement

The 1960s reflected a time of increased civil rights activism in many Western countries, as new movements for social and cultural change emerged in response to community injustices. The US Civil Rights movement's push for greater equality and rights for African-Americans was highly publicised. Newspaper and television images of mass rallies were viewed across the world, revealing the division and violence associated with racial hatred, segregation and widespread injustice. Australians witnessed the strategies and gradual successes of civil rights activists in the US, and these inspired campaigners to push for greater rights and freedoms for Indigenous Australians.

Australia inspired by the US

The media coverage of events and issues in the US had a significant effect on Australia's anti-discrimination movement. On 6 May 1964, a group of university students protested against the discrimination of African-Americans by staging a mock meeting of the Ku Klux Klan outside the American Consulate in Sydney, during which they burned crosses.

The same group later turned its attention to Australian civil rights issues. Calling itself Student Action for Aborigines (SAFA), the student group elected Aboriginal student Charles Perkins as their president.

SAFA designed a campaign to expose the poverty and racial discrimination of Aboriginal people in NSW regional towns. Like the US Freedom Rides from whom they drew their inspiration, SAFA aimed to attract media attention and, in doing so, make it a matter of urgent political action, forcing the federal government to develop a national strategy to address long-term and systematic discrimination against Aboriginal and Torres Strait Islander peoples.

Aims and principles

On 18 January 1965, in a letter to the Chairman of the NSW Aborigines Welfare Board, Perkins outlined the principles, aims and methods of SAFA. These included:

- chartering a bus for two weeks around the west and north coast of NSW
- developing a comprehensive survey of Aboriginal living conditions in the main towns visited in terms of housing, education, employment, health, and attitudes between European and Aboriginal people
- referring to the tactics demonstrated by Martin Luther King Jr of passive, non-violent action
- inspiring both Aboriginal and European townspeople to do something practical about Aboriginal discrimination
- ensuring the integration of community facilities that were segregated, such as theatres, swimming pools, clubs and hotels.

Australian Freedom Rides

On the 12 February 1965, Australia's own Freedom Rides commenced with thirty-three students on a two-week bus journey. The group included Darce Cassidy, Australian Broadcasting Commission (ABC) reporter, who provided national and international media coverage for both radio and television broadcasters. This attracted extraordinary publicity to an issue that was rarely considered by people in urban areas.

3.5.1 Students from the University of Sydney preparing to visit towns in NSW on their Freedom Rides, 1965

Throughout their journey the students visited seven rural towns, where they conducted surveys and challenged local community attitudes towards Aboriginal people. They picketed Walgett RSL Club, which did not allow membership for Aboriginal ex-servicemen, and protested outside the Moree swimming pool, which allowed Aboriginal children in only at certain hours and after they had showered. The Freedom Riders, with parental permission, transported Aboriginal children from the nearest reserve by bus to the local pool, and refused to leave until the pool had allowed the children entry. Only after the intervention of the town's mayor were children allowed to go into the pool.

3.5.2 Charles Perkins (left) with local Aboriginal children in the Moree pool as part of the protest in February 1965

Impact of the Freedom Rides

The entire journey of the Freedom Riders and community reactions were publicised nationally. This raised awareness of the deep-seated racism in rural Australia. It provided the wider public with reason to support the Aboriginal rights movement to bring about an end to inequality and mistreatment.

The Freedom Rides also had an impact on Aboriginal and Torres Strait Islander peoples by showing that change was possible and that they did not have to put up with discrimination. Perkins and his group had provided significant media attention to the issue and placed Indigenous rights firmly on the political agenda. It also inspired a younger generation of Indigenous Australians to fight for greater rights and freedoms.

Integration replaces assimilation

By the mid-1960s, there was a gradual shift in federal government policies away from assimilation towards integration of Aboriginal and Torres Strait Islander peoples. In line with the change in approach to Australia's new non-British migrants at this time, the policy of integration reflected a growing recognition of Aboriginal and Torres Strait Islander peoples (as well as non-British migrants) as having their own culture that could be part of the broader 'Australian' culture. This policy was supported by programs in areas such as health, education and employment.

Activities

Remembering and understanding

1. What was SAFA and what issues was it concerned with?
2. Define the terms 'discrimination' and 'picketed'.
3. What conditions had been imposed on Aboriginal children at the Moree swimming pool?

Applying and analysing

4. Create a timeline for Australia's Freedom Rides, including significant destinations and events from the trip.
5. Prepare a short oral presentation outlining the aims and impacts the Australian Freedom Riders had regarding the rights of Aboriginal and Torres Strait Islander peoples.

Evaluating and creating

6. In class, and under the supervision of your teacher, choose a current civil rights issue and plan a protest campaign.
   - **a** Choose a protest method, for example petitions, 'sit-ins', marches, 'freedom rides' or boycotts. Explain why you chose that particular method.
   - **b** List any moral, ethical or legal issues that you would have to consider. How would you deal with these?
   - **c** How has completing this activity made you better understand the issues faced by activists in the US and Australia?

LS 3B

3.6 The path to the 1967 referendum

Rights and voting

In January 1901, the Australian Constitution came into existence. This spelled out the authority for all powers, by which laws are made (legislators), how they are implemented (executive government) and how they are upheld (the courts). Central to the document's purpose are the roles and responsibilities of governments and the voting rights of citizens in federal elections and **referendums**.

Before 1967, the Australian Constitution did not provide the federal government with the power to deal with Aboriginal and Torres Strait Islander peoples. The states were responsible for Aboriginal affairs. This meant that the rights and experiences of Indigenous people differed significantly from state to state. States governed on matters such as wages, work and marriage.

This was most evident when, in 1962, the federal government amended the electoral voting conditions to allow Aboriginal people the right to vote in federal elections. This was only made available to Aboriginal people who already had the right to vote in state elections and enrolments were not made compulsory. The only way all Aboriginal people in every state could obtain the right to vote at both a state and federal level was through an amendment to the Constitution. Such an amendment is only possible through a referendum, in which people are asked to vote either 'yes' or 'no' to a proposed change.

Census figures

Another limitation of the Constitution was that the national census (the collection of key data about all people living in Australia on a set date using a questionnaire) did not include the counting of Aboriginal and Torres Strait Islander peoples (see Source 3.6.2). Central to a government's ability to make positive change is an accurate knowledge of their country and population. Not having reliable figures to work with prevented the federal government from introducing laws that would improve conditions for Indigenous Australians.

> No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

3.6.1 Section 41 of the Australian Constitution, 1901

> In reckoning the numbers of people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

3.6.2 Section 127 of the Australian Constitution, 1901

Campaign for constitutional change

The campaign for constitutional change has persisted since the 1920s, despite constant setbacks. In 1929, Archdeacon Lefroy in London argued that Australia owed a 'debt of reparation' and should take national responsibility for the rights of its Indigenous people. William Cooper, during the 1938 Day of Mourning, called for greater federal powers to legislate for Aboriginal Australians.

A petition to change the Constitution

In 1962, the Federal Council for the Advancement of Aborigines and Torres Strait Islanders (FCAATSI) presented a petition to the federal government demanding change to the Constitution. While the campaign was not successful in achieving immediate change, it continued the pressure being applied to the federal government and highlighted significant inconsistencies between the states in relation to Aboriginal rights and freedoms.

Public awareness and international covenants

Following the 1962 campaign, public awareness was again heightened by the 1965 NSW Freedom Rides and the 1966 Wave Hill walk-off. Continued international coverage of the US Civil Rights movement and criticism of the South African apartheid system, also stirred a global voice for change.

In 1966, the UN published the *International Covenant on Civil and Political Rights* and the *International Covenant on Economic, Social and Cultural Rights*. As a signatory of this covenant, Australia's new Prime Minister Harold Holt had little option but to agree to hold a referendum to change the Constitution.

3.6.3 Aboriginal children in a protest rally campaigning for a 'yes' vote, Queensland, 1967

Two Referendums are being held on the same day on two separate proposed laws for the alteration of the Constitution.

At the Referendums each voter should indicate separately his vote in relation to EACH proposed law as follows:

If HE APPROVES the proposed law—by writing the word **YES** in the space provided on the ballot-paper opposite the question; or

If HE DOES NOT APPROVE the proposed law—by writing the word **NO** in the space provided on the ballot-paper opposite the question.

The two questions will be set out on the ballot-paper thus:

DO YOU APPROVE the proposed law for the alteration of the Constitution entitled—

"An Act to alter the Constitution so that the Number of Members of the House of Representatives may be increased without necessarily increasing the Number of Senators"?

DO YOU APPROVE the proposed law for the alteration of the Constitution entitled—

"An Act to alter the Constitution so as to omit certain words relating to the People of the Aboriginal Race in any State and so that Aboriginals are to be counted in reckoning the Population"?

YOU MUST VOTE IN RESPECT OF EACH PROPOSED LAW

VOTING IS COMPULSORY

By Authority: A. J. Arthur, Commonwealth Government Printer, Canberra

3.6.4 Extract from the 1967 information booklet outlining the proposed changes to the Constitution and presenting a sample referendum ballot paper

The 1967 referendum

The 1967 referendum was an important step towards equality for Aboriginal and Torres Strait Islander peoples. In order to change the Constitution, both Houses of Parliament have to agree to the change, and all Australian citizens must vote on the amendment through a referendum, with a majority of people in a majority of states voting 'yes'.

A vigorous campaign was held to promote the 'yes' vote, with strong support by the churches, the trade union movement and the media. Led by FCAATSI, the 'yes' campaign program included street parades, public meetings and rallies, posters and music.

27 May 1967

On 27 May 1967, Australians were asked to vote on two questions (see Source 3.6.4). Question 1 related to Section 127 of the Constitution and asked people whether Aboriginal people should be counted in the national census. Question 2 addressed Section 51 and asked people whether the federal government should have the power to make laws regarding Aboriginal people.

The outcome of the referendum

The outcome of the referendum was a 90.77 per cent vote in favour of the changes (see Source 3.6.5). The result reflected overwhelming support for the rights of Indigenous Australians, and granted the federal government the opportunity to make positive changes. The referendum is sometimes confused with the moment Aboriginal people gained citizenship; however, citizenship had already been gained by 1961 and the right to vote granted in 1962.

3.6.5 Results of the 1967 referendum

1967 referendum				
State	Yes		No	
	Votes	%	Votes	%
NSW	1949036	91.46	182010	8.45
Victoria	1525026	94.68	85611	5.32
Queensland	748612	89.21	90587	10.79
South Australia	473440	86.26	75383	12.74
Western Australia	319823	80.95	75282	19.05
Tasmania	167176	90.21	18134	9.79
Total	5183113	90.77	527007	9.23

In fact, the referendum did not provide any direct new rights for Aboriginal and Torres Strait Islander peoples. But it was a very significant symbolic victory that saw the establishment of an Office of Aboriginal Affairs in 1967, under the Department of the Prime Minister, with new powers to oversee the interests of Indigenous Australians. An advisory body, the Council of Aboriginal Affairs was also established the same year. Most importantly, the referendum result showed that ordinary non-Indigenous Australians overwhelmingly supported positive change for Aboriginal and Torres Strait Island people.

Skills builder

Investigating sources

Historians analyse primary and secondary sources to explain what happened in the past. Sources help them to develop an informed explanation about places, people and events. Read the section in the Toolkit chapter (Unit 1.2) about evaluating sources before doing these activities.

The following devices are often used in political cartoons in order to communicate a particular message:

- symbolism—to represent larger concepts or ideas
- labels—to ensure that the reader knows exactly who or what is being referred to
- exaggeration—to make a person easily recognisable
- analogy—to make the point of the cartoon clearer by comparing two unlike things that share some similarities.

Apply

1 Look at Source 3.6.6. Is it a primary or a secondary source? Give reasons for your answer.
2 What is the purpose of the cartoon?
3 What is the cartoonist trying to say? What does it say about their opinion?
4 What other opinion can you imagine another person having on this same issue?
5 Who is the cartoon aimed at?
6 Explain the ways in which the cartoonist has tried to communicate their message. Were they successful?

Did you know?

Aboriginal Australian David Unaipon (1872–1967) has been pictured on the $50 note since 1995. Although he left school at age 13, he revolutionised sheep shearing and conceptualised the helicopter two decades before it became a reality. He regularly appeared in newspaper articles that, while heralding his discoveries, were extremely racist in their remarks. Also a writer, he campaigned actively from the 1920s for Indigenous rights.

3.6.6 David Unaipon on the Australian $50 note

Activities

Remembering and understanding

1 What is the basic purpose of the Australian Constitution?
2 Was the 1962 campaign to change the Constitution successful?
3 What was the purpose of the 1967 referendum?
4 What were the two questions asked in the 1967 referendum?

Applying and analysing

5 In small groups of two or three, brainstorm the reasons people may have had for voting 'yes' or 'no' in the referendum. Create a table with your results.
6 Imagine it is 1967. Prepare a poster to try to influence opinion on the referendum.
7 Write a paragraph outlining the events and pressures that led to the referendum.

3.7 Achieving change for Aboriginal and Torres Strait Islander peoples

Methods to achieve change

The road to change for Aboriginal and Torres Strait Islander peoples was the result of multiple efforts by many courageous individuals and groups. Prior to 1967, most activists believed that Indigenous people would only achieve equal rights if the Commonwealth took responsibility for Aboriginal affairs. As a result, a national campaign became the focus of activists' efforts. They adopted methods used by civil rights and freedom fighters throughout the world. These included using peaceful methods of protest such as those used by Gandhi in India and Martin Luther King Jr in the US.

Methods used by activists included petitions, media campaigns, the 'Freedom rides' and legal action, including the High Court challenge by Paul Coe in 1979 and the Mabo Judgment in 1992.

Possibly the most controversial and notable method used by activists was the construction of the Aboriginal Tent Embassy in Canberra.

3.7.1 Michael Anderson, Billy Craigie, Bertie Williams and Tony Coorey on Australia Day, January 1972

The Aboriginal Tent Embassy

On Australia Day in 1972, four Indigenous activists, Michael Anderson, Billy Craigie, Bertie Williams and Tony Coorey, erected a beach umbrella on the lawns of Parliament House (now Old Parliament House) with a sign saying 'Aboriginal Embassy' (see Source 3.7.1). Their actions inspired other activists, who responded by setting up more tents, with numbers swelling to 2000 people (see Source 3.0.1).

The federal government did not respond positively to this, with the Minister for the Environment, Aborigines and the Arts (Peter Howson) labelling the embassy as an 'illegal act of trespass' and the protestors as 'unrepresentative militants'. The fact that the Tent Embassy was right by the entrance to Parliament, visible to visiting dignitaries, meant it was highly visible, an embarrassing unsightly affront. Minister for the Interior Ralph Hunt made changes to existing laws to enable the forcible removal of the Aboriginal Embassy.

1. Control of the Northern Territory as a State within the Commonwealth of Australia; the parliament in the NT to be predominantly Aboriginal with title and mining rights to all land within the Territory
2. Legal title and mining rights to all other presently existing reserve lands and settlements throughout Australia
3. The preservation of all sacred sites throughout Australia
4. Legal title and mining rights to areas in and around all Australian capital cities
5. Compensation monies for lands not returnable to take the form of a down payment of six billion dollars and an annual percentage of the gross national income

3.7.2 The Aboriginal Embassy's five-point plan for land rights, presented to Parliament in February 1972

As the government became more hostile in their actions, public support and sympathy grew. Parliament was divided over the issue with twenty-six Labor Members of Parliament announcing that they would physically obstruct action taken to remove the embassy.

On 20 July, a 150-strong police force dismantled the embassy, leading to a series of clashes between police and activists. Supporters linked arms and sang songs while police made arrests and television cameras watched on, capturing the violent interaction.

The following week the activists erected their tents again, resulting in further confrontation as a 360-strong police force pulled the embassy down a second time. Hundreds of supporters wrote to Prime Minister McMahon in protest at the government's actions. Further activist action continued, including the tents being erected again in 1974 until 1976, when Charles Perkins negotiated their removal in exchange for Aboriginal Land Rights legislation.

A continuing civil rights protest site

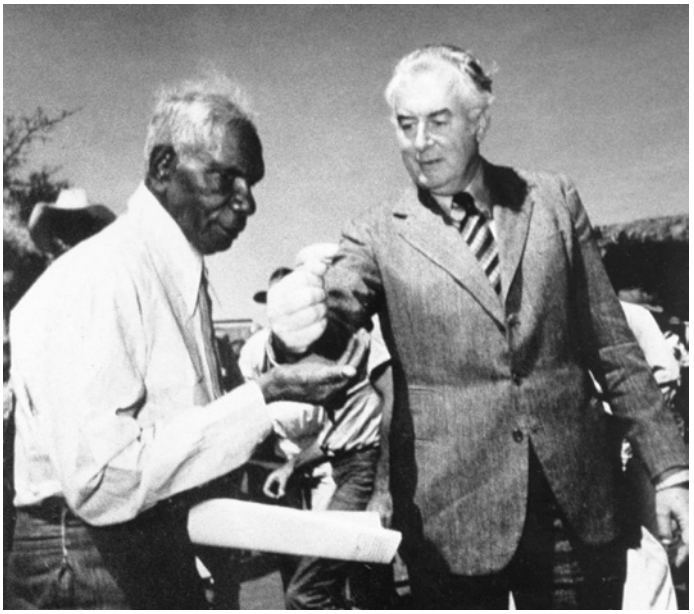
The lawns of Old Parliament House have remained a site for ongoing protests against the federal government's treatment of Aboriginal and Torres Strait Islander peoples. In 1992, to mark the twentieth anniversary of the protests, the Aboriginal Tent Embassy was permanently re-established on its original site on the front lawn of Old Parliament House in recognition of both the historical and cultural significance of the original embassy, as well as to highlight the continued fight for recognition of Indigenous peoples' rights.

Today, the tent embassy stands as a constant visual reminder of the difficulties faced by Aboriginal and Torres Strait Islander peoples in relation to health care, education and life span. The choice to name this protest site as an embassy is a powerful statement, highlighting Indigenous people's lack of representation and suggesting the need to use an embassy medium to achieve representation in their own country. It also demonstrates the problems caused by the dispossession of their land, and the government's responsibility to address these issues.

A new policy of self-determination

In 1972, a new Labor government led by Prime Minister Gough Whitlam came into power. Whitlam introduced a range of significant reforms, including creating a Department and Minister of Aboriginal Affairs and announcing a policy of 'self-determination' for Aboriginal and Torres Strait Islander peoples. This new approach was described as 'Aboriginal communities deciding the pace and nature of their future development ... within a diverse Australia'. Whitlam also set up the landmark Woodward Royal Commission into Aboriginal land rights. Led by Justice Edward Woodward, the focus of the commission was on land rights in the Northern Territory based on the hope that it would set a precedent and become a national model for land rights in the rest of the country.

The Whitlam Government drew up new land rights legislation based on recommendations from the commission, and had a Bill before parliament when the government was dismissed by the governor general in November 1975. Malcolm Fraser became Prime Minister of a Liberal Government, and the Bill was amended after pressure from mining and other interests. However, in December 1976, the federal parliament passed the *Aboriginal Land Rights (Northern Territory) Act 1976*. The landmark Act recognised the spiritual link between Aboriginal people and the land. This official acknowledgement formed the basis of land rights as defined under the Act.



3.7.3 On 26 August 1975, Prime Minister Gough Whitlam handed a leasehold title to land at Daguragu (Wattie Creek) to Vincent Lingiari, representative of the Gurindji people and the leader of the protest at Wave Hill. This iconic photograph of Whitlam pouring soil into the hands of Lingiari became a symbol of land rights in Australia.

Activities

Remembering and understanding

1. List some of the methods that have been used by activists to achieve change for Aboriginal and Torres Strait Islander peoples.
2. What was the Aboriginal Tent Embassy?
3. Why do you think the Aboriginal Tent Embassy was controversial in 1972?

Applying and analysing

4. Why was the name chosen for this site (the 'Aboriginal Tent Embassy') significant? What does a 'Tent Embassy' symbolise?
5. Using Source 3.0.1 and your own knowledge, what has been the ongoing legacy of the Aboriginal Tent Embassy?

Evaluating and creating

6. What has changed for Indigenous Australians since the Aboriginal Tent Embassy was first erected in 1972 in the areas of education, health and work (or employment)? Working in small groups, prepare a class presentation that describes any ongoing civil rights activity in these areas. Evaluate how effective the activity has been.

3.8 Eddie Mabo

A significant individual in the struggle for Indigenous rights

Eddie Koiki Mabo was born in 1937 on Mer Island (Murray Island) in the Torres Strait. His mother died during childbirth and Mabo was raised by his uncle (Benny Mabo) and his family. During Mabo's teenage years, the Queensland government strictly regulated the Torres Strait Islands. The Meriam people lived a traditional lifestyle, seeking to maintain their cultural heritage by working the land, fishing and adhering to their cultural laws of inheritance. At age 16, Mabo broke a customary island law and was exiled to the mainland where he worked odd jobs, including pearl diving and sugar-cane cutting.

In 1959, aged 23, Mabo married Bonita Neehow and they went on to have ten children. He worked to make a difference, becoming a spokesperson for railway workers and the union and opening the first 'Aboriginal only' school in Townsville.

At the age of 31, Mabo became a gardener at James Cook University and, although never enrolled as a student, attended lectures and read widely. This would be a significant time in Mabo's life as he was exposed to intellectual discussion surrounding the issue of Aboriginal rights and 'white' law. It also enabled important conversations with history professors Noel Loos and Henry Reynolds in 1974, in which Mabo discovered he did not own his land on Mer Island (see Source 3.8.1). This would be a significant turning point in Mabo's life and the beginning a long journey in challenging the Queensland government in the 'white' court system.

> We were having lunch one day in Reynolds' office when Koiki was just speaking about his land back on Murray Island. Henry and I realised that in his mind he thought he owned that land, so we sort of glanced at each other, and then had the difficult responsibility of telling him that he didn't, and that it was Crown land. Koiki was surprised, shocked and … he said and I remember him saying 'No way, it's not theirs, it's ours'.

3.8.1 Professor Noel Loos recalls Eddie Mabo's discussion with him and Henry Reynolds in 1974. Koiki was Mabo's middle name.

Working towards native title

In 1981, Mabo attended a Lands Rights Conference in Townsville, where he delivered a seminar on his understanding of Torres Strait Islander land ownership (see Source 3.8.2). He explained that a system of land ownership existed on Mer that pre-dated white settlement. This traditional system of land ownership meant that male descendants on the island inherited the land of their father.

A lawyer listening to Mabo speak suggested that he take his argument to court as a test case to claim land rights. Mabo, along with a number of other people from Mer Island, chose to take their case to court. In response to this challenge, the Queensland government legislated that the establishment of the colony in Queensland in 1859 nullified all previous traditional law and claims to land. Following this, the case was taken to the High Court of Australia in 1982.

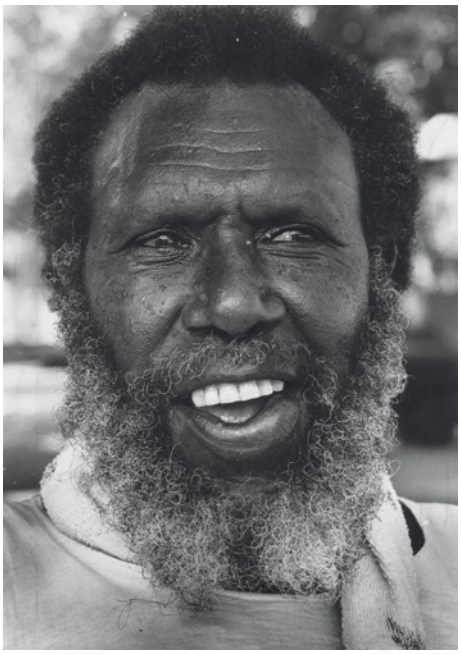
Mabo's claim was dismissed. The ruling was based on the fact that he was not actually the son of Benny Mabo. Despite the disappointment, Mabo chose to stand aside so that the entire case would not be dismissed and could continue with the other plaintiffs. In January 1992, 10 years after the court case's commencement, Mabo died of cancer, aged 56.

> In the Torres Strait, land ownership is the same throughout. It is different from Aboriginal land ownership on the mainland. Although we have tribal regions, we go much further into the clan area and then to individual or family holdings. This system existed as long as we could remember. When the first white men arrived in our islands they found people as village dwellers who lived in permanent houses and in well-kept villages. They also discovered that we were expert gardeners and hunters.

3.8.2 From 'Land rights in the Torres Strait', a seminar delivered by Eddie Mabo in Townsville, 28–30 August 1981

The Mabo Judgment

On 3 June 1992, five months after Mabo's death, the High Court handed down its ruling. In it, the judges of the High Court recognised the Meriam people as having a native title and ruled that they were entitled to possess and occupy, use and enjoy the Mer Islands. It was a landmark case and highly significant as it overturned the legal premise that Australia was **terra nullius**. This was the principle by which the British had claimed land ownership at the time of white settlement in 1788. It was the view that Australia was 'nobody's land' as no formal system of land ownership existed at the time of settlement.



3.8.3 Indigenous rights activist Eddie Koiki Mabo

Main principles of the Mabo Judgment

- While the British government acquired sovereignty of the continent, it did not acquire full ownership of all of the land.
- Where it is determined that native title still exists then Indigenous people are entitled to continue their traditional laws and customs on their land. This may include hunting, fishing or holding ceremonies.
- If a language group loses connection to their land or cannot prove a connection that predates white settlement, then native title is extinguished.
- Native title can be handed over to the Crown but the rights and privileges of native title are non-transferable.

Australian Human Rights Medal

While Eddie Mabo did not live to see the High Court's decision, his contribution to Australian Indigenous people was profound. In 1992, he was posthumously awarded the Australian Human Rights Medal by the Human Rights and Equal Opportunity Commission. Despite the dedication and courage he showed in his fight for Indigenous rights, he was not appreciated by everyone. Three years after his death, a memorial tombstone was erected in Townsville. The next day it was vandalised and partially destroyed. Eddie Mabo was later reburied on Mer Island in a secret place and with a traditional burial service, the first of its kind to be performed in over 80 years.

Native Title Act 1993

After the High Court ruling, which soon became known as the Mabo Judgment, the Keating government realised that it had to legislate to recognise native title. In 1993, the Native Title Act (Commonwealth) provided a legal means and administration process by which Aboriginal communities could claim native title, or ownership of vacant Crown land. This was land owned by the federal government that was not being leased to miners or **pastoralists**.

The term 'native title' refers to the legal recognition in Australian law that some Indigenous people still hold rights to their land. The Act stated that an Indigenous community could have exclusive rights over a section of land if it could prove that it had an ongoing connection to that land that predated British settlement. This only applied to Crown land, or land owned by the federal government. Aboriginal people had to prove continual occupancy of the land and its use for traditional reasons. More often, there were arrangements for partial access to land to practise customs and laws where an Aboriginal community had native title over a land that a farmer also had a lease over.

The Wik decision

It was not until the Wik decision in 1996 that the High Court formalised the shared relationship between leases and native title (see Source 3.8.4). In the decision, the Wik people were given access to their traditional lands, which were under lease to a pastoralist and mining companies at the time. The Wik decision stated that where native title could be proven on leased Crown land, the pastoralist or miner to whom it was being leased did not have exclusive rights to the land. Instead they had to allow its first owners access in order to practise their traditional customs and laws.

> We don't want to keep people off our land. We want to share. We don't want to drive the pastoralists away. They are not our enemies. We helped to build that industry and we need it to be strong for our future too. We just asked the Court to find that we can live alongside pastoral leases on Cape York. We want the government to recognise that we are the traditional owners of those lands. Our law is first law ...

3.8.4 'What the Wik Decision means to us', Denny Bowenda in *Native Title*, 1998

Reaction to the Wik decision

The Wik decision caused outrage among some segments of Australian society, who believed incorrectly that Indigenous Australians now had the legal ability to claim people's backyards. This was never a provision of the Native Title Act and ownership of private land was never in question in the Wik case. However, this fear was seized upon by members of the Liberal and National parties in the government, sections of the media and supporters of farming and mining interests (see Sources 3.8.5 and 3.8.6).

3.8.5 The Liberal Party's Peter Reith is depicted loading bags of Mabo hysteria into an aerial crop-seeding plane, 1993

> ... our [National Farmers' Federation] primary concern has always been certainty for the people who use the land for economic benefit—our farmers—and that means that they simply must have the exclusive occupancy of their land. We've demanded that the Government legislate to overturn the Wik decision, because the concept of coexisting title is simply unworkable...
>
> ... Since the Wik decision, many farmers around the country can't [plan for and invest in the future of their farms] because their future ability to manage their [farms] is clouded ... 50 per cent of Victoria is now under native title claim ... Australia's farmers understand that they are deeply involved in a crucial chapter in our country's history, and they feel a strong obligation to make sure that their decisions are in the best interests of all Australians, wherever they live.

3.8.6 From 'To conserve or farm', by Donald McGauchie, *The Age*, 22 July 1997. Donald McGauchie was president of the National Farmers' Federation.

Howard government's 10-point plan

In May 1997, responding to concerns by pastoralists and miners in the wake of the Wik decision, the Howard government released its 10-point plan. The following year it also introduced amendments to the Native Title Act. The Howard government sought to further legislate the manner in which native title could be claimed, seeking to assure mining companies and industries concerned about losing control over the land they leased. In many cases, these leases extended for periods of up to 99 years.

The Bill that went through parliament was highly contested as it sought to add a 'sunset clause', providing a period of 6 years beyond which native title could no longer be claimed. Opponents of the Bill pointed out that Indigenous Australians had been waiting 200 years for this opportunity and 6 years was not adequate time to prepare the necessary proof of native title. The sunset clause was deleted, but many activists saw this Act as a backwards step in land rights.

Activities

Remembering and understanding

1. Name three ways in which Eddie Mabo was politically active in his early life.
2. Describe the traditional system of land ownership that existed on the islands of Mer.
3. Why did the Howard government release a 10-point plan in response to the Wik decision?
4. What is the attitude of Denny Bowenda towards pastoralists? What do you think he means when he says, 'We helped to build that industry'?

Applying and analysing

5. Make a chronological list or timeline of the key events in Eddie Mabo's life. Include significant people and events, and annotate why they are important historically. Use evidence from the text and the sources provided to complete your chronology.
6. Do you think there would have been a different historical outcome if Mabo had never discovered he did not own land on Mer Island? Why do you think this? Write a paragraph outlining your reasons. Use evidence from the sources to support your argument.
7. Compare Sources 3.8.4 and 3.8.6. Account for the different perspectives of the authors of each source.
8. Examine Source 3.8.5. Explain the cartoonist's perspective about the government's attitude to the Mabo Judgment. Use evidence from the source to support your explanation.

Evaluating and creating

9. Imagine you have been asked to write a 200–300 word speech announcing the Mabo decision to the rest of the world. Write the speech, making sure that it includes what the decision is and why it was made.

LS 3C

3.9 The struggle for rights and freedoms

Council for Aboriginal Reconciliation

The significant legal advancements of the 1990s, as well as achieving recognition of land rights through the Mabo and Wik decisions, led Aboriginal and civil rights activists to then focus on achieving Reconciliation with non-Indigenous Australians. Prime Minister Hawke introduced the Reconciliation initiative in 1990, seeking to improve relationships between Aboriginal and Torres Strait Islander peoples and the wider Australian community.

In 1991, parliament formed the Council for Aboriginal Reconciliation and provided a 10 year period during which the Council could consult the Indigenous community before making recommendations back to parliament. The council consisted of twenty-five prominent Indigenous and non-Indigenous Australians, with Patrick Dodson as its first chair (see Source 3.9.1). In 1992, Labor Prime Minister Paul Keating demonstrated his support for this initiative in his famous Redfern speech (see Source 3.9.2).

3.9.1 Patrick Dodson played a significant role in seeking justice for Aboriginal and Torres Strait Islander peoples. He won the 2008 Sydney Peace Prize for his 'courageous advocacy' for human rights and is commonly known as the 'Father of Reconciliation'.

The Council for Aboriginal Reconciliation recommended a number of strategies to advance the cause of Reconciliation. Among them was a new preamble to Australia's Constitution, recognising Aboriginal and Torres Strait Islander peoples as the 'first people' of Australia and also changing the date of Australia Day from 26 January, which marks the landing of the First Fleet at Sydney Cove. It also recommended a formal treaty to assist in resolving current and future issues.

Did you know?

Protests against Australia Day being celebrated on 26 January have been steadily growing. On 26 January 2018, 60 000 people marched in protest in Melbourne, believing that this date should be remembered as one of tragedy and not celebration for Indigenous Australians.

> Isn't it reasonable to say that if we can build a prosperous and remarkably harmonious multicultural society in Australia, surely we can find just solutions to the problems which beset the first Australians—the people to whom the most injustice has been done …
>
> … The starting point might be to recognise that the problem starts with us non-Aboriginal Australians. It begins, I think, with that act of recognition.
>
> Recognition that it was we who did the dispossessing. We took the traditional lands and smashed the traditional way of life. We brought the diseases. The alcohol. We committed the murders. We took the children from their mothers. We practised discrimination and exclusion. It was our ignorance and prejudice. And our failure to imagine these things being done to us … We failed to ask—how would I feel if this were done to me? As a consequence, we failed to see that what we were doing degraded all of us …

3.9.2 A section of former Prime Minister Paul Keating's speech at Redfern Park, NSW, 10 December 1992, delivered at the Australian launch of the International Year for the World's Indigenous People

Government response

Among the main challenges to true Reconciliation has been the changes in government policy towards Indigenous Australians, and the uncertainty caused by the Mabo and Wik decisions. While the Keating government accepted responsibility, the Howard government that followed did not (see Source 3.9.3).

Howard's 10-point plan led to the Native Title Amendment Act, which further restricted native title claims, instead favouring pastoralists. After almost 2 years in the making, the Howard government accepted some of the recommendations put forward in the final report by the Council for Aboriginal Reconciliation, but flatly rejected

the notion that an official government apology was necessary. In January 2001, the Council body was replaced by a new organisation called Reconciliation Australia, with significantly reduced funding.

> In facing the realities of the past, however, we must not join those who would portray Australia's history since 1788 as little more than a disgraceful record of imperialism, exploitation and racism … such an approach will be repudiated by the overwhelming majority of Australians who are proud of what this country has achieved although inevitably acknowledging the blemishes in its past history.

3.9.3 From Prime Minister John Howard's opening address to the Australian Reconciliation Convention, 1997

National Inquiry into the Stolen Generations

During the 1990s, non-Indigenous Australians were increasingly made aware of the practice of removing Aboriginal children from their families, later to be known as the 'Stolen Generations'.

In 1995, under increasing public pressure, the Keating government formed the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from Their Families through the Human Rights and Equal Opportunity Commission. The inquiry took evidence and submissions from 535 Aboriginal and Torres Strait Islander people and groups, as well as fifty-six churches and government organisations. It focused on the forcible removal of Indigenous children from their families and communities.

Bringing Them Home report

In 1997, the Human Rights and Equal Opportunity Commission presented their findings to parliament in a document titled *Bringing Them Home: Report of the National Inquiry into the Separation of Aboriginal and Torres Strait Islander Children from Their Families*. In it, they acknowledged that many officials believed they were doing the right thing at the time and in many cases children who were removed had a happy life with their adopted parents. However, the report also highlighted the many traumatised children who, as a result of being taken from their parents and community, suffered neglect, abuse, cruelty and anxiety which had often devastating effects on the rest of their lives, and on those of their children and grandchildren. The report identified a connection between the present issues of poor Aboriginal health and welfare with the long-term systematic removal of children from their families.

Government refusal

When the *Bringing Them Home* report was released, the state and territory governments were quick to respond. Each parliament sought to fulfil certain recommendations of the report, including a formal apology from each premier. The Howard government, which had won the federal election in 1996, expressed 'regret' over the forcible removal of children but refused to offer a formal apology or provide monetary compensation to victims and their families (see Source 3.9.4).

In 1999, Prime Minister Howard presented a 'Motion of Reconciliation' in federal parliament where he again abstained from making a formal apology, referring instead to the maltreatment of Indigenous Australians as a 'blemish' on Australia's national history. The federal government's continued refusal to provide a formal apology became a matter of public debate in discussions about Aboriginal Reconciliation.

> I have never been willing to embrace a formal national apology, because I do not believe the current generation can accept responsibility for the deeds of earlier generations. And there's always been a fundamental unwillingness to accept, in this debate, the difference between an expression of sorrow and an assumption of responsibility.

3.9.4 John Howard explains his stance on giving a formal apology, 2007

The Apology

On 13 February 2008, Labor Prime Minister Kevin Rudd delivered the long-awaited 'Sorry Speech' to a joint sitting of both houses of federal parliament (see Source 3.9.6). The Apology was not accompanied by a promise for monetary compensation but was still welcomed by many Australians. Attended by members of the Stolen Generations and watched by many more Australians on television and live streaming, the apology was a significant—and for many, an emotional—moment in Australia's history.

The 'Sorry Day' speech finally provided an official recognition of the Stolen Generations, acknowledged blame for the injustices suffered and sought to address present and continuing injustices.

3.9.5 More than 250 000 people marched over Sydney Harbour Bridge in support of Reconciliation, 28 May 2000. Similar demonstrations were held around the country.

I move:

That today we honour the Indigenous people of this land, the oldest continuing cultures in human history. We reflect on their past mistreatment. We reflect in particular on the mistreatment of those who were Stolen Generations—this blemished chapter in our nation's history ...

We apologise for the laws and policies of successive parliaments and governments that have inflicted profound grief, suffering and loss on these our fellow Australians ...

And for the indignity and degradation thus inflicted on a proud people and a proud culture, we say sorry ... to remove a great stain from the nation's soul and, in a true spirit of Reconciliation, to open a new chapter in this history of this great land, Australia ...

There are thousands, tens of thousands of them: stories of forced separation of Aboriginal and Torres Strait Islander children from their mums and dads over the better part of a century ... we are the bearers of many blessings from our ancestors; therefore we must also be the bearer of their burdens as well ...

We offer this apology to the mothers, the fathers, the brothers, the sisters, the families and the communities whose lives were ripped apart by the actions of successive governments under successive parliaments ...

3.9.6 From Prime Minister Kevin Rudd's 'Sorry Speech', 13 February 2008

Activities

Remembering and understanding

1. What significant advancements towards Reconciliation were made in the 1990s in Australia?
2. What was the purpose of the Council for Aboriginal Reconciliation?
3. Why was the *Bringing Them Home* report written?
4. Why was the speech made by Kevin Rudd on 13 February 2008 so significant?

Applying and analysing

5. Use the text and sources in this unit to compare the way Prime Minister Keating, Prime Minister Howard and Prime Minister Rudd approached the issue of Reconciliation. Present your findings in table format.
6. What do you think the image in Source 3.9.5 will tell future generations who are evaluating and analysing the perspective of the people shown? What might they be able to tell about the historical significance of Sorry Day?
7. How does Source 3.9.6 link the trauma experienced by the Stolen Generations to issues within Indigenous communities today? Write a 250–300 word report explaining these links. Use information from the text and sources to support your statements.

3.10 The continuing fight for civil rights and freedoms

Children's rights

The UN *Universal Declaration of Human Rights* in 1948 proclaimed that everyone is entitled to rights and freedoms regardless of their ethnicity, sex, religion or language. It was a landmark document that forged a way forward for civil rights activists throughout the world. It became evident that because of their vulnerability, special safeguards were necessary for the legal protection of children. As a result, the *Declaration of the Rights of the Child* was adopted by the UN in 1959.

Now, therefore, the General Assembly proclaims this *Declaration of the Rights of the Child* to the end that he may have a happy childhood and enjoy for his own good and for the good of society the rights and freedoms herein set forth, and calls upon parents, upon men and women as individuals, and upon voluntary organizations, local authorities and national Governments to recognize these rights and strive for their observance by legislative and other measures.

3.10.1 From the preamble to the *Declaration of the Rights of the Child*, adopted by the UN General Assembly in 1959

The *Declaration of the Rights of the Child*

The *Declaration of the Rights of the Child* set out ten principles (summarised below), which the UN called upon all people to adhere to.

The UN *Convention on the Rights of the Child* was ratified by Australia in 1990 and is the first legally binding tool to outline, embrace and protect children's rights.

Declaration on the Rights of Indigenous Peoples

In 1982, the UN Economic and Social Council established a Working Group on Indigenous Populations. Its task was to create a declaration on the rights of Indigenous people. In 1985, with more than 100 Indigenous groups participating, the drafting process began. On 13 September 2007, the *Declaration on the Rights of Indigenous Peoples* was officially adopted by the General Assembly.

The voting

During the voting process to accept the new document, 143 states voted in favour of its acceptance, four voted against (Australia, Canada, New Zealand and the US—all countries with large non-Indigenous immigrant populations) and eleven abstained. Some concerns were expressed that the Declaration would give 'extra' rights to Indigenous people that non-Indigenous people would not be granted.

1. Every child without exception be entitled to the rights set out in this document.
2. A child shall be provided special protection. They will be provided every opportunity to develop physically, mentally, morally, spiritually, and socially in a healthy and normal manner, in freedom and dignity.
3. A child is entitled from their birth to a name and nationality.
4. A child and his mother are entitled to special care, including adequate housing, nutrition, recreation and medical services.
5. A child with special needs is entitled to special treatment, including education and care specific to their particular condition.
6. A child requires love and understanding. Where possible a child shall remain with their parents and only under special circumstances be separated from their mother.
7. A child is entitled to free and compulsory education.
8. A child shall in all circumstances be among the first to receive protection and relief.
9. A child shall be protected against all forms of cruelty, neglect and exploitation, and traffic of any form.
10. A child is to be protected from any practice that fosters racial, religious or any other form of discrimination.

3.10.2 The ten principles of the *Declaration of the Rights of the Child,* 1959

The Declaration

The Declaration was significant as it represented an international agreement that Indigenous people should be treated with respect worldwide, including the need to recognise, support and protect Indigenous rights globally. It affirmed many statements set out in the *Universal Declaration of Human Rights*, such as rejection of any practice or policy that discriminates based on race, culture or religion.

The document also addressed concerns of Indigenous treatment in the past, recognised the need for Reconciliation between Indigenous and non-Indigenous people and welcomed their contribution to a culturally diverse world. Through forty-one articles in the Declaration (see Source 3.10.3) it sought to recognise the cultural differences between Indigenous groups and past experiences, while still promoting collective rights.

In Australia

The Declaration posed numerous legal ramifications and many nations, including signatories, issued statements regarding their intention to clarify their interpretation of specific rights, such as self-determination. While the Declaration is not legally binding and had no immediate effect in Australia, as a wealthy Western nation Australia was expected to respect the principles outlined in the articles.

The main issue of concern for the Howard Government was the wording of the Declaration and how it could be interpreted. By 2010, all four nations who voted against the document agreed to endorse the Declaration. However, the Australian Government (now under Labor Prime Minister, Kevin Rudd) made it clear that the Declaration would not compromise existing laws and would only be used to guide future policy-making.

> On 17 September 2007 ... Australia was one of four countries that voted against the Declaration. Today we acknowledge Articles 8 and 10 ... We support Indigenous peoples' aspiration to develop a level of economic independence so they can manage their own affairs and maintain their strong culture and identity ...
>
> The Indigenous land rights movement has a proud place in Australia's history with ... Federal laws recognising traditional ownership ... Today we celebrate the great privilege all Australians have to live alongside the custodians of the oldest continuing cultures in human history ...

3.10.3 From the UN *Declaration on the Rights of Indigenous Peoples*, delivered by Jenny Macklin, Minister for Families, Community Services and Indigenous Affairs in the Rudd Labor Government, 3 April 2009

Activities

Remembering and understanding

1. Why were the *Universal Declaration of Human Rights* and the *Convention on the Rights of the Child* created?
2. Why was the *Declaration on the Rights of Indigenous Peoples* created?
3. Why were some countries initially reluctant to sign the Declaration?

Applying and analysing

4. Prepare a multimedia presentation identifying the reasons behind the creation of the *Convention on the Rights of the Child* and the *Declaration of the Rights of Indigenous Peoples*. Include common principles and aims that are evident in both documents.
5. Read the ten articles listed in the text. Rank them in order of importance to you. Write two to three paragraphs explaining your ranking.

Evaluating and creating

6. Rights are sometimes referred to as needs, as opposed to wants. Create a two-column table and list at least five needs in one column and five wants in the other that apply to your stage of life.
   a. Compare your lists with others in the class. Were your lists similar?
   b. Were there any disagreements about what was a need and what was a want?
   c. Discuss how you differentiated between the two.

LS 3D

Post-war political crises

4

In the 1940s and 1950s, a 'cold war' developed between the communist Soviet Union and the capitalist United States. Despite its title, the **Cold War** saw several 'hot' conflicts including the Korean War and Vietnam War. As a US ally, Australia became involved in both wars, and fears of the 'Red Scare' of **communism** dominated Australian post-war politics. When the government that ended Australia's commitment to the Vietnam War fell into trouble, Australia was plunged into another political crisis—the dismissal.

OVERVIEW QUESTIONS

- **4A** What political ideas were contested and debated after World War II?
- **4B** How did the Cold War affect social and political life in Australia?
- **4C** How did involvement in the Vietnam War change Australian society?
- **4D** What other political crises did Australia face and why were they significant?

LS Before you begin

4.0.1 This image taken in August 1967 came to epitomise the Australian Vietnam War experience. US army helicopters have arrived to return the soldiers to Nui Dat after completion of a cordon and search mission.

GLOSSARY

capitalism an economic system that allows private ownership of property and encourages a free market; often the economic system to support democracy

Cold War the name given to the period following the end of World War II, characterised by intense economic, political and ideological conflict between capitalist Western bloc countries led by the United States and communist Eastern bloc countries led by the Soviet Union, and the build-up of military forces and weapons

communism a political system in which all property is in theory owned collectively; in practice, government holds ownership of farms, factories, businesses and banks

conscientious objector one who is opposed to war for moral or religious reasons

conservative a political philosophy that is used to describe one who prefers to maintain tradition; during the Vietnam War conservatives came to be associated with aggressive foreign policy goals that advocated use of the military to achieve them

defection to desert or abandon your country

democracy a political system where government leaders are elected by the country's people to make decisions on their behalf

espionage use of spies by the government to find out the political and military activities of other nations

ideology system of ideas and beliefs

McCarthyism public campaign led by US Senator Joseph McCarthy against alleged communists and their sympathisers in the 1950s

moratorium ban on an activity; in the case of the Vietnam War an organised public demonstration to protest against involvement in the war

supply government budget bills

Timeline

Political crises in post-war Australia

Australia faced many challenges after World War II. Some of these were home-grown while others reflected international tensions.

An image broadcast around the world showing a napalm attack during the Vietnam War. It was these types of images that started to sway public opinion against the war.

1920 Communist Party is formed in Australia

1930 Ho Chi Minh forms the Vietnamese Communist Party

1952 Joseph McCarthy begins investigating suspected communists in US government

AD 1920 1930 1940 1950 1951 1952 1953 1954 1955

1939–1945 World War II

1950–1960 Malayan Emergency

1950–1953 Korean War

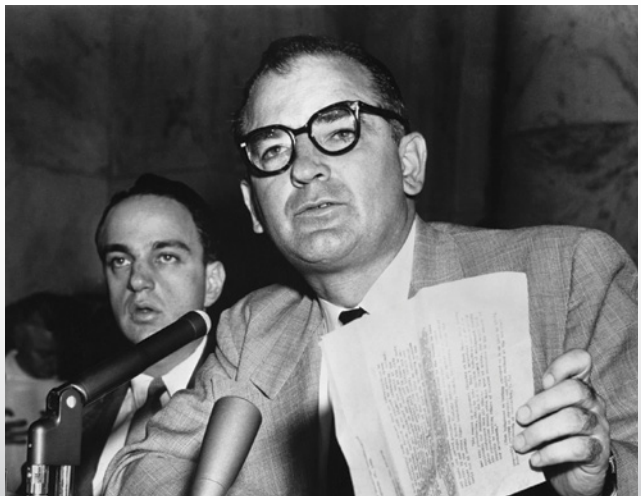
1950 Colombo Plan begins; Australian Communist Party Dissolution Bill passed; Korean War begins; Australian troops are sent to Korea as part of the UN peacekeeping mission

1953 Korean War ends

1954 Petrov Affair; Vietnam War begins; Battle of Dien Bien Phu; SEATO is formed; Robert Menzies is returned as Prime Minister of Australia

1950 Australia commits troops to Malaya

1951 Australian High Court declares the Communist Dissolution Bill unconstitutional; ANZUS Treaty is signed; Referendum to ban the Communist Party in Australia is unsuccessful



Senator Joseph McCarthy speaking, 1950s

Gough Whitlam outside Parliament House, 11 November 1975

1957
South Vietnam's President Ngo Dinh Diem visits Australia; Prime Minister Menzies reaffirms support

1960
Ho Chi Minh forms the National Liberation Front

1962
Australian involvement begins in Vietnam

1973
The last Australian troops leave Vietnam

1975
Australia's withdrawal from Vietnam is completed; Whitlam government is dismissed by the Governor General

1956 1960 1970 1980 AD

1955–1975 Vietnam War

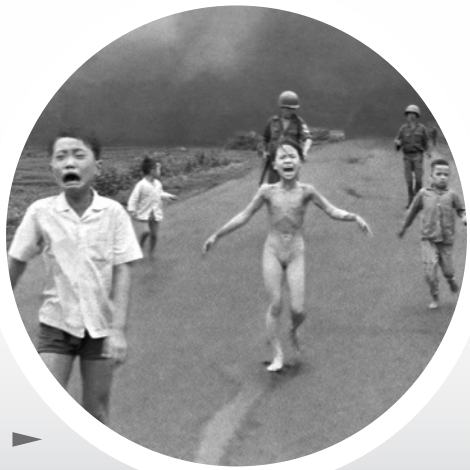
1964
National Service Act reintroduces conscription in Australia

1966
First Australian conscripts arrive in South Vietnam; Battle of Long Tan

1968
The Tet offensive; My Lai massacre

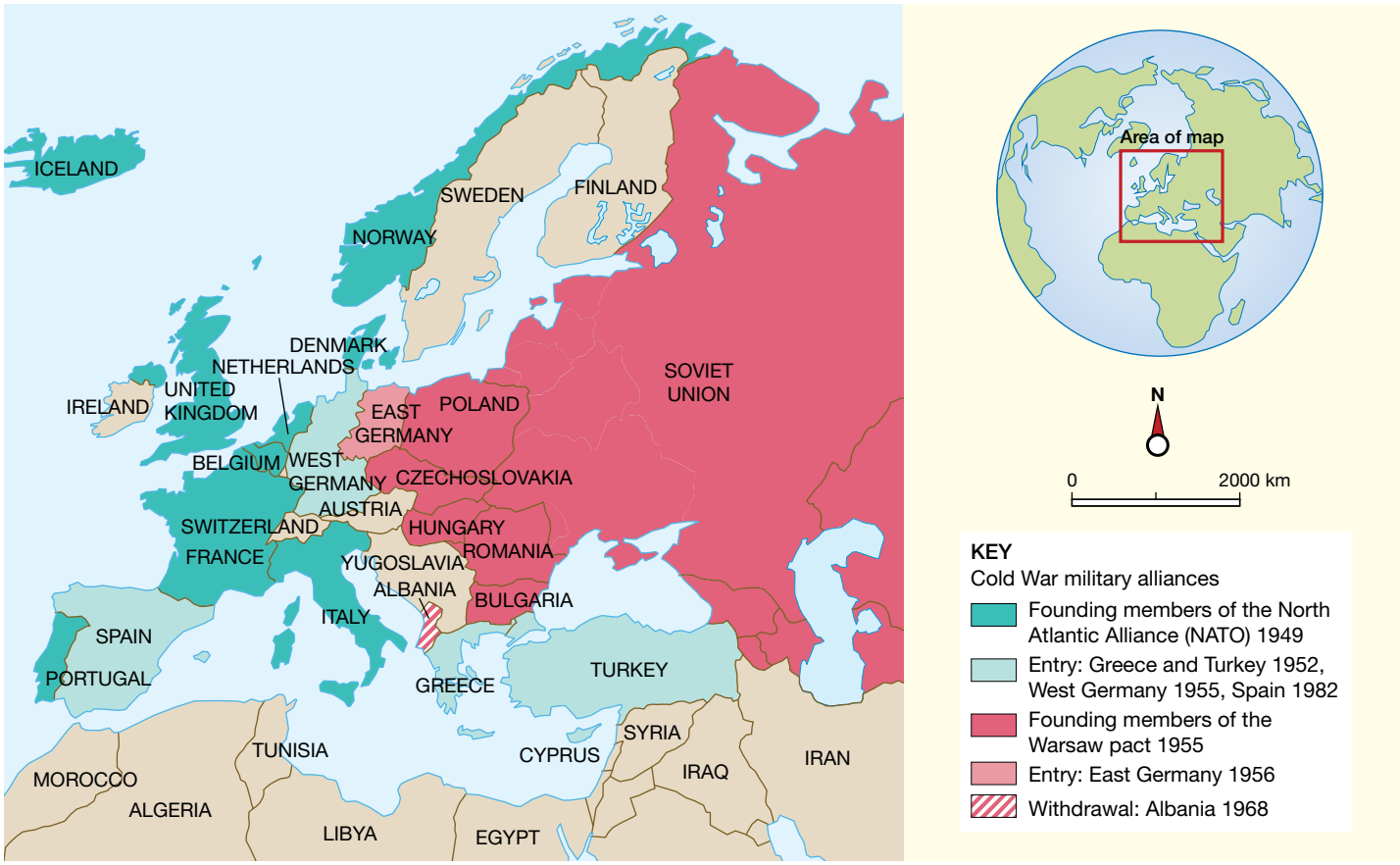
1970
Australians march in nationwide moratoriums to call for an end to the war

1972
Australia's military commitment in South Vietnam ends; Whitlam government is elected



This famous image, captured in 1972, shows children fleeing their village in Trang Bang, South Vietnam, where a napalm bomb has just exploded. This confronting photograph highlights the tragic impact of the Vietnam War on innocent civilians.

4.1 Communism and the Cold War



4.1.1 Map of the Cold War in Europe

The fear of communism

The period after World War II saw communism pitted against (or competing with) democratic **capitalism** in a Cold War characterised by fear, mistrust and, at times, open conflict. When Australia became a combatant against communism in South-East Asia, Australians were bitterly divided over the human costs of involvement. Fears of communist activity in Australia created further tensions.

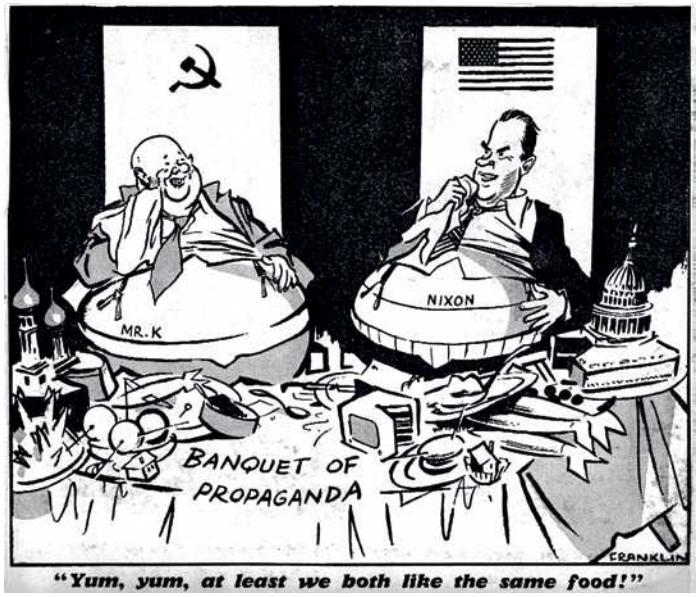
The government that ended Australia's commitment to the Vietnam War faced a range of scandals and financial woes, leading to its dismissal by the Governor General.

Did you know?

The Cold War was MAD. MAD referred to 'mutual assured destruction', a military doctrine based on the idea that the opponents in the Cold War could completely destroy each other, and were therefore in a kind of 'peace'.

The emergence of new enemies

The dropping of atomic bombs on Japan at the end of World War II altered modern warfare and affected the climate of international politics. The nuclear age had arrived and the post-war world came to be dominated by the USSR and the US. This was because they possessed the ultimate military weapon, the nuclear bomb, which elevated them to the status of superpowers. The source of their conflict was two very distinct political ideologies: communism and democratic capitalism. Characterised by a climate of fear, mutual suspicion and paranoia, the world split into two distinct camps. The Eastern bloc was led by the USSR, while the Western bloc countries were allies of the US. This world conflict, known as the Cold War, lasted from 1945 until 1991.



4.1.2 'Yum, yum, at least we both like the same food' by Franklin, 27 July 1959. The cartoon refers to the tension between Soviet leader Nikita Khrushchev and US Vice-President Richard Nixon as they debated the merits of communism versus capitalism during the Soviet leader's 11 day tour of the US in 1959.

The Cold War

The Cold War was unique. As the name implies it was not a typical war. Each superpower sought to acquire allies in their search for global superiority. These allies were often politically weak and economically unstable and were easily brought under the influence of the stronger superpower. The stockpiling of nuclear weapons served as a demonstration of their military power and left the rest of the world gripped with fear that a nuclear war was imminent.

Although a major catastrophe was avoided, regional disputes erupted around the globe whereby each superpower sought to assert its authority at the expense of the other. This was a regular feature and characteristic of the Cold War.

4.1.3 Main alliances during the Cold War

US allies	USSR allies
England Australia Canada France	China Poland Hungary Czechoslovakia

Two competing ideologies

The two ideologies that characterised the Cold War were capitalist **democracy** and single-party communism. The table in Source 4.1.4 identifies some of the key characteristics and differences between them.

Tactics of the Cold War

The Cold War was fought using a variety of strategies and tactics.

Propaganda	Media, books and films were used to criticise the other side. Fear and creation of an enemy was common. It was also an opportunity to promote the benefits of their way of life over the enemy's.
Arms race	Each side built up a stockpile of weapons in order to deter the other side from attacking them. Military bases and missiles were established in friendly countries, entrenching the idea of a divided world.
Space race	The USSR and the US competed to be the first in space. As the Cold War went on, each side competed to have the best space technology, including satellites and rockets.
Economic assistance	Money and resources were provided to struggling nations in order to gain allies.
Rivalry	Each side constantly tried to outdo the other in terms of standards of living, culture and sport.
Alliances	Both sides actively sought alliances with friendly countries in order to try to spread their influence over the world.
Military aid	Both sides helped rebels overthrow governments that were hostile to them.
Threats and intimidation	Each side constantly criticised the other and when it suited them, supported proxy wars between competing allies.
Espionage	Spying was used by both powers to gain access to secrets and information.

4.1.4 The two main ideologies that dominated the Cold War

	Communist USSR	Democratic US
Government structure	• Communist Party is the only political party • citizens do not vote in elections • Communist Party Politburo chooses the leader • leader stays in power until they die or are forced out	• multiparty system • all citizens have the right to vote • people choose who best represents their interests • elections are held every 4 years
Economy	• government owns all business and factories • no private profit allowed • all goods and services are supposed to be shared equally among the people	• individual ownership is encouraged • individuals are able to profit from their business • people pay taxes to the government and this money is redistributed to areas where it is needed
Society	• total control over media • no freedom of speech • no freedom of press • Communist Party labelled the West corrupt and believed that the Soviet people need protection from their ideas • KGB spies on society to ensure that there is no criticism of the government • interests of the state are more important than the individual	• freedom of the media and speech • in theory, everyone in the US can attain wealth • US has a Bill of Rights that aims to guarantee every individual civil liberties—freedom of press, speech and religion

Communism spreads

In 1949, the Cold War took an unexpected turn. Mao Zedong had led a successful communist revolution in China. With this, Communism had spread from Europe to Asia. Australia was now firmly convinced that the communist tide was moving south. Menzies and his Liberal government came to power in 1950 and immediately took measures to prepare Australia for the potential outbreak of World War III. They developed new foreign policy directives and sought alliances to ensure Australia's safety. Part of this new initiative was the acceptance of the domino theory, which shaped the West's attitude towards communism.

4.1.5 'Easter Egg Coloring': Joseph Stalin painting the globe with 'Red Propaganda', US cartoon, 1952

The domino theory

The domino theory stated that countries threatened by communism were like a row of dominoes. If one nation fell, then its neighbours would be more vulnerable.

Activities

Remembering and understanding

1. Explain how the Cold War was unique compared to other wars.
2. What were the competing ideologies in the Cold War?

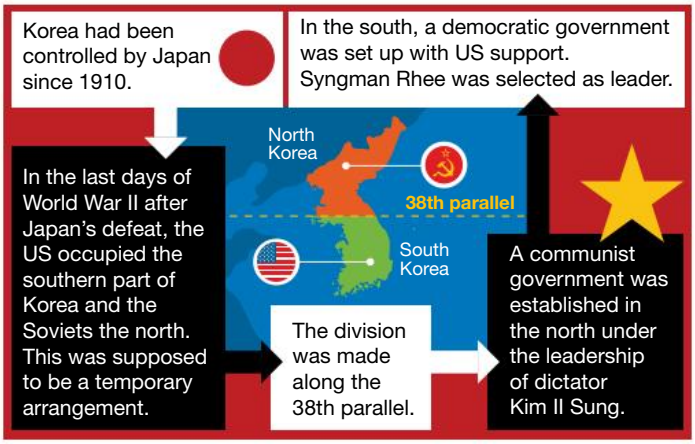
Applying and analysing

3. Create a concept map summarising the tactics of the Cold War.
4. Examine Source 4.1.2.
   a. What 'food' do both leaders enjoy?
   b. Explain why the source is called *Yum, yum, at least we both like the same food!*
5. Examine Source 4.1.5. Using the source provided as a guide, design your own piece of anti-communist propaganda.
6. In the timeline, find examples of both 'cold' tensions and 'hot' conflicts during the Cold War.
7. Find three more images online that could be added to the timeline.

4.2 The Korean War, 1950–53

The background

Throughout the 1950s and into the 1960s, 'hot spots' or areas of Cold War conflict emerged all over Asia. These confrontations were used to validate the domino theory and confirm the real danger of communism. The outbreak of the Korean War in 1950 was the first of these hot spots to occur.



4.2.1 The division of Korea in the last days of World War II

Reasons for Australia's commitment

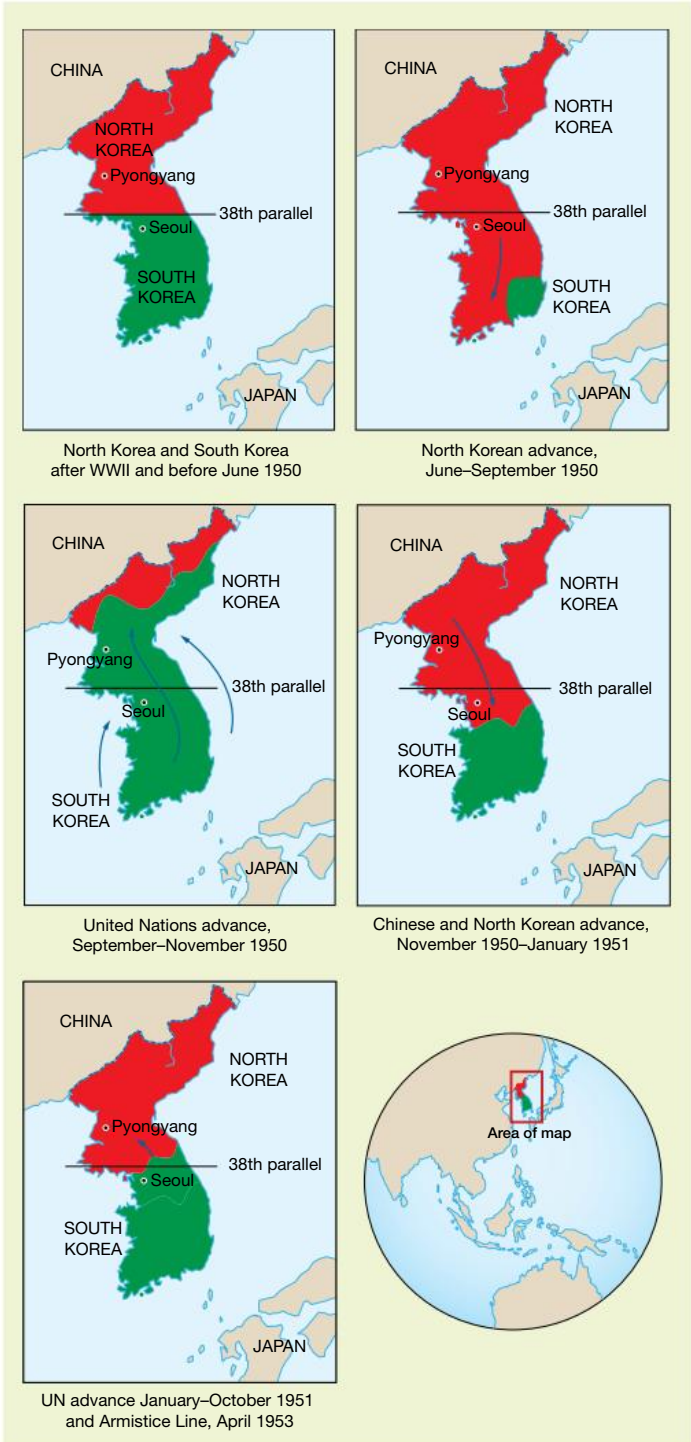
Prime Minister Menzies made the decision to send troops to Korea in order to foster better political and economic relations for Australia. He was the first to commit troops to Korea after the US issued the call. He believed that the war in Korea was an attempt on the part of the Soviets to divert forces to Asia so that a major assault could be launched on Europe.

Menzies had three goals in committing to Korea:

- He hoped the US would provide Australia with a security guarantee.
- He hoped it would help to justify to the Australian public the need to build up its defence forces.
- He wanted to weaken the opposition party—he portrayed Labor as being influenced by communists in the Trade Union movement.

The invasion of South Korea

In June 1950, the North Korean People's Army, backed by the USSR, crossed the 38th parallel, invading South Korea. The goal was to unify Korea under the communist banner. Within seventy-two hours, North Korean forces had captured Seoul, the capital of South Korea.



4.2.2 Korea during the war

The war

In the Cold War context, this was seen as an open act of hostility. The US was not prepared to let South Korea fall to communism. The West believed that this was the beginning of a communist push into Asia and must be contained immediately. The US approached the UN to set up a taskforce to help the South Koreans. The announcement was made to send Australian troops on 27 July 1950 and a battalion was sent in September. The troops arrived just in time to help push the North Koreans back across the 38th parallel.

In November 1950, the Chinese threw their backing behind their communist allies and pushed UN forces back to the 38th parallel. By mid-1951, stalemate was reached, with a peace settlement negotiated in 1953. Korea was to remain as two separate nations: the North communist and the South democratic.

In 3 years, 4 million Koreans died, fighting in harsh conditions. About 17 000 Australians served with 1584 casualties: 339 died, 1216 were wounded and 29 were taken prisoner.

Spotlight

The Malayan emergency, 1950

Ruled by the British since the nineteenth century, in the immediate post-war years Malaya (North Malaysia today) came under threat from strong communist guerrilla forces. In 1950, Britain sent troops to combat the threat with Menzies also sending troops. He believed that it was an example of the domino theory in action and that if communism was not stopped in Malaya, Australia could be next. Australian troops remained in Malaya until 1960 when the communist forces were defeated.

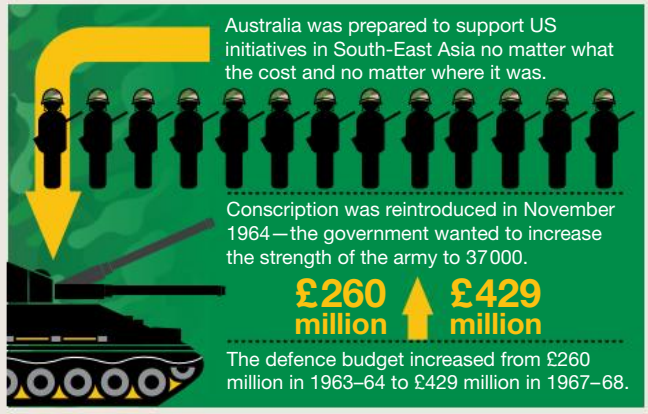
> Events in Malaya are, of course, a part of the global pattern of imperialistic Communist aggression. The ultimate objective of the Soviet leaders is, and always has been, world communism under their control ... the result is the 'cold war', a war raged relentlessly by every means—political, economic, psychological—short of the actual use of armed force. The Soviet leaders have endeavoured to weaken and integrate the non-communist countries. Checked in Europe, they have turned to Asia.

4.2.3 Prime Minister Menzies justifies Australia's involvement in Malaya, May 1950.

Australia and Indonesia—a complicated relationship

The threat of Indonesia shaped much of Australia's foreign policy in the post-war period. Its geographical proximity to Australia and the growth of communism there made it a target of suspicion for Australia. Tension mounted when events in both Dutch West New Guinea and Malaysia threatened to escalate but in both instances conflict was avoided.

Menzies and the Australian public were genuinely concerned about a communist Indonesia in the north. It had the following effect:



Activities

Remembering and understanding

1. Why did Menzies commit troops to fight in the Korean War?
2. List the countries that supported the two sides during the Korean War.

Applying and analysing

3. Research the Communist Party in Australia. Create a timeline of its activities. Templates for timelines can be found on the internet. Your teacher should be able to suggest some websites to help your search.

Creating and evaluating

4. Evaluate the overall threat that communism posed to Australia in the 1950s.

4.3 'Reds under the bed'—McCarthyism

Conspiracy theories

The Cold War was known for the conspiracy theories and atmosphere of fear it created. The 1950s in particular were characterised by fears of 'reds under the bed,' or communists posing as ordinary citizens. These concerns emerged in response to events such as the victory of the communists in the Chinese Civil War in 1949, the Soviets' testing of a nuclear weapon in 1949 and the conviction of Soviet spy Klaus Fuchs in 1950. Fuchs, who had worked in the US, had given information from the US, British and Canadian Manhattan Project to the Soviet Union.

Perhaps the most famous example of public debate over communism was led by US Senator Joseph McCarthy in the 1950s.

Joseph McCarthy

Joseph McCarthy was a Senator from the state of Wisconsin who served from 1947 until his death in 1957. McCarthy rose suddenly to prominence in February 1950 when he announced that he had a list of staff in the State Department who were members of the Communist Party and a 'spy ring'. Senator McCarthy went on to pursue a campaign that came to typify the Cold War era; his approach was described as a 'witch hunt' and his anti-communist efforts became known as '**McCarthyism**'.

4.3.1 Senator Joseph McCarthy

Government committees

In 1952, Senator McCarthy became chair of the Committee on Government Operations in the Senate. For the next 2 years he investigated numerous government employees about their suspected communist affiliations.

McCarthy is said to have gained some of his ideas and methods from the House Un-American Activities Committee (HUAC). HUAC had been established in the House of Representatives in 1938. From 1947, HUAC had waged a campaign against prominent individuals including members of the Hollywood film industry. Although McCarthy was not a member of HUAC, he used many of the same methods.

Targets of Senator McCarthy

Joseph McCarthy aggressively targeted a number of groups in his bid to uncover communists and communist sympathisers in the US.

McCarthy's fall from grace

Joseph McCarthy's campaigns drove some US citizens out of their jobs and ruined the reputations of many others. He faced scrutiny for his integrity in hearings in 1954 and on 2 December that year the Senate voted to censure him. McCarthy died in Maryland on 2 May, 1957, at the age of 48.

Skills builder

Historical sources as evidence

When working out what happened in the past, historians use a variety of primary and secondary sources as evidence. They evaluate the source to assess how accurate and useful it is and corroborate the information by finding other sources that present similar information. Review how to ask questions of a source by referring to Chapter 1.

Primary sources often provide evidence of historical perspectives. Perspectives are the different views of people from the past about what was happening at the time. (Avoid confusing historical perspectives with historical interpretations, which are the views of people well after the event. These are generally found in secondary sources.)

Perspectives on the Red Scare

The sources below show two contrasting historical perspectives on the techniques used by Joseph McCarthy to investigate communist activity in the US.

> The line between investigating and persecuting is a very fine one, and the junior Senator from Wisconsin [McCarthy] has stepped over it repeatedly. His primary achievement has been in confusing the public mind, as between the internal and the external threats of communism. We must not confuse dissent with disloyalty. We must remember always that accusation is not proof and that conviction depends upon evidence and due process of law.

4.3.2 Edward R. Murrow, US broadcast journalist, speaking about Joseph McCarthy on *See It Now*, current affairs program, 9 March 1954

> Ordinarily, I would not take time out from the important work at hand to answer [Edward] Murrow. However, in this case I feel justified in doing so because Murrow is a symbol, a leader, and the cleverest of the jackal pack, which is always found at the throat of anyone who dares to expose individual communists and traitors.

4.3.3 Senator Joseph McCarthy on *See It Now*, 6 April 1954

Apply

1. Outline the different perspectives provided in the sources.
2. Explain what Murrow may have meant when he said, 'His primary achievement has been in confusing the public mind, as between the internal and the external threats of communism.'
3. What evidence do the sources provide about the Cold War era in the US in 1954?

Activities

Remembering and understanding

1. Why was there a fear of communism in the US in the 1950s?
2. Who was Joseph McCarthy and what did he attempt to achieve?
3. Why were McCarthy's methods controversial?

Applying and analysing

4. Find any evidence to suggest that McCarthy's methods had support from some US citizens.

Creating and evaluating

5. Explain whether or not you agree with Edward Murrow's statement that a society 'must not confuse dissent with disloyalty'. Give reasons for your answer.

LS 4A

Did you know?

In addition to the 'Red Scare' promoted by Joseph McCarthy and others, there was a so-called 'Lavender Scare' in the US in the 1950s. The Lavender Scare involved investigating whether certain government employees were homosexual. At that time, homosexuality was prohibited by law.

4.4 Australian responses to the threat of communism

Measures to defeat communism

The Communist Party of Australia was a source of suspicion in Australian politics after World War II. Many people feared its radical aims. As Cold War tension escalated in the 1950s, the newly elected Liberal government, led by Robert Menzies, was keen to outlaw the party.

Concerned over events in China and Korea, Menzies sought to create a system of alliances in the South-East Asia region. As a result, Australia became a signatory to a number of defensive treaties that promoted collective security. An aggressor against one state was considered an aggressor against all. Menzies wanted to demonstrate Australia's total commitment to eradicating communism to both the public and the US.

ANZUS, 1951

In 1951, Australia, New Zealand and the United States signed the Australia–New Zealand–United States Security Treaty (ANZUS Treaty). The agreement stated that in the event of an attack, the parties would come to each other's aid. Signed during the Korean War, ANZUS was an example of the US's desire to defend against global communism across the world and helped to build confidence with the Australian people.

The Australians irritated the British by signing the Treaty. The British were concerned that it would prevent Australia from fulfilling its obligations to defend the Middle East in the wake of a Soviet attack. It was the beginning of a fundamental shift in Australian foreign policy.

4.4.1 Lieutenant General S.F. Rowell (left), Australian Chief of General Staff, is greeted by Admiral Arthur Radford, US Commander in Chief Pacific (right), and Major-General Gentry, New Zealand Chief of General Staff (centre). They were gathered for the first meeting of Australia, New Zealand and the United States (ANZUS) military representatives, Honolulu, US, 1952.

SEATO, 1954

The Southeast Asia Treaty Organization (SEATO) was founded in 1954 as another form of collective security agreement against communism in the region. Its members were the US, Australia, Britain, France, New Zealand, the Philippines, Thailand and Pakistan. South Vietnam, Cambodia and Laos were also protected under the treaty. The SEATO treaty stipulated that if any of these countries was under direct attack from communist forces, other members would come to their aid.

Internal measures to defeat communism

The *Communist Party Dissolution Bill 1951*

On 27 April 1951, the Menzies government introduced the Communist Party Dissolution Bill to give the government power to declare the Communist Party illegal. The proposed bill placed severe limitations on people's civil liberties and gave the government the right to:

4.4.2 'All I want is the power to deal with these Reds!' This caricature depicts the attempts by Prime Minister Menzies to ban the Communist Party of Australia. It was drawn by A. Dyson and published in *The Guardian*, 2 August 1951.

Arguing the bill

The Communist Party and ten trade unions challenged the bill, which was declared to be unconstitutional by the Australian High Court on 9 March 1951. The banning of any political party was thought to be undemocratic. Wartime was the only exception.

Referendum to ban the Communist Party

Undeterred by the High Court ruling, Menzies decided to give the decision over to the Australian public. Once found to be unconstitutional, the only way the bill could be passed was if the Constitution was changed by referendum. Menzies knew that if he wanted to win the public over he would have to prove that the threat of communism to Australia was real. When the Korean War broke out in June 1950, Menzies used it to argue that there was no doubt that Australia was at war with communism.

The 'yes' vote

Menzies tried persuading the Australian public to vote 'yes':

> You will not need much argument to convince you that Communist activity in Australia has become a grave menace to our industrial peace, to production, to our national security and defence. It is the enemy of defence and progress.
>
> If communism had been content to live in its home without the itch for both military and political conquest we would today be living in a state of real peace.

The 'no' vote

Public opinion was divided, as is evident in this editorial from *The Argus*, 21 September 1951:

> The referendum to be taken tomorrow is one of the most important in Australian history. It is a referendum ... about things fundamental in democracy—the liberty of the individual, the British tradition of justice, the possibility of suppressing ideas with the bludgeon.
>
> The referendum asks powers to set up a 'Police State'—to open the way to condemnation without proof, the anonymous smear by perjurers, pimps and informers, to the destruction of the whole traditional British way of justice and the Australian way of life. We say No!

4.4.3 Arguments for and against the proposed bill to ban the Communist Party in Australia, 1951

The referendum was bitterly contested and divisive. Held on 22 September 1950, it was very narrowly defeated. The referendum demonstrated that:

- Australians valued their political freedom more than they feared communism
- workers in Australia saw Menzies as a greater threat than communism—they did not want him to take power away from the unions, even if they had been infiltrated by communists
- for Australians, the anti-communist debate had merged with racism and many believed communism was being used to justify racist foreign policy and border protection.

Activities

LS 4B

Remembering and understanding

1. Why did Menzies embark on a series of defensive treaties in the early 1950s?
2. Explain the High Court's decision to declare the Communist Party Dissolution Bill unconstitutional.

Applying and analysing

3. Examine Source 4.4.2.
   - a. Identify the figures in the cartoon.
   - b. Explain what the cartoon means.
   - c. Assess the impact of this source on the voters in the referendum.
4. Examine Source 4.4.3, which explores both sides of the debate. Assess the arguments for each side and explain which one is the most convincing.

4.5 The Petrov affair, 1954

The scandal: A summary

On the eve of the 1954 federal election, Australia was rocked by a communist spy scandal. Details of a Soviet spy ring operating in Australia dominated news headlines. Menzies announced a Royal Commission to investigate the full extent of the matter. The Petrov affair became the key issue in the election and created a fracture in the Labor Party that they would not recover from for 18 years.

In April 1954, Vladimir Petrov, a Soviet diplomat, made a request to the federal government for political asylum. In exchange for his status being granted, Petrov informed and provided evidence to indicate Soviet **espionage** within Australia. The media portrayed him as a Cold War ally who had escaped the evil grip of communism.

4.5.1 A distressed Evdokia Petrov, wife of Vladimir Petrov, is escorted to the plane to take her back to the USSR.

4.5.2 Dramatic scenes at the airport as concerned crowds try to prevent Evdokia Petrov's departure.

Spotlight

Evdokia Petrov's story

When the Soviets discovered that Petrov had defected, they immediately detained his wife in the Soviet embassy. She was unaware of her husband's **defection**. Two Russian guards arrived to take her back to the USSR on 19 April. Aware that Mrs Petrov would probably face death upon her arrival back in the USSR, a crowd of approximately 2000 people flooded into the airport to defend and protest against her removal. Mrs Petrov commented: 'Under the floodlights of the airport I saw the milling crowd like a roaring sea around us. I lost my right shoe and asked my escorts to get it back for me, but they would not stop.'

While aboard the flight to Darwin, a terrified Mrs Petrov informed the staff that the two Soviet guards were armed. Menzies decided he could not let her go in these conditions and she was rescued at Darwin airport when the aircraft stopped for refuelling. Evdokia Petrov was given the opportunity to stay in Australia and after speaking with her husband also applied for political asylum. By defecting, the Petrovs had committed treason and would never see their families again.

The Soviet response

The Petrov defection was a serious blow to the Soviets. Not only were they angry with the Petrovs for committing treason, but they were also fearful as top secret documents held by Petrov were given over to the Australian Security Intelligence Organisation (ASIO) and the federal government. The Soviets were placed in a vulnerable position. They accused the Australian government of kidnapping Mrs Petrov, assaulting Soviet diplomatic officials and behaving against the accepted norms of international law. In addition, they withdrew their embassy from Australia and requested that Australia withdraw its diplomatic presence in Moscow.

The Royal Commission

In the immediate aftermath of Vladimir Petrov's defection, Menzies established a Royal Commission on Espionage to investigate Soviet spies and the extent of their activities in Australia. The findings of the Royal Commission were released in 1955. No charges were officially laid but evidence of spying was confirmed.

The consequences of the Petrov affair

There were three major consequences of the Petrov scandal in Australia:

- the threat of communism—the media used the Petrov Affair to hype up the threat of communism; in the 1950s, the fear of communism had reached hysterical levels
- Liberal election win—the Liberals won the federal election in 1954; the swift and definite action of Menzies and his government in dealing with Soviet espionage was rewarded by the Australian public; they felt confident that the Liberal government had handled the threat well
- the Labor Party split.

During the Royal Commission into the Petrov affair, several Labor Party members were questioned. The leader of the Labor Party, H.V. Evatt, tried to defend the implicated people but this made him appear to be a communist sympathiser. Catholics and others within the Labor Party did not want the party to be associated with communism. As a result, the Labor Party split in 1955 with the Democratic Labor Party forming 2 years later. This **conservative** group led by Bob Santamaria took a firm stance against communism.

4.5.3 B.A. (Bob) Santamaria, 1943

The downfall of Evatt

H.V. Evatt accused the Liberal Party and Menzies of stalling the news of Petrov's defection for a year. He argued that they were part of an elaborate conspiracy devised to help Menzies win the election. Prior to the scandal, polls indicated that Labor would win the 1954 election. Evatt also claimed that the whole affair was a conspiracy directed at him personally.

4.5.4 H.V. Evatt

Activities

Remembering and understanding

1. Outline the Soviet response to the Petrov affair.
2. Describe the effect of the Petrov scandal on the Labor Party.

Applying and analysing

3. Examine Sources 4.5.1 and 4.5.2 and explain how they contributed to the mood of hysteria that surrounded communism in the 1950s.
4. Compare the views and responses of the Liberal and Labor parties to the Petrov affair using a Venn diagram.

4.6 Origins of the Vietnam War

The First Indochina War

From the mid-nineteenth century, Vietnam, Cambodia and Laos were known collectively as Indochina and were occupied by the French. Vietnam's location and raw materials, such as rubber and rice, made it a natural target for invasion. For the French, who ruled there for nearly 100 years, it also served as a foothold into Asia. In 1945, Ho Chi Minh declared Vietnam independent but France refused to accept this, sparking the First Indochina War.

The Battle of Dien Bien Phu

In 1954, French occupation of Indochina was ended by the success of Vietnamese liberation forces, the Viet Minh, in the Battle of Dien Bien Phu. The French withdrawal left behind a power void. Ho Chi Minh believed his Viet Minh forces had won the right to govern themselves.

Geneva Accords, 1954

In February 1954, the Geneva Accords temporarily divided Vietnam into two regions:

- The People's Republic of Vietnam—North Vietnam—was placed under the care of Ho Chi Minh
- The Republic of Vietnam—South Vietnam—was placed under the care of Ngo Dinh Diem, a puppet of the US government.

4.6.1 A divided Vietnam after the Geneva Convention

Spotlight

Ho Chi Minh—'the enlightened one'

Ho Chi Minh believed that the rich prospered by exploiting the poor and that communist **ideology** would right this wrong.

Having read the United States Declaration of Independence, Ho Chi Minh believed that the US would help him to rule over a free and independent Vietnam. However, President Truman ignored his requests for help. As leader of the free democratic world, Truman could not be seen to be assisting a communist. Truman had also promised to help the French re-establish control of the region.

Ho Chi Minh formed the National Liberation Front (NLF) to remove foreign rule. The West now saw Vietnam as a key 'domino' in a line of South-East Asian states.

Did you know?

Ho Chi Minh didn't allow friendships to get in the way of his political ideology. When his friend Ta Thu Thau said that he opposed communism, Ho answered, 'anyone who does not follow the line determined by me will be smashed'.

Cold War politics

The division of Vietnam was seen as a temporary solution. However, national elections never took place. The US supported Diem and sent advisers to South Vietnam. Ho Chi Minh was furious and declared his intention to liberate the South.

4.6.2 Ho Chi Minh, leader of North Vietnam, was affectionately known as 'Uncle Ho' by his supporters.

Creation of the National Liberation Front

The NLF was created in 1960 by Ho Chi Minh to rid Vietnam of Diem and the US soldiers. They worked in cells to spread the word about 'Uncle Ho' and the benefits of communism.

Diem and the West called the NLF the Viet Cong (VC), meaning 'Vietnamese Commies'.

Kennedy's policy in Vietnam

US President John Kennedy came to office in 1960 with Vietnam just one of many Cold War issues. He wanted to use South Vietnam to test new US counter-insurgency tactics, and to win the Vietnamese people over to democracy. The US maintained an advisory role in Vietnam while showing the world that the US lived up to its commitment to fight communism.

Collapse of Diem's regime

By 1963, the South was in disarray. Saigon experienced riots and demonstrations calling for the end of the corrupt Diem regime, the reunification of the country, and the removal of the US soldiers. On 11 June 1963, the world was horrified at the footage of a Buddhist monk self-immolating (setting fire to himself) in protest at Diem's discrimination against Buddhists. The demonstrations signalled to Kennedy that Diem had lost the support of the South.

4.6.3 A Buddhist monk self-immolating in protest against Diem's regime, 1963

Two assassinations

The US ambassador and the Central Intelligence Agency (CIA) urged Kennedy to support a coup to oust Diem.

Diem was murdered on 1 November 1963 by the Army of the Republic of Viet Nam (ARVN) but supported by the CIA. Three weeks later, President Kennedy was assassinated.

The Gulf of Tonkin incident

In November 1964, the newly elected President Johnson claimed that the North Vietnamese had deliberately attacked a US ship in the Gulf of Tonkin. He convinced US Congress to support the Gulf of Tonkin resolution, which had two key provisions:

- the US could use 'any and all resources necessary'
- the US could provide combat support to any SEATO nation (such as South Vietnam) directly threatened by North Vietnam.

Bombing of North Vietnam and the dispatch of military troops commenced within days. No official declaration of war was ever made on Vietnam by the US.

The unofficial war: The commencement of military intervention

By 1968, there were over half a million US troops in Vietnam. Ho Chi Minh was able to secure Soviet military support and supplies to the Viet Cong.

Two perspectives on US involvement

Source 4.6.4 indicates why President Johnson made the decision to escalate US involvement in Vietnam. Source 4.6.5 is a reflection from the Secretary of Defense Robert McNamara.

> The contest in Vietnam is part of a wider pattern of aggressive purpose.
>
> Why are we in South Vietnam? We are here because we have a promise to keep … to help South Vietnam defend its independence …
>
> We are also there to strengthen world order. Around the globe from Berlin to Thailand, are people whose well-being rests, in part, on the belief that they can count on us if they are attacked …
>
> The central lesson of our time is that the appetite for aggression is never satisfied. To withdraw from one battlefield means only to prepare for the next.

4.6.4 President Johnson justifies his decision to escalate intervention, 7 April 1965

> I believe we could and should have withdrawn from South Vietnam either in late 1963, in late 1964, or early 1965. We misjudged the geopolitical intentions of our adversaries (in this case, North Vietnam and the Viet Cong) and we exaggerated the dangers to the United States of their actions. We saw in them [South Vietnamese] a thirst for—and a determination to fight for—freedom and democracy … We underestimated the power of nationalism to motivate a people (in this case, the North Vietnamese and Viet Cong) to fight and die for their beliefs and values. Our misjudgements, friend and foe alike, reflected our profound ignorance of Vietnam's history, culture and politics.

4.6.5 Reflections of Robert McNamara, the US Secretary of Defence from 1961–68. He was a trusted adviser to President Kennedy on the issue of Vietnam until Kennedy's assassination.

Activities

Remembering and understanding

1. Why was Vietnam a target for foreign invasion?
2. Explain the immediate consequence of the failure to hold elections in 1956.
3. Who were the NLF and what was their purpose?

Applying and analysing

4. Examine the events in the timeline that refer to Vietnam. Why might Vietnam have featured so strongly in the post-war era?
5. Judging from the timeline, which countries were affected by communism or had concerns about it?
6. Assess the importance of the Cold War as a cause of the Vietnam War.
7. Examine Source 4.6.1 and assess the impact the division of Vietnam would have had on the region.
8. Study Source 4.6.3. Discuss the impact that the release of this image would have had on Diem's regime, both internally and internationally.

4.7 'We'll be there'—Australia's involvement

Australian foreign policy in the 1950s and 1960s

It has been a long-held belief that Australia got involved in Vietnam because the US asked them to; however, it is much more complicated than this. Australia's geographical location meant that it was far more involved in the region than its US counterpart.

Vietnam became important to the two countries for different reasons. Australians feared Asian invasion and Indonesian communism, and these concerns were far more prevalent in their minds than Vietnam. The following undercurrents dominated political thinking in Australia, ultimately leading them to being involved in the Vietnam issue.

Fear of Asian invasion

Historically, Australians were fearful of foreign attack, especially from its Asian neighbours. This was evident in the very first legislation passed after Federation in 1901, which made up the White Australia Policy. This fear was consolidated by the Japanese attacks during World War II, which was still a fresh memory for many Australians in the 1960s. The communist revolution in China not only alarmed the democratic world but also linked the fear of Asian invasion to the Cold War.

> There was a particularly Australian and longstanding fear of Asian invasion from the North, which merged with Cold War fears of communist expansionism. Arising initially in response to the quite substantial Chinese immigration of the nineteenth century, enshrined in the White Australia Policy still in force when Australian troops were first sent to Vietnam, and given validity by the very real threat from Japan in the Second World War, there remained in the 1960s a great deal of xenophobia and anti-Asian racism.

4.7.1 From *Vietnam: War Myth and Memory*, Jeffrey Grey and Jeff Doyle, 1992

Australia unable to defend itself

Australia was not confident in its ability to defend itself due to its large size and small population, and historically had always looked to Britain to defend its interests. A serious decline in Britain's world position in the 1930s, coupled with the strain created by World War II, signalled a turning point in Australia's foreign relations and it looked to the US for support.

Australia's relationship with the US

Australia was keen to demonstrate to the US that it was a worthy ally. It was the first country to show support for the US in the Korean War and also the first to publicly endorse the decision of escalation in Vietnam. Initially, the federal government sent advisers to South Vietnam, as it did not have the material resources on hand. Australia particularly wanted to build up credit with the US and, to a lesser extent, Britain to ensure that if the country was attacked, it would be protected. It was a form of insurance policy. Most people also believed that military involvement in Vietnam would be minimal and worth it in terms of what Australia stood to gain from an indebted US.

Belief in forward defence

The theory of forward defence was linked to the domino theory. Menzies believed that the government's objective must be to locate the threat and eliminate it before it could become greater. He argued that it was better to fight the communist threat in Asia before it arrived in Australia.

The supposed aggression displayed by the communist forces in North Vietnam was another clear example of the domino theory in action.

Treaty obligations

Australia had signed the ANZUS and SEATO treaties, which required them to assist their regional neighbours if they were attacked. When the US committed ground troops to Vietnam, they used the SEATO Treaty to legitimise their escalation.

Did you know?

Military spending decreased significantly under the Menzies government during the 1950s and early 1960s despite how passionately Menzies promoted the idea that communism posed a great threat to Australia. Between 1953 and 1964, the military budget was almost halved from 4.9 to 2.5% of Australia's gross domestic product (GDP). Although as was noted earlier in the chapter, this spending had almost doubled again by 1968 as Australia's involvement in the Vietnam War increased.

4.7.2 Prime Minister Robert Menzies (centre) at the SEATO Conference in Canberra with other representatives on 11 March 1957

Australia and Vietnam: The next domino

By the early 1960s, Vietnam had become an area of concern for Australia. Menzies believed that Vietnam was another potential communist threat that was going to aggravate the Cold War. The West was convinced that Vietnam was in serious danger of falling prey to communism, leading to the collapse of South-East Asia.

Australia also saw the situation in Vietnam as evidence of Chinese expansionism. The Menzies government argued that it was the North Vietnamese communists, with the support of the Chinese who had invaded the South. The government was insistent that this was not a civil war (an internal conflict between the Vietnamese people), but was instead part of the international fight against communist aggression. To acknowledge that it was a civil war would have undermined the government's argument for sending Australian troops. The government was also very careful to say that the conflict was not about local issues or unease with a corrupt government for fear that this would undermine public support for Australia going to war in support of the South Vietnamese government.

Australian advisers in South Vietnam

In 1962, Australia committed itself to the conflict and sent advisers to South Vietnam. The arrangement suited Australia because the US was committed to the Asia–Pacific region if Indonesia attacked. The US gained international approval for its intervention because it was seen as offering moral support as opposed to earlier French imperialism.

Australia provided communications equipment, barbed wire and a training team to instruct in the areas of jungle warfare, village defence, engineering signals and other activities. These elite members of the Australian military instructed and equipped the ARVN to help them defeat the Viet Cong.

Menzies escalates Australian involvement

US involvement in Vietnam escalated soon after the Gulf of Tonkin incident. It was the opportunity that Menzies had been waiting for. But Australia could not simply send troops to South Vietnam; it had to wait for an invitation. This was not going to be easily obtained as the South Vietnamese were reluctant to seek further international assistance. They did not want the level of foreign involvement to escalate. The invitation had to come via US prompting.

The federal government had made the decision to commit military troops to Vietnam in April 1965, although Menzies had approached President Johnson as early as December 1964. On 18 April 1965, the Australian ambassador was instructed to obtain an invitation from South Vietnam requesting assistance. The Prime Minister of South Vietnam agreed on 28 April. On 29 April in the evening, Menzies made the announcement to parliament.

For several months before Menzies's announcement, Australian officials in Saigon had badgered the South Vietnamese regime to 'request' Australian regular troops. They had failed. The regime in Saigon knew not only that the population would oppose the presences of foreign armies, but that this would be a gift of propaganda to the NLF (Vietnamese communist army). On the afternoon he had intended dramatically to inform Parliament of the South Vietnamese 'request' for Australian help, Menzies was in a fury. He had no confirmation, no piece of official paper to quote and wave. Moreover, some bastard in the cabinet had leaked the news that Australia was to send troops to Vietnam. When Parliament returned after the dinner adjournment, Menzies's luck was in; he was handed a letter from the South Vietnamese Prime Minister, Dr Phan Huy Quat, confirming the Saigon Government's acceptance of an offer of Australian troops.

4.7.3 Journalist John Pilger's account of how Menzies obtained a 'request' for help in Vietnam, from *A Secret Country*, John Pilger, 1989

Did you know?

Such was his efforts to strengthen strategic links with Britain, Menzies allowed the British to carry out nuclear tests in Australia without consulting his cabinet and under a great deal of secrecy. Between 1952 and 1957, Britain exploded twelve nuclear bombs in three sites around Australia.

The Australian Government is now in receipt of a request from the Government of South Vietnam for further military assistance.

There can be no doubt of the gravity of the situation in South Vietnam ... We do not and must not overlook the point that our alliances, as well as providing guarantees and assurances for our security, make demands upon us. We have to bear in mind, and make preparations against, the possibility of other developments in the region, which could make demands on our Australian defence capacity.

The takeover of South Vietnam would be a direct military threat to Australia and all the countries of South and South-East Asia. It must be seen as part of a thrust by Communist China between the Indian and Pacific Oceans.

4.7.4 Prime Minister Menzies announcing the dispatch of troops to Vietnam, 29 April 1965

The response of the Opposition

The Opposition strongly opposed the decision to go to war. Leader of the Labor Party Arthur Calwell issued a statement of response to challenge Menzies's decision. He believed that the commitment of troops would only make the situation worse and made the following observations:

- involvement would harm the fight against communism in the long term
- the welfare of the Vietnamese people would not benefit from intervention
- intervention would create a source of tension between the Vietnamese people and Australians
- it was an unintelligent response to Chinese power
- the decision was not in Australia's best strategic interests.

He also went on to say that Australian involvement was based on three false assumptions:

- a wrong view of the nature of the war in Vietnam
- a failure to understand the communist challenge
- a false idea in regard to the interests of the US and its allies.

Did you know?

The Vietnam War was the first to be fought under the scrutiny of public opinion. Every night, people watched the latest war developments from the comfort of their living rooms. This had a profound impact on the attitude of Australians towards the war. It has been said that the Vietnam War was lost in people's living rooms.

4.7.5 An image broadcast around the world showing a napalm attack during the Vietnam War. It was these types of images that started to sway public opinion against the war.

Activities

Remembering and understanding

1 What name was given to the theory that communism could spread throughout Asia and eventually reach Australia?
2 Why did the Menzies government refuse to say that the conflict was a civil war?

Applying and analysing

3 Create a concept map to show the reasons for Australia's involvement in the Vietnam War.
4 According to Source 4.7.1, what was the main reason for Australia's involvement in the Vietnam War?
5 Study Source 4.7.3.
   a Why was the South Vietnamese government so slow in sending a 'request' to Australia?
   b Why was Menzies in such a fury?
   c Outline the means by which Menzies was able to obtain a request for help.
6 Read Source 4.7.4.
   a Outline the case that Menzies makes for involvement in Vietnam.
   b Account for the differences in Menzies' reasons for involvement in Vietnam with the other sources in this unit.

Creating and evaluating

7 Was Australia's involvement in Vietnam justified? Use the sources from this unit to argue your case.

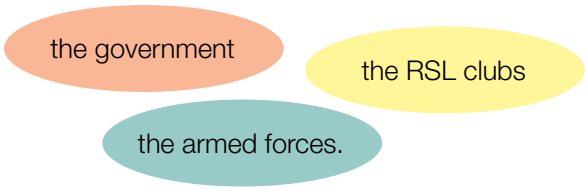
4.8 Perspectives on the Vietnam War

Initial responses to the war

When the Menzies government decided to send combat troops to Vietnam there was general public support for the war. Menzies presented a strong case that an independent nation had been invaded by an aggressive force and that it needed Australia's assistance.

Supporters of the war

The main three groups to support the war were:



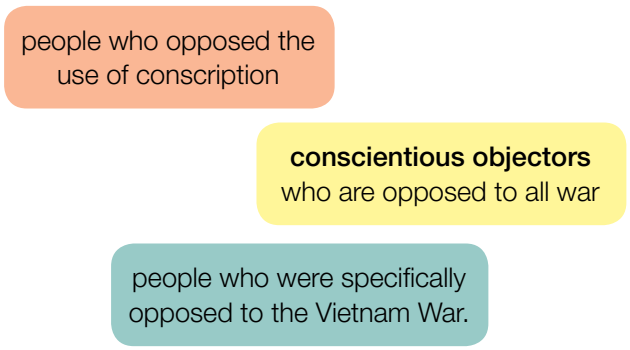
Other supporters included those who genuinely feared communism and felt that Australia needed to be protected. Some knew little about the historical context of the war and believed that the South Vietnamese government had asked the Australian government for assistance against the North.

> We are now at war … Australia is to fight on the Asian mainland to aid the United States in stopping the advance of Communism, which threatens us directly. We are going … to support the South Vietnamese Government against the aggression of North Vietnam, backed by communist China. Our Government has made the decision in our name, and that is its duty. The nation now has to support that …

4.8.1 Editorial from the *Courier Mail*, 1 May 1965, supporting the government decision to go to war

Opposition to the war

Opposition to the war was limited at first, but grew over time and can be classified into three groups:



Opposition arguments

The groups did hold some common beliefs about the war, such as:

- most people in South Vietnam supported the National Liberation Front and wanted to be a unified country under Ho Chi Minh
- the South Vietnamese government was corrupt and ruled by a series of dictators
- the conflict in Vietnam was a civil war because under the Geneva Accords, North and South Vietnam were not intended to be separate countries
- the war was about national liberation for Vietnam not communism
- the US was acting aggressively against a much smaller power
- Australia was not acting under its own independent foreign policy; rather, it was a servant to the US in the search for collective security and protection against communism
- the US was committing atrocities against the Vietnamese people.

Conscription and 'Nashos'

Initially, Menzies believed that Australia would fight communism somewhere in Malaysia or Indonesia. He was concerned that Australia's defence forces were too small. National service had been introduced in 1951, but was abandoned in 1959. Conscription was reintroduced by Menzies in 1964 with Harold Holt (Prime Minister, 1966–67) announcing in 1966, for the first time, the despatch of conscripted soldiers to Vietnam.

The conscription of forces to be sent outside Australia generated intense outcry nationally and had the effect of increasing animosity towards the conflict. The issue of conscription would turn out to be the most divisive of the war, resulting in the majority of Australians demanding a withdrawal of the troops. 'Nashos', as conscripted soldiers were referred to, had their birthdays called out in a lottery, often referred to as 'the lottery of death'. There were two lotteries a year.

Exclusions

Under the reintroduced scheme, men were required to register when they turned twenty. Immediate exclusion was granted to theological students and religious ministers. Temporary exclusions were provided to students and apprentices to avoid interrupting their training.

Increasing anti-war sentiment

Initially, protests were small with the focus mainly on opposing conscription. Universities became a haven for anti-war rhetoric and, from 1965, students began to organise teach-ins. A teach-in involved inviting speakers who represented different viewpoints to come and speak to an audience.

The first conscripted soldier falls

On 24 May 1966, Private Errol Noack of the Fifth Battalion of the Royal Australian Regiment (5RAR) was the first conscripted soldier killed in active service in Vietnam. Although it was reported that he was killed by the enemy, the 21-year-old died as a result of friendly fire when two Australian companies mistakenly fired at each other. News of his death made many realise the cost of Australia's commitment to the war.

Demonstrations became more violent as protesters and police clashed. Men were urged not to register and to burn their draft cards. Punishment for failure to comply resulted in imprisonment equivalent to the time that would have been spent in national service. Men decided that they would rather go to jail than Vietnam.

How not to join the Army—advice for 20-year-olds

BE MILITANT: If you're a way out radical make sure they know you won't follow out their orders.

BE 'GAY': Play the homosexual bit. Don't answer any questions on homosexuality, just smile.

THE MEDICAL: Have you had pneumonia? Trick ankle, knee, elbow, bad back, asthma? Use them.

LONG HAIR: You have long hair? Good. Let it grow longer. Don't wash, stink, pick your nose … See how many four-letter words you can string into one sentence. Never wear shoes …

4.8.2 From an anti-conscription pamphlet distributed by the group Resistance, Sydney, 1968

October 1966: All the way with LBJ

US President Lyndon Baines Johnson made a four-day visit to Australia in 1966. He was the very first US president to visit Australia and it was at a time when most Australians still supported the war. Prime Minister Holt used the visit to declare Australia's continued support for the US when he said, 'You have an admiring friend, a staunch friend that will be all the way with LBJ'.

One million people came to greet Johnson in Sydney but they were not all supporters. Thousands of protestors also turned out. Events on the day included the following:

- A common chant was, 'LBJ, LBJ, how many kids have you killed today?'
- Thirteen arrests took place as protesters and police clashed.
- NSW Premier Askin was driving in the motorcade with LBJ. When protesters were in the way he ordered the police driver to 'ride over the bastards'.
- Authorities were most upset by the demonstration because of the widespread international attention it received. Media focused more on the anti-war protests than they did on President Johnson's visit.

4.8.3 Police drag a protester away during US President Johnson's visit to the Sydney Art Gallery, 22 October 1966.

Protest groups

Youth Campaign Against Conscription

Founded in November 1964, the Youth Campaign Against Conscription (YCAC) opposed both the bombing of North Vietnam and conscription. They destroyed their registration cards as a symbolic act of their defiance against the war.

Save Our Sons

Save Our Sons (SOS) was a movement founded by two mothers, Joyce Golgerth and Pat Ashcroft, in 1965 and attracted a national following. Most members were mothers of sons who had been conscripted to fight in Vietnam. Together, they wanted to demonstrate their opposition to conscription. They wrote letters, handed out leaflets, wrote to newspapers, and held meetings and all-night vigils to make their point. They also hosted 'filling in falsies' parties as explained in Source 4.8.5.

4.8.4 University students burn draft cards in protest against the war in Vietnam, 7 May 1968.

I joined SOS, and we demonstrated outside the Richmond barracks, held luncheons, and vigils in the city square every Wednesday. Intakes were very heavy. The police were brought in a few times and things used to get depressing and frightening.

Later, we became involved in more radical activities including filling-in-falsies parties. We used to go along to the post offices and take great supplies of registration papers. A group of people would then get together, have a few drinks, and fill them in.

Clifton Pugh's wombat's marble was once pulled out of the barrel, people's cats were called up, and a few liberal politicians.

4.8.5 SOS member Dorothy Dalton recalls attending filling-in-falsies parties.

Vietnam Action Committee

The Vietnam Action Committee (VAC) was founded by Bob Gould in 1966. This group, which was made up of mainly university students, wanted full withdrawal from the war and complete independence for Vietnam. They were a vocal and active group, and followed a policy of non-violent civil disobedience.

Tet and My Lai: Turning points

The Tet offensive

In January 1968, the Viet Cong launched a series of surprise attacks on more than 100 towns and cities in South Vietnam. It was a costly assault and demonstrated that the war was a long way from being won.

Tet is a religious holiday in Vietnam. Launched during the celebrations, and overruling a prior agreed 'cease fire' period, the attack had the element of surprise that was needed against a technologically superior enemy.

A turning point

The Tet offensive was a turning point for many reasons:

- it was a sign that US military strategy in Vietnam was failing
- it intensified the rift in the Labor Party—the left faction believed that it confirmed their view that the war was unwinnable as well as immoral, and the right faction thought it was up to the US to initiate withdrawal of forces
- the media portrayed the offensive as a victory for the Viet Cong, which came as a shock to the public as they had been led to believe that the US and its allies were winning the war.

My Lai

Perhaps the most controversial element of the war was the discovery of the My Lai massacre committed by members of the US 23rd infantry division on 16 May 1968. Ordered by senior officer Lieutenant William Calley, soldiers raped and mutilated innocent Vietnamese civilians. It is estimated that between 175 and 400 lives were lost, many of whom were women and children. Calley was eventually court martialled and sentenced to life imprisonment. Evidence stated that the soldiers acted in an 'irresponsible and reckless fashion'.

The Pentagon Papers

Public opinion of the war was further undermined in June 1971 when *The New York Times* released excerpts from the Pentagon Papers. The original document, titled *United States – Vietnam Relations, 1945–1967: A Study Prepared by the Department of Defense,* consisted of forty-seven volumes outlining US policy and procedure in Vietnam between 1945 and 1968. It exposed the following:

- lack of US war aims in Vietnam
- failure to inform the public of what was really happening
- confusion in policy making
- criticism of President Johnson
- lack of US regard for South Vietnamese interests.

The papers were leaked to the press by Daniel Ellsberg, a disgruntled senior aide to Robert McNamara. Although many of the accusations could not be substantiated, the release of the papers called into question the actions of the US government. It damaged the respect of the US people for their government and undermined the whole US war effort.

Moratoriums in Australia

In 1969, opinion polls demonstrated a new trend in opposition to the Vietnam War. For the first time, the disapproval rating for the war and the desire to bring the men home went above 50 per cent. Australian **moratoriums** were held in the wake of growing dissatisfaction with the war. A moratorium is an event whereby there is an agreed suspension of regular activity until a suitable outcome is attained. They were modelled on the US moratoriums that took place in October 1969. Moratoriums were massive peaceful protest marches organised to demonstrate the people's anti-Vietnam War sentiment.

Moratoriums were set up in Australia to send a strong message to the government to stop the war. Their specific demands were:

- the immediate withdrawal of Australian and Allied troops from Vietnam
- the abolition of conscription.

The first moratorium was held on 8 May 1970 and attracted about 200 000 supporters across the nation. Two more moratoriums were held in September 1970 and June 1971. During these protests, people were sending a message to the government that the public believed their moral democratic authority had waned.

4.8.6 Protesters marching in the Sydney Moratorium, 30 June 1971

4.8.7 Moratorium held in September 1970

The spread of anti-war sentiment

The moratoriums were unique among protests against the Vietnam War because of the wide spectrum of people that they attracted. As the conflict dragged on, the anti-war sentiment widened its appeal. People who did not normally speak out against the government or protest publicly supported the moratoriums. For the first time, all facets of society were represented in the struggle to bring the troops back home.

The achievements of the moratoriums in Australia

The moratoriums were a visible way for the public to show its opposition to government policy in a constructive and peaceful manner. It sent a clear message to the government that they had lost the support of many Australians in the major cities. The moratoriums had little significance in the overall decision to pull out of the war but they certainly changed the face of protest in Australia.

The role of Jim Cairns

Jim Cairns was a prominent Labor politician during the Vietnam War. He was an active campaigner in the anti-war movement from the moment Australia became involved in the war. He believed that Australian foreign policy in Vietnam made continuation of the war more likely.

He opposed the policy of forward defence, arguing that it was counterproductive to South-East Asian interests and too aggressive. It was Cairns's opinion that land reform, tax relief, improved education and a firm stance against hostile governments would lead to a better outcome for South-East Asia.

Cairns was an educated man who spoke about the complexity of the war in Vietnam with authority. He was particularly concerned by US methods of mass destruction. He argued against the war of technology, fearful of the indiscriminate killing of such large numbers of Vietnamese civilians. He chaired the Vietnam moratoriums in Australia, leading hundreds of thousands of people.

The US anti-war movement

Initially, the US public supported intervention against what they believed to be aggressive and dangerous communist forces. As involvement and troops numbers escalated so too did concern about the real reasons for US involvement. Most US people relied on the television as their major source of news and started to see inconsistencies between the government's rhetoric and the media reports.

4.8.8 The Washington moratorium, 15 November 1969

Widening of the protest movement

Until the development of the moratoriums, there were many middle-class US citizens who wanted to demonstrate their dissatisfaction with the war but did not feel that the anti-war movement represented them. Protests therefore needed to be local and organised by people trusted by local communities.

The Vietnam moratorium movement in the US organised mass rallies in October and November 1969. In October, 50 000 people participated in the Washington moratorium with similar marches in Detroit, Miami and New York. The following month, 250 000 people attended the Vietnam Moratorium in Washington.

Achievements of the moratorium movement

As was the case in Australia, it is not believed that the moratoriums resulted in a direct US withdrawal from Vietnam. However, there is the suggestion that it sped up the process of troop withdrawal. The Tet offensive and later the release of the Pentagon Papers revealed that the government had lied to its people. It raised serious concerns about the US political system.

Moratoriums began an era in which US citizens, just like Australian citizens, felt that their governments could not be trusted and that they had to be kept accountable by the public. Tragic images of war had deeply affected the moral sensibility of most US people, forcing them to seriously consider the type of society they were rapidly becoming.

Activities

Remembering and understanding

1. Explain why opposition to the war grew in the US and in Australia.
2. a. What was the Tet offensive?
   b. Outline some of the reasons why it proved to be a turning point in the war.
3. Why were Vietnam moratoriums unique?

Applying and analysing

4. Read Source 4.8.1 and identify why the writer supports the government's decision to go to war.
5. Examine Sources 4.8.3 and 4.8.4. Explain what these sources reveal about the nature of the Vietnam protest movement.
6. Compare the arguments provided by the supporters of war with the opponents. Whose argument is most persuasive? Why?
7. Examine Sources 4.8.6, 4.8.7 and 4.8.8.
   a. Explain what these photographs reveal about the nature of the Vietnam protest movement.
   b. Do you think such protests are an efficient way for citizens to show discontent? What other ways do we have to show this today?

4.9 Aftermath of the Vietnam War

Experiences of homecoming

By the time the last Australian troops returned home in 1973, the Vietnam War had been Australia's longest and most controversial conflict. Arriving home to a divided and hostile public, the veterans had a very different experience to their Anzac predecessors. Often shunned and ignored, the soldiers took the blame for political choices that were out of their hands. Some soldiers were smuggled back in the middle of the night with little ceremony or celebration. Some faced the anger of protestors, who on occasion threw pigs' blood over returned soldiers. Most Australians were not interested in the veterans' experiences and wanted to forget the war.

This is to inform you that as of ..... 196 , a certain mudhound water-soaked and slightly crazy individual known as ..... is leaving our little City of ..... securely nestled among the jungles and rice paddies, located in the Southern part of a semi-tropic country in the Far East known as The Republic of Vietnam.

He may look a little strange and act a little peculiar, but this is to be expected, after ... Months in VIETNAM. He will gaze in awe and fascination at blonde hair, trams, blue eyes, clean sheets, hotels, and tight sweaters.

... He will constantly look at trees, not for their beauty but because he suspects a sniper. He will distrust bus stops because they have an unpleasant association with grenades, and if a litterbug throws something from a passing car–he will scream loudly and dive for the gutter. This can be amusing and endear him to passersby.

If he happens to be driving as a postman blows his whistle, hang on, for you can expect a very sudden stop; in Vietnam the second blast of the whistle is followed by bullets.

Good Luck. You'll need it.

4.9.1 Extracts from an unofficial letter of warning sent to families with soldiers about to return home, from *Ashes of Vietnam* by Stuart Rintoul, 1987

Vietnam: A war unlike any other

Australian and US soldiers in Vietnam faced unique conditions that affected how they coped after the war.

There were several major issues faced by the veterans.

- The soldiers bore the brunt of public anger over the war.
- No one wanted to talk about Vietnam. Conditions such as post-traumatic stress disorder (PTSD) were not properly understood or treated.
- Soldiers had a higher prevalence of nervous disorders than other soldiers.
- The average age of a Vietnam solider was 20. Few were psychologically equipped for or debriefed about their experiences.
- Soldiers often came home with drug-related illnesses and addictions.
- Exposure to Agent Orange, a powerful herbicide and defoliant used by the US army to clear the jungle and make it more difficult for the Viet Cong to hide, resulted in serious medical conditions for veterans and their future children.
- Soldiers were often not recognised by their Digger predecessors for their service.
- The US and Australia had lost the war.

The health of veterans

Physical health

Vietnam veterans and their children faced a high incidence of the conditions below.

In veterans: cancers, nervous system disorders, diabetes, skin conditions and high blood pressure.

In children: cancers, lower life expectancy and congenital abnormalities including blindness. The accounts in Source 4.9.2 testify to some of the personal experiences of veterans.

Post-traumatic stress

Vietnam veterans have a higher incidence rate of post-traumatic stress than any other war veterans. Symptoms include: flashbacks, sleep disturbances, depression, emotional distress and anger, cognitive impairment, lack of confidence, medical conditions such as rashes, work difficulties and substance abuse.

Veterans suffering from these symptoms had a negative effect on society and their families.

I've lost a daughter. She had only half a heart. That was my first child. David, my eldest boy, he's got perforated ears. My other son has got incurable skin diseases. They tell me its hereditary, that's the answer I get from them. But it's nowhere in the family. He comes out in blotches and big scabs. He's also got turned hips, pigeon toes and locked knees.

Phil Johnstone

My skin rash was so bad at times I was losing up to ten layers a week off my face and neck … I had breathing problems with bronchial asthma, conjunctivitis, severe headaches. Tests showed I had abnormal electroencephalographs, defective chromosomes, abnormal visual-evoke responses. Tests done by Veterans Affairs at the time failed to detect any problems at all. I was having a little trouble coping with things. I was getting to the stage where I was breaking into a sweat for no reason at all, I was hardly sleeping of a night.

Alan Ashmore

4.9.2 Personal experiences of Australian soldiers and their families after the war

Support for veterans

The Vietnam Veterans Association Australia (VVAA) formed in 1980 with the goal of lobbying the government to compensate veterans for disability and illness. It also sought political recognition for veterans and an inquiry into Agent Orange. By the late 1970s, the chemical was being linked to birth abnormalities, brain dysfunction and cancer.

It was not until 1994 that the Labor government was forced to admit that Agent Orange was the cause of cancer and other illnesses.

Making amends

Welcome home marches

In 1987, a welcome home march was organised for the veterans of the Vietnam War and their families. Around 22 000 veterans marched with thousands lining the streets in support. They carried flags to remember the 504 Australian lives lost. Many veterans also saw it as an opportunity to forgive those who protested against their efforts during the war.

4.9.3 The Vietnam War Memorial, located on Anzac Parade in Canberra. Its placement alongside World War I and World War II memorials cements the place of the Vietnam War in the Anzac military tradition.

The Vietnam memorial

In May 1988, the federal Government donated $250 000 towards a Vietnam memorial. It symbolises the place of Vietnam veterans in their nation's military history.

Indochinese refugees

The fall of Saigon

When communist forces took control of South Vietnam in 1975, there was a frenzied attempt by people in Saigon to seek refuge in the US Embassy. Fewer than 1000 were successful.

The South Vietnamese were terrified of Northern reprisals. As part of Operation Baby Lift, many Vietnamese orphans were taken to Australia and the US and adopted out to families.

4.9.4 Desperate Vietnamese people trying to escape using US helicopters during the final days before the fall of Saigon

The 'boat people'

Two million Vietnamese people took to small, overcrowded boats to escape Vietnam. Many were drowned or were raped or murdered by pirates. An international crisis erupted in 1979 with 100 000 'boat people' seeking political asylum.

A new beginning

Over the next two decades, Australia accepted more than 100 000 Vietnamese refugees. In a country that had been fearful of the 'yellow peril' and fought so hard to maintain a 'white Australia', this marked a major shift in Australian immigration.

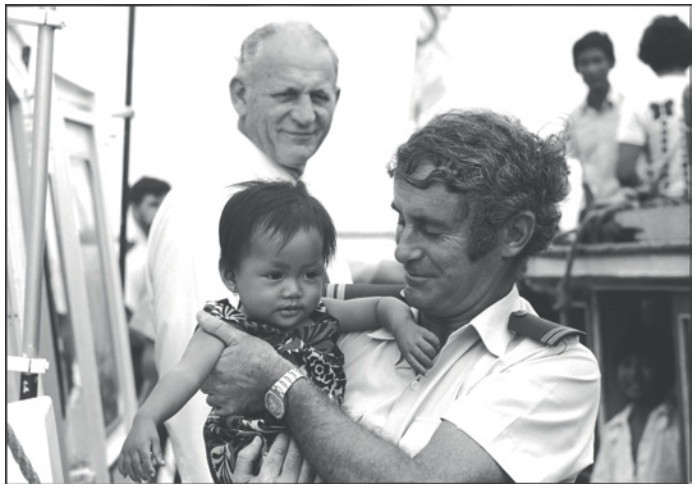
When Saigon fell to communist rule, in 1975, my father realised that he had no choice but to escape Vietnam. And the only way that he could do this was to build a boat and smuggle his family out to sea.

He would rather die … than risk imprisonment. Or a fate far worse, the re-education camps. 'It's not enough that they want to take our freedom, they want to take our thoughts as well.'

October 1977, my father steered our tiny vessel out into the South China Sea. We spent days drifting and waiting and praying. We prayed, a foreign ship might save us, that we might find friendly shores … that pirates wouldn't attack us, that our supplies would not run out.

At gunpoint a group of Malaysian soldiers pushed us off supposedly friendly shores before we landed in Thailand, where we spent a very difficult year in a refugee camp. Australia finally accepted us.

4.9.5 Pauline Nguyen relates her experience as one of Australia's first Vietnamese refugees. From *Born in Vietnam, Made in Australia*, 2010



4.9.6 Customs Officer Frank Dalton holds a Vietnamese refugee child, Xye Than Hueon, on the deck of the *Tu Do* in Darwin, November 1977.

4.9.7 Vietnamese refugees aboard the refugee boat *Kien Giang*, 1979

Activities

LS 4C

Remembering and understanding

1. Describe the homecoming experience for soldiers.
2. Account for why their return home was so different from the experience of previous returned soldiers.
3. Explain how the Vietnam War shaped the Australian population.

Applying and analysing

4. Imagine that you are a member of parliament who knows or is related to a Vietnam veteran. Draft a speech to be delivered in parliament outlining why a Royal Commission should be set up to investigate the effects of Agent Orange. Use Source 4.9.2 to assist you with the content of your speech.

4.10 'It's time'—election of the Whitlam government

4.10.1 Gough Whitlam and singer Little Pattie wearing 'It's Time' T-shirts

Calls for change

In the context of an increasingly 'unwinnable' and contentious Vietnam War, the Australian population was ripe for political and social change in the early 1970s. Other contentious issues included women's rights, Aboriginal land rights, health care and law reform. The Labor Party led by Gough Whitlam offered a different approach from the staid Liberal–Country Party government that had been in office since 1949. Labor's political ideology was left-wing, based on large government and high public spending. This contrasted with the conservative or right-wing ideology of the government, which supported individualism and the free market.

Labor gains momentum

The Labor Party's long-standing opposition to the war in Vietnam had gained mainstream support by 1970. Opposition Leader Whitlam promised to end conscription if elected and indicated that he did not view escaping conscription ('draft dodging') as a crime. Whitlam attempted to broaden Labor's appeal by courting the middle class and giving ordinary party members more say in decisions.

Whitlam's plans to remake Labor coincided with a difficult time for the government. Prime Minister John Gorton resigned in 1971 and his replacement, William McMahon, had limited popularity and made a number of embarrassing errors internationally. When the 1972 election was called, unemployment was at a 10-year high and inflation was at its highest rate since the early 1950s. Rising oil prices added to the government's difficulties. Labor was ready to make a serious challenge.

The 'It's Time' campaign

> Men and Women of Australia! The decision we will make for our country on 2 December is a choice between the past and the future, between the habits and fears of the past, and the demands and opportunities of the future. There are moments in history when the whole fate and future of nations can be decided by a single decision. For Australia, this is such a time.'

4.10.2 Gough Whitlam's 'It's Time' policy speech, Blacktown, Sydney, 13 November 1972

The 1972 election campaign was one of the most colourful in Australia's history. Labor captured the public mood and framed the election as a contest between 'the past and the future'.

Labor advertisements featured celebrities such as Molly Meldrum, Jackie Weaver, Bert Newton and Jack Thompson. The slogan 'It's Time' appeared on T-shirts and badges, and in a pop theme sung by Little Pattie and others.

Labor pledged to end Australia's commitment to the Vietnam War, introduce universal health care, improve access to education and repair urban infrastructure.

Whitlam wins government

The federal election on 2 December 1972 saw the ALP gain a nine-seat majority. Three days later, Governor General Sir Paul Hasluck swore in Whitlam as Prime Minister and Lance Barnard as Deputy Prime Minister. Before Cabinet could be appointed, Whitlam and Barnard made forty significant decisions in the fortnight that followed.

Whitlam and Barnard also expressed support for sanctions against Apartheid in South Africa. Whitlam placed himself at the centre of government decision-making by controlling Cabinet appointments and agendas.

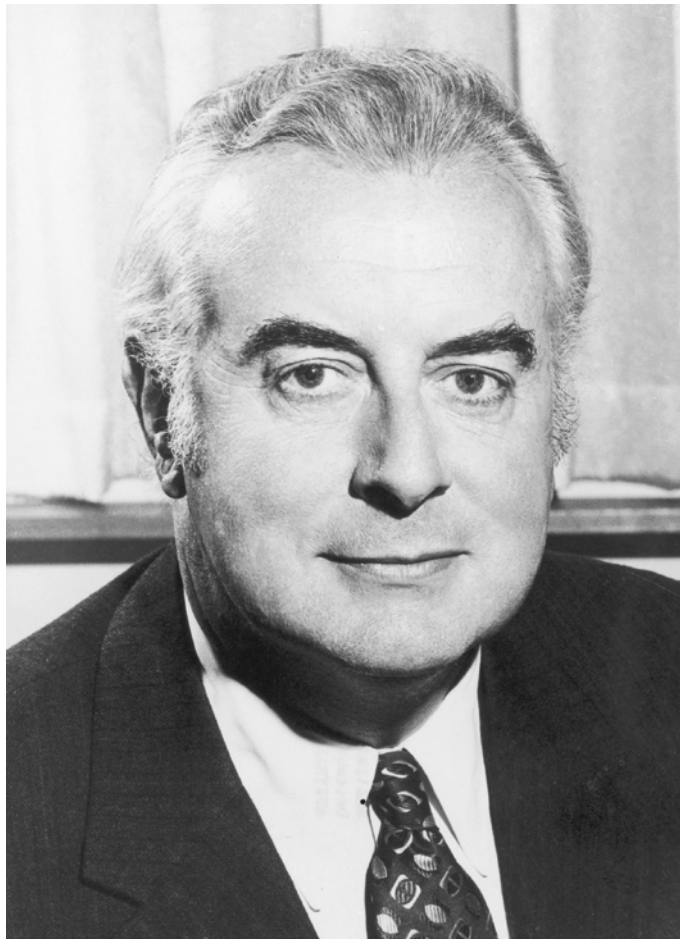
Spotlight

Gough Whitlam

Edward Gough Whitlam (1916–2014) was the twenty-first Prime Minister of Australia, serving from 1972 to 1975. Born in Melbourne, Whitlam was the son of a federal public servant and homemaker. He served as a navigator in the Australian Air Force in World War II before working as a barrister. Whitlam became the federal member for Werriwa, western Sydney in 1952 and leader of the Australian Labor Party (ALP) in 1967. As Opposition Leader in 1971, Whitlam was one of the first Western leaders to visit China. He led Labor to victory in the famous 'It's Time' election of December 1972, ending 23 years of conservative rule.

Whitlam was a towering figure both physically and personally, known for his wit and erudition. He used his three short years as Prime Minister to implement major reforms. Critics argue that he grossly mismanaged the economy and his ministers. His government became embroiled in several scandals and spent beyond its means. Some colleagues found Whitlam autocratic in his decision-making. The government's dismissal by Governor General John Kerr on 11 November 1975 was one of the defining moments in Australian history (see Unit 4.12).

Whitlam retired from parliament in 1978. In 1983 he became the ambassador to UNESCO. Whitlam was active in the community until his death in 2014 at the age of 98.



4.10.3 Gough Whitlam

Activities

Remembering and understanding

1. What challenges did Australia and its Liberal–Country Party government face in the early 1970s?
2. What solutions were proposed by Gough Whitlam and the Labor Party? How did their political ideology differ from that of the Liberal Party?

Applying and analysing

3. Examine Source 4.10.2. What did Gough Whitlam wish to convince voters of in his 'It's Time' speech? How did he go about convincing them?

Evaluating and creating

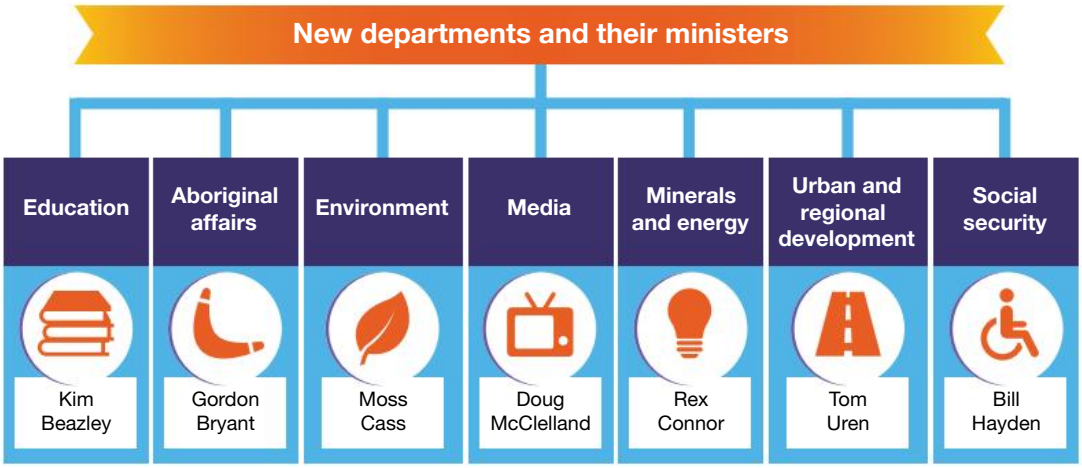
4. Sketch a possible election advertisement or poster for the next federal election, using the 'It's Time' campaign as inspiration.
5. Research political ideologies online. Draw a line showing the political continuum from extreme left-wing to extreme right-wing, giving examples from history of each ideology. Ideologies should include: anarchism, capitalism, communism, conservatism, democratic socialism, fascism, liberalism, socialism.

4.11 The highs and lows of the Whitlam government

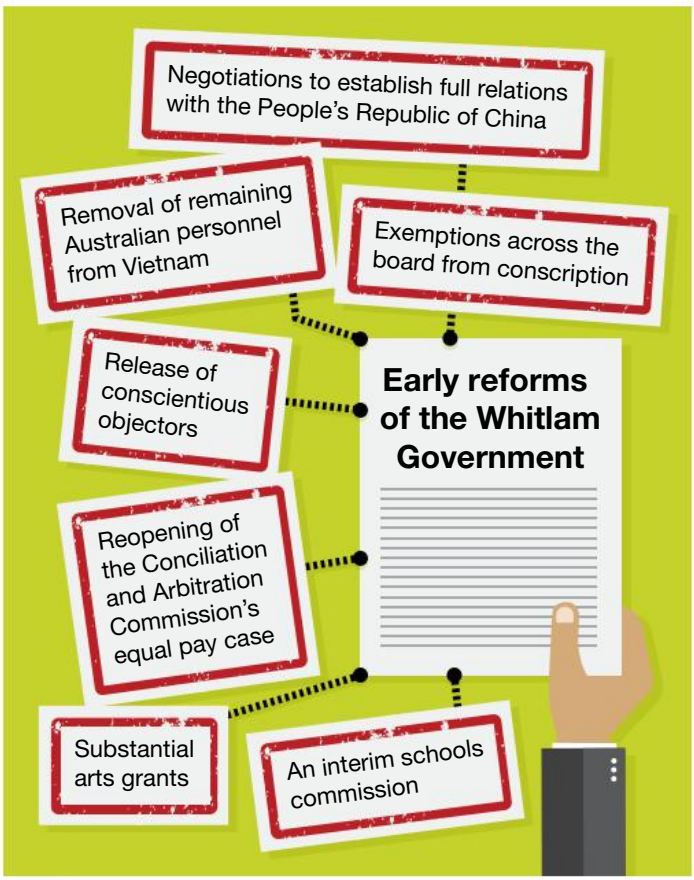
Priorities and reforms

The 'ministry of two', Gough Whitlam and Lance Barnard, was joined by the sworn-in Cabinet of the new Labor government on 19 December 1972. Whitlam wasted no time in establishing the government's new areas of priority. There were a significant number of new departments.

Other areas of priority were women's rights, legal aid and health care. The landmark Woodward Royal Commission into Aboriginal land rights is credited with leading to the *Aboriginal Land Rights (Northern Territory) Act 1976*.



4.11.1 New department heads and their ministers



4.11.2 Early reforms of the Whitlam government

Did you know?

The Whitlam government is known for its championing of women's rights. Equal pay, single mother benefits, paid maternity leave, access to contraception and no-fault divorce were among many policies geared towards women. Elizabeth Evatt was appointed as the first female Deputy President of the Commonwealth Conciliation and Arbitration Commission in 1973.

Margaret Whitlam was a key advocate for women while her husband Gough was Prime Minister.

4.11.3 The Hon. Justice Elizabeth Evatt, 1992

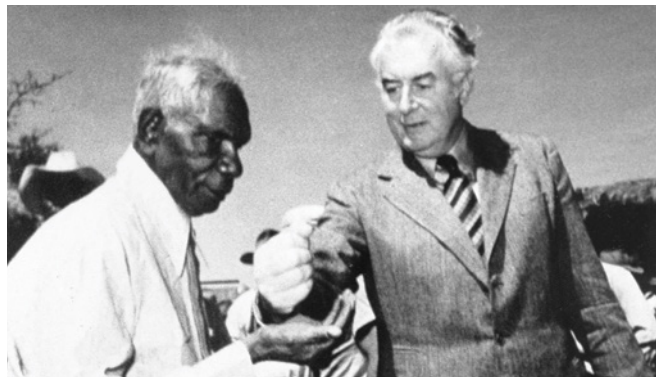
Spotlight

Handing back Gurindji land

In August 1966, several hundred Gurindji employees of the Wave Hill cattle station at Kalkarindji, Northern Territory, walked off the job. What began as a dispute over wages turned into a 9-year battle for land rights, led by Vincent Lingiari.

> We were treated just like dogs. We were lucky to get paid the 50 quid a month we were due, and we lived in tin humpies you had to crawl in and out on your knees. There was no running water. The food was bad – just flour, tea, sugar and bits of beef like the head or feet of a bullock. The Vesteys mob [owners of the cattle station] were hard men. They didn't care about blackfellas.

4.11.4 Recollections of Billy Bunter Jampijinpa, a worker at Wave Hill Station, Kalkarindji, Northern Territory



4.11.5 On 26 August 1975, Prime Minister Gough Whitlam handed a leasehold title to land at Daguragu (Wattie Creek) to Vincent Lingiari, representative of the Gurindji people.

The protest culminated in Prime Minister Gough Whitlam handing back the land to the Gurindji on 16 August 1975. The iconic photograph of Whitlam pouring soil into the hands of Vincent Lingiari became a symbol of land rights in Australia. The event is the subject of Paul Kelly and Kev Carmody's popular song, 'From Little Things Big Things Grow'.

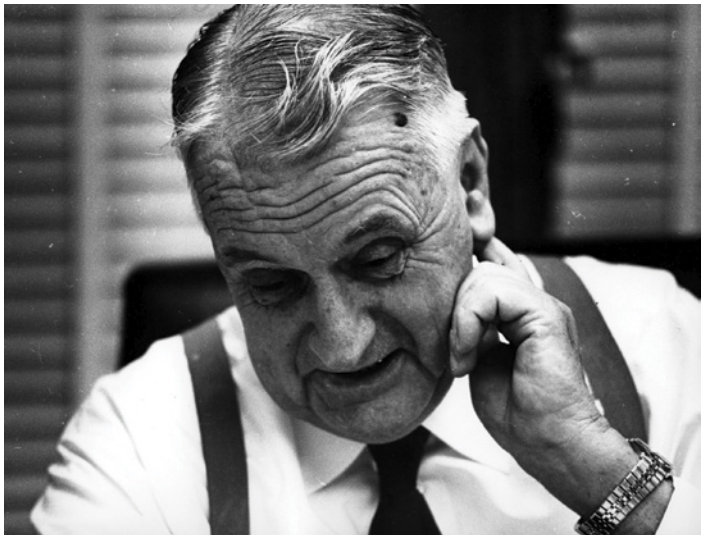
Did you know?

In January 1973, Australia resumed diplomatic relations with China after 24 years. In the wake of the Cold War, the communist People's Republic of China (PRC) under Chairman Mao Zedong was a pariah in the West (meaning that Western governments refused to have any contact with him). As opposition leader, Gough Whitlam had visited the PRC in 1971, the year before US President Nixon's famous visit. Whitlam returned in 1973 when he was prime minister.

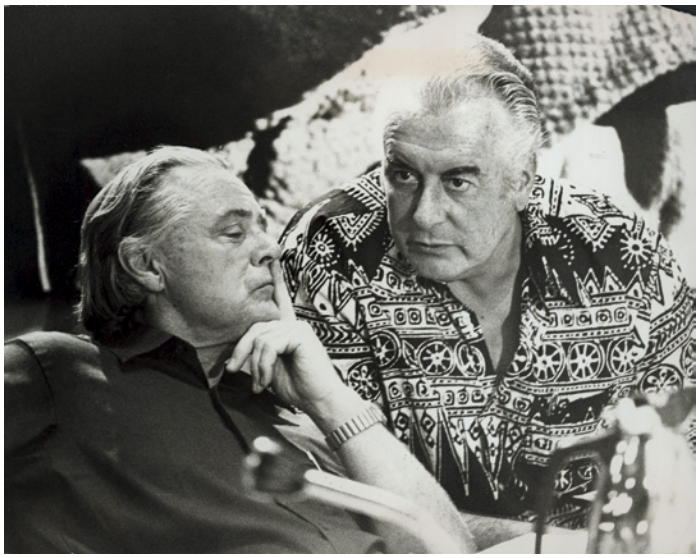
4.11.6 Australian Labor Prime Minister Gough Whitlam during a trip to China between 31 October and 4 November 1973. Whitlam is pictured placing his ear to part of the Echo Wall in the Temple of Heaven in Beijing.

The loans affair

The Whitlam government's ambitious program placed it under severe financial pressure. In 1974–75, Minerals and Energy Minister Rex Connor became embroiled in a scandal when he secretly attempted to secure a $4 billion loan from a Pakistani banker called Tirath Khemlani. Treasurer Jim Cairns misled parliament over the affair. The 'loans affair' and other scandals gained negative media attention. Whitlam sacked both Connor and Cairns but the government continued to struggle.



4.11.7 Rex Connor

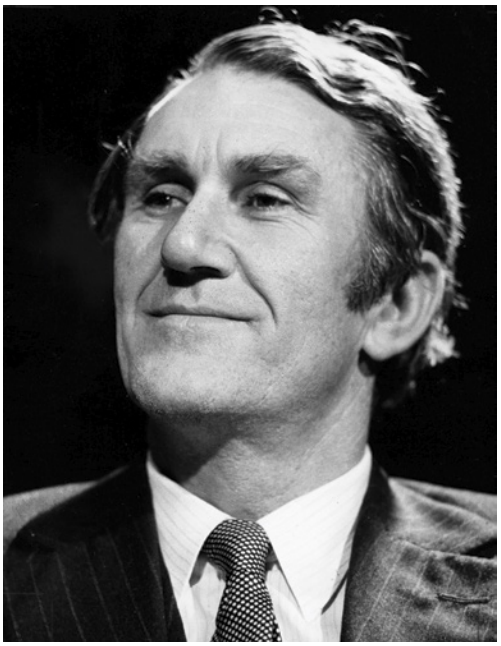


4.11.8 Dr Jim Cairns speaking with Whitlam

Economic woes

By 1975, the Whitlam government was in economic crisis. Unemployment, inflation and the trade deficit were all high in the wake of the 1973 international oil crisis.

When Malcolm Fraser was elected Leader of the Opposition on 21 March 1975, he increased the pressure on the government. As a shrewd politician, Fraser stated that the 'reprehensible circumstances' the government found itself in regarding the loans affair justified harsh actions.



4.11.9 Malcolm Fraser

Activities

Remembering and understanding

1 How did the new Whitlam Labor government set about achieving its campaign promises?

2 List the key reforms of the Whitlam government between 1972 and 1975.

Applying and analysing

3 a What two adjectives would you use to describe the early reforms of the Whitlam government?

b In what way did these reforms challenge the status quo?

4 Analyse Source 4.11.4 and Source 4.11.5 as sources of evidence on the experiences of Aboriginal and Torres Strait Islander people in the 1970s. To what extent did the Whitlam government support Indigenous rights?

4.12 The dismissal

The loss of key seats

A by-election was held for the Australian House of Representatives seat of Bass on 28 June 1975. This was triggered by the resignation of former Deputy Prime Minister Lance Barnard. Labor lost the seat and suffered a huge swing against it.

The same month, Labor Senator Bertie Milliner from Queensland died suddenly in office. This left Whitlam one Senator down. After a complicated series of events including a High Court challenge, Albert Field replaced Milliner in the Senate. Although he hailed from Labor, Field did not support the government. Fraser and the Liberals now had a one-vote majority in the Senate.

The supply crisis

Using his majority in the Senate from June 1975, Malcolm Fraser blocked **supply** by refusing to pass the government's budget bills. Fraser stated that the government's economic difficulties justified the action. With budget bills blocked, the government could not operate for long.

Gareth Evans, later an ALP minister, expressed the views of many when he wrote about the supply crisis in 1975.

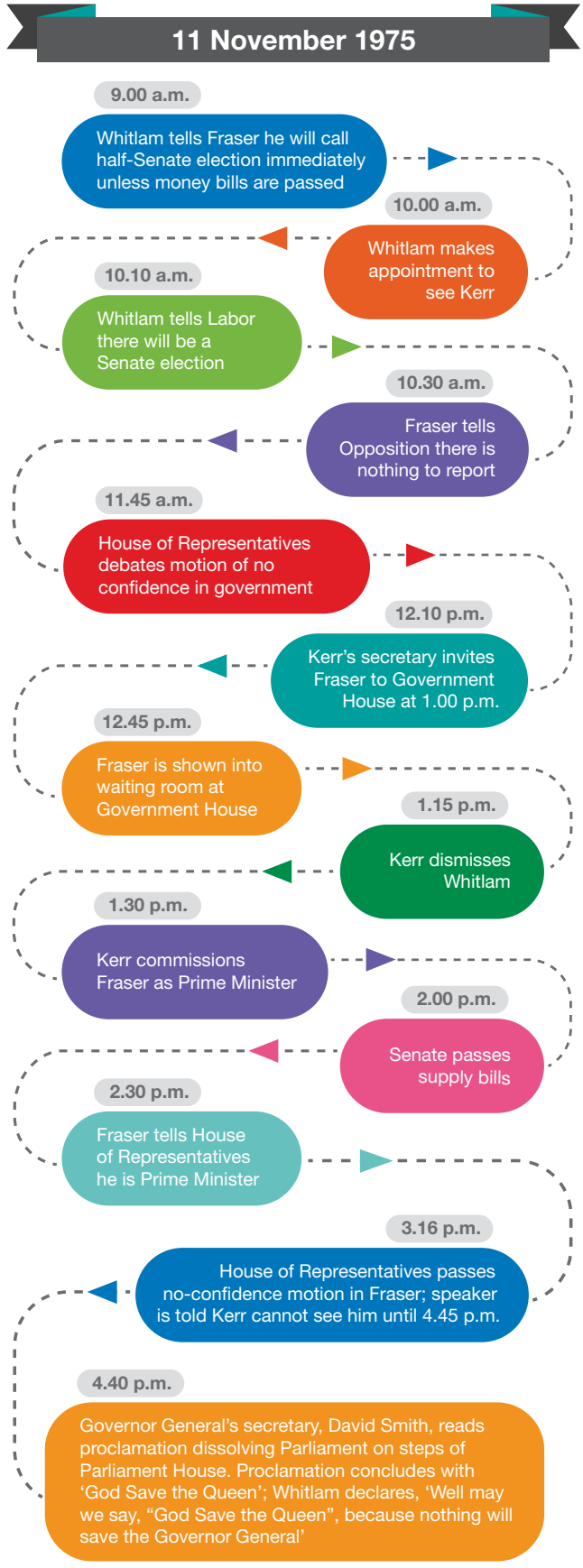
> The Senate is breaking a convention in denying supply because on 139 previous occasions money bills have been passed by a Senate in which the Government of the day lacked a majority, and none has been previously rejected.

4.12.1 Gareth Evans' comments on the Opposition's blocking of supply

Prime Minister Whitlam announced that he would not be forced into calling an early election. The government set about a plan to borrow money from banks to finance its operations.

The Governor General steps in

Governor General Sir John Kerr met with Fraser and Whitlam to resolve the issue. However, the men were at a stalemate. Kerr sought constitutional advice from several parties including the Chief Justice of the High Court, Sir Garfield Barwick. The events that followed on 11 November are outlined in the following timeline.



4.12.2 At 4.40 p.m. on 11 November 1975 from the steps of Parliament House, the Governor General's official secretary, David Smith, read the proclamation that dissolved both houses of parliament and set an election for 13 December. Gough Whitlam followed the announcement with his famous speech in which he called on supporters to 'maintain your rage'.

Skills builder

Cause and effect—the dismissal

What caused the Whitlam dismissal?

A key part of historical thinking is working out the causes and effects of events in the past. Historians must piece together events to see how one event led to another. However, it is important to remember that one event might occur before another without necessarily causing it. Historians often have to work out whether consequences were intentional or unintentional. We should take care in assuming that we know why historical actors made certain choices unless we have solid evidence.

The dismissal of the Whitlam government on 11 November 1975 provides a good example of how to determine cause and effect.

Apply

1. Using the timeline of the dismissal and Units 4.11 and 4.12, create a Cause and Effect diagram with the title, 'What caused the Whitlam dismissal?'
2. Your diagram should include a series of text boxes and arrows that show the course of events in your own words.
3. Guiding questions:
   - What was the rate of change in the new government?
   - What mistakes were made?
   - Which key people influenced events?
   - How did Whitlam's opponents respond to the crises of his government?
   - How and why was the Governor General involved?
   - What were the key events of 11 November 1975?

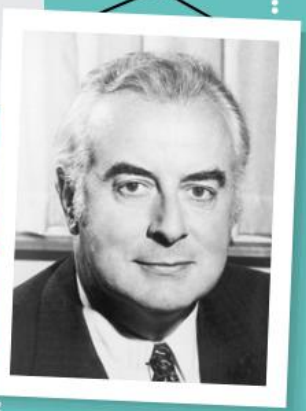
4.12.3 A huge crowd attends the ALP campaign launch, Sydney Domain, 24 November 1975.

Spotlight

Evaluating the Whitlam government

The Whitlam government stirred passionate views on either side and left a mixed legacy.

The Whitlam Government (1972–75)



Achievements

Law:
- **1972** Abolition of conscription
- **1973** Legal aid

Health:
- **1975** Public health insurance (Medibank)

Women:
- **1972** Equal pay
- **1975** No-fault divorce

Indigenous people:
- **1975** Hand-back of Gurindji land
- Aboriginal Land Rights Royal Commission

Education:
- **1974** Abolition of university fees

Challenges and mistakes
- High-spending program
- Extreme rate of change
- Loans affair
- Ministerial sackings
- Autocratic decision-making
- Perceived arrogance/stubbornness

Key quotes

Malcolm Fraser:
'Governments can expect to govern for three years unless quite extraordinary and reprehensible circumstances intervene.'

Sir John Kerr:
'The deadlock which arose was one which, in the interests of the nation, had to be resolved as promptly as possible.'

Gough Whitlam:
'Well may we say, "God Save the Queen", because nothing will save the Governor General.'

Historical perspectives

John Howard, Fraser government minister:
'Whitlam believed that an activist and interventionist national government was always the appropriate response to Australia's challenges. Whilst there will always be debate on such a proposition, Whitlam's commitment to it permeated his actions in government.'

Historical interpretations

Amy McQuire, journalist:
'The iconic image of Whitlam pouring a handful of sand into the fingers of Gurindji stockman … Vincent Lingiari … is one of the most important in our history … Whitlam failed to deliver … national land rights. But he was rare among prime ministers for his willingness to discuss the true aspirations of Aboriginal people on their own terms.'

Aftermath of the dismissal

There was public outrage and division over the dismissal of the Whitlam government. Protests occurred in a number of cities following the decision, and the event became a defining moment in Australian political history.

Despite the anger of many at the actions of Malcolm Fraser and Sir John Kerr, the Whitlam government was overwhelmingly defeated at the election of 13 December 1975.

The dismissal left many legacies for Australia. For the Labor side, Gough Whitlam achieved hero status and is still praised for his courage and progressive policies. However, future Labor governments adopted a more conservative approach for fear of repeating the excesses of Whitlam. On the conservative side, the failings of the Whitlam government strengthened the argument for small government and low public spending. All agree that the dismissal was a turning point in Australian history.

Activities

Remembering and understanding

1. What action did Opposition Leader Malcolm Fraser take in Parliament that triggered the events on 11 November?
2. List three key achievements of the Whitlam government.
3. Identify three key challenges or mistakes made by the Whitlam government.

Applying and analysing

4. Outline why economic factors were significant in the Whitlam dismissal.
5. Explain the connection between the Cold War and the Whitlam era. Which Cold War conflict led most directly to Whitlam's rise?
6. In your own words, evaluate the extent to which the Whitlam government changed Australia. What, if any, legacies still remain?

LS 4D


for sacred Earth
CLIMATE EMERGENCY
SOS
HOME LANDS are a HUMAN RIGHT
LONG LIVE THE RESISTANCE AGAINST CORPORATE GREED AND THE DESTRUCTION OF OUR PLANET
STOP AUSTRALIA'S CLIMATE CRIMES!
CLIMATE JUSTICE
CLIMATE MARCH

The environment movement, 1960s–present

H1

The environment movement developed rapidly in the Western world particularly during the 1960s and 1970s with debate about the protection of the natural world becoming a key political and social issue. Various groups and individuals have had a significant impact in changing the way people throughout the world view the natural world, our place in it and our shared responsibility to take care of it.

OVERVIEW QUESTIONS

H1A How did the effects of industrialisation lead to the emergence of the environment movement by the 1960s and 1970s?

H1B How has the environment movement had an impact on governments around the world?

H1C What impact has the environment movement had on Australian society?

LS Before you begin

GLOSSARY

activist a person who campaigns vigorously to bring about social or political change

biodiversity the variety of all life forms: plants, animals and microorganisms; the genes they contain; the ecosystems of which they form a part; and the processes that link them

climate change long-term change in weather patterns impacting on sea levels due to an increase in the average atmospheric temperature

conservation protection of natural environments and resources through careful management

deforestation cutting down and removal of all or most of the trees from a forested area, which can result in soil erosion, desertification, pollution of waterways and loss of biodiversity

ecology the study of the relations and interactions between living things and their environment

mass production the production or manufacture of goods in large quantities, especially by machinery

mechanisation work done by machinery rather than by hand

naturalist a person who studies or is an expert on nature; works to protect the natural environment

permaculture a system of agriculture that aims to be renewable and self-sustaining

pesticide a chemical sprayed on plants to kill insect, fungal or plant pests

preservation maintaining areas of the Earth in a state untouched by humans, preventing use by humans

rights of nature a legal and political theory that advocates giving nature legal standing, rather than viewing nature as property to be exploited

romantic movement an artistic, literary, musical and intellectual movement that originated in Europe toward the end of the 18th century

suburbanisation the shift in living in central urban areas to suburbs

sustainability protection of the environment and natural resources in order to maintain long-term ecological balance

wilderness wild, uncultivated and uninhabited area

H1.0.1 A rally in Melbourne in 2017 to campaign for action against climate change

Timeline

Environment movement

The 1960s and 1970s was a period of increasing social awareness and political activism. Awareness was also growing of the impacts on the environment of rapid change by humans. Rising populations, widespread industrialisation and urbanisation were having a significant impact on the environment, and the political climate of the time led to the growth of the environment movement.

Orange boxes indicate **AUSTRALIAN EVENTS**

1945 World War II ends

1952 Britain conducts first nuclear test at the Montebello Islands, 100 kilometres off the north-west coast of Australia

1953 British conduct two tests on the mainland at Emu Field in South Australia in October

1956–1963 Britain conducts hundreds of minor trials and seven nuclear tests in Maralinga, north-west of Adelaide

1962 Rachel Carson publishes *Silent Spring*

1966 The Australian Conservation Foundation (ACF) is created; French nuclear testing in the Pacific Ocean begins and will last until 1996

1969 National Environmental Policy Act in the US

1971 Kelly's Bush in Parramatta, NSW is saved

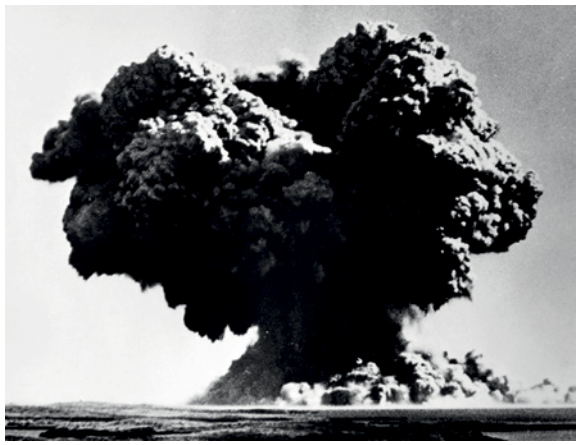
1972 DDT is banned in the US

1977 Greenpeace Australia founded

1978 *Permaculture One* published

1979 The German Green Party Die Grünen is created

AD 1940 1950 1960 1970 1980



British nuclear test at Montebello Islands off the coast of Western Australia in 1952

The Fukushima nuclear disaster in Japan in 2011

1976–1981
Non-violent protests to stop damming of the Franklin River in Tasmania

1981
The Great Barrier Reef is declared a World Heritage site

1985
Hole is discovered in the ozone layer over Antarctica; Greenpeace boat, the *Rainbow Warrior*, bombed in Auckland Harbour

1986
Chernobyl nuclear disaster in Ukraine

1989
Exxon Valdez oil spill contaminates the coastline of Alaska

1992
Australian Greens political party is formed, with Bob Brown as its leader

1997
Kyoto Protocol adopted

1998
Protest to prevent uranium mining takes place at Jabiluka in Kakadu National Park

1999
Environment Protection and Biodiversity Conservation Act is passed

2000
Largest ever hole in the ozone layer recorded over Antarctica

2004
Stockholm Convention comes into effect

2006
Al Gore's *An Inconvenient Truth* is released

2007
Australia ratifies the Kyoto Protocol, committing to having 20 per cent renewable energy by 2020

2010
Gulf of Mexico is contaminated after a deep-sea oil well blows out

2011
Fukushima nuclear disaster occurs in Japan

1981 1990 2000 2010 2020 AD

H1.1 Emerging environmental awareness

Origins and development of environmental activism

The modern environment movement emerged in the Western world during the 1960s. This movement has raised awareness about the importance of the natural world and the impact humans have on the environment. During the twenty-first century, the environment movement has influenced political decisions and the way people live their lives.

However, environmental awareness has its origins in the late-nineteenth and early-twentieth centuries. During this period, ideas were changing about how humans should interact with the natural world. These ideas were largely shaped by the experience and impact of centuries of rapid progress that began with the beginning of the Industrial Revolution.

The Industrial Revolution and its impact on the environment

From the late eighteenth century to the early twentieth century (late 1700s to the early 1900s), the Industrial Revolution spread from the UK to Europe, and then to the rest of the world, with significant consequences for the environment.

Demand for resources

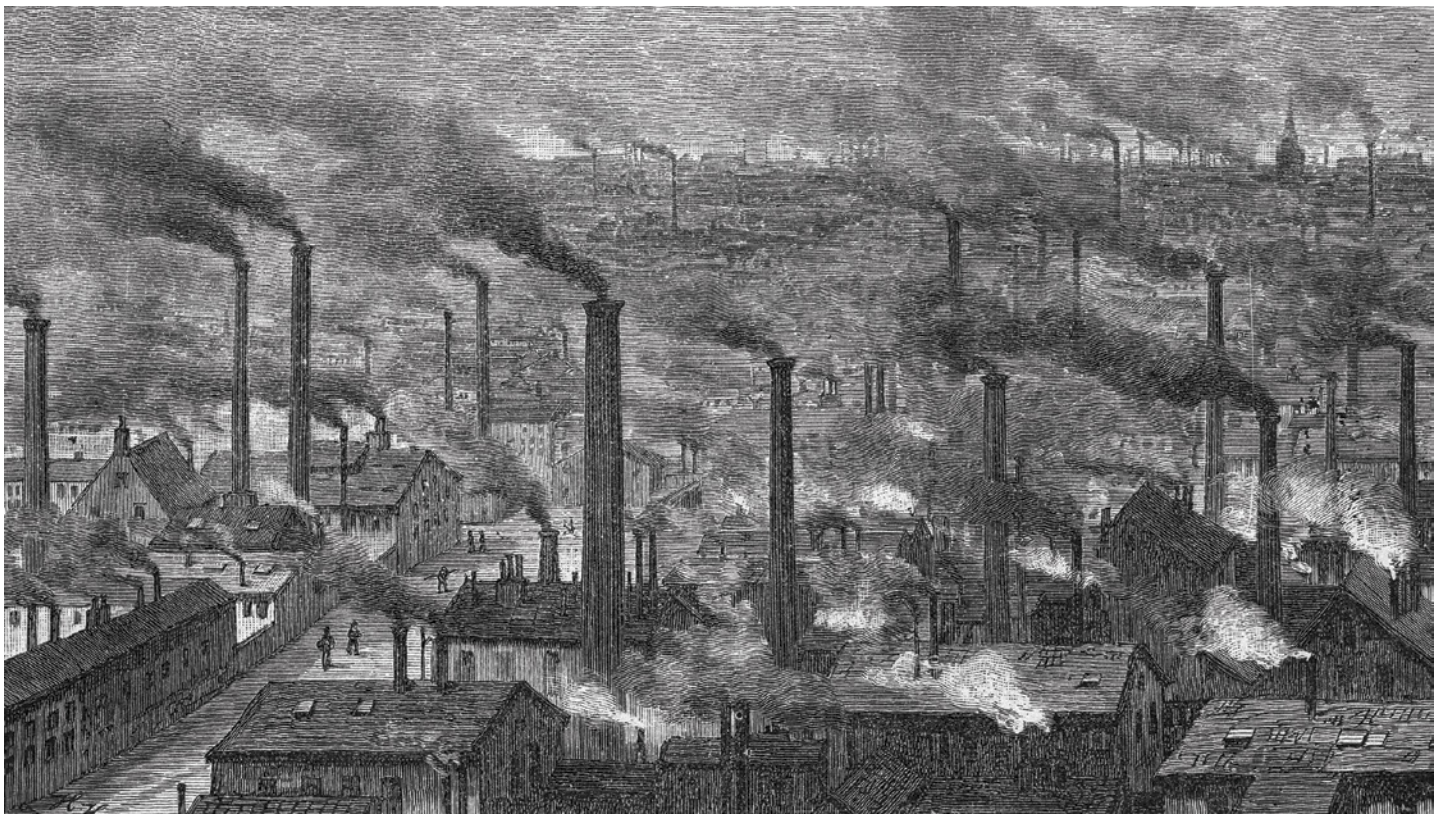
Factories, farm machinery and new types of transportation required huge amounts of coal to power their steam engines. New machinery and building techniques required iron ore, while **mass production** of goods in factories fed a growing demand for new products. The mining industries boomed as raw materials were taken from the natural world. Exploiting the environment of its resources was seen as progress.

Changing landscape

New job opportunities were created at factories and related industries, which meant that people increasingly moved to live in cities rather than country villages. Air and water pollution was caused by industry and disposal of waste products, and land was cleared of trees in the search for raw materials.

Growth of populations

The improved production of food, the faster production of goods and new medicines resulted in significant population increases, which put further pressure on the environment as cities expanded into agricultural land and waterways were co-opted by industry.



H1.1.1 A wood engraving c.1880 showing an industrial town in England

H1.1.2 Art during the Romantic era showing a romanticised view of the landcape and nature, in sharp contrast to the industrial landscape depicted in Source H1.1.1

Growing awareness of threats to the natural environment

Even though there were great benefits to the Industrial Revolution, some people—mainly writers, artists and **naturalists**—felt this progress was at the expense of the natural environment. Perhaps the most influential at the time was British naturalist Charles Darwin. He argued in his book, *On the Origin of Species by Means of Natural Selection*, first published in 1859, that human survival depended on adapting to nature rather than separating ourselves from it. His views revolutionised Western thinking about the environment.

The **romantic movement** of the nineteenth century (c. 1800–50) in England and Europe also emphasised—through art, music and poetry—the beauty and spiritual benefits of landscapes untouched by industrialisation. The works of poets such as Keats, Coleridge and Wordsworth and painters like John Constable evoked an emotional and spiritual connection to the natural world and highlighted the destruction that humans were inflicting on nature.

Nineteenth century national parks movement

Establishing parks

This increasing awareness of the importance of nature was also espoused by naturalists, writers and artists in the US. Writers, such as US naturalist John Muir (1838–1914) who wrote that the **wilderness** was essential for the soul, played a prominent role in the campaign for national parks in the late nineteenth century. The idea of establishing an area of land—the purpose of which was to protect and preserve an environment, its plants and animals—became attractive to people who were wary of the effects of industrialisation on the environment. In the US and Australia in particular, individuals and groups pressured governments to issue laws to create national parks, protecting areas of untouched wilderness.

The world's first national park

Muir and geologist Ferdinand Hayden were key advocates in convincing the US public and Congress to protect the natural environment, particularly from grazing livestock, by setting aside wilderness areas for **preservation**.

In 1872, President Grant created the world's first national park—Yellowstone National Park—covering nearly 900 000 hectares. Sequoia and Yosemite National parks (both in California) were established in 1890. By 1916, there were many others, including Grand Canyon National Park in Colorado. In 1917, the National Park Service was established by the federal government to oversee national parks across the United States.

H1.1.3 Women hiking at Yosemite National Park, US, c. 1900

> Thousands of tired, nerve-shaken, overcivilised people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life … This is fine and natural and full of promise. So also is the growing interest in the care and preservation of forests and wild places in general, and in the half wild parks and gardens of towns.

H1.1.4 From John Muir, *Our National Parks*, 1901

Preservation vs conservation

In the late nineteenth century, debate emerged between those who believed in preservation and those who believed in **conservation**.

Preservationists, such as John Muir, believed that the environment should be protected so that it remained untouched, to be used only for education and recreation.

Conservationists believed human interaction with the environment should ensure sustainable management of natural resources. A leading US conservationist, Gifford Pinchot (1865–1946), argued that the felling of trees was acceptable only as long as the forest remained healthy in the long term. Pinchot argued that in this way the general public would benefit from the natural resources, not just those wealthy enough to visit wilderness areas.

National parks in Australia

Following in US footsteps, Australian naturalists and bush-walking societies lobbied colonial (and later state) governments to protect wilderness areas from settlement. Destruction of habitats, the culling of koalas to official extinction in South Australia and the extinction of the thylacine (or Tasmanian Tiger) due to hunting, caused widespread public outcry.

Royal National Park in Sydney was the first national park in Australia, established in 1879. In 1892, the Tower Hill Reserve near Port Fairy became Victoria's first national park. More national parks and nature reserves were created around the country and today there are over 500 across Australia covering approximately 25 million hectares of land. Designated conservation areas and marine protected areas have also been established around the country.

Crown land

Huge areas of Australia were also set aside as Crown land. In Commonwealth nations, this means public lands that are considered to belong to the British Crown (or Queen or King). However, despite some acts of conservation, Crown land was largely seen as valuable for its potential to be developed.

H1.1.5 The Grampians National Park is one of Victoria's most popular tourist destinations. It was named a National Park in 1984.

Activities

Remembering and understanding

1. Outline three key consequences on the environment of the Industrial Revolution.
2. Create a flow chart that explores the effects of the Industrial Revolution on the environment. Be as specific as possible in your chart.
3. Describe how preservationists were able to change the way humans used the natural environment during the nineteenth century in the US and Australia.

Applying and analysing

4. Draw a Venn diagram to identify the similarities and differences between conservation and preservation.
5. ADAMANT is a technique used by historians to interpret primary and secondary sources. ADAMANT stands for author, date, audience, message, agenda, nature and technique. Using ADAMANT, evaluate Source H1.1.3.
6. Describe how Source H1.1.4 reflects what you know about the contribution of John Muir to the preservation of the environment.

H1.2 Environmental effects in the twentieth century

Urbanisation and the growth of cities

The actions of individuals, groups, corporations and governments affect the environment in positive and negative, intentional and unintentional ways.

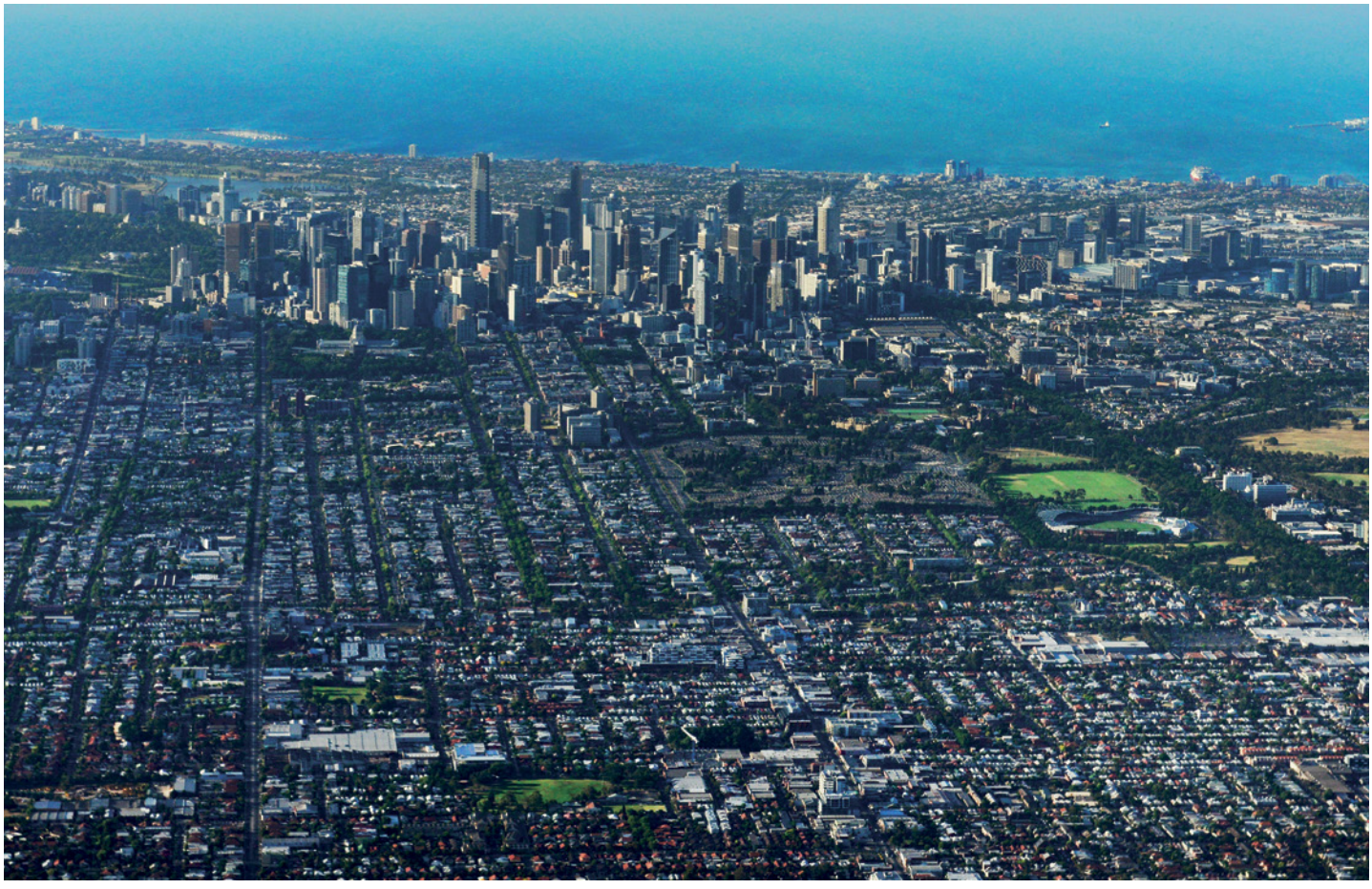
The growth of cities has far-reaching environmental effects that spread well beyond the edges of cities. Throughout the nineteenth century, people flocked from agricultural areas to the first industrialised cities (such as London), which grew rapidly with little or no planning. These cities were heavily polluted as a result of burning coal for heating and industries. This caused lung disease to soar and a lack of sunshine meant that children developed rickets, which meant that their bones did not develop properly. Although cities drained areas of natural resources and water and dumped their wastes locally, their impact on the environment was mostly limited to specific areas until well into the twentieth century.

Environmental effects of urban sprawl

After World War II, **suburbanisation** increased at a rapid rate as a result of government policies. In the US, the Veterans Bill (which made interest on mortgages tax deductible) and the building of highways made new areas more accessible in the 1950s and 1960s. The **mechanisation** of housing construction by the 1980s and 1990s enabled massive developments that:

- swallowed up greenfield areas
- reduced animal and plant species
- increased soil erosion
- increased water pollution.

These developments are characterised by consumption of non-renewable resources and generation of large amounts of waste. The movement of sprawling urban populations to warmer, dryer locations in the US and Australia has meant increased reliance on air-conditioning technology



H1.2.1 An aerial view of Melbourne's suburbs

and has put pressure on water reserves. In recent decades, urban environmental change has been characterised by a decrease in the density of the population but an increase in land use. This can be seen in places such as Melbourne's outer suburbs and in many other cities around the world (see Source H1.2.1).

Creating more sustainable cities

As the world becomes more urbanised there have been attempts towards building more sustainable cities. Governments have made moves to restore a sense of community in urban neighbourhoods by revitalising the inner city, reducing car use, improving public transport and placing an emphasis on renewable resources and recycling. For example, over the past 10 years the City of Melbourne has improved access to public transport, increased bike lanes and introduced car-free zones.

The global demand for resources

Since the nineteenth century, changes in the way we live have placed increasing and enormous pressure on resources such as land, water, energy sources and minerals. From 1850, changes in agricultural production, new transportation networks and the growing importance of national institutions started to have environmental repercussions. Agricultural productivity was boosted at the turn of the twentieth century with the introduction of farm machinery to replace manual labour assisted by draught animals. This increased the impact upon the environment as more could be grown, meaning more land had to be cleared for farming.

Agriculture was almost completely industrialised from 1950 onwards, boosting production but leaving a much bigger footprint on the environment. Cheap oil made modern agriculture possible with the use of machinery. Developments in agricultural science and technology have had significant impact on the environment. It is now known that the widespread use of chemicals in fertilisers and **pesticides** has had disastrous effects on groundwater supplies.

US agricultural projects during the 1930s

In October 1929, Wall Street crashed and the Great Depression began. In the US, industrial production fell by 50 per cent and unemployment rose to 25 per cent. During 1933–36, President Franklin D. Roosevelt introduced programs aimed at creating employment.

One of these projects was the Civilian Conservation Corps that employed 3 million young men to restore national parks and forests. States in the US funded projects such as revitalising poor agricultural areas with tree planting. This helped to reinvigorate the conservation drive of the progressive era.

Turn of twentieth century progressivism

Progressivism is a movement that believes in gradual change through government reform. This movement of progress influenced US society and politics. It led to President Roosevelt (1901–09) commissioning a report providing a list of the nation's natural resources in order to carefully and efficiently manage scarce resources. He also set aside fifty-three reserves and five new national parks and founded the Forestry Service.

World War I

Massive destruction of urban and rural areas accompanied the millions of deaths. New military technologies of poison gases, grenades, airplanes and tanks transformed the landscape into a treeless wasteland devoid of animals and their habitats. World War I had an impact on nations as industrial production was stepped up to meet wartime needs, placing pressure on natural resources and the environment.

Roaring Twenties

The 1920s was a period of economic and industrial boom with assembly-line mass production creating and heightening consumer demand with advertising. Depletion of natural resources, loss of wilderness and pollution were seen as a small price to pay for manufacturers' profits and urban consumers having easy access to goods. Conservation regulations of the progressive era were ignored as cities grew.

H1.2.2 Consumption and production from the turn of the twentieth century until the 1920s

Australian agriculture policies

In Australia, Aboriginal and Torres Strait Islander peoples had used firestick farming to convert open forests to grasslands to make hunting and gathering easier. After Europeans arrived in Australia, land was cleared for new settlements and farming.

At the turn of the twentieth century, Australian governments provided bounties and grants for producing certain goods, and subsidised railway freight to promote agriculture. Most farmers used European farming practices that did not suit the Australian soils and, as a result, major soil erosion occurred.

By the 1930s, soil erosion was a national issue, and in 1936 federal and state governments met with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to discuss the problem and find solutions. In 1939, the Soil Conservation Act was introduced. The Committee overseeing the implementation of the Act noted that it was more important to concentrate on educating landholders, rather than having compulsory prevention.

Environmental effects of industrial production and global trade

The proliferation (rapid increase) of coal and oil-powered transport in the developed and developing world—steamships, trains and street cars—enabled new areas to be opened up for economic use. The use of fossil fuels meant millions of people could live in cities, with food transported across great distances and luxury goods such as cotton, tea, sugar and flour brought from faraway continents.

Increased demand for timber

Forests in Europe used to have mixed uses where livestock grazed among the trees and people gathered resources from the forest by hand largely for their own use. More efficient systems were introduced by the Early Modern Era (1500–1789), creating a professional forestry industry to produce maximum timber for increasing markets.

The opening up of trade routes at the end of the nineteenth century and falling costs of transportation by ship and train meant that there was an increasing international trade in global wood. The spread of railways through Europe meant even small villages were drawn into the timber trade, as it no longer depended on river systems. French and German forests were further depleted after the end of World War II in 1945 as reconstruction occurred.

Oil, coal and environmental impacts

From the 1950s onwards, there was a more resource-intensive approach that exploited nature using scientific and technological expertise. The impact that coal and oil had on the environment was as a result of the activities that they made possible. For example, oil enabled the use of personal motorcars and car culture, which changed the air quality, the way land was used and city layouts.

Did you know?

Between 1936 and 1937, there were about 200 dust storms in the Great Plains of the US as a result of overfarming of delicate grasslands. Approximately 400 000 people deserted their farms in search of work. In 1937, the US government planted thousands of trees to stop further damage, but they were not able to reverse the damage completely.

H1.2.3 People protesting against the drilling of oil in Yasuni National Park in the Amazon rainforest. Oil is Ecuador's main export and Yasuni oilfields hold an estimated 846 million barrels of crude oil.

Deforestation

In many parts of the developing world, **deforestation** (the clearing of forests) is a significant environmental and social issue. However, it is often seen as less important in the face of progress or the growth of a nation's economy. Since the 1950s the Brazilian government has enacted laws to encourage the profitable use of the Amazon at the expense of the rainforest. The UN reported that Brazil lost 2.6 million hectares of forest between 2000 and 2010 due to small farmers using slash-and-burn clearing to make way for raising cattle.

Decisions about how to manage forests have been driven by global trends in trade and transport, and the way resources are viewed as part of the economy. The international environment movement that emerged in 1970s has been influential and has changed perceptions about the use of forests.

H1.2.4 Brazil loses millions of hectares of forest each year.

As a result, sustainable practices have been integrated into many forestry departments. China introduced a tree-planting holiday resulting in increased forest coverage from 12 per cent to 16.5 per cent over the two decades to 2001. In 2010, the UN reported that 76 countries had enacted forestry laws since 2000 to address the impact of humans on forests.

Australian government responses to deforestation

The most significant causes of deforestation in Australia are the clearing of land for agriculture and ecologically-unsustainable harvesting of trees. In 1992, Australia attended the Rio Earth Summit. As a result the federal government established a national framework to promote the conservation and sustainable management of forests by controlling the amount of clearing that can occur. The *Environmental Protection and Biodiversity Conservation Act 1999* indirectly controls land clearing by protecting threatened species that live on land that some want to clear.

The federal government has a national target to triple tree plantations by 2020 and a national strategy to engage Indigenous communities in forestry.

In 2008, as part of a global solution, the federal government announced an investment of $4.5 million to help research how to reduce deforestation. The funds were aimed at surrounding developing nations, in particular Papua New Guinea and Indonesia. The *Illegal Logging Prohibition Act 2012* aims to protect forests in developing nations by ensuring that all timber is legally harvested before timber products are accepted into Australia for sale. Nevertheless, the threats to old-growth forests and native forests from over-harvesting continue to be hotly debated topics in Australia today.

H1.2.5 Revegetation project in Victoria

Activities

Remembering and understanding

1. List examples of the intensification of environmental effects from the growth of cities and increasing demand for resources during the second half of the twentieth century.
2. Describe some of the ways in which governments have acted during the twentieth century to minimise the negative impact of humans on the environment.
3. What impact did the industrialisation of agriculture from the 1950s onwards have on the environment?
4. What were some of the negative effects of urbanisation on the environment?

Applying and analysing

5. Rank each of the following technologies from least to most damaging to the environment: trains, steamships, agricultural machinery, cars. Provide reasons for your rankings.
6. Using a graphic organiser of your choice, create a diagram showing the development of cities and urban sprawl, and its changing impact on the environment.
7. Explain the position taken by the Australian government in the last two decades in balancing the demand for timber resources and the management of forests.

Evaluating and creating

8. Many musicians have written songs that reflect on or make comments about important environmental events. Choose a song written since the 1960s that explores an environmental issue.
   a. Describe the event/issue that is the focus of the song. What concerns does the artist have? Support this with evidence from the lyrics.
   b. Do you believe that a song can influence attitudes to an environmental issue? Give reasons for your answer.
9. Imagine you wanted to influence public opinion on a particular environmental issue.
   a. Research the issue you have chosen and develop your argument.
   b. Choose the most effective way you can think of to present your argument, for example a song, PowerPoint or short film.

H1.3 Key environmental issues in Australian agriculture

The growth of agriculture in Australia

In 1788, when Europeans first settled in NSW they immediately began clearing the land to plant crops and graze animals. More land was explored throughout the nineteenth century as farmers sought more fertile soil and agriculture continued to grow throughout the country. In the 1950s, there was a boom in agricultural production due to improved knowledge of fertilisers and pesticides, and the introduction of aeroplanes on farms. However, as outlined in Source H1.3.1, increased agricultural production has been accompanied by negative effects on the environment.

H1.3.1 Concept map showing environmental effects of increased agricultural production

Rural to urban migration

The number of people living in Australian cities compared to rural areas has always been high. Due to increased mechanisation on farms, rural populations have declined as more and more people move to the cities. As a result, Australia is one of the most urbanised countries in the world, with approximately 85 per cent of the population living in towns and cities. The low-density urban sprawl of Australian cities contributes to land clearing, pollution, high-energy consumption, invasive species and reliance on cars, leaving a large environmental footprint.

Responses to environmental issues in agriculture

As concerns over environmental issues, particularly agriculture, escalated in the twentieth century, there was a range of responses.

Back-to-the-land movement in the 1970s and 1980s

During the 1970s and 1980s, small numbers of people left Australian cities to live on farms. Many of them chose to grow food organically. Those who made this choice were generally middle-class, university-educated young people who were reacting against the modern industrial world characterised by over-exploitation of resources and environmental destruction. This movement was part of the desire for broad social change during the 1970s. 'Back-to-the-landers' withdrew from modern urban living and sometimes saw their lifestyle choice as a political statement. They aimed for self-sufficiency, independence and a connection with nature in an attempt to overhaul cultural values.

H1.3.2 Spraying crops with chemical pesticides in Australia

Organic farming

Organic farming means growing food without using manufactured chemical fertilisers or pesticides. Organic farmers want to protect natural ecosystems on the farm and beyond. They believe that using an organic approach produces a healthier product and reduces the harmful effects of chemicals. There are three principles of organic farming:

- *healthy soil*—rich, fertile soil is created by using compost, animal manure and green cover crops rather than the artificial fertilisers used by conventional farmers that have varied negative impacts on the environment

- *chemical-free*—plants are grown and animals raised without the use of artificially-made fertilisers, pesticides, herbicides and fungicides that have a negative impact on the health of people and the environment
- *ecological wellbeing*—people need to find a balance in their relationship with the environment, as all things are interconnected and interdependent.

Australian standards

The development of Australian standards for commercial organic farming in 1986 was a response to the growth of the global trade in organic food. Certification has allowed organic growers to profit commercially from what they believe to be healthier food production.

Sustainable living

For some people, organic farming is an extension of environmental activism and a response to what they see as a harmful mainstream approach to interaction with the environment. Organic farming and **permaculture** are linked to conservation and sustainable living as some people argue it is a way to combat **climate change**. They believe it reduces carbon emissions and offers an alternative to high-energy consumption.

H1.3.3 These protestors are pro-organic farming and against genetically-modified farming.

Permaculture

In the mid-1970s, Tasmanians Bill Mollison and David Holmgren developed particular ideas about farming. In 1978, drawing on scientific observations, Indigenous knowledge and traditional folk wisdom, they published *Permaculture One*. Permaculture aims to set up a system that respects nature and can be sustained indefinitely by finding natural patterns to grow combinations of trees with crops. This approach was developed in response to the increased use of industrial methods of farming that were dependent on non-renewable resources. Supporters believe that these industrial methods poison the environment and result in loss of topsoil. In 1978, Mollison founded an institute to teach the concepts of permaculture in Australia and around the world.

Skills builder

Cause and effect

Understanding cause and effect allows you to appreciate why events happen. It means taking an event and looking to the past to see what caused it.

The relationship can be very simple with one cause leading to one effect. In other situations there will be multiple causes that lead to a particular event.

Sometimes the causes will have been in the immediate past. These are known as short-term causes. Other times the causes will have happened a long time before the event. These are called long-term causes.

APPLY

1. European settlement in Australia led to environment problems. What is the cause and what is the effect in this situation?
2. Look at Source H1.3.1.
   - a. What caused these effects? Was each one a long- or a short-term cause?
   - b. Imagine you were trying to convince a government body to fund a study into environmental effects. With a partner, create a presentation that presents your arguments.
3. Using information in this chapter, list the causes of the environment movement and indicate if they are short or long term.

Activities

Remembering and understanding

1. Outline the key ways in which agriculture has created environmental issues in Australia.
2. Explain the principles of organic and permaculture farming.

Applying and analysing

3. Compare the response to the intensification of environmental effects by back-to-the-landers with organic/permaculture farmers. Use a Venn diagram to display your findings.

H1.4 Dams and environmental consequences

Dams

The seemingly endless water supply and cheap energy has made dams attractive to all types of government systems. Dams can supply hydroelectricity, created by the force of water falling or flowing. This is an attractive proposition for many countries, as hydroelectricity has been traditionally viewed as a renewable, cost-effective way to generate power. However, there is debate about whether the costs of building dams to produce power outweigh the benefits.

The social and environmental costs may be outweighed by governments because dams provide jobs and hydroelectricity, and improve the lives of people living in cities. The negative view of dam building focuses on the displacement of citizens, siltation caused by river sediments, destruction of local fisheries, salinisation of irrigated fields, deforestation and malaria, as well as the loss of forests and habitats, which means a reduction in **biodiversity**.

The Three Gorges Dam

The Three Gorges Dam on the Yangtze River in central China was finished in May 2006. It highlights both the negative and positive aspects of dam building. It provides hydroelectricity and aids in the prevention of flooding downstream, but it necessitated the submersion of villages, hundreds of factories, mines and dumps that are polluting the 600-kilometre long and 1.1-kilometre wide reservoir. The dam is thought to have increased seismic activity in the region, and exacerbated droughts and riverbank landslides downstream.

Different opinions

Debate has long raged around the world about the pros and cons of building dams. Their sheer dramatic size, presence and spectacle seem to inspire strong reactions and opinions. Some people, such as US President Franklin D. Roosevelt, have been inspired to passionately praise the achievement of

H1.4.1 Water being released from China's Three Gorges hydroelectric dam

building such structures that store and channel the precious resource of water. One such example is the Boulder Dam (later renamed Hoover Dam) built in 1935.

> This morning I came, I saw, and I was conquered, as everyone would be who sees for the first time this great feat of mankind. ... We are here to celebrate the completion of the greatest dam in the world, rising 726 feet above the bedrock of the river and altering the geography of a whole region; we are here to see the creation of the largest artificial lake in the world—115 miles long, holding enough water, for example, to cover the State of Connecticut to a depth of ten feet; and we are here to see nearing completion a power house which will contain the largest generators yet installed in this country ... Ten years ago the place where we gathered was an unpeopled, forbidding desert. In the bottom of the gloomy canyon whose precipitous walls rose to a height of more than a thousand feet, flowed a turbulent, dangerous river. ... The site of Boulder City was a cactus-covered waste. And the transformation wrought here in these years is a twentieth century marvel.

H1.4.2 Speech by Roosevelt at the dedication of Boulder Dam, 30 September 1935

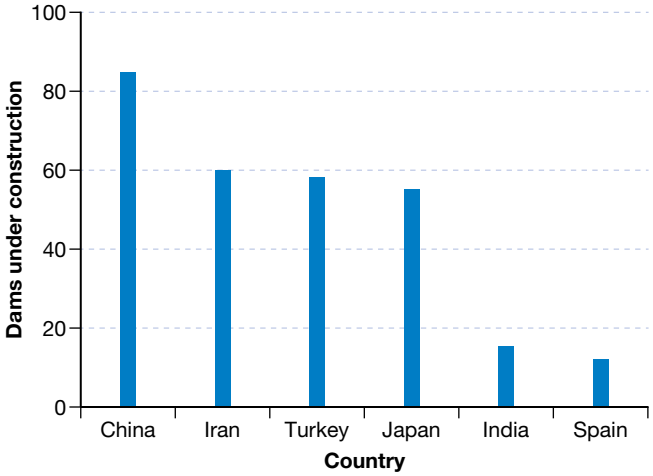
Other people maintain that the building of such massive structures does irreversible harm to both the natural environment and the culture of the region in which it is built. Former Indian Prime Minister Jawaharlal Nehru's views on dams changed over time, as the following quotes illustrate.

> Large dams are the biggest temples of modern India, where man works for the good of mankind.

H1.4.3 Excerpt from a speech by Indian Prime Minister Jawaharlal Nehru, delivered at the opening of the Nangal Canal, 8 July 1954

> The 'disease of giganticism [where the] idea of doing big undertakings or doing big tasks for the sake of showing that we can do big things is not a good outlook at all ... [It is] the small irrigation projects, the small industries and the small plants for electric power which will change the face of the country, far more than a dozen big projects in half a dozen places... the national upsets, upsets of the people moving out and their rehabilitation and many other things [are] associated with a big project.

H1.4.4 Speech by Indian Prime Minister Jawaharlal Nehru, November 1958



H1.4.5 Dams over 60 metres in height under construction during 2005

Activities

Remembering and understanding

1 List the environmental pros and cons for the construction of dams.

Applying and analysing

2 Reread Source H1.4.2.
- **a** Describe Roosevelt's reaction to visiting Boulder Dam. Why do you think he calls it a 'twentieth century marvel'?
- **b** What do you think Roosevelt's speech reveals about his attitude to the relationship people have with the environment?
- **c** What type of source is this? Who do you think the intended audience was? Describe the intended effect.

3 Read Sources H1.4.3 and H1.4.4.
- **a** Interpret what Nehru meant by a 'disease of giganticism'.
- **b** In what ways did Prime Minister Nehru's attitude towards dams change over time? Account for this shift in his attitude.

4 Consider Source H1.4.5.
- **a** Why might countries such as China and Iran have a large number of dams under construction?
- **b** Why might countries such as India and Spain have a smaller number of dams under construction?

H1.5 British nuclear testing in Australia

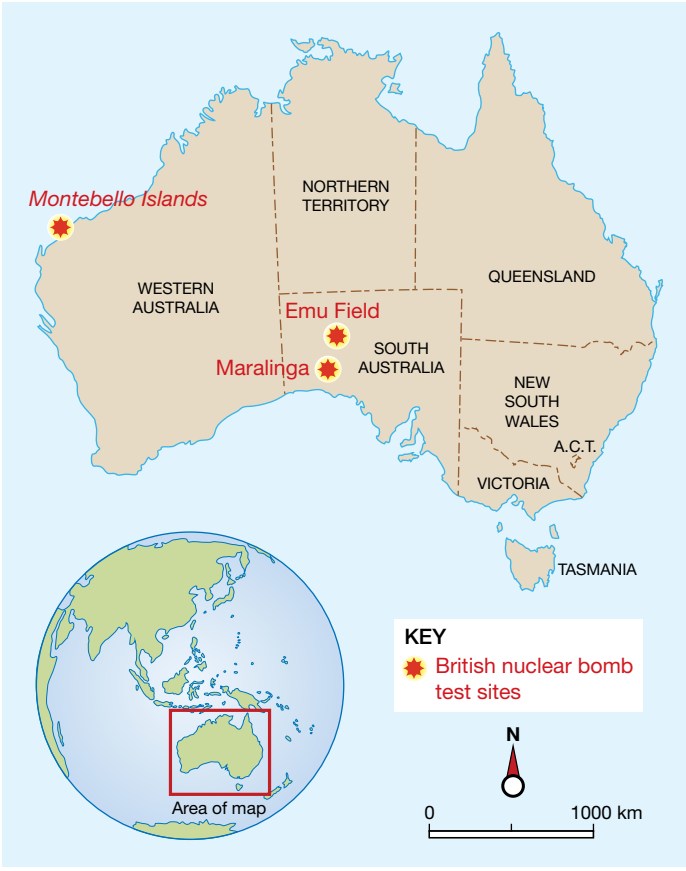
The arms race

Despite the devastation caused by the US bombing of Japan in 1945, fearful nations continued to conduct nuclear experiments. As tension of the Cold War rose, a race among powerful nations ensued to develop nuclear weaponry. At the forefront were the two superpowers, the United States and the Soviet Union, but other countries (including Britain) performed experiments.

British nuclear tests in Australia

Between 1952 and 1957, Britain exploded twelve nuclear bombs in three sites around Australia. Prime Minister Robert Menzies allowed the British to carry out these tests under a great deal of secrecy without consulting his cabinet. Three experiments were conducted between 1952 and 1956 at the Montebello Islands, 100 kilometres off the north-west coast of Australia. Two tests were conducted on the mainland at Emu Field in South Australia in October 1953.

The conditions at Montebello and Emu Field were too remote for Britain's purposes. They therefore requested a more accessible site. Maralinga, a 3200 km² site 800 kilometres north-west of Adelaide, was offered as permanent testing ground and the traditional occupants of the land, the Maralinga-Tjarutja people, were forcibly removed. On this site, Britain conducted hundreds of minor trials and seven nuclear tests between 1956 and 1963. While the impact of the nuclear tests was devastating, the smaller tests were arguably equally dangerous because they sprayed plutonium in all directions.



H1.5.1 British nuclear bomb test sites in Australia

Dangers of the testing

It was necessary to conduct nuclear experimentation in remote areas because of the extreme dangers it posed. However, the secrecy of the operation and the pressure to match global nuclear progress, resulted in recklessness. Safety precautions were not adequately implemented to protect participants and local residents. The perimeter of the test site was not secured, so the displaced Aboriginal population was travelling in and out of the contaminated area. Many suffered sore eyes, even blindness from the explosion, skin rashes, diarrhoea, vomiting, fever, and early death from illnesses such as cancer and lung disease.

H1.5.2 While the perimeter of the test site was not secured, signs like this one in Maralinga provide a warning.

Within the site, British and Australian personnel set up, carried out and cleaned up experiments without safety gear to protect them from radioactivity. The weather was unpredictable and bombs were tested in poor conditions. Radioactive clouds rose higher than predicted and travelled towards populated areas on the east coast. Once bombs exploded, aircrafts were flown through the billowing clouds to gather samples of the radioactive dust for further testing. Only 5 years later, unaware soldiers were sent back into the still-contaminated site.

H1.5.3 British and Australian personnel look on unprotected as a bomb explodes.

Spotlight

In 1950, British Prime Minister Clement Attlee sent a top-secret message to Australian Prime Minister Menzies asking to test a British nuclear weapon. In it he warned of the dangers:

> The effect of exploding an atomic weapon in the Montebello Islands will be to contaminate with radio activity the north-east group [of islands] and this contamination may spread to others of the islands. The area is not likely to be entirely free from contamination for about three years… During this time the area will be unsafe for human occupation…suitable measures will need to be taken to keep [people] away.

H1.5.4 British Prime Minister Attlee's message—despite Attlee's warning, the Australian government chose to allow the tests.

Why were the tests allowed in Australia?

Britain and the United States had previously conducted joint weapons development. However, due to rising Cold War tensions, the US became increasingly isolationist, instituting a ban on collaborative nuclear testing. As such, Britain was forced to continue its research independently. Without suitable territory to experiment with nuclear materials, Britain looked to former colony, Australia, as an appropriate site. In agreeing to Britain's proposal, Prime Minister Menzies saw potential to continue a security alliance with Britain, which allayed Cold War fears. He also readily agreed out of allegiance to the 'mother country' as many people in Australia still viewed Britain at the time.

Legacy of the tests

Decades later, the full extent of the effects on service personnel and communities is still unknown. However, the Aboriginal communities in the vicinity of all three sites were and continue to be damaged immeasurably, including through displacement, injury and death. Many injuries and deaths of service personnel allegedly caused by the tests have not been formally linked to the operations.

The full impact on the environment is also unknown. Britain led two clean-ups: Operation Hercules in 1964 and Operation Brumby in 1967. However, both of these attempts only worsened the contamination. After recommendations by the Royal Commission into British nuclear tests in Australia, the Australian government spent $100 million cleaning the contamination between 1993 and 2001. Britain paid less than half this sum, and only after significant pressure and negotiation.

The Maralinga site was formally handed back to the traditional owners in 2014. Traditional owners plan to run tours allowing visitors to explore the former test areas.

Did you know?

The damage caused by testing has proven intergenerational, with families suffering deformities and early deaths because of genetic transfer of radiation.

Activities

LS H1A

Remembering and understanding

1. Where and when were nuclear weapons tested in Australia?
2. List two reasons why Prime Minister Robert Menzies allowed testing to be conducted in Australia?
3. What happened to Aboriginal people living in Maralinga before the British nuclear testing began?
4. What were some of the negative effects of nuclear testing on the local people and the environment?

Applying and analysing

5. Discuss three reasons why Britain chose to carry out nuclear tests in Australia.
6. Research one Maralinga-Tjarutja person and explain in your own words the impact of the nuclear testing on their life.

Evaluating and creating

7. Study Sources H1.5.3 and H1.5.4. In your opinion, were 'suitable measures' taken to keep people safe from contamination? Give reasons for your answer.

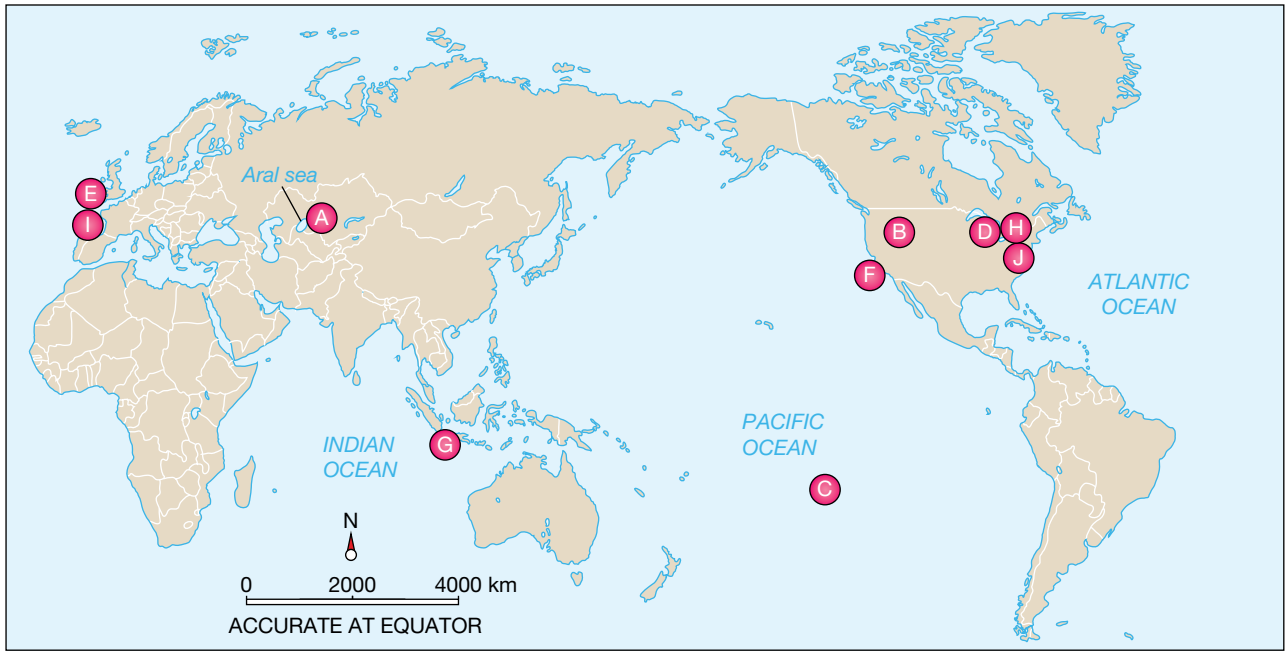
H1.6 Growth and influence of the environment movement

Growing awareness before 1975

The 1960s and 1970s were a time of great social change. Post-war baby boomers became adults around this time. They were educated and prepared to protest and fight for changes. Longstanding social norms began to be challenged. Many Australians demanded political change (including an end to conscription and withdrawing from the Vietnam War), social change (including equal pay for equal work or land rights for Indigenous Australians) and environmental change.

The environmental problems of the 1960s and 1970s were on a larger scale than ever before, often crossing national borders. As illustrated in Source H1.6.1, a number of global events drew public attention to the relationship people had with nature and the impact that people had on the environment. Environmental disasters attracted a high level of public attention due to the coverage provided by television news and current affairs programs. This increased level of general awareness created a turning point in environmental history.

H1.6.1 Serious environmental disasters in the 1960s and 1970s



A In the 1960s, the Soviet Government diverted two rivers away from the Aral Sea for an irrigation scheme that resulted in the near destruction of the surrounding ecosystem.

B In 1961, the Low-Power Reactor Number One nuclear reactor in Idaho Falls, USA, exploded, releasing radioactive material into the atmosphere.

C French nuclear testing in the Pacific Ocean began in 1966. There were fears the radioactive waste would destroy the marine ecosystem.

D In 1966, the Enrico Fermi Nuclear Generating Station in Michigan, USA, suffered a partial meltdown.

E In 1967, the oil tanker *Torrey Canyon* struck a reef off the English coast and polluted hundreds of kilometres of coastline. The clean-up chemicals caused further environmental damage.

F In 1969, the Union Oil Company's Pacific Ocean oil platform off the coast of California experienced a well blow-out. Thousands of sea birds and marine animals died.

G In the early 1970s, large areas of Indonesia's rainforest were logged for timber or burnt-off for farmland. Over the decades that followed, 72 per cent of the original forests were lost, which affected the ecosystem.

H The 1970s Love Canal toxic waste seepage in the town of Niagara Falls; a state of emergency was declared.

I In 1978, the super tanker *Amoco Cadiz* became stranded off the French coast. Wild seas ripped open the hull, spreading crude oil over 300 kilometres of coastline.

J In 1979, the cooling malfunction at the Three Mile Island nuclear plant in Pennsylvania, USA, narrowly missed being declared a complete meltdown.

Groups campaigning for change

There were a number of sectors of societies in Western countries in the 1960s and 1970s campaigning for greater environmental awareness and for change in the way governments, industry and communities treated the natural world. There were local, grass-roots movements mobilised (brought together) by single or local issues. Scientists also provided arguments supported by research, and lent academic rigour to the environmental movement. **Activist** organisations such as Greenpeace and Friends of the Earth brought people with similar aims together and lobbied for change. International bodies such as the United Nations (UN) Environmental Program also existed. Additionally, green political parties formed around this time.

DDT and *Silent Spring*

DDT is a chemical that was first synthesised in 1874, but not used widely until 1939, to control disease in crops during World War II. After the war it was found to kill insects and it was applied by aeroplane and truck. From 1945–60, pesticide use had increased fivefold in the US and became a lucrative industry. However, the chemical clouds drifted far beyond the target field, laying poison on plants and animals, as well as people.

H1.6.2 Children play near a truck spraying DDT at Jones Beach in New York, 1945

Did you know?

During the 1950s and 1960s, trucks drove through the streets of towns in the US spraying DDT in a thick white cloud to kill mosquitoes. Children would chase the truck and play in the dense cloud it left behind.

Concerns

By the early 1960s, news of large numbers of birds, fish and some amphibians being found inexplicably dead in parts of the US began to emerge. Some farmers also reported finding that their plants would not grow and fruit would not bud. Bee populations plummeted to almost nothing in some parts of the US as the wide use of pesticides also destroyed the wild clover in fields and ditches that they relied on for survival.

Silent Spring

In 1962, US scientist and conservationist Rachel Carson published *Silent Spring* based on her extensive study of the effects of synthetic pesticides and insecticides such as DDT. It quickly became a bestseller and was published around the world, including in Australia. The book is widely considered to have triggered the growth of environmental awareness and the beginning of the modern environmental movement.

In *Silent Spring*, Carson provided a compelling warning about unregulated and wide-use of DDT and other pesticides polluting and ultimately interfering with the natural balance in our environment. She highlighted and explained the interrelationship of living organisms and the food chain. She helped people understand the interconnectedness of soil, water and wildlife, and raised alarms about economic gains coming at the cost of the environment.

> As crude a weapon as the cave man's club, the chemical barrage has been hurled against the fabric of life—a fabric on the one hand delicate and destructible, on the other miraculously tough and resilient, and capable of striking back in unexpected ways. These extraordinary capacities of life have been ignored by the practitioners of chemical control who have brought to their task no 'high-minded orientation', no humility before the vast forces with which they tamper.

H1.6.3 From *Silent Spring*, Rachel Carson, 1962

The effects of DDT confirmed

US President John F. Kennedy had the claims of Carson's book investigated and studies showed that DDT caused cancer in mice. DDT is dangerous as it does not break down but accumulates in the food chain, especially in predatory birds and also in humans. In 1972, DDT was banned in the US and the Clean Air and Clean Water Acts were passed in that country. DDT was not banned in the UK until 1984 and was only banned in Australia in 1987. DDT was not banned worldwide until 2004 with the implementation of the environmental treaty, the Stockholm Convention.

Growth of the anti-nuclear movement

The nuclear bombing of Hiroshima during World War II in 1945 killed approximately 75 000 people. Over the following decades, the devastating and widespread effects of radiation became more widely known and understood. However, as the Cold War progressed, many countries continued to test and stockpile nuclear weapons. This came to be known as the 'arms race'.

The French government carried out a large and long-term nuclear testing program in the Pacific. Over three decades between 1966 and 1996 they tested around 190 nuclear weapons. Contamination from these bombs led to a global protest movement against nuclear testing and weapons. Large anti-nuclear campaigns took place in Australia, New Zealand and Fiji. Protest groups involved included Friends of the Earth and Greenpeace. Activists sailed ships, including the *Rainbow Warrior*, into exclusion zones to disrupt testing.

In 1972, the New Zealand and Australian governments applied internationally for a halt to nuclear testing. The French government ignored the court ruling to cease testing, but moved the tests from above-ground to below-ground sites after 1975.

As a consequence of the French program, the New Zealand government banned nuclear-powered ships from entering New Zealand waters in 1984. In 1985, French government agents sank Greenpeace's *Rainbow Warrior* in Auckland Harbour, killing a man on board, and resulting in a wave of international protests. In 1987, entry of any nuclear material into New Zealand was banned.

Establishment of Environmental Protection Agencies

The Environmental Protection Agency (EPA) in the US and a Department of Environment in Britain were both founded in 1970. In Australia, each of the states established an EPA during the early 1970s. The role of the EPAs has changed and continues to change, but has a broad focus on pollution and waste.

Did you know?

Two French agents were arrested for the bombing of the *Rainbow Warrior* and sentenced to 10 years' imprisonment for manslaughter. The French Government put pressure on New Zealand, threatening to block trade to the lucrative European market, until the two agents were released into French custody in 1986. Both were celebrated upon their return to France.

Key events in Australia

Events both locally and globally led to a greater awareness of the need to protect the environment among many Australians by the late 1960s. 'Wilderness' causes came to the fore because of the rapid destruction of Australian fauna and their habitats. Protest strategies included demonstrations and highly-successful public awareness campaigns using posters, bumper stickers and public seminars.

H1.6.4 Key environmental events in Australia during the 1960s and 1970s

Influence of environmental ideas

A number of ideas about the environment were developed during the 1970s that contributed to the growth of environmental awareness globally.

The Gaia theory

The Gaia theory developed existing ideas of **ecology**—the interdependence of all living things with each other and their surroundings. In 1979, an English biologist James Lovelock published a book *Gaia: A New Look at Life on Earth* suggesting that all life on Earth worked as a single living entity. Lovelock proposed that for life to survive, the elements of the complex system (the Earth's crust, atmosphere, oceans and temperature) all needed to remain

balanced and function in their own self-regulating way. The Gaia hypothesis was highly controversial and its principles are still being considered today in relation to issues such as climate change.

Limits to Growth

Limits to Growth was a book published in 1972 by a group of scientists that used computer modelling to simulate the consequences of uncontrolled economic and population growth. Using a variety of scenarios, the authors tried to predict how to find a balance in the use of resources and resulting pollution to achieve stability.

Sustainability

Sustainability refers to the ability of nature to endure over a long period of time and the need to balance use of resources with their ability to replenish for future generations. The term 'sustainability' came to widespread use following the 1987 publication of the UN-sponsored World Commission on Environment and Development report, *Our Common Future*. However, a national policy for environmental sustainability was first established in the US in 1969, when the National Environmental Policy Act was passed.

Rights of nature

Rights of nature is a concept that suggests the environment has a right to survive, in contrast with the mainstream Western view that nature is property to be used by humans. This concept was presented in a 1972 legal case argued by C.D. Stone. In his submission—'Should trees have standing?'—he argued that inanimate objects, such as the environment, do have rights. In 2012, the Whanganui River in New Zealand was found to have rights to protect itself.

Activities

Remembering and understanding

1 a What is DDT?
  b What are its benefits?
  c What are its long-term effects?
2 a Who was Rachel Carson?
  b What is her significance in relation to environmental issues?

Applying and analysing

3 Consider the global environmental events in Source H1.6.1. How do you think this sequence of events might have changed the public's view of environmental issues?
4 Why do you think it was important that there was a range of groups in society campaigning for environmental change?
5 Consider Source H1.6.3.
  a Why do you think Carson uses the phrase 'as crude a weapon as the cave man's club'?
  b Which parts of this extract show that she believes nature is powerful? How can you tell she is critical of chemical manufacturers?
  c Make a list of evidence you could use to determine the reliability of Carson's opinion.
6 Examine each of the four environmental ideas outlined on pages 20 and 21.
  a Explain which you find most convincing and justify your reasoning.
  b Explain which you find least convincing and justify your reasoning.

Evaluating and creating

7 Create a photograph essay on your local environment.
  a Take or collect photographs that illustrate environmental issues in your local area. They can be positive, for example development of local parklands, or negative, for example traffic congestion.
  b Arrange your photographs into two groups to reflect the type of issue they portray.
  c Evaluate the level of impact that people are having on the environment in your area. Write a 200-word letter to your local member of parliament containing your evaluation and making suggestions about possible future actions.

LS H1B

H1.7 Modern environmentalism and political awareness

Significant environmental events and campaigns

The '1970s diagnosis'

The development of modern environment movements grew out of the alarm that many people felt during the 1970s about the state of the Earth. An environmental consciousness developed that redirected people's attitudes towards nature and the environment. It was in direct contrast to previous thinking that people had a right to dominate the Earth and exploit its resources. The decline of the natural environment became a key political issue, with public opinion transformed by the idea of environmental destruction. This is called the '1970s diagnosis' by some historians, a phrase coined by Patrick Kupper.

Modern environmentalism

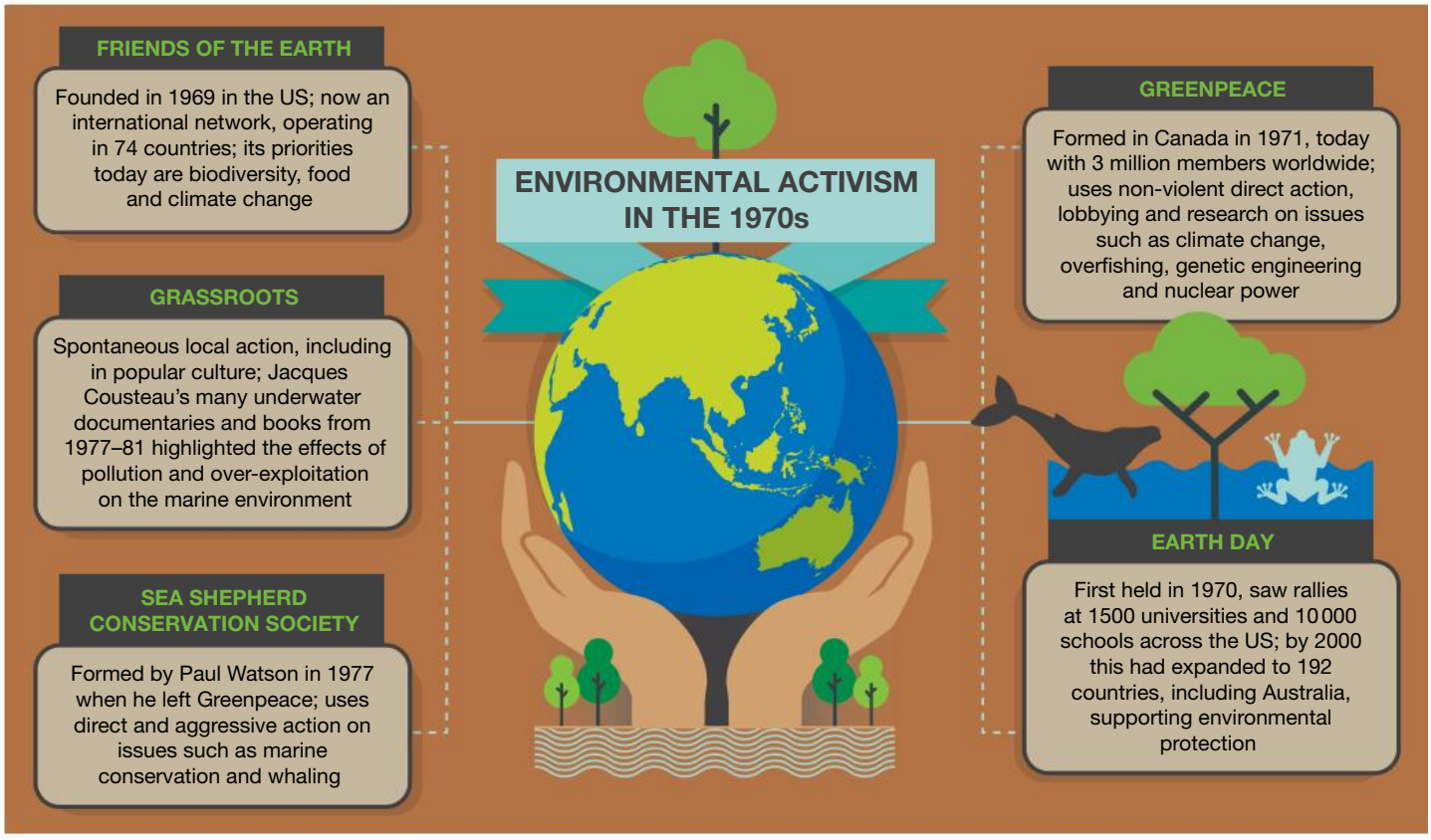
Modern environmentalism is characterised by four elements:

- the use of 'the environment' as an umbrella term, allowing a variety of issues to be looked at together and interconnections clearly seen
- the discussion about protecting the environment gaining a global perspective, with the idea of humankind as a whole being in danger
- environmental protection becoming scientific and based on facts, rather than being against all things modern and urban
- questions about the environment no longer being seen as only for technical experts but rather for public and political debate.

Origins of Green political parties

Many environmental groups became more organised in their approach during the 1980s. Although protests and direct action were still used, lobbying of governments, public education programs and research increased. International

H1.7.1 Environmental initiatives of the 1970s



organisations became more important as global problems became more obvious. The world's first 'green' political party was the United Tasmania Group (UTG), which was formed in 1972.

It was formed with the involvement of Bob Brown, who went on to become the leader of Australia's Greens Party. The UTG grew out of the campaign to save Lake Pedder from a proposed hydroelectric scheme.

> It [Rachel Carson's book *Silent Spring*] just rang true. It slowly led to the formation of green politics globally; the establishment of departments of the environment and ministers, the US's Environmental Protection Agency and eventually their Clean Air Act. Then the formation of the world's first green party in Tasmania in 1972. It was the watershed in modern eco-history.

H1.7.2 Bob Brown, former leader of Australia's Greens Party, explains the importance of the book *Silent Spring,* in *The Global Mail*, September 2012.

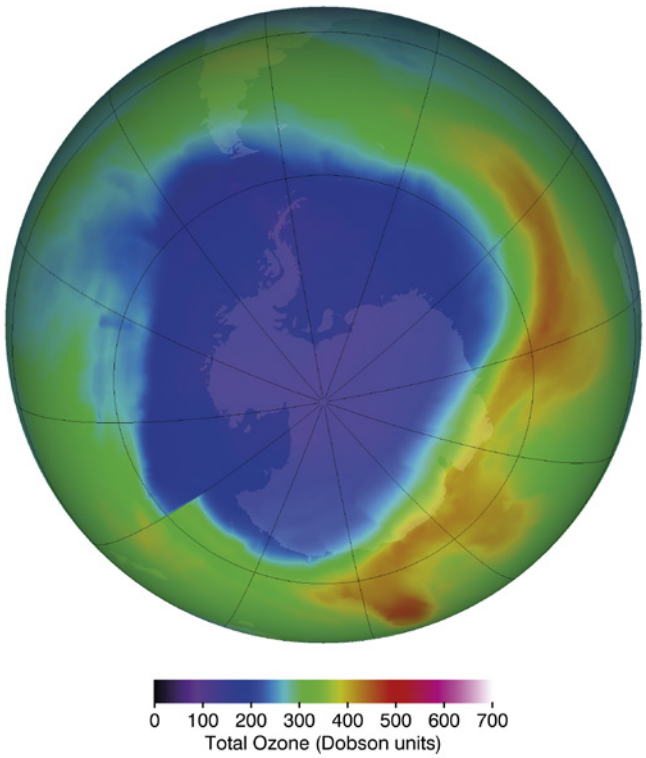
The UTG became the Tasmanian Greens and inspired the development of green parties in other states of Australia. The Queensland Greens formed in 1985, the South Australian Greens in 1989 and the Western Australian Greens in 1990. The eight state and territory green parties were organised into a federation in 1992. A national party, the Australian Greens, followed in 1992.

In 1980, the newly formed West German Green party (*Die Grünen*) stated that their political program was based on the findings of science and ecology (the study of interactions of species with their environment). In 1983, they won 27 seats, which was equivalent to 5.7 per cent of the vote in the national parliament.

The role of the United Nations

In 1972, following a conference in Stockholm, the UN established the UN Environment Programme (UNEP), which oversees the UN's efforts to protect the environment and respond to disasters.

One international environmental issue dealt with during the 1980s was the hole in the ozone layer. During the 1970s and into the 1980s, scientists realised a variety of industrial substances were causing a chemical reaction in the atmosphere that depleted ozone and caused a hole in the protective layer of gases around the Earth. During 1985, the UN held a conference in Vienna that resulted in the Montreal Protocol. This was a procedure for phasing out the use of damaging substances such as chlorofluorocarbons (CFCs). After only 18 months, 196 nations agreed to the banning of CFCs and other chemicals to protect the environment.



H1.7.3 Image taken by NASA on 16 September 2013 showing the hole in the ozone layer, represented in dark blue. The hole is the largest on record and is three times the size of the US.

In 1992, the Rio de Janeiro 'Earth Summit' devised a document called Agenda 21, which provides a plan for environmental sustainability. In 2009, the UN Climate Change Summit was held in Copenhagen. The participants in the summit recognised that climate change is a significant threat, but were unable to reach meaningful agreement about action.

Nuclear catastrophes

Chernobyl nuclear disaster

On 26 April 1986, there was an explosion and fire at the Chernobyl Nuclear Power Plant in the Ukraine. This accident created a radioactive cloud that spread out over western USSR and the rest of Europe. It released more than 100 times the radiation of the Hiroshima and Nagasaki atomic bombs. This explosion is considered to be the worst nuclear disaster, prior to Japan's Fukushima Daiichi meltdown of 2011. The radiation also affected agriculture and national economies as other nations banned the sale of goods grown in affected areas.

The Chernobyl disaster was a pivotal event for green parties around the world, as the environment became a central political issue. Some of the reactions included:

- Many Western governments abandoned plans for utilising nuclear power and expanded their efforts to protect the environment.

- There were large anti-nuclear protests, such as one held in Rome opposing Italy's use of nuclear energy with an estimated 20 000 demonstrators.
- The disaster added momentum to the influence of the German Green Party, which campaigned for the closure of all German nuclear facilities. There were violent protests around Germany. One protest at the Brokdorf facility in June 1986 attracted 40 000 demonstrators who demanded all nuclear power plants worldwide be turned off.

Russian green politics

The Chernobyl disaster was a turning point in the USSR. Before Chernobyl, the Soviet policy of secrecy meant environmental disasters had been kept from the public. President Gorbachev introduced a new policy of *glasnost* (openness in government decision-making) in the late 1980s that reduced censorship and enabled the government to acknowledge the disaster.

Gorbachev also established a new ministry, the State Committee on Nature in 1988. This change in government approach began environmental activism in the USSR as public debate was allowed and citizens were permitted to organise environmental groups, petitions and demonstrations. In 1988, environmental groups combined to form the Socio-Ecological Union and were given semi-official monitoring and reporting tasks.

Fukushima nuclear disaster

Concerns over the safety of nuclear energy were raised again when on 11 March 2011 there was a meltdown at the Fukushima nuclear plant in Japan. It was caused by a magnitude 9 earthquake and a 7-metre tsunami that resulted in the plant cooling systems failing. The International Atomic Energy Agency ranked this incident as higher in severity to Chernobyl—both had major releases of radiation into the air with subsequent environmental and health effects.

Government responses

After Fukushima, anti-nuclear sentiment became prominent again with major protests in Germany, Taiwan, Tokyo, India, Spain, the US and Switzerland. The disaster and the public response have contributed to some governments pursuing green policies. Some of the responses to the disaster included:

- Australia continued a commitment to developing renewable energy sources rather than nuclear power plants.
- Germany permanently shut down eight of its reactors and will phase out the rest by 2022.
- Mexico ended construction plans for ten reactors in favour of developing natural gas power plants.
- In the US, polls revealed that public support for nuclear energy had dropped significantly.
- In France, which previously had been pro-nuclear energy, debate began about phasing out its use.

Exxon Valdez oil spill

In 1989, the US oil tanker *Exxon Valdez*, owned by Exxon Mobil, hit Bligh Reef in Prince William Sound off the Alaskan coast. This caused a major spill of about 11 million gallons of crude oil. This disaster polluted over 2000 kilometres of coastline where the remote location, only accessible by boat and plane, made the clean-up very difficult. Hundreds of animal species were affected or killed, including sea birds, seals and sea otters, bald eagles, salmon and killer whales.

H1.7.4 A protest in Alaska in response to the *Exxon Valdez* oil spill, 1989

Exxon Mobil spent approximately 3.5 billion dollars in response to the accident but only 10 per cent of the oil spill was cleaned up. It took 3 to 4 years for the Arctic environment to start to recover. In 2003, the University of North Carolina estimated it would take a further 30 years before the area had fully recovered.

Responses to the spill

The response to the disaster was quick and came from a variety of groups.

- Some US consumers boycotted Exxon Mobil petrol stations.
- The Alaskan state government made it mandatory that two tug boats escort every oil tanker through the narrow straits of Prince William Sound and the Alaskan Department of Environmental Conservation organised regular drills to train for any future spills.
- US Congress passed the *Oil Pollution Act 1990*, which prohibited any tanker that had been involved in a spill from travelling in Prince William Sound and set a schedule to phase in double-hulled tankers by 2015 to prevent or lessen spillage when accidents occur.
- Prince William Sound Regional Citizens' advisory council reviews and monitors the operation of the oil pipeline to advise on spill prevention and increase public awareness.

Did you know?

In 1990, Australian band Midnight Oil played an impromptu lunchtime performance in front of Exxon Oil's headquarters in New York to protest about the *Exxon Valdez* oil spill. They played on the back of a flatbed truck for an hour and had a banner that read 'Midnight Oil makes you dance, Exxon Oil makes us sick'. Between songs, lead singer Peter Garrett criticised Exxon executives. Media coverage of the event was seen around the world.

Activities

LS H1C

Remembering and understanding

1. Make a list of the different actions mentioned in this unit that have been taken by various groups to protect the environment.
2. According to Bob Brown in Source H1.7.2, how important was Carson's book *Silent Spring* to the growth of green politics?
3. Explain how nuclear catastrophes have influenced governments to change their policies relating to nuclear energy.

Applying and analysing

4. Create a table, listing individuals and organisations from this unit who are involved in environmental protection. Research and list the strengths and weaknesses of the approach to environmental protection taken by each individual or organisation.
5. The Soviet government's approach to the environment changed under Gorbachev leading to an increased protection of the environment. Evaluate the importance of this change.
6. Choose the international event that you think had the most significant impact on the emergence of green politics. Write 100 words justifying your choice.
7. Discuss the statement, *The environment is best protected when governments pass laws*. Provide a list of arguments that both support and oppose the statement.

Evaluating and creating

8. Choose one person from the following list to investigate: Bob Brown, Peter Garrett, David Suzuki, Jane Goodall, Tim Flannery, Rachael Carson, David Attenborough, Al Gore, Paul Watson, Wangari Maathai, Marina Silva, Lois Gibbs.
   - a. Conduct a historical investigation into the person's life, achievements and contribution to the environment movement since the 1960s. Include a photograph of the person and present your findings in an annotated timeline.
   - b. Include a range of written and visual primary and secondary sources that show different perspectives on your chosen individual. Categorise each source as either for or against your chosen individual.
   - c. Overall, how has history viewed the person you chose? Evaluate the significance your individual has had as part of the environment movement. Consider issues such as raising awareness, conservation of wildlife and pressuring governments to pass legislation.

H1.8 Significant developments in Australia

The Australian environment movement

The Australian environment movement has changed over time in response to specific events and threats to the environment. The changing political landscape has had a bearing on how decisions regarding environmental issues have been made. The Australian public, too, has made significant contributions to the movement since the 1960s, spurred on by a growing belief that the environment should be protected, rather than exploited for so-called progress and profit.

In particular, there has been a focus on preserving wilderness areas, including the Great Barrier Reef in Queensland and Kakadu National Park in the Northern Territory, both sites rich in natural resources. The Great Barrier Reef was first threatened by oil drilling in the 1960s. The Wildlife Preservation Society of Queensland (WPSQ), which was formed in the early 1960s, lobbied extensively for the protection of the reef. It still lobbies government on environmental issues today. A law was passed in 1975 making the reef a Marine Park and it was given World Heritage status by the UN Educational, Scientific and Cultural Organization (UNESCO) in 1981. However, the reef still remains a site of tension between potential developers and conservationists, with current concerns relating to the dumping of dredging materials, pollution from mining and the effects of climate change.

The Kelly's Bush campaign and the Green Bans

The early 1970s was a tempestuous time for the environment movement in Australia. In 1971, the development company A.V. Jennings proposed the construction of a large housing complex at Kelly's Bush, the last remaining bushland in the Sydney suburb of Hunters Hill. The local residents wanted to preserve the area as open bushland and so opposed the development. A group of local women had appealed to the local council, the mayor and the Premier of NSW with no success.

The group of women called a public meeting where 600 residents formally asked Jack Mundey, the leader of the NSW Builder's Labourers' Federation (BLF), to prevent construction on the site. A.V. Jennings said they would use non-union labour to break the strike but eventually they abandoned plans to develop the site due to the controversy it caused.

> I didn't start off as some great environmentalist forward-thinker. I became a part of an urban movement. It's a learning process. I was convinced of it by the actions of the people, so we grew into it together … what's the use of winning higher wages and better conditions, if we live in cities devoid of parks and denuded of trees?

H1.8.1 Transcript of part of an interview with Jack Mundey on the ABC TV program *Talking Heads*, screened 17 August 2009

The BLF strike action was called the Green Bans. A Green Ban is a strike or protest action taken by a trade union to protect the environment, as opposed to obtaining higher wages or better working conditions. The success at Kelly's Bush campaign resulted in the BLF holding Green Bans at forty-two other sites. These strikes protected a number of heritage sites in Sydney, including nineteenth-century buildings in the Rocks that were to be demolished, a section of the Royal Botanical Gardens that was intended as a car park and a large section of Centennial Park where a sports stadium was to be built.

The bans only ended in 1974 when Jack Mundey was dismissed as president of the BLF. Mundey went on to be elected president of the Australian Conservation Foundation.

H1.8.2 Jack Mundey being arrested at The Rocks in Sydney, 23 October 1973

H1.8.3 The Rocks in Sydney showing some of the heritage buildings that were saved by the BLF and their Green Bans

Effects of the Green Bans

The Green Bans revealed that the development process needed reform and the voice of the community needed to be heard. The Green Bans had an influence on state and national development by transforming urban planning. Whitlam's Labor government passed the *Environment Protection (Impact of Proposals) Act 1974*, which gave the Department of the Environment powers to intervene in disputes about development plans. The NSW Government passed the *Environmental Planning and Assessment Act 1979*, which increased the importance of assessing the impact of town planning on the environment.

The bans also had an impact on international politics, as they were responsible for introducing the term 'green' to Europe. Petra Kelly created the German Green Party in 1979 after witnessing the Sydney Green Bans.

The Tasmanian Dam case

In 1978, the Tasmanian government approved the construction of a dam on the Gordon River just below the point at which the Franklin River flowed into it. The consequent struggle to save Tasmania's last wild river and prevent the flooding of the world's last extensive temperate rainforest was to become one of the most significant environmental campaigns in Australian history. Spurred on by their failure to stop the flooding of Lake Pedder in 1972, despite a concerted campaign, conservation groups were determined to win this battle. From 1976 to 1983, the conservationists' fight to save the Franklin dominated Australian politics.

The 'Dam' or 'No dam' referendum

Once the plans to build the dam were known, conservationists formed the Tasmanian Wilderness Society (TWS) led by Bob Brown and began a public awareness program. Tasmanian Labor Premier Doug Lowe proposed a compromise—moving the dam point—but both pro-and anti-dam groups opposed the plan. A state referendum in December 1981 attempted to find consensus: 8 per cent were in favour of the Premier's compromise plan, 47 per cent were for the original plan and 33 per cent (on advice from the TWS) wrote 'no dam' on the ballot paper.

In May 1982, an election was called, as the parliament could not come to an agreement on how to proceed. When the Liberal Party led by Robin Gray won, they announced the original plan to dam would go ahead in order to create jobs and ensure the supply of electricity.

H1.8.4 Protestors at the landing station on the Franklin River, close to the proposed dam site in 1983. Rubber 'duckies' (rafts) were used to block the arrival of bulldozers at the site.

The conservationist response

The TWS responded with mass rallies around Australia and Bob Brown toured, raising support for the anti-dam campaign but was unsuccessful in his attempts to convince Liberal Prime Minister Malcolm Fraser to intervene.

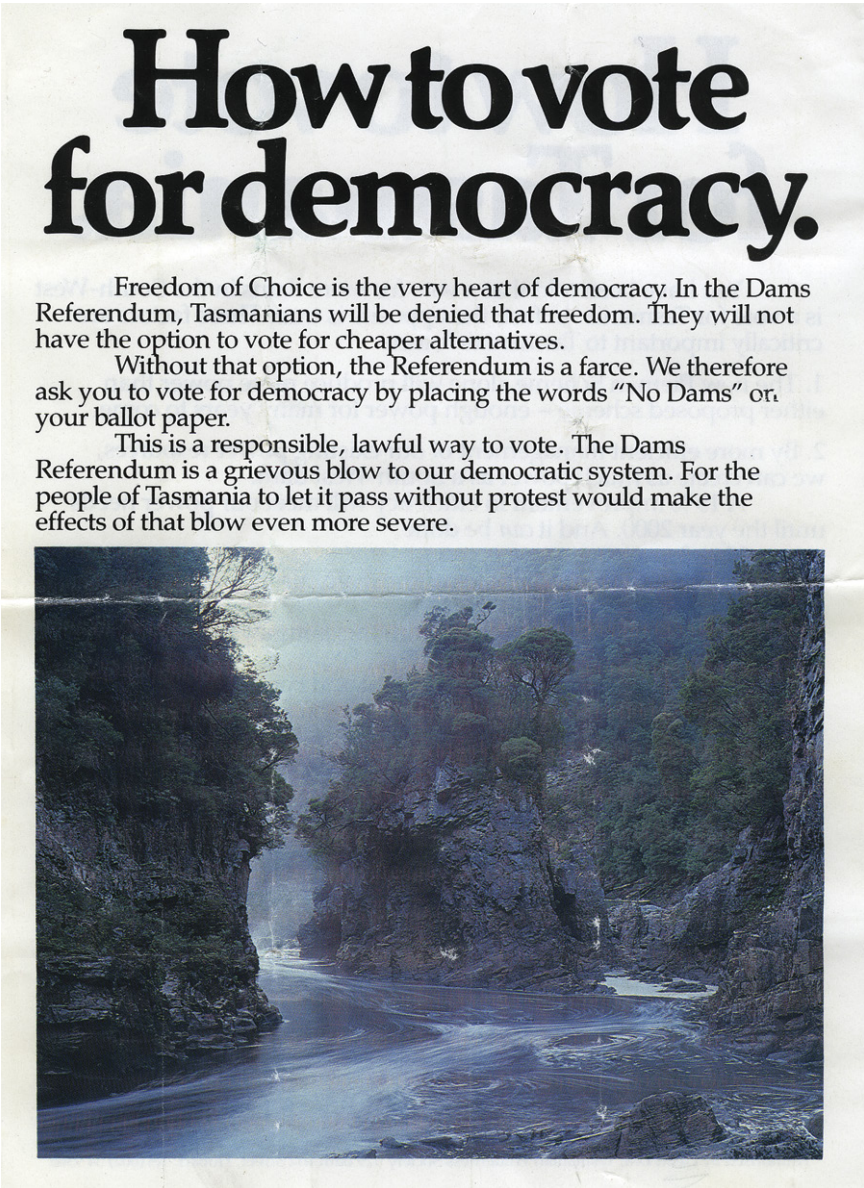
By the end of 1982, the environment was a mainstream issue gaining media attention. Brown spoke at a dinner with 500 guests in Sydney, *ABC Radio* broadcast a concert held in support of the campaign to save the Franklin River, while large rallies were organised around Australia, such as in Hobart in February 1983 where 20 000 people attended.

On 14 December 1982, the TWS began a blockade of the Franklin River with over 2500 people taking part. The protest continued until March, by which time 1217 people had been arrested. In December 1982, UNESCO listed the proposed dam site as a World Heritage area.

Constitutional challenge

The federal election on 31 March 1983 saw the Labor Party forming government, with Bob Hawke, who had campaigned against the dam, as Prime Minister. Hawke's government passed the *World Heritage Properties Conservation Act 1983* that prohibited the development of the dam that the Tasmanian State government had authorised. Tasmanian Premier Robin Gray went to the High Court and challenged the federal government's powers as described in the Constitution to pass this legislation. In a landmark decision, the High Court found the federal legislation to be constitutional, confirming the rights of federal over state government in environmental affairs. Central to the ruling was the status of the wilderness area as a UNESCO World Heritage site.

The successful campaign to put an end to the proposed Gordon-below-Franklin Dam project is a prime example of how the environment movement in Australia has galvanised both the public and political parties in their support of environmental causes, with action that encompassed ground-level rallies and protest, and reached all the way to the High Court. It also demonstrates how passionately Australians have felt, and continue to feel, about protecting the country's natural wilderness and its inhabitants against the lure of financial reward for its exploitation.



How to vote for democracy.

Freedom of Choice is the very heart of democracy. In the Dams Referendum, Tasmanians will be denied that freedom. They will not have the option to vote for cheaper alternatives.

Without that option, the Referendum is a farce. We therefore ask you to vote for democracy by placing the words "No Dams" on your ballot paper.

This is a responsible, lawful way to vote. The Dams Referendum is a grievous blow to our democratic system. For the people of Tasmania to let it pass without protest would make the effects of that blow even more severe.

H1.8.5 A leaflet produced in 1981 by the TWS before the Tasmanian state referendum advising people how to vote

Did you know?

A Greenpeace online campaign during the Sydney 2000 Olympics successfully pressured Coca-Cola, McDonald's® and Unilever® to end their reliance on CFC refrigeration. Greenpeace took advantage of the high-profile Olympics to step up their campaign against the previously resistant multinational companies.

Activities

Remembering and understanding

1 Why do you think the BLF supported the locals in their campaign to save Kelly's Bush from developers?

2 What is the proposed Gordon-Franklin Dam project a prime example of?

Applying and analysing

3 Write a paragraph outlining the significance of the Kelly's Bush campaign.

4 Create a flowchart of events in the campaign to save the Franklin River.

5 Draw up a pros and cons table for the damming of the Franklin River.

6 Consider Source H1.8.4. Explain the meaning of the banner 'Think globally, act locally'.

7 Consider Source H1.8.5.
- **a** What does this poster ask voters to do?
- **b** Why do you think the image of the Franklin River by photographer Peter Dombrovskis entitled 'Morning Mist, Rock Island Bend' was used on the poster?
- **c** Do you think the poster is effective in conveying its message? Why or why not?

8 Create a PMI (plus, minus and interesting) chart showing the contributions outlined in this unit of individuals, groups and governments to the environmental campaigns in Australia.

H1.9 Responses to environmental threats

International organisations

In the first few decades of the environment movement, grass roots or local action dominated. Gradually, organisations formed and governments began to respond to environmental issues in a more organised fashion. Today there are over a hundred non-government international organisations that have responded to environmental threats. Although each group varies in its aims and methods, they all seek to build awareness, pressure governments to change legislation and protect the environment.

The UN has taken a major role in attempting to tackle climate change, including the 1997 Kyoto Protocol to limit greenhouse gas emissions and the December 2009 Copenhagen Summit's attempt to create an action plan to keep the global rise in temperature below 2 degrees Celsius. A significant individual who has campaigned on climate change is former US presidential candidate Al Gore, who was awarded a Nobel Peace Prize for his work in 2007. Gore argued unsuccessfully to have the US ratify the Kyoto Protocol.

Friends of the Earth
Established in the US in 1969 as an anti-nuclear group, it now has branches in 74 countries around the world and 12 branches across Australia. Core issues are protecting biodiversity and protecting human and environmental rights.

United Nations Environment Programme (UNEP)
UNEP coordinates UN activities on issues from desertification to climate change and assists developing countries in implementing environmentally-sound policies.

Greenpeace
Greenpeace was formed in Canada in 1971 and established in Australia in 1977, initially to focus on anti-whaling. They have a reputation for dramatic publicity stunts, but pride themselves on the use of non-violent methods including education, lobbying and research.

Earth Liberation Front (ELF)
Established in the UK in 1992, ELF uses violent methods including sabotage and arson against businesses that cause environmental damage. In 2001, the FBI classified ELF as eco-terrorists.

350.org
Formed in 2007 in the USA by author Bill McKibben and a group of college students, 350.org aims to build grassroots awareness of climate change, to slow and then reduce the amount of carbon in the atmosphere.

H1.9.1 There are a number of non-government organisations that respond to environmental issues.

Climate change

International responses

The existence of changed weather patterns was identified in the 1980s when scientific evidence pointed to elevated concentrations of gases, including carbon dioxide and human-made CFCs. A 2007 UN report prepared by 1300 scientists concluded that there was a 90 per cent chance that climate change has being caused by human activities over the last 250 years.

Australia's response to climate change

Climate change is noticeable in Australia with more frequent extreme weather events, such as the 2002–06 drought or the 2010–11 Queensland floods. Most Australians believe that the government needs to do more to tackle the problem. Government responses to climate change vary.

- Prime Minister John Howard (March 1996–December 2007) refused to ratify the Kyoto Protocol even though Australia has one of the highest emissions per person in the world. Public pressure forced Howard in 2007 to announce a carbon-trading scheme, to come into effect in 2011.
- Prime Minister Kevin Rudd (December 2007–June 2010; June 2013–December 2013) ratified the Kyoto Protocol, set a 20 per cent renewable energy target by 2020 and created a new Department of Climate Change and Energy Efficiency.
- Prime Minister Julia Gillard (June 2010–June 2013) introduced a minerals resource rent tax on 1 July 2012. Her government's introduction of a carbon tax in 2012, despite her earlier promise that she would not introduce a tax, was widely derided by conservative politicians in the Opposition and industry groups and is widely viewed as having contributed to her being replaced by Kevin Rudd in June 2013. Prime Minister Rudd withdrew the carbon tax, promising to replace it with a carbon pricing scheme, but his government lost the election later the same year.
- Prime Minister Tony Abbott (September 2013–September 2015) made international headlines as a climate change denier. He declared that scrapping the carbon tax was his top legislative priority. He abolished the Climate Commission, whose purpose was to provide information on global warming and cut funding to CSIRO and its climate change researchers.
- To date, there has not been a significant shift in environmental or climate change policy by the Coalition government.

Over the years, government initiatives to support alternate energy sources that reduce our reliance on fossil fuels have included subsidised house insulation and solar panels, development of wind farms, and the creation of the Climate Change Authority. However, there is still great support for coal-fired power by some politicians and this continues to be a topic of heated debate.

H1.9.2 Protesters in Melbourne march in 2017 to heighten awareness of climate change

Deforestation

Deforestation causes a range of problems, including extinction, erosion, water pollution and displacement of populations.

International response

The UN and the World Bank have played a role in trying to curb deforestation, particularly in developing countries, by providing money for forestation and also by monitoring by satellite and other means to check compliance with agreed forestation targets. These organisations also promote sustainable forestry practices.

Australian response to deforestation

Federal and state laws regulate land clearing in Australia. Australian governments have invested in tree-planting programs over the last 30 years. However, commentators have noted that there has been declining interest in revegetation projects by state governments. Community organisations such as Greening Australia aim to protect and restore the diversity of Australia's landscape, through tree-planting programs and community engagement and education.

Activities

Remembering and understanding

1 Consider Source H1.9.1. Make a list of similarities and differences among the various international organisations.

Applying and analysing

2 How effective do you think creating a documentary would be in raising awareness of issues such as climate change and deforestation? Justify your reasoning.

3 Explain why there have been such different responses by Australian governments to the issue of climate change.

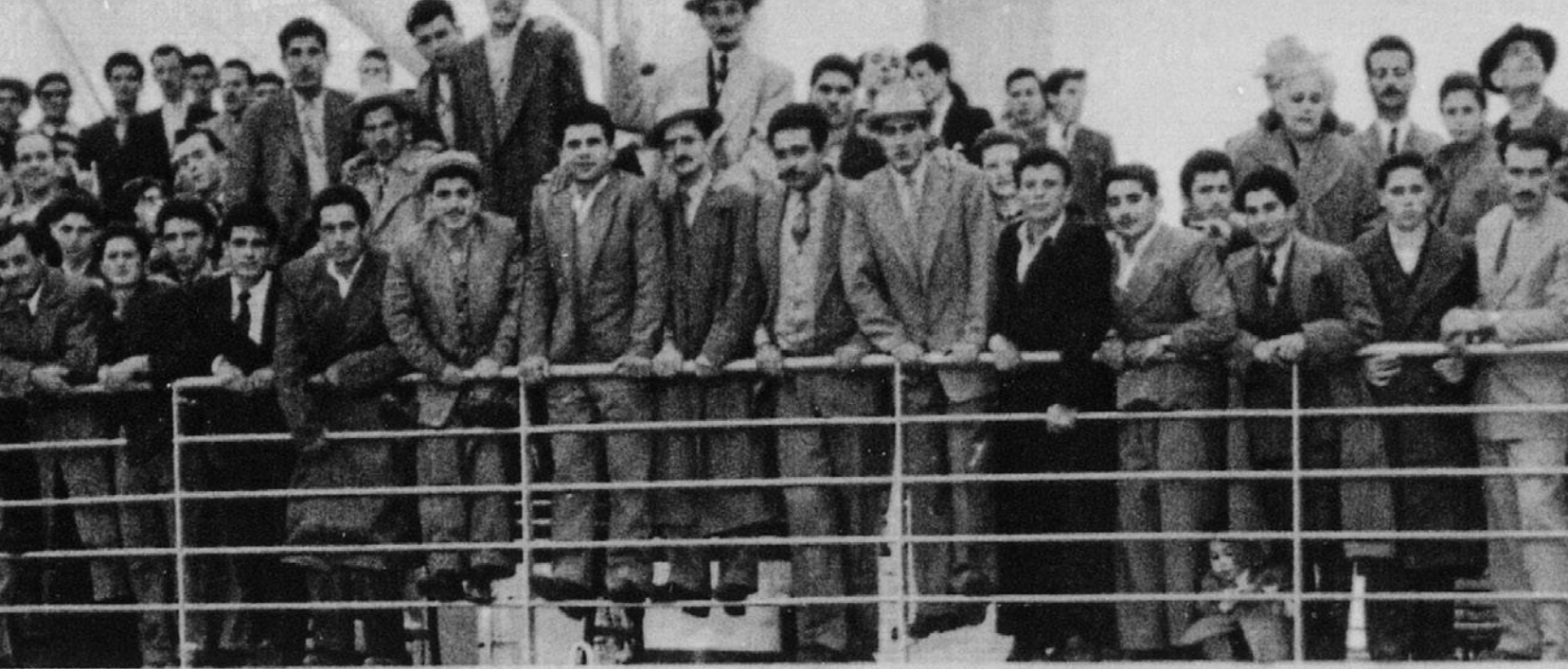
4 Evaluate the effectiveness of Australia's response to threats to the environment as outlined in this unit.

Evaluating and creating

5 Imagine the Australian federal government has decided to reinvestigate building a nuclear power plant in Victoria as an alternative to coal-powered electricity stations.

- **a** Two notable people have been asked to speak to a Royal Commission (an investigative panel) to argue for and against the proposal. Research the arguments and write two 100–150 word speeches. Include relevant issues such as British nuclear testing conducted in Australia in the 1950s, uranium mining, international successes and failures of nuclear power stations, nuclear by-product levels, Australia's energy requirements and other power options.
- **b** Evaluate the evidence presented in the speeches and write a 50–100 word recommendation about whether or not Australia should build a nuclear reactor.

6 The US has led the way in policy reform on a variety of issues. Research the current US government's attitude to climate change and write a newspaper article on their position and the effect you think this is having on the rest of the world.



Migration experiences

H2

Australia is one of the most culturally diverse nations in the world. Within a population of more than 24.5 million people, over 400 languages are spoken, with English as the common and national language. Over a quarter of the Australian population was born in another country.

The story of Australia's growth as a modern country in the twentieth century is closely tied to the stories of the 7.5 million immigrants who have travelled across the globe since the end of World War II in 1945 to make Australia their home.

OVERVIEW QUESTIONS

H2A What characterised migration to Australia in the immediate post-World War II era?

H2B What has been the impact of changing government policies on Australia's migration patterns?

H2C What have been the experiences of migrants to Australia in the post–World War II period?

H2D How has migration contributed to Australia's changing identity as a nation and its international relationships?

LS Before you begin

GLOSSARY

assimilation the process whereby a minority group gradually adapts to the customs of the dominant culture

asylum seeker a person who is seeking protection as a refugee, but has not been granted refugee status

boat people asylum seekers from Vietnam who arrived in Australia by boat without permission to enter the country

displaced person a person who is forced to leave their home because of war or political persecution, and seeks refuge within their own country

Displaced Persons Scheme an international agreement to assist the global effort to resettle displaced people from internment camps in Europe

forebear an ancestor or relative from whom a person is descended

Indochinese people from the South-East Asian peninsula, which includes Vietnam and Laos

integration the Australian Government policy of acknowledging that different cultural groups had something to offer Australian society and should be encouraged to do so

migrant a person who moves from one place or country to another one; in Australia an immigrant, especially one who has arrived recently

multiculturalism the Australian Government policy of recognising and respecting the cultural diversity of the population and supporting programs to assist ethnic minorities

refugee a person who is forced to leave their home country because of the dangers of war, or of political or religious persecution, and who asks for safe refuge in another country

H2.0.1 Europeans arriving in Australia on a sponsored migration scheme in the 1950s

Timeline

Migration experiences

With the exception of Aboriginal and Torres Strait Islander peoples, today's Australia is made up of people who have come from all over the world. In the days of British imperialism, the young Australian colonies were viewed as outposts of the British Empire. Since those early days of European settlement, particularly since the end of World War II, an Australian identity has evolved as people have come to Australia from all parts of the world—bringing their own cultures, beliefs, values and ways of life.

1901
Immigration Restriction Act ('White Australia policy') is passed

1945
Calwell is appointed Australia's inaugural Minister for Immigration; target set to increase Australia's population by 2 per cent per year

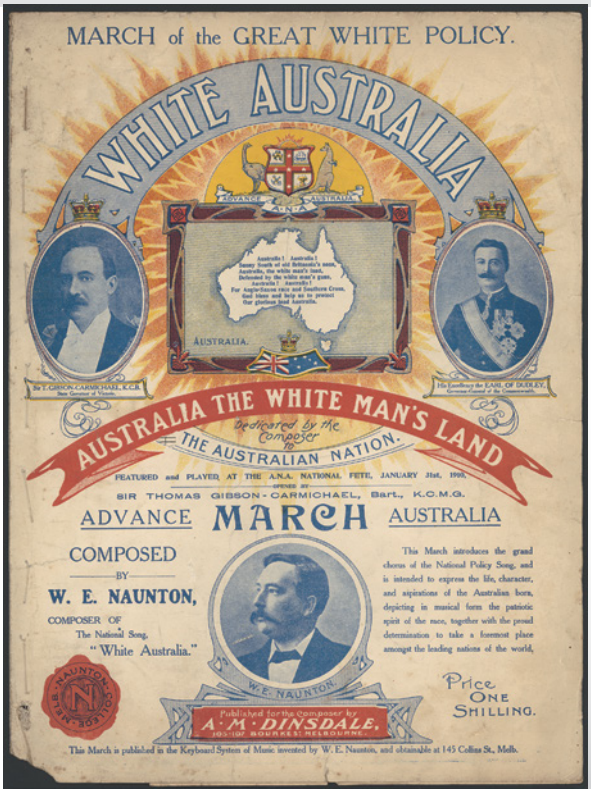
1947
'Populate or Perish' policy released; 32 000 migrants arrive in Australia

1966
Migrants are accepted into Australia based on their skills and qualifications

AD 1900 1930 1940 1950 1960

1939–1945 World War II

1950–1953 Korean War



1951
Australia signs the UN Convention on the status of refugees; Colombo Plan implemented

1949
Construction of the Snowy Mountains Hydro-Electric Scheme begins

1957
'Bring out a Briton' campaign is launched

1958
Dictation test is abolished

Cover of the sheet music and lyrics for 'White Australia: March of the Great White Policy', issued in 1910 while the White Australia policy was still in progress

Vietnamese 'boat people' at Darwin Harbour in 1977

Migrants arriving in 1966

1976
Vietnamese 'boat people' arrive in Darwin

1961 1970 1980 1990 2000 2010 2020 AD

1955–1975 Vietnam War

1990–91 Gulf War

2003–2011 Second Gulf War

1973
Remnants of the White Australia policy are formally dismantled

1975
Racial Discrimination Act is passed

1980
Number of Vietnamese refugees and asylum seekers arriving in Australia reaches 40 000

1989
Tiananmen Square massacre in Beijing, China; 20 000 Chinese students migrate to Australia

2001
9/11 terrorist attacks occur in the US; War on Terror begins; Australia amends the Migration Act and Border Protection laws

2017
Australia's population is more than 24.5 million people (a quarter were born overseas)

H2.1 Australia's changing population since 1945

Background

Since the arrival of Europeans in 1788, Australia has been a country of immigration. Apart from its original inhabitants, Aboriginal and Torres Strait Islander peoples, the population of modern Australia is made up of people whose **forebears** originally came from somewhere else. The evolution of the nation has taken place through a process of migration, as the combination of Australia's need to supplement its own small population with the desire of people generally from places of conflict to start life in what hopefully will provide them with a better future, has meant a long history of migration.

However, the process has not always been smooth. In the early twentieth century, for instance, the belief held by many that Australia should remain predominantly 'white and British' led to the passing of the Immigration Restriction Act by the newly formed federal government in 1901. For many years, political forces and public opinion saw a push for a 'White Australia', and this continued from the early twentieth century, through the post-war period and beyond.

H2.1.1 This cover of the *New Australian* illustrates Australia's public push to recruit British immigrants.

Australia's focus on increasing the country's population maintained a strong focus on European, preferably British, **migrants**. The upheaval and devastation left behind in the wake of World War II brought **refugees** and migrants to Australia from virtually every country in the world.

Migration in the post-World War II era

In 1945, at the end of World War II, Australia's population was 7.5 million people. Low birth rates during the Great Depression and the impacts of World War II had not only led to slow population growth, but also a general neglect of infrastructure resulting in badly needed building programs, and a lack of skilled labour to carry them out. After the war, the Chifley Labor Government established the Department of Immigration with Arthur Calwell appointed Australia's first Minister for Immigration.

Calwell coined the slogan 'populate or perish', which was used to promote an increase in Australia's population. The main arguments for increasing Australia's population were:

- a larger population and workforce were required to help stimulate post-war economic growth and wealth
- new workers would bring new skills and talents to help Australia's development
- a larger population would make Australia less of a target for the populous Asian nations to the north, providing more people for defence and justifying the possession of so much land.

Australia's need of population

Canberra, December 5. Immigration could be a matter of Australia's survival as a nation, said the Prime Minister (Mr Chifley) tonight in a report-to-the-nation broadcast.

He warned that they must populate Australia as rapidly as possible before someone else decided to populate it for them.

He added: 'It must be remembered that only seven years ago a powerful enemy looked hungrily towards Australia. It could be in tomorrow's gun flash that threat will come again.' ...

H2.1.2 *Morning Bulletin*, Queensland, 6 December 1948

H2.1.3 Poster inviting people to emigrate to Australia, by Joe Greenberg, 1948

White Australia policy and 'acceptable' migrants

Calwell's plan was to increase Australia's population by 2 per cent (150 000 people) per year, with 1 per cent coming from natural increase and a further 1 per cent from immigration. British migrants were preferred and Calwell hoped that for every non-British migrant there would be ten from Britain. Some immigrated to Australia unassisted, but the vast majority of British immigrants wanting to escape the cold weather and food rationing of war-torn Britain were offered assisted passage:

- free passage was granted for ex-servicemen
- the assisted passage fare was £10 per adult; young children travelled for free
- migrants had to remain in Australia for 2 years or pay back the full cost of the fare.

This group of migrants came to be known colloquially as 'ten-pound poms'.

Child migrants

Between 1947 and 1953, about 3200 children migrated to Australia from Britain. In fact, one of the Australian migration slogans of the period was 'the child, the best migrant'. These child migrants were British children who were orphans or came from families unable to care for them.

Child migration continued into the 1960s. Charitable and religious organisations believed that they would be better off with the opportunities available to them in countries such as Australia. However, along with the emotional suffering of being separated from their families, many children were abused by carers and employers, and were subjected to hard labour. Although some had positive experiences, generally, the child migration scheme has been widely criticised, which has resulted in a formal apology to those affected from the Australian and British governments in 2009 and 2010 respectively.

International agreements

The recently formed United Nations set up the International Refugee Organisation (IRO) in 1946 to help resettle **displaced persons**. Having been relatively untouched by the ravages of war, Australia was approached by the IRO to help refugees find new homes. Australia agreed to accept at least 12 000 displaced persons a year from 'displaced person' (or refugee) camps across Europe. In November 1947, people from the Baltic countries of Latvia, Estonia and Lithuania began arriving in Australia. Later refugees from Poland, Yugoslavia, Ukraine and Hungary made the journey by ship.

The **Displaced Persons Scheme** resulted in 170 000 refugees arriving in Australia by 1953, after which the scheme ended. Between 1945 and 1949, one-third of the 500 000 immigrants arriving in Australia were from Britain and Ireland, and by 1949, Australia accepted any Europeans as long as they opposed communism and were under 45 years of age.

Australia joined the Intergovernmental Committee for European Migration in 1951 as one of its founding members. Through this and other agreements over the next decade, including becoming a signatory to the United Nations Convention relating to the Status of Refugees in 1951, arrangements were made to accept migrants and refugees from Austria, Greece, Italy, Spain, Belgium, Malta, West Germany, the Netherlands and Eastern Europe. From 1948, the Australian Government accepted fifty Dutch farmers a month, with the Dutch Government organising their travel.

Many immigrants found employment with the Snowy Mountains Hydro-Electric Scheme, which began in 1949 and was completed in 1974. The scheme employed 100 000 people from more than thirty different countries.

H2.1.4 Italian migrant workers on the Snowy Mountains Hydro-Electric Scheme

A snapshot of post-World War II migration

In 1945 at the end of World War II, Australia's population was 7.4 million people. The 1947 census revealed that 0.51 per cent of Australia's population was of a 'foreign' nationality. Source H2.1.5 provides a breakdown of Australia's population by nationality of origin, in 1947 and 1966. The total population of Australia was 7 579 358; however, Aboriginal and Torres Strait Islander peoples were not counted in the census. They are estimated to have accounted for 0.8 per cent of the total population of Australia in 1947.

As the first column in Source H2.1.5 shows, the largest groups of non-Aboriginal, non-British nationals living in Australia in 1947 were Italians, followed by Chinese and Greek people. Cubans were the least represented, followed closely by Peruvians, Chilians (Chileans) and Afghans. As the second column shows, the makeup of the Australian population had changed dramatically by 1966.

H2.1.5 Column A: Breakdown of Australia's population by country of birth, ABS Census, 1947. The total population of Australia in 1947 was approximately 7.6 million. Column B: Breakdown of Australia's population by country of birth, ABS Census, 30 June 1966. The total population of Australia in 1966 was approximately 11.5 million.

	Column A	Column B
Nationality	No. of people in 1947	No. of people in 1966
British	705 534	853 489
Albanian	694	1319
Austrian	656	23 554
Belgian	113	3078
Bulgarian	156	1356
Chinese	4858	6048
Czechoslovakian	374	12 173
Danish	482	5401
Dutch/Netherlands	2001	99 549
Estonian	255	5725
Finnish	424	5925
French	1321	6637
German	2361	108 709
Greek	4504	140 089

	Column A	Column B
Nationality	No. of people in 1947	No. of people in 1966
Hungarian	327	29 841
Italian	7172	267 325
Latvian	61	15 395
Lithuanian	38	7367
Maltese	596	55 104
Norwegian	745	3166
Polish	1560	61 641
Romanian	70	4708
Russian (USSR)	543	29 311
Spanish	208	10 914
Swedish	595	2558
Swiss	448	4653
Yugoslavian	2096	71 277

Did you know?

Immigrant, emigrant or migrant?

These three words are often used interchangeably but there is a difference. An immigrant is a person who comes to live permanently in a foreign country. An emigrant leaves their own country in order to settle permanently in another. A migrant moves from one place to another in order to find work or better living conditions. However, in Australian English, the term 'migrant' is also used to name an immigrant, especially when they have arrived in Australia recently. For example, a person leaving China to move to Australia would be viewed as an emigrant in China. In Australia, that same person would be regarded as an immigrant. If they moved to find work, in Australia they could also be called a migrant.

Assimilation policy

While immigrants were generally welcomed, they were often met with suspicion and sometimes open hostility, being called derogatory names such as 'dagos', 'Balts', 'reffos' and 'wogs'. Some Australians were nervous that they would lose their jobs to migrants. Others were concerned about immigrants coming to Australia from countries that were Australia's enemies during World War II. Others simply did not like the new immigrants because they were 'different' from themselves.

The government assured people that the 'New Australians' would not take the jobs of others and were important to the development of Australia; they were to be welcomed and embraced. However, the guiding principle of settling people in Australia was one of **assimilation**, where the expectation was that newly arrived ethnic groups would embrace and adopt the Australian 'way of life', which was regarded as superior. It was assumed that they would leave behind their old customs, beliefs, values, religion, dress, language and culture, ready to make a fresh start.

Camps and hostels

Important considerations for when migrants arrived in Australia included providing them with immediate housing and ways to start them on their new life in Australia. **Migrant camps**, or hostels, were established out of disused military camps, often in remote rural areas. Camps in places like Bonegilla, near Albury in Victoria, provided temporary housing and were places where migrants could receive medical care and basic necessities such as food and clothing. They also received intensive English classes and education on the Australian 'way of life', and began their preparation to take up employment in Australia.

H2.1.6 Children playing at the Bonegilla Migrant Camp, in north-east Victoria

Activities

Remembering and understanding

1. Why did the government want to increase immigration to Australia post-World War II?
2. Define the slogan, 'Populate or perish'.
3. In your own words, define the purpose of the Displaced Persons Scheme.
4. What general beliefs did the policy of assimilation reflect?
5. What does the 1948 poster in Source H2.1.3 suggest to potential Australian immigrants?

Applying and analysing

6. With reference to Source H2.1.6, outline the evidence that proves Australia's new approach to immigration in the post-World War II era was successful.
7. Use a flow chart to track the development of Australia's immigration policies and acceptance of migrant applications in the post-World War II era.
8. Using the information in Source H2.1.5, construct a bar graph showing Australia's population by country of birth (the top ten countries, excluding Australia) as a proportion of total population.

LS H2A

H2.2 White Australia policy and its legacy

Origins of the White Australia policy

Although Charles Darwin never applied his theories on the survival of the fittest to human beings and society, some people used them to justify their belief that some cultures and races were naturally superior to others and therefore deserved to be dominant. Such ideas, called Social Darwinism, rationalised the mistreatment of indigenous people around the world, and the lack of respect shown for their cultures by many Europeans as they colonised the globe. It also led to a belief in the need for racial and cultural purity to protect the superiority and strength of 'white' European races and cultures.

Chinese immigrants in the nineteenth century

Throughout the 1800s, migrants from around the world began to arrive in Australia in search of better lives, new opportunities and wealth.

A steady rise in the number of Chinese people coming to Australia in search of wealth from the 1850s gold rushes in Victoria, NSW, Queensland and Western Australia began to concern many Anglo-Celtic Australians. By 1861, there were 38 258 Chinese-born people living in Australia, accounting for 3.4 per cent of the total population (a figure that has never been surpassed).

H2.2.1 Cartoon defending a 'White Australia', 'NSW and her duty to posterity', *The Daily Telegraph*, 20 June 1899

H2.2.2 During the Gold Rush era, 1851–60, Chinese immigrants made up the largest non-British group in Australia.

Arguments to restrict immigration

Prior to 1901, immigration laws varied from colony to colony. After 1901 the federal government coordinated immigration for all Australian colonies, with a view to keeping Australia 'white'.

The arguments put forward at that time for restricting immigration were that:

- non-British workers could be paid less and this would lead to a decrease in employment prospects for Anglo-Celtic Australians
- 'white' races were 'superior' and inter-marriage between races should be prevented to protect racial purity
- the British-based 'way of life' would be threatened by too many people of non-British backgrounds living in Australia.

White Australia policy, 1901

At the time of federation, one of the first things the new federal government addressed was the passing of two laws specifically designed to restrict migration into Australia.

- The Pacific Islander Labourers Act was passed on 17 December 1901. The Act allowed Kanaka labourers to keep working on the Queensland sugar cane plantations as cheap labour. In 1906, the Act was amended and

H2.2.3 A poster advertising a play produced in Melbourne in 1909. Its theme was the invasion of Australia.

enforced the deportation of all Pacific Islander workers unless they had lived in Australia for a continuous period of 20 years, owned property, or had married women from other races.

- The Immigration Restriction Act became law on 23 December 1901 and remained in place until 1958. The Act allowed the government greater powers over who could and could not come to Australia. In particular, the use of a fifty-word dictation test whereby applicants had to correctly write a passage read to them in any European language gave immigration officials enormous discretion over who was allowed to enter Australia. If the applicant was considered 'undesirable', the test was given in a language they were unlikely to understand.

Most people and political groups in Australia at the turn of the twentieth century believed that Australia should be a country for 'whites only', which also meant British. The emergence of laws and regulations designed to discourage and restrict non-British people from coming to Australia collectively became known as the White Australia policy.

Post-World War II immigration

The White Australia policy continued to shape Australia's immigration policies in the following decades. Even during the surge in non-British immigration immediately after World War II, the federal government still protected the general principles of the White Australia policy and those arriving in Australia needed to look like they would 'fit in'. Asian nationals' applications to enter Australia were invariably denied. Many Malayan, **Indochinese** and Chinese wartime refugees, some of whom had married Australian citizens and had children, were deported.

Undoing the White Australia policy

The contributions and commitment made to Australia throughout the 1950s by migrants could not be ignored, not to mention the size of the non-Australian-born population. The White Australia policy began to be dismantled.

- In 1952, Japanese war brides were given permission to stay in Australia on 5-year permits.
- In 1957, the Menzies Liberal government amended the citizenship rules so that non-Europeans who had lived in Australia for 15 years could become citizens.
- In 1958, the abolition of the dictation test and the avoidance of references to race that had been part of policy since 1901 were a significant sign that times were changing.

Influence of the Colombo Plan

The Colombo Plan was an initiative first proposed by the federal government at a meeting of Commonwealth foreign ministers in 1950 in Colombo, Sri Lanka. The intention of the agreement was to promote economic and political cooperation within the Asia-Pacific region.

H2.2.4 Vietnamese students studying at the University of Sydney under the Colombo plan in 1957

One component of the Colombo Plan was the provision of educational scholarships. Between 1951 and 1964:

- Australia hosted nearly 5500 students and trainees from over fifteen South and South-East Asian countries. Malaysian and Indonesian students were in the majority, representing 27 per cent and 17 per cent respectively
- overseas students represented 4 to 6 per cent of the main student body, with a high proportion of these students coming from Asia.

The Colombo Plan not only signalled the government's desire to become more politically active in Asia, but it was also a means of facilitating improved cultural understanding.

End of the White Australia policy

During the 1960s, associations for immigration reform were formed in most states, and many argued that the qualities of the individual rather than their racial background should form the basis of someone's suitability to immigrate to Australia. This was reflected in public opinion polls of the 1950s. In 1954, support for the White Australia policy was at 61 per cent; by 1959, this had decreased to 34 per cent.

The 1970s were a time of changing perceptions about national identity in Australia. The new Whitlam Labor government was elected under the slogan of 'It's Time' in December 1972, and set about recognising the fact that Australia was no longer an outpost of the British Empire.

In 1973, the government enacted the final steps to end Australia's discriminatory migration policy. The government:

- legislated that all immigrants, whatever their origins, were eligible to obtain citizenship after 3 years of permanent residence
- issued policy instructions to overseas posts to totally disregard race as a factor in the selection of migrants
- ratified all international agreements relating to immigration and race.

In 1974, the national anthem ,'God Save the Queen', was replaced with 'Advance Australia Fair'. In 1975, an Australian honours system was introduced to replace the British system. On Australia Day each year, people who have made a significant contribution to the country are awarded an 'Order of Australia'.

An increase in the number of migrants from non-European countries occurred when the Fraser government came into office in 1975; this year coincided with the end of the Vietnam War and a wave of refugees displaced by the war.

Activities

Remembering and understanding

1. Explain how Charles Darwin's theory of the survival of the fittest was used to justify the mistreatment of some cultural or racial groups in the nineteenth and early twentieth centuries.
2. Explain the intention of the White Australia policy and how it was implemented.
3. What were the reasons for the implementation of the *Immigration Restriction Act 1901*?
4. How could the dictation test be used to discriminate against races thought to be unacceptable?
5. List the key steps in the dismantling of Australia's White Australia policy.

Applying and analysing

6. What does Source H2.2.1 reveal about racial attitudes in the early twentieth century?

Evaluating and creating

7. Imagine you are living in Australia in the 1960s or 1970s. Design two posters that present opposing views on ending the White Australia policy. Posters should include a slogan, images and creative methods of persuading the viewer to believe the view conveyed.
8. In small groups, create a rhyming rap that outlines the attitudes and actions of the Australian people and government towards immigration in the years following the end of World War II.

H2.3 Immigration from the 1950s

Reunion immigration and Hungarian refugees (1956–65)

The next wave of migrants to come to Australia was fuelled by the Operation Reunion program, which reunited settlers in Australia with their relatives from overseas. The Bring out a Briton campaign was launched in 1957 with great success.

During this period, 14 000 Hungarians were also accepted into Australia following the Hungarian Uprising in 1956. The turn of the decade saw Mr Otto Kampe, the 250 000th refugee, arrive in Melbourne. By 1961, Australia's population reached 10.5 million, a 43 per cent increase on the 7.4 million of 1945. The 1945 target to increase Australia's population by 2 per cent per year was well exceeded.

Capped immigration from 1966

The period 1966–75 saw a shift in the nationalities accepted under Australia's immigration program. The government of the day began to accept applications from well-qualified people irrespective of their country of origin. The imperative to 'populate or perish' had been met and from this period onwards, successive federal governments have capped (meaning, to set a limit) immigration numbers so that the Australian economy and community can absorb and adjust to the numbers of migrant arrivals.

During this period, the government continued to respond to international situations. After the intervention in Czechoslovakia by the Warsaw Pact of 1968 and the overthrow of the Chilean Government in 1971, approximately 6000 Czechs and 1000 Chileans migrated to Australia.

H2.3.1 European migrants arrive in Australia in 1966. Many migrants at this time were coming to Australia to join their families.

Skilled immigration and Indochinese refugees (1976–85)

In 1976, the Department of Immigration became the Department of Immigration and Ethnic Affairs. The immigration program was reviewed and, in 1979, a Numerical Multifactor Assessment System came into effect. This new program considered the applicant's family links to Australia and their skills, knowledge of English, successful settlement prospects and literacy.

In the period 1976–85, and for the first time since 1945, the number of applicants wishing to migrate to Australia exceeded the places available. As a result, the number of visitors outstaying their visas increased. In 1976 and 1980, the department ran two programs offering amnesty to people who had overstayed their visas, which allowed these people to regularise their status.

The Vietnam War was the major reason for the wave of migration in this period. More than 155 000 refugees have been resettled from Indochina since 1975. Vietnamese immigration and the experience of Vietnamese migrants is explored more fully in Unit H2.6.

H2.3.2 Customs Officer Frank Dalton holds a Vietnamese refugee child, Xye Than Hueon, on the deck of the *Tu Do* in Darwin, November 1977.

H2.3.3 A man blocks a line of tanks in Beijing after Chinese forces crushed a pro-democracy demonstration in Tiananmen Square in 1989.

Immigration in the 1980s

Large groups of immigrants from Lebanon (fleeing from civil war) China, Malaysia and the Philippines also arrived in Australia during the 1980s. As war broke out in the former Yugoslavia in 1990, there was an increase in refugees fleeing from parts of the Balkans. This was also the case with groups of people from the Middle East, as the war in the Persian Gulf began in the same year. This, coupled with political oppression in other parts of the Middle East, saw people from Iraq, Iran and Afghanistan arriving in Australia, along with others from Africa and Timor-Leste (East Timor).

The Tiananmen Square massacre

In 1989, Chinese students led a popular demonstration in Beijing, China, supporting freedom of speech and freedom of the press and protesting against entrenched government corruption, among other concerns. The Chinese government condemned the demonstration as a counter-revolutionary riot. It was forcibly suppressed by the military and on 3–4 June, troops and tanks bore down on the demonstrators who had been camping in the square for the previous seven weeks. Estimates of the death toll range from several hundreds to the thousands. Many students were sent to re-education camps (*laogai*) and many others sought to flee the country to safety.

In response to the massacre, Australian Prime Minister Bob Hawke allowed 20 000 Chinese students to stay in Australia. This decision was disapproved of by some Australians who saw it as opening the door to increased immigration of Chinese people to Australia; others saw it as an important humanitarian act.

Immigration in the 1990s and 2000s

The Gulf War

As war broke out in the Persian Gulf in 1991, there was an increase in the number of refugees fleeing the Middle East. Iraqi troops invaded Kuwait on 2 August, partly because Iraq owed significant amounts of money to Saudi Arabia and Kuwait after the Iran–Iraq war and also because Iraq claimed sections of Kuwait as Iraqi territory. Iraq's invasion was devastating. The Kuwaiti military was quickly overrun and the Iraqi leader, Saddam Hussein, established a puppet regime to rule Kuwait.

Human rights abuses were committed in Kuwait by the invading Iraqi military. The political and physical insecurity of living in a war zone, coupled with these human rights abuses, led many people living in the Middle East to seek refuge in a safer country.

The war in Afghanistan

The war in Afghanistan refers to the involvement of NATO and allied forces in the Afghan political struggle following the terrorist attacks of 11 September 2001 in the US. The aim of intervention has been to dismantle the al-Qaeda terrorist organisation and remove the Taliban government from power.

The conflict has had a shattering impact on Afghan society. Recorded civilian killings number in excess of 3000. Approximately 60 per cent of the population has been directly affected by war in the region. In 2013, the United Nations High Commissioner for Refugees (UNHCR) estimated that 2.2 million Afghans are of refugee status. Many have sought refuge in Australia.

H2.3.4 Afghani refugees in Australia

Skills builder

Cause and effect

Understanding cause and effect allows you to appreciate why events happen. It means taking an event and looking to the past to see what caused it.

The relationship can be very simple with one cause leading to one effect. In other situations there will be multiple causes that lead to a particular event.

Sometimes the causes will have been in the immediate past. These are known as short-term causes. Other times the causes will have happened a long time before the event. These are called long-term causes.

APPLY

1. What were the causes of immigration in post-war Australia? Would you describe these causes as short- or long-term? Why?
2. Since European settlement began, Australia's history has been a story of immigration.
   - a. Organise to interview a person who has migrated to Australia. It could be a family member, neighbour or friend.
   - b. Find out the reasons (or causes) for their migration.
   - c. List the causes and compare them with the causes that other class members discovered in their interviews.

Activities

Remembering and understanding

1. Explain why the government began capping immigration from 1966.
2. What was the selection criteria of the 'Numerical Multifactor Assessment System' based on?
3. Why did people want to flee Vietnam in the mid to late 1970s?
4. Why did Prime Minister Bob Hawke allow 20 000 Chinese students to stay in Australia in 1989?

Applying and analysing

5. Draw a timeline with the key conflicts associated with waves of migration to Australia since the 1950s outlined in this unit.

H2.4 Italian immigrants to Australia in the 1950s

Reasons Italian people chose to emigrate

In the decades following the end of World War II, there was a great deal of social, political and economic uncertainty in Italy. Times were difficult for those living in Italy and the majority of Italian migrants who journeyed to Australia did so in the hope of creating a better life for their family. About 360 000 Italians emigrated to Australia between 1945 and 1976.

Egidio Della Franca's father told him: 'You are alright in Italy but I don't see a future for you.'

Giovanni Marinelli saw the posters encouraging Italians to migrate to Australia under the Assisted Migration Scheme. He 'knew very little about Australia' and despite his parent's disapproval, he decided to migrate to Australia.

Maria Raffaele's family could afford few luxuries, 'if the weather was bad and we didn't harvest enough there was no money … Every little lira counted for us … I had no doll or anything when I was small'.

H2.4.1 Some Italian migrants share their reasons for leaving their homeland, from 'Italian Lives', University of Western Australia

Hardships experienced by Italian migrants

For many migrants, Australia was not the land of opportunity they had hoped for.

- Many highly-educated migrants, such as medical doctors and other professionals, soon discovered that their qualifications were not recognised in Australia and found themselves deployed as 'factory fodder' and other forms of manual labour.
- Families were often separated shortly after arrival. Men were sometimes sent many hundreds of kilometres from the migrant camps. This caused considerable hardship, as some men did not see their families until after their 2-year agreement concluded.
- Some migrants were taken advantage of in the workplace; women in particular were often paid lower wages than they were entitled to and were deprived of the working conditions enjoyed by other Australians.
- Many Italians found themselves unable to move beyond the most lowly paid jobs and with few prospects for improving their situation. Usually they were the first to be laid-off if business was going badly.
- Trade unions had little interest in the particular problems faced by migrants. With poor English-language skills and only limited union support, many found themselves working long hours with minimal rewards, making them feel powerless and unhappy.

Settling in

The majority of Italian migrants came from rural towns and so they looked for agricultural work in Australia. In the 1950s and 1960s, Italians often worked as market gardeners or in the fishing industry. Many also found employment on the Snowy Mountains Hydro-Electric Scheme. Some families set up businesses, and in many suburbs by the late 1960s you could find an Italian greengrocer, general store, fishmonger, baker, delicatessen or boot maker.

Life for Italian migrants in Australia was often isolating, physically draining and disappointing. It was not the life that the posters (see Source H2.1.3 in Unit H2.1) promised.

Egidio Della Franca recalls that when he arrived in Australia, 'I had half a mind to … if it was close enough that I could have walked there, I would have gone home, you know'.

Giovanni Marinelli said, 'They told us a bit about Australia … They said there was bush and forests but not that we had to knock them down'.

Maria Raffaele 'won't forget one hot day in 1955, the 4th November, when Dad was working on the railway and we had no electricity, no running water, no fridge, no language … We only had ourselves!'

H2.4.2 Some Italian migrants share their experiences of setting up life in Australia, from 'Italian Lives', University of Western Australia

H2.4.3 Three young Italian migrants at Circular Quay in Sydney after disembarking from their ship, March 1960

Resistance to assimilation

The policy of assimilation may have made perfect sense to the government and people of Australia, however, Italians came to Australia with their own very rich culture. Apart from 'visible luggage' such as food and clothes, they also brought with them 'invisible luggage'. These were things that the government was expecting, such as their ideas, skills and energy, but they also brought their language, religion, beliefs, customs, music, art, literature and sport. Unwilling and unable to give these up, Italian immigrants formed communities to share their common identity. They started social and sporting clubs, set up newspapers, held cultural events, organised the importation or production of traditional foods, and established restaurants to serve their cuisine.

Prior to World War II, the diets of most Australians were based on British traditions; they did not dine out at restaurants very often, and drinking wine with meals was unusual. But, as time went on, Australians increasingly came to enjoy the foods and recipes of migrant cultures, and dined out with family and friends at, for example, the local Italian or Greek restaurant. The interest in foreign cuisines created a market for quality wine production in Australia. New types of vegetables such as zucchini and capsicums, fruits, nuts, and even flowers broadened choices and tastes. Meanwhile, those who liked to be well dressed began to look to a more European style of clothing and valued the skills and flair of immigrant tailors and dressmakers.

Cultural enclaves

Another example of the failure of assimilation as a policy was the growing number of suburbs that became dominated by one particular cultural group. As Italian migrants arrived in Australia, they tended to settle in suburbs with their relatives or other people they knew from their homeland, forming enclaves with churches, clubs and sporting teams. They wanted to be near those who spoke the same Italian dialect and shared the same cultural background, beliefs and values. It also made it easier for them to share resources or gain access to specific traditional products.

In general, the Australian community was embracing the richness of culture and range of choices that came with the arrival of new ethnic groups, including Italians, to their shores. In this way, not only did Australian society change what it ate and how it dressed, but also the Australian 'way of life' began to evolve and would continue to do so as new groups of immigrants settled in Australia.

Integration

Over time, it became clear that the policy of assimilation was not working for all Italians who had immigrated to Australia, or for the broader Australian community. While some found it relatively easy to adapt to the Australian lifestyle, many others struggled and turned to their traditional culture and communities. Many migrants became marginalised.

It was also becoming obvious that the contributions made to cultural life in Australia by immigrants, including Italian migrants, were increasingly valued, and so the government gradually moved towards a policy of **integration**. Integration acknowledged that different cultural groups had something to offer Australian society and should be encouraged to do so. No longer were they expected to give up their traditional customs, values and beliefs for those of the dominant, established Australian culture.

Changing government policies

Government policies and community expectations of migrants gradually changed during the 1960s and, in 1968, the Division of Assimilation within the Department of Immigration was renamed the Division of Integration.

Programs in Italian (and other languages) began to be broadcast on the radio, with the goal of keeping non-English speaking Italians connected to their broader community and current events. Some schools started catering for students from non-English speaking backgrounds, and employers showed more awareness of the specific needs of migrant workers, for example by printing safety signs in foreign languages. The Australian Broadcasting Corporation (ABC) introduced a television program to help people learn English. Although such provisions did not solve all problems for migrants, their situation and particular needs were better recognised by the community at large.

Activities

Remembering and understanding

1. Create a mind map illustrating the reasons why Italian migrants left their homeland.
2. Explain the reasons for hardships experienced by migrants in Australia.
3. In reference to the Assimilation policy, define: 'visible luggage' and 'invisible luggage'.
4. Why did migrants resist assimilation?
5. How has Australia benefitted from the arrival of Italian migrants?
6. Identify and list the evidence for the failure of the Assimilation policy.

Applying and analysing

7. Compare Sources H2.4.1 and H2.4.2. Do you think these Italian people were satisfied with their immigration experience? Provide evidence from the sources to support your answer.
8. From the point of view of an Italian migrant write three diary entries over three consecutive months that focus on your expectations and experiences of migrating to and living in Australia.
9. Outline the key ideas introduced under the Integration policy.

Evaluating and creating

10. Design a poster from the point of view of a newly arrived Italian migrant to Australia. What would they want to communicate to their family and friends back home about immigrating to Australia? Include a slogan, an image and a one- or two-sentence explanation.

LS H2B

H2.5 From integration to multiculturalism

The Whitlam Government had realised that for Australia to prosper in a global community it was important for the world to view Australia as inclusive and accepting of all cultures, particularly those of Asia. Replacing the policy of integration was one of '**multiculturalism**', which acknowledged and celebrated the diversity of cultures that existed within Australia. Based around the principles of respect and tolerance for those of other cultures, the expectation was that people could maintain their own culture while acknowledging the right of others to do the same, as long as people were loyal to Australia and followed Australian law. Al Grassby, the Minister for Immigration (1972–74), referred to the idea of building the 'family of the nation'.

> Grassby ... is for a multi-language, multi-cultural, participatory democracy which will show the world's oldest nations what a young one can do in building a national community: A Family of the Nation concept which accepts differences ... loves colourful diversity, encourages mutual respect between all.

H2.5.1 Ian Moffatt's commentary on the policies of Al Grassby, published in *The Bulletin*, 3 July 1976

Other government initiatives of the early 1970s that supported the principles of multiculturalism included:

- the banning of racially selected sporting teams from playing in Australia
- the removal of the provision for Aboriginal and Torres Strait Islander peoples to seek permission before going overseas
- support for campaigns to abolish Apartheid in South Africa.

Migrant groups also applied pressure on politicians by forming state and national associations to maintain their cultures, and promote the survival of their languages and heritages within mainstream institutions.

However, changes in government policy did not necessarily mean that the long-held opinions and beliefs of many Australians would change overnight. Negative attitudes towards migrants still persisted in many communities, and in fact intensified as some Australians felt their sense of national identity was being challenged. As a means of supporting the principles of multiculturalism, the newly elected Liberal Government under Malcolm Fraser introduced the *Racial Discrimination Act (1975)*, which declared the use of racial criteria as illegal for any official purpose. The term 'multiculturalism' became more widely used by politicians to describe Australian society in speeches and addresses to parliament.

Multiculturalism evolves

By the 1970s, more than one-third of the Australian population had been born overseas, and throughout the rest of the 1970s and 1980s a range of federal and state government agencies, official reviews, and community organisations contributed to supporting the evolution of multicultural Australia. The Fraser Government commissioned a 'Review of Post-Arrival Programs and Services for Migrants' in 1977, resulting in the Galbally Report of 1978. The main recommendations of this report would govern Australia's approach to immigration and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SYDNEY, SUNDAY, JUNE 27, 1971. 144 Pages TEN CENTS

WILD START TO SPRINGBOK TOUR

Demonstrators clash with pro-tour supporters at Perth airport yesterday morning before the arrival of the Springbok side.

Kiwis' shock win in League —P 61

Twenty-two people were arrested in Perth yesterday during noisy demonstrations against the South African Rugby Union team.

The football crowd of 10,000, however, gave the Springboks a rousing reception and much of the trade-union opposition to the tour fizzled.

— SEE PAGE 2

$500,000 JACKPOT GOES OFF

A Sydney syndicate yesterday cracked the $500,000 Canberra TAB jackpot pool with two winning tickets.

But a TAB spokesman said last night it was possible that more ticketholders would share the prize.

— SEE P3

WEATHER (City): Cool, some cloudy periods. Gusty north-west winds (Details back page).

H2.5.2 The front page of the *Sun-Herald* on 27 June, 1971. The tour of the Springboks, the South African rugby team was met with fiery and impassioned anti-apartheid protests around the country, with the Queensland government declaring a state of emergency in response to the Brisbane protests.

migrants for the years to come. The recommendations of the Galbally Report, and others that followed such as those by Jupp in 1986 and FitzGerald in 1988, resulted in the expansion of existing settlement services, such as:

- on-arrival accommodation and orientation assistance
- increased English-language teaching
- interpreting and translation services
- assistance with overseas qualifications recognition.

Migrant resource centres were formed to enable ethnic communities and voluntary agencies to cater to the welfare needs of migrants.

The Special Broadcasting Services (SBS) television station was established in 1980 to broadcast programs in a range of languages. Mainstream multicultural and 'Saturday school' programs were introduced in schools for migrant children to learn the language, traditions and culture of their families.

GALBALLY REPORT RECOMMENDATIONS (1978)	JUPP REPORT (1986)	FITZGERALD REPORT (1988)
• All members of our society must have equal opportunity to realise their full potential and must have equal access to programs and services. • Every person should be able to maintain his or her culture without prejudice or disadvantage and should be encouraged to understand and embrace other cultures. • [The] needs of migrants should, in general, be met by programs and services available to the whole community, but special services and programs are necessary at present to ensure equality of access and provision. • Services and programs should be designed and operated in full consultation with clients, and self-help should be encouraged as much as possible with a view to helping migrants to become self-reliant quickly.	All Australians should have: • equal opportunity to participate in the economic, social and political life of the nation • equitable access to and an equitable share of government-managed resources • the opportunity to participate in and influence government policies, programs and services • the right to enjoy and use one's own culture, religion and language while respecting the rights of others to enjoy and use other forms.	Multiculturalism based on three rights. The right to: • cultural identity (expressing and sharing one's individual cultural heritage, including their language and religion) • social justice (equality of treatment and opportunity, and the removal of barriers of race, ethnicity, culture, religion, language, gender or place of birth) • economic efficiency (the need to maintain, develop and utilise effectively the skills and talents of all Australians). Multiculturalism based on three obligations. The obligation: • to have an overriding and unifying commitment to Australia, to its interests and future first and foremost • to accept the basic structures and principles of Australia • to accept that the right to express one's own culture and beliefs involves a reciprocal responsibility to accept the right of others to express their views and values.

H2.5.3 A comparison of recommendations and findings from reports on multiculturalism in Australia during the 1970s and 1980s

Activities

Remembering and understanding

1 Define the term multiculturalism.

2 Construct a timeline summarising the key developments in Australia's migration history from the 1950s to the 1990s. Be sure to include an appropriate 'scale' when constructing your timeline.

3 Why do you think government legislation, such as the *Racial Discrimination Act (1975)*, is an important part of bringing about social change in Australia?

4 What developments in regards to migration led to the need for formal reviews into the policy of multiculturalism?

Applying and analysing

5 Refer to Source H2.5.3, and answer the following questions.

a What themes recur throughout the three reports?

b What new ideas were included as time progressed? Had any been removed? What might be an explanation for these changes?

c What conclusions can you make about the issues that existed in multicultural Australia from 1970 to 1990?

H2.6 The arrival of Vietnamese 'boat people'

Impact of the Vietnam war

When the Vietnam War ended, Vietnamese people living in South Vietnam who had either provided support to the US and its allies, or who had fought in the army of the Republic of Vietnam were fearful of reprisals from the North Vietnamese. Punishments they could incur included being sent to re-education camps where detainees did hard labour for years or decades and from which some never returned.

The arrival of refugees

Australia had been involved in the war and had supported South Vietnam. In 1976, the Liberal government led by Malcolm Fraser acknowledged its obligations to the Indochinese refugees from Vietnam, Cambodia and Laos. The government agreed to accept responsibility for refugees from Vietnam who came to Australia illegally, as well as those who were organised to stay in government-controlled refugee camps. Most countries, including Australia, adhered to the definition of 'refugee' as prescribed in the UN Convention Relating to the Status of Refugees.

> ... owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable, or owing to such fear, is unwilling to avail himself of the protection of that country.

H2.6.1 Quote from the *UN Convention Relating to the Status of Refugees*, 1951.

In response to its obligations, the Fraser government implemented a program of controlled immigration and began taking refugees from the camps in South-East Asia. By 1978, Australia was involved in the United Nation sponsored Orderly Departure Program from Vietnam.

> The Orderly Departure Program (ODP) was established under a 1979 Memorandum of understanding between the United Nations High Commissioner for Refugees and the government of Vietnam to provide a safe and legal means for people to leave Vietnam rather than clandestinely by boat. The agreement provides for the departure of immigrants and refugees for family reunion and humanitarian reasons. In addition to serving as an orderly, predictable means for those wishing to depart the country, it also serves to relieve the flow of refugees into first asylum countries and to save the Vietnamese government the embarrassment of the uncontrolled illegal exodus of thousands of its citizens.

H2.6.2 From *Refugee Program: The Orderly Departure Program from Vietnam*, US General Accounting Office report, April 1990

Vietnamese 'boat people'

In the late 1970s, the term '**boat people**' came into use to describe **asylum seekers** (people who had not been granted refugee status) from Vietnam who arrived in Australia by boat. Coming from all classes of Vietnamese society, nearly 40 000 Vietnamese refugees and asylum seekers arrived in Australia between 1975 and 1980, fleeing persecution under the new communist government. When they arrived they were accommodated in hostels. Many eventually settled into Australian society with employment and the chance of a new life.

From 1985, more Vietnamese migrants came to join family members who had arrived earlier, and eventually about 50 000 Vietnamese people settled in Australia. They became the third largest migrant group of the 1980s, after British and Yugoslavian migrants.

H2.6.3 Young Vietnamese refugees arriving in Darwin, 1977

Classifications of Vietnamese refugees

Vietnamese refugees who arrived in Australia in the post-war period can be classified into four main groups.

- The first group, arriving in 1975, were mostly wealthy Vietnamese, Chinese businessmen and Catholics, who faced severe reprisals from their new government.
- The second group, arriving 1976–78, were a gradually increasing outflow of refugees from camps outside Vietnam.
- The third group, arriving in 1978, were mostly owners of private businesses, especially Chinese, expelled by the new Vietnamese Government.
- The fourth group, mostly small traders, rural and urban workers and the unemployed, were 'economic refugees' who had made their way to refugee camps in Indonesia and Hong Kong and were looking for a more permanent home.

Over 150 000 Indochinese refugees came to Australia in the 20 years following the Vietnam War.

H2.6.4 Vietnamese refugees aboard the refugee boat *Kien Giang*, 1979

H2.6.5 Number of Vietnamese-born people in Australia, 1976–96, ABS Census

	1976	1981	1986	1991	1996
NSW	1023	16 926	33 994	49 185	61 148
Vic.	379	12 840	27 899	44 394	55 141
Qld	466	3509	6237	8654	11 048
SA	237	3844	6986	9271	10 667
WA	77	2778	5913	8215	10 066
Tas.	48	212	234	250	209
NT	21	193	436	427	523
ACT	176	794	1358	1929	2251
TOTAL	2427	41 096	83 057	122 325	151 053

Settling into life in Australia

Like other migrants before them, the Vietnamese often settled in suburbs with a relatively high percentage of Vietnamese or Indochinese people already living there. Suburbs such as Springvale, Footscray and Richmond in Victoria and Cabramatta and Fairfield in NSW have become centres for Vietnamese communities and culture. As with other migrant groups, these enclaves provided newly arrived Vietnamese migrants with vital support, especially in terms of language and culture, as well as finding employment and learning about life in Australia.

As Vietnamese refugees became more proficient with English and familiar with the Australian lifestyle, they moved beyond their communities and have integrated into mainstream society while maintaining their culture and heritage. Generally, Vietnamese immigrants have been successful in finding employment and have actively sought Australian citizenship.

H2.6.6 A Vietnamese migrant family and their hosts at a community function, Canberra, 1980. As part of the refugee settlement program of the late 1970s, many Vietnamese families were hosted by local church or community groups.

Spotlight

H2.6.7 Phong Nguyen, an active member of the Vietnamese community in Victoria, was one of the first Vietnamese to arrive in Darwin by boat in the 1970s.

> ... in July 1979 the Prime Minister agreed to take 14 000 Vietnamese refugees ... At the time of the decree Phong Nguyen, his three siblings and their mother were in an Indonesian refugee camp awaiting resettlement.
>
> His father, a brigadier in the South Vietnamese army, had been jailed by the Communist regime in 1975, and the family had fled the country by boat under false Chinese identities ...
>
> The Nguyens would ultimately be among 70 000 Vietnamese refugees who would find a new home in Australia during [Malcolm] Fraser's tenure.

H2.6.8 From 'Warm welcome helped bury White Australia Policy', Drew Warne-Smith, *The Australian*, 21 January 2011

H2.6.9 Nga Chu, also known as Nahji, Miss Chu and the Queen of the Rice Paper Rolls

> Nga Chu, known to everyone as Nahji, Miss Chu and the Queen of the Rice Paper Rolls, is a restaurateur and caterer ... Born in Luang Prahbang, Laos, in 1970, Nahji and her family escaped the Pathet Laos Regime in 1975. They sustained themselves on the meager living conditions afforded by the various Thai refugee camps they inhabited over a four-year period before the Chu family's number came up and the Australian Government made them one of the first Vietnamese-Laotian refugees to settle in Australia.
>
> The Chu family own and operate several Vietnamese restaurants ...
>
> A talented filmmaker, Nahji has produced a charcoal animation telling her story and that of many other Vietnamese refugees.

H2.6.10 Nga 'Nahji' Chu, a Refugee Week Ambassador

H2.6.11 Vietnamese New Year at the Lunar Festival at Victoria Street in Richmond, Melbourne

Activities

Remembering and understanding

1 Why did Vietnamese 'boat people' arrive in Australia as refugees during the 1970s?
2 What does the condition of the boat depicted in Source H2.6.4 tell you about the motivation for the refugees to leave Vietnam?
3 Why did Vietnamese refugees settle in suburbs such as Richmond in Melbourne and Cabramatta in Sydney?

Applying and analysing

4 Examine Sources H2.6.8, H2.6.10 and H2.6.11. How do they demonstrate the long-term impact of the Vietnamese refugees on Australian culture? Write 200–300 words describing your thoughts.
5 What evidence can you see in Source H2.6.11 that maintaining culture has great importance for Vietnamese and Indochinese immigrants? How is this demonstrated by Nga Chu's story?
6 Which of the sources provided in this unit is most useful to historians studying Vietnamese immigration to Australia? Explain your choice.

Evaluating and creating

7 Select an aspect of cultural life (food, sport, literature, music, film, art, fashion etc.) and research the contributions made by Vietnamese migrants to the development of this aspect of life in Australia. Present your findings as a multimedia presentation, a wiki, a blog or a video documentary.

LS H2C

H2.7 The contribution of migration to the Australian identity

Australia's national identity

In the 2017 census, Australia's population had exceeded 24.5 million, 25 per cent of whom were born overseas and 24 per cent who had at least one parent who was born overseas in one of over 200 different countries. There are more than 400 different languages spoken in homes across the nation. Of the 25 per cent born overseas, people born in England made up 14.7 per cent, New Zealand 8.4 per cent, China 8.3 per cent, India 7.4 per cent and the Philippines 3.8 per cent.

Post-World War II

There is little doubt that since the end of World War II, Australia has become a country significantly influenced by the arrival of migrants, bringing with them their cultures, beliefs, values and way of life. Importantly, they also brought a desire to make a better life for themselves and their families, and a work ethic that drove the development of modern Australia.

Immigrants have made valuable contributions to the building of post-World War II Australia, creating a rich and vibrant society drawing from the best that the world has to offer, and stimulating and supporting economic growth for the benefit of all. There has also been a shift in the way Australians view themselves; the sense of national identity that we associate with being typically Australian.

Social and cultural contribution

The most obvious way in which immigrants have contributed to Australian society is through their impact on culture and lifestyle. New foods, beverages, clothing and fashion, literature and art, languages and music, religions, festivals and sports are relatively easy to identify from those of the predominantly Anglo-Celtic cultural landscape of Australia before World War II.

With each new wave of migrants have come new additions to the eclectic mix of lifestyles that have evolved and blended to become the Australia of today. Most would agree that the contribution of immigrants to Australian culture has been a positive outcome of the 'migrant experience'.

Migrants and children of migrants are successful academics, professionals, entrepreneurs, politicians, community leaders, tradespeople, media personalities, writers, artists, sportspeople and entertainers. Many immigrants have become very well known and are role models for young Australians. This is not only evidence of the commitment to hard work that most migrants have brought to Australia, but also of the valuable contributions they have made to the development of modern Australian society.

H2.7.1 The annual Moomba parade through the centre of Melbourne is a celebration of the rich multicultural city.

H2.7.2 Young Australians celebrate their Greek heritage.

H2.7.3 Celebrating Chinese New Year in 'Chinatown' in Little Bourke Street in Melbourne

H2.7.4 Nam Le is the, author of *The Boat*, a collection of short stories that won the Dylan Thomas Prize for young writers in 2008. Born in 1978, Nam Le arrived with his parents in Australia in 1979 as a boat refugee.

Contribution to the Australian economy

The original goal of increasing immigration to Australia after World War II was in part to strengthen the economic growth of the country. Immigration today continues to have a positive impact on both the supply and demand aspects of the economy. Generally, an increase in the number of immigrants leads to an increase in population. This generates greater demand for goods and services, which encourages the growth of businesses to meet the demand.

Skilled workers

Migrants also contribute to the supply of goods and services, as their labour and skills are used in the workforce. Skilled workers, in particular, such as professionals and tradespeople, are extremely valuable in bringing new skills and knowledge to the Australian workforce at little cost to the Australian community, as their training and education have often been paid for in their country of origin. The Australian economy benefits not only from their expertise, but from the taxes they pay and the money they spend.

Time to integrate

Despite the fears of many Australians that increased migration is a threat to their employment prospects, studies have shown that this is not the case. In fact, recently arrived migrants are the people most likely to find themselves unemployed in times of economic hardship. On average, it takes immigrants 4 to 5 years to establish a life for themselves in Australia in terms of consistent employment, accommodation and community ties.

Those with existing support networks in Australia, such as family or good English language skills, tend to take less time to adjust. It is during this period of establishment that immigrants rely upon government-funded services before they can contribute to the economy.

Did you know?

In December 2005, a series of violent incidents between youths at the Sydney beach suburb of Cronulla resulted in a racially inspired riot. Young men of Middle-Eastern appearance were sought out and attacked by rival groups of young men. Retaliatory action saw the violence spread to neighbouring suburbs as groups of young men, often armed, went on a rampage. Ugly images and references to racially inflammatory comments made by participants were broadcast across the country and the globe, undermining the image of Australia as a racially tolerant and cohesive multicultural society.

Migrants' profiles

Migrants work in every Australian industry, contributing to mining, farming, construction and manufacturing, fishing, logging, and often establishing their own businesses. They have built homes and communities, clubs and shopping centres, railways and bridges, roads and skyscrapers, dams and power stations. They have engaged in retraining and education to improve their skills and knowledge, and their children and grandchildren have done likewise to enter every profession and trade.

Their knowledge of languages, understanding of cultures and traditions, and connections to business, people and governments across the globe have contributed to Australia's international trade, establishing relationships that may have otherwise taken many years to develop.

The prosperity of modern Australia is very closely linked to its immigration history.

Australia's changing immigration policies

The concept of a multicultural Australia has had a positive effect on relationships with countries in the Asia-Pacific region. Australia is no longer regarded as being simply a British outpost. Australia's evolving migrant heritage has contributed significantly to the development of closer ties with Asian nations, such as China and India. Improved understanding of international cultures, beliefs and values has led to economic and political benefits.

Australia's immigration history is a key aspect of the definition of Australian identity. Migrants have made important cultural and economic contributions to the country, and have influenced the way Australia interacts with the rest of the world.

The reasons for Australia's changing policies in regard to accepting and integrating migrants say a lot about how the country has grown, how attitudes and values have developed, and how Australians as a nation of migrants have learnt to embrace and respect the many cultures that constitute Australia's diverse population.

H2.7.5 Girls wear the burqini, a swimsuit specially designed for Muslim female lifesavers, on Cronulla Beach, Sydney, 2007.

Activities

Remembering and understanding

1 Describe the influence of immigration on the Australian way of life.
2 How has Australian culture changed with the arrival of migrants in the post-World War II era?
3 Why are fears that migrants threaten employment prospects for people living in Australia unfounded?
4 How have Australia's changing immigration policies in the post-World War II era affected its relationship with other nations?

Applying and analysing

5 Use a mind-map to brainstorm the contribution immigrants have made to the Australian economy.
6 How does Source H2.7.5 challenge some stereotypes associated with Australian identity?
7 What do you believe have been the five most significant contributions made by migrants to Australia? Justify your answers. Compare your list with the rest of the class.

Evaluating and creating

8 Create an illustration that best represents your views on what Australia's national identity is today. For example:
- a collage of famous Australians from different cultural backgrounds
- a picture similar to that of Source H2.7.6 showing a range of scenes representing multicultural Australia.

9 Create a short profile on a post-World War II migrant who has made a significant contribution to Australia in one of the following areas: business, sport, education, science, the arts, politics, entertainment or another field of your choosing. Include any difficulties they had to overcome to achieve success in their chosen field. The person may or may not be famous.

Present your profile on an A4 page, and include a picture of the person. You may want to incorporate a timeline that summarises their migration history and notable events or achievements in their life.

LS H2D


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FARFISA

Popular culture H3

The term '**popular culture**' originated in the nineteenth century to describe the social habits of ordinary people as opposed to the privileged classes. Today, popular culture refers to the ideas, behaviour, values and references shared by any group within society. Popular culture is evident within a range of art forms and leisure activities such as music, sport, film and television, and fashion.

In the post-World War II era, as the generation of **baby boomers** grew up, they set the values, attitudes and way of life that made up the Australian cultural identity. Consumerism emerged with the desire to follow trends from around the world. As the world has become more globalised, so has our popular culture.

OVERVIEW QUESTIONS

H3A What were the influences on and developments in popular culture in post-war Australia, and how did this affect society?

H3B How and why did the nature of the Australian music, film and television industry change during the post-war period?

H3C How has Australia contributed to international popular culture?

H3D How have changing beliefs and values influenced the Australian way of life?

LS Before you begin

GLOSSARY

alternative rock a style of music distinct from mainstream rock, which developed in the 1980s

baby boomers people born during the rapid period of population growth that followed World War II

bodgie the male equivalent of a widgie; young man who adopted a particular fashion trend in the 1950s

disco a genre of music that was popular in dance clubs in the 1970s

glam rock a genre of popular music that emerged in the 1970s, characterised by performers dressed in elaborate costumes

globalisation the integration of systems such as the economy, politics and culture across the globe

grunge a guitar-based sub-genre of alternative rock

hire purchase a system of payment for goods over time

mass media technologies that are intended to reach large audiences via mass communication

music television a television program that plays music videos of recording artists

new wave innovative trends outside of the traditional

ozploitation low-budget horror, comedy and action films with an R rating

popular culture a set of behaviours and values shared by a group or groups within society at a particular period of time

rock'n'roll the fusion of country and western music with African-American rhythm and blues, a popular style of music from the 1950s onwards

soap opera a dramatic fiction radio or TV serial presented as ongoing episodes

widgie the female equivalent of bodgie; young woman who adopted a particular fashion trend in the 1950s

H3.0.1 Teenagers dance to a rock'n'roll band, c. 1963

Timeline

Popular culture

The popular culture of the generation that grew up in Australia after World War II defined the emerging Australian identity. Fashion, film, television and sport were all moulded by overseas and Australian influences and provided an outlet for expression. Television, in particular, had a significant impact on the emerging idea of what it was to be an Australian. In turn, 'brand Australia' sent its own unique influences into the world, contributing to popular culture around the globe.

1945
Commonwealth and State Housing Agreement Act

1948
First General Motors Holden FX Motor car is produced

1954
Queen Elizabeth II tours Australia

1955
97 per cent of Australian households have radio; rock'n'roll is introduced to Australia

1956
Television is launched in Australia; summer Olympic Games in Melbourne

1957
US rock'n'roll band Bill Haley and His Comets tour Australia

1958
Qantas begins its 'around the world' service

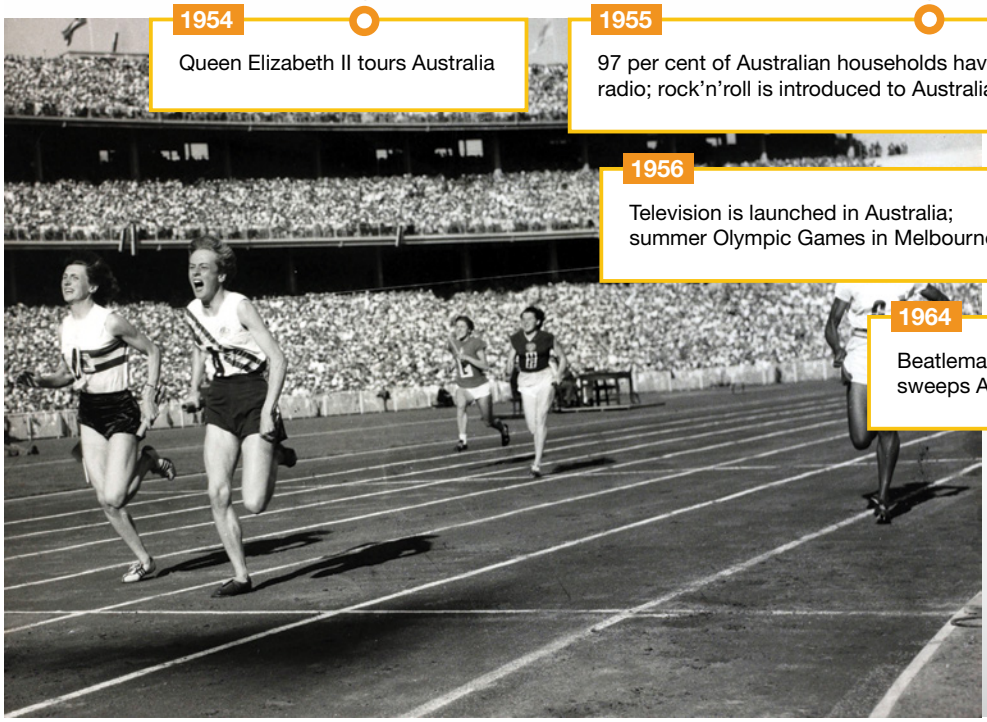
1960
Chubby Checker introduces 'The Twist' to the world

1964
Beatlemania sweeps Australia

1965
Approximately nine out of ten Australian families own a television; British model Jean Shrimpton attends an event at Melbourne's Flemington racecourse

1969
Hair premieres in Sydney; the Woodstock music festival

AD 1930 1940 1950 1960 1970



Betty Cuthbert (second from left) running across the finish line at the 1956 Melbourne Olympic Games to claim the gold medal for the women's 100-metres relay team

Onboard the Qantas Lockheed Super Electra 'around the world' air service, 1959

1979 The Walkman® is released

1977 Elvis Presley, the 'King of Rock', dies

1976 Swedish group ABBA visits Australia

1975 Colour television is introduced to Australia

1980 SBS television network is established

1981 MTV releases the first music video 'Video Killed the Radio Star' by Buggles

1982 Commonwealth Games held in Brisbane

1984 Michael Jackson releases his pop music video for 'Thriller'

1971 1980 1990 2000 AD

1970s 'New wave' of Australian film production begins

1986 AUSSAT domestic satellite

1992 First 'Big Day Out' music festival in Sydney

When Bill Haley and His Comets toured in 1957 they introduced Australia to live rock'n'roll from the United States.

The Beatles wave to a crowd of around 20 000 fans from a hotel balcony in Melbourne during their Australian tour in June 1964.

H3.1 Australian popular culture post-World War II

Australia following World War II

The period after the end of World War II was one of reconstruction in Australia. Soldiers needed to be repatriated, find jobs, and be given the opportunity to rebuild their lives after the traumatic experience of war. Having endured two world wars and the Great Depression in the space of 30 years, Australians looked to their leaders for new direction.

Leading into the 1950s, priorities that led many Australians and governments were:

- national security against perceived external threats, particularly Communism, and Australia's role in the Cold War (1949–90)
- economic growth and stability that would provide employment and business opportunities
- affordable housing and social services for a growing population as a result of a baby boom and the arrival of migrants from across Europe.

A place to call home

To live the Australian dream in the 1950s meant raising a family in your own home, preferably a brick house on a quarter-acre suburban block. The building industry had come to a standstill during the war and once it was over, governments worked together to ensure that there was adequate housing for everyone.

The Commonwealth and State Housing Agreement Act was passed in 1945, and state governments set up Housing Commissions to support housing at a local level. Returned servicemen were offered cheap war-service home loans to help them begin their new lives.

Housing shortage

The rapid post-war population growth experienced as a result of the arrival of nearly 200 000 migrants by 1950, plus the emerging baby boom, meant that Australia faced a housing shortage. As a result:

- new suburbs began to sprawl out beyond the existing limits of capital cities

H3.1.1 Housing Commission estates were established by governments throughout the country.

H3.1.2 After World War II, many modern appliances became affordable.

- shortages of traditional building materials, such as timber and brick, meant alternatives such as concrete for floors instead of floorboards were used
- high-rise housing called 'flats' catered for people who did not want to move beyond established suburbs or who could not afford a self-contained house.

All the 'mod cons'

With the housing boom also came a range of appliances to use in the newly built houses. Modern conveniences (or mod cons), such as washing machines, refrigerators, toasters, vacuum cleaners, irons and pressure cookers all made life easier. Outside, the famous Victa lawn mower and the Hills Hoist clothesline (both Australian inventions) were features of new homes. The option of buying items on **hire purchase** and paying them off over time gave people the opportunity to acquire appliances quickly.

Time for leisure

Modern conveniences and changing Australian homes meant people had more time available for leisure.

On four wheels

Improvements in transportation had a profound effect upon the Australian way of life, especially the development of the first wholly Australian-made, mass-produced car, the General Motors Holden FX. By the end of the 1950s, one-quarter of Australian families owned a car (compared to over 90 per cent today). The car changed the way in which Australians spent their leisure time, and trips to the beach, sporting events and family holidays became much more accessible.

H3.1.3 The General Motors Holden FX rolled off the production line on 29 November 1948.

Up, up and away

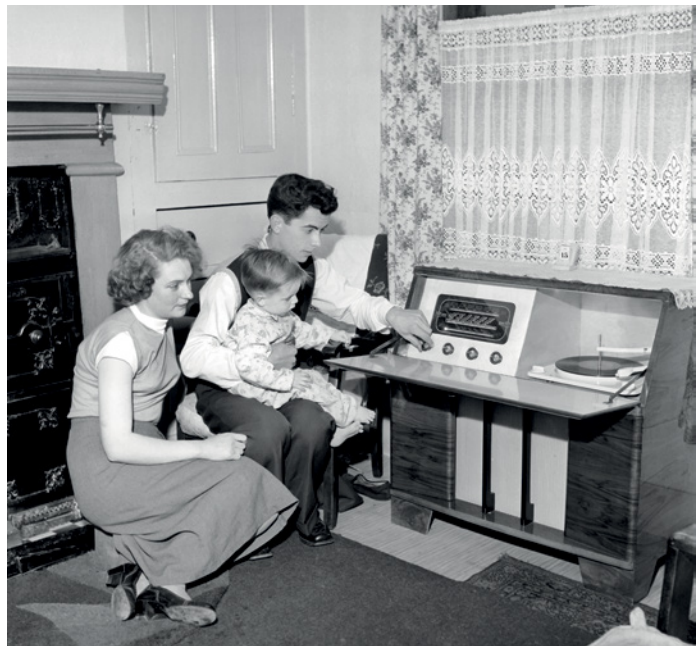
Air travel also had a significant impact upon Australian culture in the 1950s and 1960s. Australians were able to explore more of their own country through the services of companies such as Trans-Australia Airlines and Australian National Airways (acquired by Ansett in 1957). Domestic flights were expensive, but becoming cheaper, not only for holidays but also for business travel. Improved air transportation would make Australia a much smaller place and contribute to the growth of a more cohesive Australian community and identity. In 1958, Qantas started its 'around the world' air service that extended the boundaries of possibility beyond Australia's shores for many people. Until then, people could only travel internationally by ship. A trip to England in the 1950s, for example, took approximately six weeks, although depending on the route, it often took longer.

H3.1.4 Although overseas air travel was still a luxury for most Australians in the 1950s and 1960s, Qantas' 'around the world' flights quite literally opened up new opportunities for Australians to travel overseas.

Radio

The late 1940s and early 1950s were part of the golden age of radio in Australia. Television had not yet been introduced, so radio was the main form of home entertainment and an important outlet for popular culture.

In 1955, 97 per cent of households had at least one radio that families would gather around in the evenings to listen to the daily news, music, popular game shows, drama serials, comedies or children's shows. Household brands sponsored shows as a way of advertising their products. There were approximately 130 government-funded radio stations and a similar number of locally based commercial stations. By 1948, not surprisingly, the regulatory authority decided that there was no room for extra stations. With no competition from television, which did not arrive in Australia until 1956, the radio industry flourished financially.



H3.1.5 Family listening to the 'wireless' (radio) in 1954

Australian radio shows

Most radio shows were made in Australia. They were often performed live with audiences and in conjunction with other activities, such as dances. Some early Australian television stars, such as Bert Newton and Graham Kennedy began their careers in radio.

Popular shows included:

- *ABC Hit Parade*
- *When a Girl Marries*
- *Bob Dyer's Dude Ranch*
- *The Wilfrid Thomas Show*
- *Dad and Dave*
- *The Village Glee Club.*

Fashion and film

Following the pre-war fashion trend, liberated young people began developing their own styles of dressing. Just like their parents did in the 1930s and 1940s, they looked to the actors and actresses from the films of the day for clothing and hairstyle inspiration.

Some of the more popular films of the 1950s, such as *The Wild One* (1953) starring Marlon Brando, and *Rebel Without a Cause* (1955) with James Dean, portrayed rebellious youth questioning their place in society and challenging the conservative rules and values of the time. Many adults were worried about the influence these films might have on young people, beyond their fashion influence.

Other films, such as *Gentlemen Prefer Blondes* (1953) with Marilyn Monroe, or *Pillow Talk* (1959) starring Doris Day and Rock Hudson, were romantic comedies that many adults felt were more suitable viewing.

Sport

The prosperity of the 1950s resulted in not only more leisure time for people to enjoy sport, but also meant that there was government money available to develop sporting facilities for the general public. Working-class people were now able to play sports such as tennis, golf and lawn bowls, which had previously been available only to the wealthy. A common piece of advice given to young men of the time was that regardless of what football code they played, a 'well-rounded young man should learn to play tennis and golf, and know how to dance'. However, sport was not just the domain of men, Australian women and girls also took up tennis, golf and lawn bowls, as well as netball and other team sports. Surfing also became a popular pastime, as more Australians were able to travel to distant locations as cars became more widely affordable.

H3.1.6 Tennis was a popular sport for Australian men and women in the post-war era, with local tennis courts a common sight in most suburbs and country towns.

Activities

Remembering and understanding

1. What were the priorities of Australian governments after World War II?
2. What did governments do from the 1950s to the 1970s to help people realise the dream of home ownership?
3. Why was sport more accessible to Australians following World War II?
4. **a** Draw up a table showing the convenience appliances common in Australian homes in the post-war period and those found in Australian homes today.
   b Are there many items that have been invented since this time?
   c How would leisure time have been different prior to the invention of many of these appliances?

Applying and analysing

5. Examine Sources H3.1.2 and H3.1.3.
   a What does each of the sources tell you about popular culture and the life of the average Australian in this period?
   b Compare and contrast housing and transport between post-war Australia and Australia today.
6. Design an advertisement for the purchase of the General Motors Holden FX. Think about how the car changed post-war Australia and why it was such an important development. Promote the advantages of owning such a car.
7. Imagine you are a historian in the future studying the current year. Design or find three sources that would show what life was like for teenagers.

LS H3A

H3.2 Changes in music

Following World War II and before the introduction of television, radio was the most popular form of home entertainment in Australia. Although most content was uniquely Australian, when US **rock'n'roll** music began to dominate the music charts from the mid-1950s, some presenters started using US accents to sound more modern.

Rock'n'roll from the US

Rock'n'roll music burst onto the cultural landscape in Australia with the release of the film *Blackboard Jungle* in 1955, which featured the hit song 'Rock Around the Clock' by Bill Haley and His Comets. Although not the first song that could be called rock'n'roll—a fusion of country and western music with African-American rhythm and blues—it signalled a significant shift in the type of music and performers the baby boomer generation was interested in.

With its simple, repetitive and often rebellious lyrics, sung by performers with unconventional clothing, hairstyles and dance moves, rock'n'roll was condemned by many of the older generation as offensive and sexually suggestive. Nevertheless, it defined popular culture during the 1950s and early 1960s. Bill Haley and His Comets performed to huge crowds in their 1957 tour of Australia and the film *Rock Around the Clock* (1956) introduced Australian teenagers to other rock'n'roll performers.

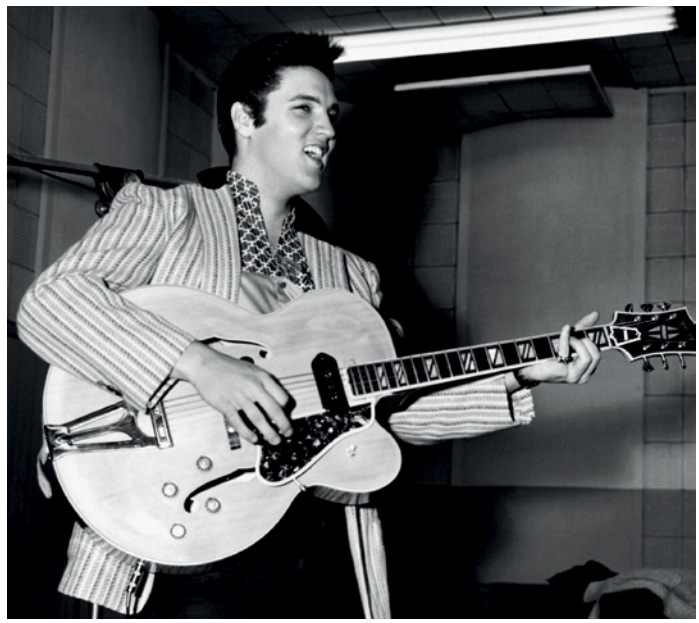
Elvis Presley

The combination of radio, film and television ensured that the influence of rock'n'roll culture spread rapidly, and the arrival on the music scene of the young Elvis Presley in 1956 ensured its popularity. Young girls became infatuated with him and young men wanted to emulate him. So controversial was Elvis that when appearing on *The Ed Sullivan Show* in 1957 he was filmed from the waist up so that the audience could not see his gyrating hip movements, popularising his nickname 'Elvis the Pelvis'.

Apart from television appearances and his many hit songs, such a 'Heartbreak Hotel', 'Love me Tender' and 'Jailhouse Rock', Elvis also appeared in thirty-three films, taking full advantage of the **mass media** of the period.

Dance moves

Young people adopted the new dance styles seen in Hollywood films and television, which were mostly based on versions of swing, jive and a style from the 1940s called 'bopping'. Fad dances such as the 'Hand Jive', 'The Stroll' and eventually, in 1960, Chubby Checker's 'The Twist', were all popular.



H3.2.1 Elvis Presley was a significant rock'n'roll influence from the US.

Local rock

Australian performers embraced rock'n'roll, and many local stars emerged. The most well known was Johnny O'Keefe, who shot to stardom as a support act for the 1957 tour of Bill Haley and His Comets. O'Keefe's nickname, 'The Wild One', was taken from the title of his first hit album and was reinforced through his energetic performances. He eventually hosted the television program *Six O'Clock Rock* and, along with other Australian programs such as *Brian Henderson's Bandstand*, promoted Australian performers.

Entertainers Col Joye and the Joy Boys and Johnny Rebb were portrayed as being more gentlemanly than US stars such as Jerry Lee Lewis and Little Richard, and a popular tour by US evangelist Billy Graham in 1959, who preached traditional family values, suggested that perhaps not all Australians were enamoured with the rock'n'roll lifestyle.

The British invasion

In 1963, an English group called The Beatles had their first hit, 'From Me to You', in the US. This signalled the beginning of the influence of British bands.

It was not long before 'Beatlemania' swept Australia and Beatles' songs dominated the music charts. A subsequent tour in 1964 led to wild scenes of screaming and fainting girls desperate to get a glimpse of the performers.

The cheeky English boys dressed in matching suits with their floppy mop-top hairstyles were a precursor to the sexually suggestive 'bad boys' of the Rolling Stones, who were the next big group to come out of Britain. Australian groups such as The Easybeats and Billy Thorpe and The Aztecs created music in a similar style to these British bands and enjoyed considerable success.

H3.2.2 The Beatles toured Australia to huge crowds in June 1964.

Surfies, folk music and hippies

Surfies

Surf culture had its own brand of music, with Californian group The Beach Boys the most famous example. It is not surprising that with an existing surf culture in Australia, homegrown surf artists such as The Atlantics topped the charts in 1963 with their instrumental song 'Bombora'.

Fifteen-year-old schoolgirl Patricia 'Little Pattie' Amphlett made it to number two in the music charts in 1964 with her song 'He's My Blond-headed Stompie Wompie Real Gone Surfer Boy'. The music sounded innocent enough, but the panel vans decked out with mattresses that many 'surfer boys' drove worried parents of young girls.

Folk music

Folk music became very popular during the 1960s, with performers such as Bob Dylan, Joan Baez and the group Peter, Paul and Mary writing songs that seemed to reject mainstream popular culture and attempted to deliver a message to their audience. The Seekers were a folk band from Melbourne who achieved acclaim both here and overseas for their music and distinctive harmonies.

H3.2.3 US folk singers, Bob Dylan and Joan Baez in the 1960s

Hippies

Folk music gave rise to the hippie movement, which originated during the 1960s and 1970s on college campuses in the US and became particularly prominent in San Francisco. Hippies sought an alternate lifestyle that became associated with experimental drugs, freedom of sexual expression, exploration of eastern religions and protest against, among other things, nuclear weapons and the Vietnam War.

Hair

The premiere of the musical *Hair* in Sydney in 1969, a theatre production that was set within the hippie movement, shocked audiences (particularly because of its nude scene) and signalled the arrival of the hippie movement in Australia.

A festival of music

The 1960s ended with songs of protest and the psychedelic music of performers such as The Doors and Jimi Hendrix. The Woodstock music festival in 1969 was the pinnacle of youth culture in the US, and Australia followed suit with festivals in the early to mid-1970s in Victoria, NSW and South Australia.

While much of the music from the late 1960s remained popular, new influences from overseas started to take hold and a proliferation of local bands began developing a distinctive Australian flavour.

From Motown to disco and beyond

Some music of the late 1960s and early 1970s deliberately targeted teenagers, with simple, catchy lyrics and dance tunes. It was referred to as 'bubblegum' music, the most popular groups being Ohio Express with songs such as 'Yummy, Yummy, Yummy' and The Archies with 'Sugar, Sugar'.

African-American music through the Motown record label had an influence on popular music, with a young Michael Jackson as the lead singer for his band of brothers, The Jackson 5. Other family-based groups, such as The Osmonds and the Carpenters, had a sound that relied upon harmonies and simple, catchy tunes.

The development of more serious 'soft rock' aimed at an older audience saw groups such as The Eagles from the US and Australia's Little River Band enjoy considerable success.

Disco, heavy rock and glam rock

Disco

The global phenomenon of **disco** took off in Australia in the mid-1970s via US artists such as KC and the Sunshine Band and later the Village People, who drew upon influences from the gay subculture of the time. European performers Leo Sayer and ABBA were also popular, perhaps more so in Australia than other parts of the world. Australian-based performers also contributed to the disco movement with artists such as John Paul Young and The Bee Gees, who achieved worldwide recognition for their contribution to the soundtrack for *Saturday Night Fever* (1977).

Heavy rock

Disco was certainly very different to the music that had come before it, and it was distinctly 1970s. However, the heavy rock of Deep Purple, Led Zeppelin and homegrown AC/DC took music in a new direction and added another dimension to the image of 1970s popular culture.

H3.2.4 AC/DC are arguably the most successful Australian band in history.

Glam rock

Glam rock started in Britain with performers such as David Bowie, Gary Glitter and Roxy Music, who dressed in elaborate costumes and wore make-up, and whose androgynous nature reflected shifting gender stereotypes. Australian group Skyhooks combined the look of glam rock with controversial lyrics that saw much of their music, including the hit 'You Just Like Me Cause I'm Good in Bed', banned in some parts of the media.

Perhaps the most confronting music to develop during the 1970s was punk. It was rebellious, loud and very threatening to traditional society. Brought to the world by the Sex Pistols and The Clash from Britain, and by the Ramones from the US, punk artists were anti-mainstream and their appearance had a 'do-it-yourself' look that rejected consumerism. The Saints were arguably the most successful Australian punk band and Australian musicians such as Nick Cave were heavily influenced by punk.

H3.2.5 David Bowie performing as his glam alter-ego, Ziggy Stardust in 1972

Music in the eighties

The influence of **music television** in the 1980s was significant. The MTV network, both the US and Australian versions, and the music video program *Rage* (1987–), brought local music and music from around the world to Australians. It also made the production of music videos a key part of any group or performer's identity. Michael Jackson and Madonna became hugely influential stars during this period, as did Duran Duran, U2, Van Halen, Def Leppard and AC/DC, and the 1980s version of 'glam bands' in Bon Jovi, Queen, Mötley Crüe and Poison.

The diversity of music available to young Australians in the 1980s was further supplemented by a booming Australian pub and nightclub music scene. Some of the bigger Australian bands of the time included INXS, Midnight Oil, Men at Work, Cold Chisel, Icehouse, the Divinyls, the Church, the Go-Betweens, Crowded House and Hoodoo Gurus, many of whom, as well as solo performers such as Kylie Minogue, made names for themselves on the world stage. The 1980s was seen as a critical period for Australian popular music, when many artists broke free of simply replicating the music of the United States and Britain.

Music in the nineties

The late 1980s and early 1990s saw the emergence of **alternative rock**, a style of music that produced guitar based, raw sounds combining many different musical influences and styles, born out of opposition to the heavily commercialised and highly-produced music of the 1980s. Alternative rock lyrics of the 1990s dealt with social and emotional issues that appealed to young people. Groups such as Violent Femmes, R.E.M., Red Hot Chilli Peppers and Smashing Pumpkins from the United States, and British bands like Oasis and Blur were very popular in Australia.

Local music scene

Small youth radio stations played the music of You Am I, Regurgitator, the Cruel Sea and Spiderbait in Australia. Although classed as 'alternative', this type of music eventually reached vast numbers of young people, as the new technology of compact discs (CDs) allowed popular artists to be signed up by large recording companies who promoted their music globally. The Australian government-owned Triple J radio station played a significant role in bringing alternative music to a wider audience, as well as uncovering new Australian talent such as Grinspoon and Silverchair.

The annual 'Big Day Out' music festival, which began in Sydney in 1992 and eventually spread around the country, attracted local and international acts. The festivals brought a wide range of musical styles together, and are a revealing representation of the eclectic nature of popular culture in Australia from the 1990s onwards.

H3.2.6 Silverchair formed in Newcastle, New South Wales. Their debut track 'Tomorrow' spent six weeks on top of the Australian singles chart in 1994.

Grunge

A musical phenomenon of the early 1990s was the style of music knows as **grunge**. It emerged from the alternative music scene in Seattle in the United States and was based on heavy drums; loud, distorted guitars and 'power chords'; lyrics that reflected the angst of many young generation Xers; and the deliberate absence of synthesiser-based sounds. The most well-known grunge band of the 1990s was Nirvana. Other groups included Alice in Chains, Soundgarden and Pearl Jam, with Australian teenage group Silverchair becoming very successful locally and internationally.

Activities

Remembering and understanding

1 How was rock'n'roll different to music that had preceded it?

2 Examine Source H3.2.1.
   - **a** Describe the source.
   - **b** Why did parents of the time object to Elvis Presley?
   - **c** Do you think parents today would be likely to express the same concerns?

Applying and analysing

3 Use the information in this unit to draw a cartoon that illustrates the impact of rock'n'roll on popular culture in the 1950s and early 1960s.

4 Imagine you were a teenager when The Beatles toured Australia in 1964. Write a diary entry detailing your experiences with Beatlemania.

5 Work in pairs to write a story set in a modern school (perhaps your own). Consider the issues and controversies of contemporary Australian schools and society. Don't forget to list the music you would feature.

6 Research the lyrics of the following songs and answer the questions:
   - 'The times they are a changing' by Bob Dylan
   - 'My generation', by The Who.
   - **a** What is the common theme of the song lyrics?
   - **b** How were these songs likely to have influenced Australian teenagers?

H3.3 The impact of television

'This is television'

Black and white television became available in Australia in 1956. The first program, a news broadcast, went to air from Sydney on 16 September, less than two months before the Olympics began in Melbourne. It was introduced by Bruce Gyngell who famously announced, 'This is television' and the news bulletin was read by US talk-show host, Chuck Faulkner.

H3.3.1 Bruce Gyngell introduced the first Australian television broadcast.

TV spreads

The average wage in 1956 in Australia was £25 a week, so televisions were quite expensive at £300 each. Families who purchased one would often find their neighbours visiting in the evening. It was also compulsory to purchase a licence at the cost of £5 to own a television. While only 5 per cent of Melbourne households and 1 per cent of Sydney households owned a TV set in 1956, by 1960 over 1 million licences had been sold across Australia, despite the cost. Every capital city apart from Hobart had a television service.

Radio was quickly surpassed as people's favourite form of home entertainment and adjusted its programming to mostly music. In 1959, the average 15-year-old was watching nine to twelve hours of television a week. Television changed the way in which people spent their leisure time, with many people staying home rather than going out to the cinema or other venues. Many suburban picture theatres closed as a result.

Television is reality. It's the window on the world of current events, the news as it happens. It's a ringside seat for sports events and the whole gamut of entertainments delivered conveniently in your sitting room. But it's much more that all of these. It speaks in a language which does not require any special skill from the hearer. It is said by experts that 86% of the information people absorb is obtained through the eye, and the language of vision is universal.

Television can be the open door to democracy. Because it is the most potent form of mass communication, it must be handled by people who are capable of appreciating the social responsibilities of such an enterprise, as well as its attractive commercial possibilities.

H3.3.2 From a report by C.G. Scrimgeour, Chairman and Managing Director of Associated TV, sent to Prime Minister Menzies, 8 December 1954

A 45-minute variety show from the stage of the re-modelled Tivoli Theatre, and Melbourne TV's first 'live' panel show, will be highlights of the opening night on HSV-7 on Sunday, November 4.

English comedian, Richard 'Mr Pastry' Hearne, will be among the stars of the variety programme, which has been modelled along the lines of the successful English commercial TV programme, *Sunday Night at the London Palladium*.

The show will start at 7:15 pm, following the official opening of HSV-7 by the Premier (Mr Bolte) and the Lord Mayor (Cr Sir Frank Selleck), at 7 pm.

Visiting film star Jean Moorhead will be guest in the panel show, *I've Got a Secret*, in which members of the panel are required to discover the secret of the 'subject'.

Compere is Eric Pearce, and panel members include Miss Olive Wykes, lecturer in French at Melbourne University; former footballer, Jack Dyer, and radio personality, Shirley Cecil.

Robin Hood, an English drama based on the legend of Robin Hood, and *Our Miss Brooks*, a US comedy, are among films to be shown on the opening night.

News from overseas will be presented in *World News Round-up* (9:30 pm).

News and weather information, a twice-daily feature of HSV-7 programmes, will be presented at 10:15 pm.

H3.3.3 An example of the television programs that were screened in Melbourne on 1 November 1956; extract from TV Guide in *The Age*

H3.3.4 *Six O'Clock Rock* was popular with teenagers in the 1960s.

Made in the US

The early years of television were dominated by programs from other countries, particularly Britain and the US. The US presence in Australian television from the outset was an indication of the impact that programs made in the US would have on this new industry and, in turn, on Australian popular culture. US programs such as *I Love Lucy* (1951–57), *Perry Mason* (1957–66) and 77 *Sunset Strip* (1958–64) proved to be very popular and started to dominate viewing. The influence of British television and entertainers was also evident in the early years of Australian television.

Teenagers began to prefer American products, food, clothing, hairstyles and music, and adopted the interests and slang of the television stars. The attitudes and values of young people also began to be influenced by television programs such as *Leave It to Beaver* (1957–63), which portrayed an idyllic American family lifestyle that bore little resemblance to the lives of most Australians.

Mass entertainment revolution

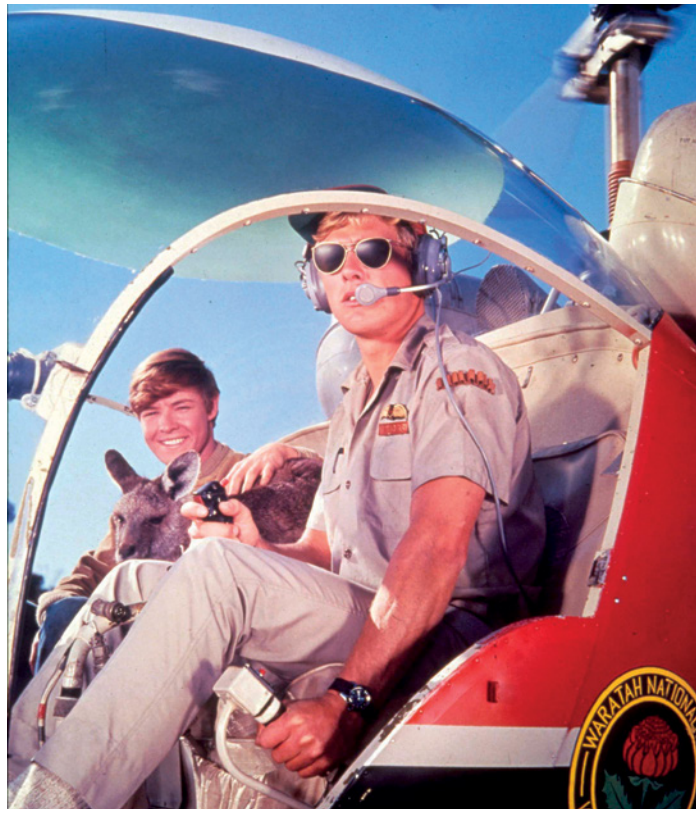
Within 3 years of its introduction, television had become the primary source of entertainment in Australia. By 1965, approximately nine out of ten Australian families owned a television. The connection of a coaxial cable between Sydney and Melbourne in 1963 allowed effective networking to occur, and by the end of the decade, Australia was connected to the international satellite system. Programs could be broadcast live across the country and Australians received the latest news and events from overseas, such as the moon landing in 1969. There were three commercial stations—Channels 7, 9 and 0 (later to become 10)—and the government-owned Australian Broadcasting Corporation (ABC).

Australian content in the 1960s

Australian television was still dominated by American programming on the commercial networks. A government report in 1963 found that 97 per cent of drama serials were imported from the US. The ABC screened mostly British-produced programming, such as *Coronation Street* (started in 1960). But, Australians were beginning to demand more Australian content. The power of television to influence the nature of Australian culture and the sense of Australian identity could no longer be ignored.

Australian programs for teenagers, such as *Bandstand* and *Six O'Clock Rock*, were popular, as were children's programs such as *Mr. Squiggle* (1959–99), *Play School* (1966–) and *Here's Humphrey* (1965–2008). The ABC began its current affairs series *Four Corners* (1961–), and the success of the distinctly *Australian Homicide* (1964–77), *The Mavis Bramston Show* (1964–68) and *In Melbourne Tonight* (featuring Graham Kennedy and Bert Newton) indicated that Australians were prepared to embrace their unique culture.

The production of *Skippy the Bush Kangaroo* (1966–70) for export in colour in 1968, before Australia even had colour television, signalled that Australians were preparing to launch Australian culture onto the world.



H3.3.5 Image from *Skippy the Bush Kangaroo*, 1969

The seventies

Television continued to expand into more remote parts of Australia during the 1970s, reaching Kalgoorlie, Mt Isa and Darwin in 1971. By 1975, colour television was available, and within 3 years seven out of ten households had switched to colour.

The success of Australian programs in the 1960s encouraged the production of more homegrown content. In 1976, the federal government imposed a quota of 50 per cent local content between 4.00 p.m. and 10.00 p.m. Some of Australia's most popular and iconic television programs first aired in the 1970s, such as *Matlock Police* (1971–75), *Young Talent Time* (1971–89), *Hey Hey It's Saturday* (1971–99), *A Current Affair* (1971–), *The Young Doctors* (1976–82), *The Sullivans* (1976–83) and *60 Minutes* (1979–).

Other programs broke social barriers, such as *Number 96* (1972–77), which featured full nudity and an openly gay character, *The Paul Hogan Show* (1973–84), *The Aunty Jack Show* (1972–73) and *The Norman Gunstan Show* (1975–79). They all used humour to address many of the social and political issues of the period.

Molly Meldrum's *Countdown* (1974–87) was a crucial contributor to popular culture, bringing live musical acts, many of which were Australian, to youth across the country.

Sport broadcasting was becoming more sophisticated and live matches screened more often, which brought more money from advertising into sport. The dominance of overseas programs on Australian television was beginning to be challenged.

H3.3.6 The Sullivan family in the popular Australian series *The Sullivans*, which was set in Melbourne during and after World War II and ran from 1976 to 1983.

The eighties

As television technology continued to improve, Australians' love affair with television continued. Australian television networks began producing dramatic mini-series during this time. **Soap operas** such as *A Country Practice* (1981–93), *Sons and Daughters* (1982–87), *Neighbours* (1985–) and *Home and Away* (1988–) all began their successful runs in the 1980s, and launched the careers of many Australian stars such as Kylie Minogue and Guy Pearce.

In 1980, it was estimated that eight out of ten of the most popular programs on Australian television were Australian productions.

H3.3.7 Kylie Minogue played Charlene in the long-running soap opera, *Neighbours* from 1986 to 1988.

The nineties

Very few Australian households were without a television set in the 1990s, and by 1995 the viewing public could choose to pay for extra channels through subscription television companies such as FOXTEL and AUSTAR.

Regional centres began to develop their own programs for the specific needs of their communities as free-to-air regional stations were established. With a wider choice of programs, popular culture became more diffused.

New Australian drama included the mini-series *The Man from Snowy River* (1993–96) and *Blue Heelers* (1994–2006), keeping Australians connected with life in rural areas past and present.

The ABC continued to develop innovative Australian television with drama, satire, comedy and other genres. Some popular programs were *Police Rescue* (1989–96), *Frontline* (1994–95, 1997), *Good News Week* (1996–2000, 2008–12), *Better Homes and Gardens* (1996–) and one of the first reality television shows, *Sylvania Waters* (1992).

Activities

Remembering and understanding

1. How did the advent of television change the way Australians spent their leisure time?
2. What led to the increase in local content on Australian television in the 1960s?

Applying and analysing

3. Draw up a PMI (plus, minus and interesting) chart outlining the advantages and disadvantages of the introduction of television in Australia.
4. Construct a timeline of events in the development of television in Australia using dates and events in this unit. Write a summary of the significant periods.
5. Examine Source H3.3.2. Describe in your own words what C.G. Scrimgeour says television is and whether or not you agree with him.
6. a. Examine Source H3.3.3. List the programs that were shown on the first night of television in Australia and the country they came from.
   b. Examine a current TV guide. Complete a table that shows the country of origin of the programs in peak viewing time. Has this changed since television was first introduced? Explain your answer.
7. Choose one Australian program from each of the decades listed. How do you believe this program has contributed to a sense of Australian identity?
8. Construct a mind map to demonstrate the impact that television has had on popular culture in Australia.

H3.4 Changes in film

Going to 'the pictures'

Prior to World War II, Australia enjoyed a relatively golden period, including creating *The Story of the Kelly Gang*, which was the first feature film ever made in the world in 1906.

Did you know?

The first film to be screened in Australia was shown at Melbourne's Athenaeum Hall in Collins Street in October 1896, less than a year after the first film was screened in Paris on 28 December, 1895.

Apart from some important films, such as *Jedda* (1955), the period after World War II saw the Australian film industry suffer a sharp decline. The local film industry could not compete with Hollywood's technologically advanced, high quality Technicolor productions with big budgets for advertising and promotional campaigns. As early as 1952, 74 per cent of films imported into Australia came from the United States and another 18 per cent originated from Britain. Such overseas influence on the Australian public during their leisure time was a sign of the impact that foreign television was to have in the years to come.

H3.4.1 A scene from the Australian film *Jedda* from 1955 about a young Aboriginal woman and set in the Northern Territory

Although there was some drop-off in cinema attendance rates after the introduction of television in 1956, young people in particular still went to the movies in large numbers. The trends, fashions, products and attitudes portrayed to Australian youth were literally larger than life on the big screen. In whichever style of film, actors and actresses were the stars that young people attempted to imitate in their clothing, hairstyles and behaviours, with businesses and advertisers ever ready to take advantage of their influence.

H3.4.2 A typical 'picture theatre' (cinema) in Australia in the 1950s, with two school boys in the foreground

In the sixties

Hollywood

While the 1960s saw a gradual shift to more Australian content on television, this trend didn't crossover to film. Locally made films were rare and Hollywood still monopolised the silver screen.

Popular films included:

- *Psycho* (1960)
- *Cleopatra* (1963)
- *The Sound of Music* (1965)
- *2001: A Space Odyssey* (1968)
- *Planet of the Apes* (1968)
- *Butch Cassidy and the Sundance Kid* (1969)
- *Easy Rider* (1969).

H3.4.3 Julie Andrews in *The Sound of Music*, 1965

Film in the seventies

By the end of the 1960s, many Australians felt that Australian stories on the big screen were lacking, as the Australian film industry had been swamped by Hollywood. Funding from the federal government to finance Australian films and establish schools to teach people about making them, together with the genuine interest of Australians to define their own culture, led to a surge in the production of Australian films. Over 400 **new wave** films were made between 1970 and 1985, some of which included *Picnic at Hanging Rock* (1975), *Don's Party* (1976), *Storm Boy* (1976), *The Chant of Jimmy Blacksmith* (1978), *My Brilliant Career* (1979) and *Mad Max* (1979), which starred a young Mel Gibson.

Films such as *Mad Max* and *Wake in Fright* (1971) have been labelled '**ozploitation**' as they were low-budget horror and action films, often with a comedic bent. Other films of the period, such as *The Adventures of Barry Mackenzie* celebrated and satirised stereotypical Australian culture, a phenomenon that has recurred over time in the Australian film industry. US films were still very popular in 1970s Australia with blockbusters such as *The Godfather* (1972), *Jaws* (1975), *Star Wars* (1977), *Superman* (1978) and *Rocky* (1976); science fiction stories in *Close Encounters of the Third Kind* (1977); and musicals such as *The Rocky Horror Picture Show* (1975) and *Grease* (1978) all claiming their place in Australian popular culture.

Film in the eighties

The Australian film industry continued to thrive in the 1980s after its revival in the 1970s. Iconic films *Gallipoli* (1981), *The Man from Snowy River* (1982) and Paul Hogan's *Crocodile Dundee* (1986) and *Crocodile Dundee II* (1988) all enjoyed success locally and internationally. They were distinctly Australian in portraying stereotypical Australian male qualities such as bravery, mateship, resourcefulness, larrikinism and a lack of respect for authority. There were certainly other Australian stories being told; the book and then film, *Puberty Blues* (1981) was unique in that it candidly explored the world of teenage girls within Australian surf culture.

H3.4.4 The sprawling bush landscape as represented in *The Man from Snowy River* (1982)

Despite the success of these local films, US action blockbusters *The Terminator* (1984), *Lethal Weapon* (1987) and *Die Hard* (1988) as well as science fiction films *Star Wars: Episode V—The Empire Strikes Back* (1980), *E.T.: The Extra-Terrestrial* (1982), *Star Wars: Episode VI—Return of the Jedi* (1983) and *Ghostbusters* (1984) provided considerable competition for the Australian film industry. *Back to the Future* (1985) was a film that many young people could identify with, as it featured a teenager witnessing the shortcomings of his own parents when they were teenagers. Other teen films the likes of *Footloose* (1984), *The Breakfast Club* (1985), *Pretty in Pink* (1986) and *Ferris Bueller's Day Off* (1986) also seemed to strike a chord with young generation Xers, as they all starred young actors and were set in the world of teenagers (albeit US teenagers) just as had happened in films of the 1950s for the baby boomer generation.

Film in the nineties

The cinema remained an important aspect of popular culture in the 1990s despite the dominance of home entertainment mediums such as television and video-cassette recorders (VCRs). New 'multiplex' cinemas were built in many suburbs making it easier for people to see a range of different films at different times of the day and night. Hollywood still dominated the cinema listings—only 15 per cent of films viewed were Australian made. However, one could argue that the productions coming out of Hollywood were not always telling US stories and many were intended for a global audience. For example, *The Matrix* (1999) was filmed in Australia, but was primarily a US production for a global audience. *Babe* (1995) was most definitely an Australian story filmed in Australia, but used facilities, production skills and technology from Britain and the United States in its making. The face of popular culture in film was becoming more diverse.

H3.4.5 Poster for the Australian-made movie *Babe*

The new technology of the film industry was the use of computer-generated imagery (CGI), which gave producers and directors almost limitless potential to create special effects and fantasy characters and worlds. *Jurassic Park* (1993), *Forrest Gump* (1994), *Titanic* (1997) and *Star Wars: Episode I—The Phantom Menace* (1999) are examples of films that drew heavily on CGI technology. The success of the CGI-animated film *Toy Story* (1995) contributed to a boom in animated films utilising the same technology.

Films that defined this decade for many young people were *Reality Bites* (1994), which explored the lifestyle choices made by some generation Xers, and *Pulp Fiction* (1994), which combined crime, violence, comedy, flawed characters and references to pop culture within a non-linear storyline.

'Muriel' and 'Priscilla'

Australian films of the 1990s played an important role in reassessing Australian identity and presenting this to the world. *Strictly Ballroom* (1992) and *Muriel's Wedding* (1994) dealt with aspects of urban life in modern Australia. While still presenting many stereotypical Australian characters, these films were probably more recognisable to Australians than people overseas. Other Australian stories were being told, such as *Romper Stomper* (1992) starring Russell Crowe, which took a confronting look at racial violence in Australia. Russell Crowe also starred alongside Jack Thompson in *The Sum of Us* (1994), which followed the story of a father and his homosexual son—a story that would not have appeared on Australian screens in previous decades.

Perhaps the most resounding example of Australia's cultural development in the 1990s lies in the making of *The Adventures of Priscilla, Queen of the Desert* (1994), a film about two drag queens and a transsexual from the city travelling through outback Australia to perform a cabaret show in Alice Springs. The film challenged national values and prompted Australians to redefine 'who they are'. Compared to its predecessors, generation X was more exposed to diversity in people's ethnicity, class, religion and sexual orientation.

H3.4.6 A scene from *The Adventures of Priscilla, Queen of the Desert* (1994)

H3.4.7 Bollywood is one contributor to the exchange of cultural ideas between nations.

Globalisation and Australian stories

At the beginning of the twenty-first century, film started to become more multinational, as production studios in Hollywood increasingly drew upon technical and creative talent from around the world. The size of the Indian film industry, commonly Bollywood, challenged that of the US. One of the most highly acclaimed films of the 2000s, *Slumdog Millionaire* (2008), was set in India, had a British director and multinational production crew, and took inspiration from Bollywood themes and styles.

The Australian film industry and business sector have also developed closer ties with Bollywood through collaborative productions and financing films. Bollywood films such as *Heyy Babyy* (2007) and *Love Story 2050* (2008) employed large Australian crews and showcased scenery from both rural and urban Australia.

Although martial arts films made in Asia have always been popular with Australian audiences, the success of *Crouching Tiger, Hidden Dragon* (2000) also signalled a shift towards the **globalisation** of the film industry and a widening of influences on popular culture.

Activities

LS H3B

Remembering and understanding

1 Define the terms below.
- new wave
- 'ozploitation'

2 Why was there more Australian content in 1970s television and film?

3 How were Australians being portrayed to the world in the successful Australian films of the 1980s?

4 a How had the nature of Australian films changed in the 1990s?

b What did this mean for Australians' view of themselves and their national identity?

Applying and analysing

5 What are the possible positives and negatives of the emergence of 'ozploitation' films?

6 Choose one Australian film from each of the decades listed. How do you believe this film has contributed to a sense of Australian identity?

7 Was the portrayal of Australians in the successful films of the1980s an accurate reflection of Australian culture and values? Explain your answer.

H3.5 A sporting nation

Sport has become an important part of the Australian national identity. For a relatively small country, Australia has consistently performed well in the international sporting arena. Athletic success has not only strengthened national morale, but has led to characteristics including strength, courage and resilience being regarded as 'Australian'. Success in sport prior to World War II was seen as one means for the country to prove its worth to the rest of the world, particularly against the British. Playing, watching, reading about and betting on sport have always been key aspects of the Australian national identity. Sport has allowed Australians to play out values of mateship and egalitarianism both socially and publicly in serious, top-level competition.

Sport in the fifties and sixties

Sport was mostly British or distinctly Australian in origin. While cricket dominated the warmer months, by the start of Autumn, 'footy' took centre stage. In Victoria, Australian Rules football was widely played at a local level in country towns and suburban Melbourne, and on a larger scale with the VFL (Victorian Football League), which was a precursor to the AFL. With the exception of surfing, the US had yet to have an influence on this aspect of Australian culture, as radio and television brought little news of American sports. European migrants brought their love of soccer, gymnastics and volleyball with them; however, it would be some time before these activities were widely adopted.

Huge numbers of people attended sporting events, such as football matches and horse racing, but also listened to radio broadcasts of sporting events in their car or while sitting on the beach using portable transistor radios. Sport had become Australia's national pastime.

Sporting success on the international stage

Tennis

The 1950s and 1960s were part of a golden era for Australian tennis. Australian players such as Ken Rosewall, Rod Laver, Roy Emerson, Lew Hoad and Frank Sedgman dominated international tennis. Australians won the Wimbledon gentlemen's singles titles from 1956 to 1958, along with eight of the singles championships in the 1960s, and claimed the gentlemen's doubles crowns from 1950 to 1956. Australia also defeated the US on eight occasions to win the Davis Cup.

H3.5.1 A large crowd watching the Melbourne Cup at Flemington in 1959

H3.5.2 The opening ceremony of the Melbourne Olympics at the MCG in 1956. Champion Australian runner Ron Clarke was given the honour of lighting the Olympic flame, burning his arm in the process.

Boxing

Tennis was not the only sport where Australians experienced success. Jimmy Carruthers was the world bantamweight boxing champion from 1952 to 1954, with Johnny Famechon and Lionel Rose winning world titles in the 1960s.

Other individual sports

Jack Brabham won the world Formula One driving championships in 1959, 1960 and 1966, while surfers 'Midget' Farrelly and 'Nat' Young enjoyed international success throughout the 1960s.

Cricket

Despite the loss of the great Sir Donald Bradman after his retirement in 1948, the Australian cricket team won more series than they lost. Stars of the period included Richie Benaud, Neil Harvey, Bob Simpson and Bill Lawry. Improved transport was having an impact on all sports of the period as sportspeople could travel further to compete in international competitions. Australia started playing cricket against countries such as India, Pakistan and the West Indies, as well as England and South Africa.

The 1956 summer Olympics

The 1956 summer Olympics took place in Melbourne, the first time the Olympic Games had been staged in the southern hemisphere. The event was considered to be a huge success and a source of national pride with 'the eyes of the world' on Australia. It also helped to cement the idea that sport was an integral part of our emerging national identity.

Hosting the Olympics triggered the introduction of television into Australia, allowing the event to be watched across the country.

Did you know?

Australia's sporting heroes became household names after the Melbourne Olympics. Outstanding performances on the track by athletes such as Shirley Strickland and Betty Cuthbert and in the pool by swimmers such as Dawn Fraser and Murray Rose led to Australia finishing third in the medal tally behind the USSR and the US.

In the seventies

At the beginning of the decade, Australian sport was generally amateur, meaning that most sports people were unpaid and received little or no government funding. Many worked full-time and financed their own equipment, travel and coaching fees. By the end of the decade, the idea of sport as a highly profitable and professional industry was beginning to emerge.

World Series Cricket

This trend was epitomised by the launch of World Series Cricket in 1977. Set up by Australian media mogul (and owner of Channel 9), Kerry Packer, the game was in many ways the antithesis of the traditional game of cricket, with the players dressed in brightly-coloured uniforms playing limited overs and under lights at night to make the most of television coverage.

The players were offered huge payments to sign on to the new competition at the cost of playing test cricket. Many leading Australian and international players took up the offer, including the Australian, English and West Indian captains—Greg Chappell, Tony Greig and Clive Lloyd.

Despite launching a series of court cases to try to end the series, the Australian Cricket Board (ACB) eventually negotiated a truce with Packer in 1979 and the break away series was pulled back under the ACB umbrella to become a key part of the regular cricket calendar.

Politics and sport

The decade also highlighted the role that sport can play in politics. In 1971, the tour of the Springboks, the South African rugby team was met with fiery and impassioned anti-apartheid protests around the country, with the Queensland government declaring a state of emergency in response to the Brisbane protests.

Also in 1971, Evonne Goolagong won the Women's Singles final at Wimbledon for the first time. She is a Wiradjuri woman from central New South Wales. She went on to win six more grand slam singles titles, including the 1980 Wimbledon ladies' championships.

During this decade, players with Italian and Greek names began to become common in the ranks of VFL clubs. Sons of post-war migrants, such as Alex Jesaulenko and Peter Daicos quickly made their mark on the game. Another important change was the growing popularity of basketball with the National Basketball League (men) established in 1979 and the Women's National Basketball League in 1981.

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WILD START TO SPRINGBOK TOUR

Demonstrators clash with pro-tour supporters at Perth airport yesterday morning before the arrival of the Springbok side.

Kiwis' shock win in League —P 61

Twenty-two people were arrested in Perth yesterday during noisy demonstrations against the South African Rugby Union team.

The football crowd of 10,000, however, gave the Springboks a rousing reception and much of the trade-union opposition to the tour fizzled.

— SEE PAGE 2

$500,000 JACKPOT GOES OFF

A Sydney syndicate yesterday cracked the $500,000 Canberra TAB jackpot pool with two winning tickets.

But a TAB spokesman said last night it was possible that more ticketholders would share the prize.

— SEE P3

WEATHER (City): Cool, some cloudy periods. Gusty north-west winds (Details back page).

H3.5.3 The front page of Melbourne's *Sun-Herald* on 27 June, 1971

In the eighties

The evolution of sport in Australia from amateur to professional continued in the 1980s with the federal-funded Australian Institute of Sport (AIS) opening in Canberra in 1981.

Other key sporting events included:

- Australian cricketer Trevor Chappell's decision to bowl underarm in the final ball of a test match against New Zealand in 1981. This prevented the batsman from being able to hit the ball and potentially win the match for New Zealand; Chappell's action was met with outrage from officials and the Australian public
- the Commonwealth Games being held in 1982 in Brisbane
- *Australia II* winning the America's Cup yacht race in 1983 against the odds and to uproarious celebrations in Australia
- Pat Cash winning the Men's Singles tennis championship at Wimbledon against Ivan Lendl in 1987
- Wayne Gardner winning the inaugural Australian Motorcycle Grand Prix on Philip Island in 1989.

In the nineties

The change in Australian sport reached its pinnacle in the 1990s with an increased focus in corporate sponsorship and marketing, television coverage and the rise of the celebrity sports person. Sport had become big business and the increasing influence of the culture of US sport could be seen in the style of the television coverage and marketing.

H3.5.4 Tina Turner performing at the NRL Grand Final in 1993

Key sporting events included:

- *1990*—the Victorian Football League became the Australian Football League; clubs were subsequently launched in Perth, Fremantle and Brisbane (South Melbourne had moved to Sydney in 1983)
- *1992*—at the Barcelona Olympics, Australia won the highest medal tally since the 1956 Olympics in Melbourne, including swimmer Kieran Perkins' gold medal
- *1993*—Sydney won the right to host the 2000 Olympics
- *1993*—St Kilda player, Nicky Winmar responded to racist taunts from the crowd by lifting his jumper as a salute to his Indigenous heritage
- *1996*—the Australian Olympic team won 41 medals at the Atlanta Games, including Cathy Freeman's silver medal in the 400 metres
- *1999*—Australian Cricket team won the World Cup, capping off a run of Ashes series wins throughout the decade.

H3.5.5 Nicky Winmar lifting his footy jumper in 1993

Activities

LS H3C

Remembering and understanding

1. Define the terms amateur sports person and professional sports person.
2. What were crowds protesting against during the Springbok tour?
3. How did sport begin to change by the end of the 1970s?

Applying and analysing

4. Choose an event or sports person listed in the timeline for each decade and research them further. Write a short summary and why the person or event is noteworthy.
5. Choose a sporting code, team or sports person and create a timeline that includes all of the key milestones of their histories or careers. Identify 2–3 events or achievements that you think helped to define them and explain why.

H3.6 Changing Australian fashions

Post-war fashions

Following the austerity of the war years, Australia experienced a new prosperity and a rebirth of the fashion industry. Fashions changed considerably with a return to fine clothing, and the introduction of new fabrics and influences from the US and UK through films and music.

Bodgies and widgies in the 1950s

For many Australians in the 1950s, fashion was influenced by Hollywood stars such as Marilyn Monroe and Grace Kelly. Hats and gloves for women and suits for men were still regarded as essential items. People began to become more interested in fashion trends. Fashion tips in magazines such as *The Australian Women's Weekly* began to appear along with fashion parades at department stores. Fashions for young people began to emerge as a specific market.

In the 1950s, groups of young men who adopted the trends and fashions of the rock'n'roll era became known as **bodgies**, and their female counterparts were referred to as **widgies**. The first bodgies were ex–World War II Australian sailors who impersonated Americans in the late 1940s while running a black market in US-made cloth. As the US began to influence Australian popular culture more and more, groups of young people adopted the rock'n'roll image, particularly in inner city areas.

There were significant variations in bodgie dress, from leather jackets, denim jeans, studded belts and boots, to drape suits with pegged trousers and moccasins or pointed-toe winklepicker shoes. Hair was styled with hair grease to look like a ducktail. Widgies cut their hair shorter than other girls of the time and wore a range of fashions from tight black skirts with a slit at the back and loose three-quarter sleeve shirts, to tight black pants or jeans rolled up at the bottom.

Apart from their fashions, bodgies and widgies became associated with youth violence and lawlessness. Although there certainly was some misbehaviour, today it is generally accepted that a lot of the hysteria surrounding the violence associated with bodgies and widgies was due to sensationalist newspaper headlines, and that many teenagers did little but wear the fashions of the time.

H3.6.1 Bodgies and widgies had a distinctive fashion look.

Fashion controversy in the 1960s

The generally conservative nature of Australian fashion was highlighted in 1965 when Jean Shrimpton, a British model, attended an event at Melbourne's Flemington Racecourse. Shrimpton, then 22, appeared at Derby Day on a promotional visit to Australia. Dressed in a sleeveless white mini-dress that was four inches (just over 10 centimetres) above her knee, and with no hat, gloves or stockings, Shrimpton's outfit was considerably shorter and more casual than was common in Australia at the time and caused a scandal.

Shrimpton was accused in the media of being a child with bad manners and not knowing how to dress properly. Shrimpton responded by saying that she felt perhaps Melbourne was not ready for her and that it was years behind London.

The scandal came to be seen by many as marking a generational shift. Shortly afterwards, short dresses became a common sight on women in Australia, especially among younger women.

> The day of the races was a hot one, so I didn't bother to wear any stockings. My legs were still brown from the summer, and as the dress was short it was hardly formal. I had no hat or gloves with me, for the very good reason that I owned neither. I went downstairs cheerfully from my hotel room, all regardless of what was to come.

H3.6.2 Jean Shrimpton recalls her preparation for the races in 1965.

H3.6.3 Jean Shrimpton at Derby Day, 1965

H3.6.4 Generational shift in women's fashion is shown in this image from 1968.

Skills builder

Cause and effect

Understanding cause and effect allows you to appreciate why events happen. It means taking an event and looking to the past to see what caused it.

The relationship can be very simple with one cause leading to one effect. In other situations there will be multiple causes that lead to a particular event.

Sometimes the causes will have been in the immediate past. These are known as short-term causes. Other times the causes will have happened a long time before the event. These are called long-term causes.

APPLY

1. Why was Jean Shrimpton criticised? What was the cause and what was the effect in this situation?
2. In the 1950s, fashions in Australia began to change. Can you identify three causes for this?
3. Research Bodgies and Widgies in Australia in the 1950s.
   - a. What particular causes can you identify to explain their emergence?
   - b. What effects can you identify?

1950s **Hollywood stars and bodgies and widgies**

1960s **Carnaby Street look from England—bellbottoms, miniskirts and hippies**

1970s **Liberation, hippies, flared pants and long hair**

1980s **Earrings, fluoro, shoulder pads and brand names**

1990s **Individual style, power dressing and street culture influenced by Hollywood movies, such as *Clueless***

H3.6.5 Fashion in Australia has seen many changes since the end of World War II.

Activities

Remembering and understanding

1 **a** Define the terms 'bodgie' and 'widgie'.
   b Describe the fashion of bodgies and widgies in the 1950s. How did it differ from the fashion of older Australians during this era?
2 Examine Sources H3.6.2 and H3.6.3.
   a Describe the difference between Jean Shrimpton's outfit and that of the Australian women in the background of the photograph.
   b Why did Jean Shrimpton not wear traditional stockings, gloves and a hat to the race event?

Applying and analysing

3 **a** Examine Source H3.6.5. Compare and contrast the fashion of two decades on the timeline. Explain what aspect of popular culture was likely to have been influencing fashion in each decade.
   b Complete the timeline by adding a section for 2000–2019. Which three items do you think should be included and why? Which image would you choose to represent the whole of this decade?
4 Develop a fashion blog for teenage fashion today. Consider the clothes and hairstyles popular with young people.
5 Explain why you believe Jean Shrimpton's outfit caused such controversy in 1965. Would such an outfit cause the same reaction today? Explain your answer.

H3.7 Australia's contribution to popular culture

A view from the 'land down under'

While Australian popular culture has been heavily influenced by film, music and television from other countries, Australians have also taken their unique culture to the global community. Australian talent has made a deliberate effort to leave a lasting impression, or at the very least shake things up, and in doing so has influenced global popular culture.

H3.7.1 The Bee Gees—Robin, Barry and Maurice Gibb in 1970

Exporting music

In the late 1950s, the success of rock'n'rollers Johnny O'Keefe and the Dee Jays in the US signalled to the world the arrival of Australians on the international music scene. The Easybeats were the first Australian group to do well in Britain with their song 'Friday on My Mind'.

The Seekers became well-known folk music artists in the 1960s with 'I'll Never Find Another You' and 'Georgy Girl' becoming hits in Britain, the US and Australia all at the same time.

The Bee Gees became one of the most influential contributors to popular culture in the 1970s with the inclusion of their songs in the soundtrack for the film *Saturday Night Fever*. The film and music are generally credited with launching disco into mainstream popular culture. The Bee Gees became one of the biggest selling music artists of all time and the group was inducted into the Rock and Roll Hall of Fame in the US in 1997.

Peter Allen was a prolific writer of hit songs and a performer in Broadway musicals and concerts. He won an Academy Award for co-writing 'Arthur's Theme (Best That You Can Do)', which featured in the film *Arthur* (1981). He was immortalised after his death in the hit musical *The Boy from Oz*, which toured Australia in the 1990s.

H3.7.2 AC/DC is an Australian band that has enjoyed international success.

Helen Reddy became the voice of the women's movement worldwide with her song 'I am Woman' in 1972. Australians were starting to break the mould and lead popular culture rather than simply follow it.

From the 1980s to the present day, performers such as AC/DC, INXS, Midnight Oil, Go-Betweens, Hoodoo Gurus, Savage Garden, Crowded House, Jet, Keith Urban, The Presets, and children's entertainers The Wiggles have achieved great international success, adding an Australian flavour to global popular culture.

Men at Work claim a broader place in Australian and global popular culture. Their hit song 'Down Under' sits alongside Peter Allen's 'I Still Call Australia Home' as an anthem for Australia and for Australians living overseas.

Australian film influences

Films such as *Crocodile Dundee*, *Mad Max*, *Muriel's Wedding* and *The Adventures of Priscilla, Queen of the Desert* present Australian characters and stories in distinctly Australian locations. They, along with a range of other films, have shown the world who Australians are, what Australia is like as a country, and claimed a place in global popular culture. How accurate these representations are is another issue.

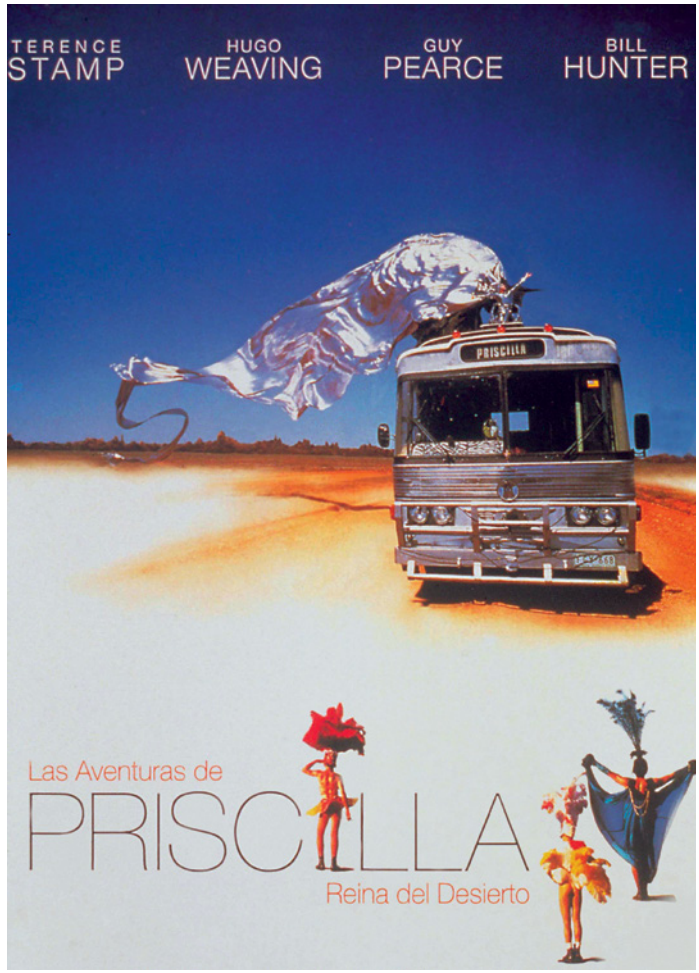
Australian talent overseas

Australian influence goes beyond Australian productions. Australian actors such as Eric Bana, Cate Blanchett, Toni Collette, Russell Crowe, Judy Davis, Peter Finch, Mel Gibson, Hugh Jackman, Nicole Kidman, Heath Ledger, Margot Robbie and Geoffrey Rush have received accolades and won awards for their performances in films that cover a variety of genres. As Australians contributing to the telling of other people's stories, or simply as entertainers, their faces, voices and interpretations of characters have become part of global popular culture.

Film production

Australian film directors, such as Bruce Beresford, Baz Luhrmann, George Miller, and Peter Weir have won international awards and enjoyed success overseas. Other highly sought-after professionals who contribute to both Australian and multinational productions are Catherine Martin, who has won several prestigious awards for costume design and art direction; John Seale for his work on the cinematography of films such as *Witness* (1985) and *The English Patient* (1996); and John Cox for his work on visual and special effects.

Australian production studios, such as Fox Studios in Sydney, have hosted the making of blockbuster films *The Matrix*, *Mission: Impossible II* (2000), *Moulin Rouge!* (2001) and *Superman Returns* (2006), drawing upon Australia's technical talent and scenic locations.



H3.7.3 A Spanish poster advertising *The Adventures of Priscilla, Queen of the Desert* (1984)

H3.7.4 *The Castle* (1997) is an example of a film that did not translate well overseas.

Australian television overseas

Australian television programs have had some success overseas. The earliest Australian-made program to be sold overseas for prime-time viewing was the variety program *Revue '61* (1961–62), which was sold to Canada in 1962. *Skippy the Bush Kangaroo* was the first series to become popular overseas. It aired in over eighty countries, including the US. However, the most consistently popular type of Australian programming with overseas audiences has been soap operas, particularly in the UK. Images of 'typical Australian life' in programs such as *Neighbours* and *Home and Away* have had great appeal in the UK from the 1980s onwards.

From the crocodile hunter to Dame Edna

Two of the most recognisable Australian faces on global television in recent history have been Steve Irwin and Barry Humphries, albeit dressed as the character Dame Edna Everage.

Before his untimely death in 2006, Steve Irwin's wildlife documentary series *The Crocodile Hunter* (1997–2004) aired in 130 countries, including the US and the UK, and was regularly watched by 500 million people in the late 1990s to mid-2000s. His energetic message of conserving the habitat of wild animals was punctuated with the catchphrase 'Crikey!'

Barry Humphries has had a long career in the arts, using film, live theatre and, most recently, television to satirise aspects of society in both Australia and the UK. Although sometimes rude and offensive, his characters have become part of global popular culture and are immediately recognisable as Australian.

The importance of Australian sport overseas

Sport has always been an important part of the Australian identity—playing, watching, reading about it and betting on it. Sport allows people to play out values of mateship and egalitarianism both socially with friends in polite games, and publicly in serious, top-level competition.

For a relatively small country, Australia has consistently performed well in the international sporting arena. Athletic success has not only strengthened national morale, but has also led to characteristics including strength, courage and resilience being regarded as 'Australian'.

H3.7.5 The Australian national men's soccer team (the Socceroos) is an example of a team that plays internationally.

Activities

Remembering and understanding

1. Describe the ways in which Australians have influenced global popular culture.
2. Why was Helen Reddy important in Australian music?
3. Explain why films with Australian stories are important in terms of promoting Australian popular culture.
4. Discuss the importance of Australia's involvement in sport internationally.

Applying and analysing

5. Outline the type of Australian musicians that were popular overseas in the 1950s, 1960s and 1970s. Why do you believe this was the case?
6. Examine Sources H3.7.1, H3.7.2 and H3.7.3. Analyse and explain what these sources might tell the rest of the world about Australia.
7. Construct a PMI (plus, minus and interesting) chart analysing the positive and negative aspects of the success of entertainers such as Steve Irwin and Barry Humphries in relation to Australia's national identity.
8. Examine an Australian (or group of Australians) who is currently helping to promote Australian culture overseas (for example, a current television or film star or one of the latest bands). Write a short analytical newspaper article examining their success and explaining what they tell the rest of the world about Australia.

LS H3D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Geography toolkit 5

In geography, we use an inquiry approach to find meaning in the world around us. This involves finding answers to the questions we have about the things we observe in the **biophysical**, **managed** and **constructed environments**.

Geographical knowledge is made up of the facts, generalisations, principles, theories and models developed in geography. This knowledge is dynamic and changeable, and its interpretation can be challenged. Geographical understanding is the ability to see the relationships between elements of knowledge and explain these relationships. It is also the ability to apply this knowledge to new situations or to solve new problems.

In this chapter, we focus on the analysis of **topographic maps**, and the use of **flowline maps**, diagrams, **population pyramids** and photographs. We also examine the steps involved in undertaking a **geographical inquiry**.

GLOSSARY

biophysical environments environments that are dominated by natural features such as landforms and vegetation; this includes the Earth's soil, water, air, sunlight and all living things

constructed environments human-altered landscapes, including all those features that are normally associated with settlements, industries and agriculture

flow diagram an illustration showing the interactions that occur within and between the biophysical, managed and constructed environments

flowline maps maps that show statistics of movements that have occurred, from one location to another; the maps demonstrate patterns and linkages

geographical inquiry an investigation that starts with geographical questions and proceeds through the collection, evaluation, analysis and interpretation of information to the development of conclusions and proposals for actions

gradient the steepness of a slope, road or river

local relief the difference in elevation or height over a particular small, defined area

managed environments human-changed landscapes dominated by the natural environment; this includes crop and grazing lands, plantations and planted forests

population pyramid a graphical representation of a population's age and sex structure

topographic map a detailed, large-scale representation of part of the Earth's surface

OVERVIEW QUESTIONS

- **5A** What is an environmental worldview?
- **5B** What information can we learn from analysing topographic maps?
- **5C** How do maps and diagrams enhance our understanding of places and people?

5.0.1 Geologists study a graphical display of oil- and gas-bearing rock.

5.1 Key concept: Worldviews

Worldviews

A worldview is a perspective or point of view held by an individual based on a set of values and assumptions. When a worldview is accepted and shared by many, it becomes a belief system. An environmental worldview is based on nature and how the Earth and all its species and resources are managed. It has an ethical dimension, as it shapes what individuals believe is right or wrong about their behaviour in relation to the environment.

A person's environmental worldview is shaped by their perceptions of:

- how the world works
- what an individual's role in the world should be
- what is correct environmental behaviour.

Figures 5.1.1 and 5.1.2 list ethical questions and concerns in relation to the environment that will help develop a person's worldview.

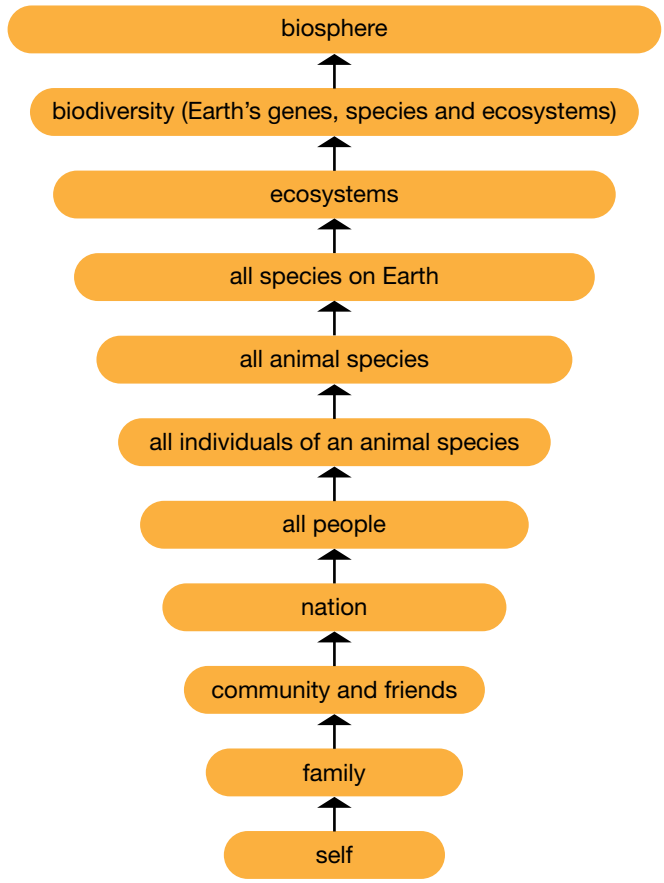
5.1.1 Some important ethical questions relating to the environment

1	Why should we care about the environment?
2	Are we the most important beings on the planet or are we just one of the Earth's millions of different life forms?
3	Do we have an obligation to see that our activities do not cause the extinction of other species? Should we try to protect all species or only some? How do we decide which ones to protect?
4	Do we have an ethical obligation to pass the natural world onto future generations in at least as good a condition as we inherited?
5	Should every person be entitled to equal protection from environmental hazards regardless of race, gender, age, national origin, income, social class, or any other factor?
6	How do we promote sustainability?

Taking the time to consider your environmental worldview enables you to have a deeper appreciation of your place in the environment and the implications of your decisions and actions. Your chosen environmental worldview shapes your behaviour and lifestyle choices. It also influences your actions and your willingness to take a stand on environmental issues.

Conflicting environmental worldviews

There are different ways of looking at nature and how humans relate to it. It is not surprising that most people hold worldviews that are human-centred, as the focus of their world is their own wellbeing. Major environmental worldviews can differ depending on what is more significant—providing for the human population or guarding the natural world from exploitation and degradation to ensure the health of ecosystems and the biosphere. Each worldview implies very different approaches to what are considered appropriate responsibilities towards the environment (see Figure 5.1.3).



5.1.2 Levels of ethical concern. People disagree about how far we should extend our level of ethical concern.

5.1.3 Comparison of three major environmental worldviews

Human-centred	Stewardship	Earth-centred
We are apart from the rest of nature and can manage nature to meet our increasing needs and wants.	We have an ethical responsibility to be caring managers, or stewards, of the Earth.	We are a part of nature and totally dependent on nature, and nature exists for all species.
Because of our ingenuity and technology, we will not run out of resources.	We will probably not run out of resources, but they should not be wasted.	Resources are limited and should not be wasted.
The potential for economic growth is essentially unlimited.	We should encourage environmentally-beneficial forms of economic growth and discourage environmentally-harmful forms.	We should encourage Earth-sustaining forms of economic growth and discourage Earth-degrading forms.
Our success depends on how well we manage the Earth's life-support systems mostly for our own benefit.	Our success depends on how well we manage the Earth's life-support systems for our benefit and for the rest of nature.	Our success depends on learning how nature sustains itself and integrating such lessons from nature into the ways we think and act.

Human-centred worldview

According to the human-centred worldview, humans are superior and the most important species on Earth. Humans are considered to be apart from nature, and the value of other species and the natural world is based on how useful they are to humans. As the dominant species, humans have unrestricted use of natural resources for their benefit alone. The belief underlying this worldview is that humans have an obligation only to themselves. People with this worldview believe that what separates humans from other species is their intelligence. They have developed technologies to exploit resources and draw on the Earth's life-support systems for their own purposes.

The human-centred worldview measures success in terms of how well humans control nature to meet their ever-increasing needs and wants. Such beliefs have long been evident in human civilisations and have driven the pursuit of economic growth in the Western industrialised nations of the modern world. Through research and development, new technologies have evolved to have even greater control over natural processes and extract resources to support ever-growing economies.

In the human-centred worldview, all economic growth is good and there is almost unlimited potential for it to continue. This is based on the assumption that human ingenuity and technology will ensure that any shortages or problems are overcome. The emphasis in modern economies has usually been on short-term efficiency and profits, disregarding any long-term costs associated with environmental damage.

Stewardship worldview

Indigenous peoples have had a stewardship worldview for thousands of years. Their strong spiritual connection with the natural world is ingrained in their daily lives. While they use resources to support themselves, they have an intimate knowledge and appreciation of their environment and act responsibly to ensure its continuing productivity. They are thoughtful managers, or stewards, of the natural world.

In modern times, individuals with a stewardship worldview accept the responsibility to be caring managers of the Earth. They believe that they may use the available resources, but that this must be done in a sustainable way to ensure the availability of resources for future generations. Any form of economic growth and development that damages the environment is discouraged.

People with this worldview believe that they have an ethical responsibility to ensure that they leave the Earth in a condition that is comparable to the one they inherited. This is because the Earth and its resources are really being borrowed from future generations.

5.1.4 *Climate Change Sceptics*, Mark Knight

Earth-centred worldview

People with an Earth-centred worldview believe that nature exists for all species on Earth, not just humans, and that humans are equal to other species, not superior. All forms of life have a value, regardless of their actual or potential use to humans.

The extent to which people are prepared to protect the natural world depends on the depth of their beliefs. Individuals with an Earth-centred worldview believe that protection should go well beyond species protection and encompass the entire natural world. They believe that nature exists for all species and that humans are part of nature and dependent on nature. So they advocate sustainability, which includes protecting the Earth's biodiversity and the maintenance of its life-support systems for all forms of life. If we prevent the natural world's resources from being used up, we can ensure ecological sustainability. This keeps other species alive and also ensures the survival of humans.

The Deep Ecology movement goes even further. Supporters of this movement believe that present human intrusion into the natural world is excessive. This follows from a philosophy that each life form is significant, and that the interdependence of all life creates the richness of the natural world. Supporters of the Deep Ecology movement claim that all forms of life have the right to exist. As humans are no different from any other species, they have no right to interfere with nature.

Responding to environmental change

Throughout history, people have long held differing views on the environment. The stewardship worldview shaped the actions of indigenous peoples for thousands of years. During the age of exploration by European powers and subsequent colonisation, the human-centred worldview took over. As new frontiers were established, the wilderness was seen as something to be tamed and conquered so that it could be of use to humans and yield valuable resources. But even then, there were individuals who cherished the natural world and worked to protect it.

It is clear that there are extremes in the environmental worldviews held today. While many people may not fully embrace particular environmental worldviews, it is evident that there are differences in people's views about the causes of environmental issues in Australia and across the world. Individuals' differing perceptions of the seriousness of environmental problems and what should be done about them present a challenge. With no consensus, it is difficult to develop and implement strategies to deal with the problems, which then become even worse and harder to solve.

Different views on climate change

The issue of climate change provokes more arguments than any other environmental issue, yet it could well have the most profound impact on the quality of our life in the future. Despite the overwhelming majority of scientists stating that climate change is real and becoming significantly worse because of greenhouse gas emissions, there are people who deny the severity of the problem.

Freeman Dyson, Professor at the Institute for Advanced Studies, Princeton University, United States, believes that:

> Climate change is a real problem, partly caused by human activities, but its importance has been grossly exaggerated. We do not know whether the observed climate changes are on balance good or bad for the health of the biosphere. And the effects of atmospheric carbon dioxide as a fertiliser of plant growth are at least as important as its effects on climate.

Jim Hansen, Director at NASA's Goddard Institute for Space Studies, United States, believes that:

> The argument about whether or not there is global warming is over. It is now clear that we have been in a strong global warming trend at a rate of 0.3°C per decade for the past 30 years, meaning there has been a 0.56°C global warming in that period. The Earth is now at its warmest level in the period of instrumental data; that is, since the late 1800s.

Different views on solutions

Climate change is a global problem with global consequences and it needs a global solution and international cooperation. There are differences in the willingness of countries to reduce their emissions, as some consider that this might restrict their economic growth and development (see Figure 5.1.4). There are people who believe that carbon storage, or sequestration, is the answer.

Carbon sequestration involves the capture and long-term storage of carbon dioxide. One way of doing this is geosequestration, whereby excessive carbon dioxide is buried deep beneath the Earth in old gas or oil wells. There are concerns that the carbon dioxide might leak out, especially if there is unexpected seismic activity.

Lowering greenhouse gas emissions is considered essential to lessen human-induced climate change. Households and businesses should explore opportunities to increase their energy efficiency and reduce emissions. Governments and corporations need to invest in developing and commercialising clean energy technologies to reduce carbon pollution.

Activities

Remembering and understanding

1. Define the terms 'worldview' and 'environmental worldview'.
2. Explain why it is important for individuals to consider their own worldviews.
3. Describe what shapes an individual's worldview.
4. Identify three major environmental worldviews and consider how they differ in the relative importance placed on humans and the environment.
5. Define the term 'geosequestration'.
6. Explain why some nations are reluctant to reduce their emissions.

Applying and analysing

7. Study Figure 5.1.2. How far up the scale would you extend your own ethical concern? Justify your choice.
8. Apply your ecological identity or worldview by answering the following questions:
   - a Where do all the things I use and depend on come from?
   - b Where do all my waste products go?
   - c What do I know about the environment I live in?
   - d How am I connected to the natural world and other living organisms?
   - e What is my purpose in life?
   - f What is my responsibility as a human being living on this planet?
9. Study Table 5.1.3. Which of the worldviews illustrated fits most closely with your thoughts? Which of these is the best fit with your parents' worldview?

Evaluating and creating

10. The precautionary principle is a strategy to cope with risks when scientific understanding is incomplete. It is considered especially important by many when tackling climate change. Justify this belief.
11. *Humans have an ethical responsibility to avoid causing the extinction of species.* To what extent do you agree with this statement? Discuss.

5.2 Working with topographic maps

Topographic maps

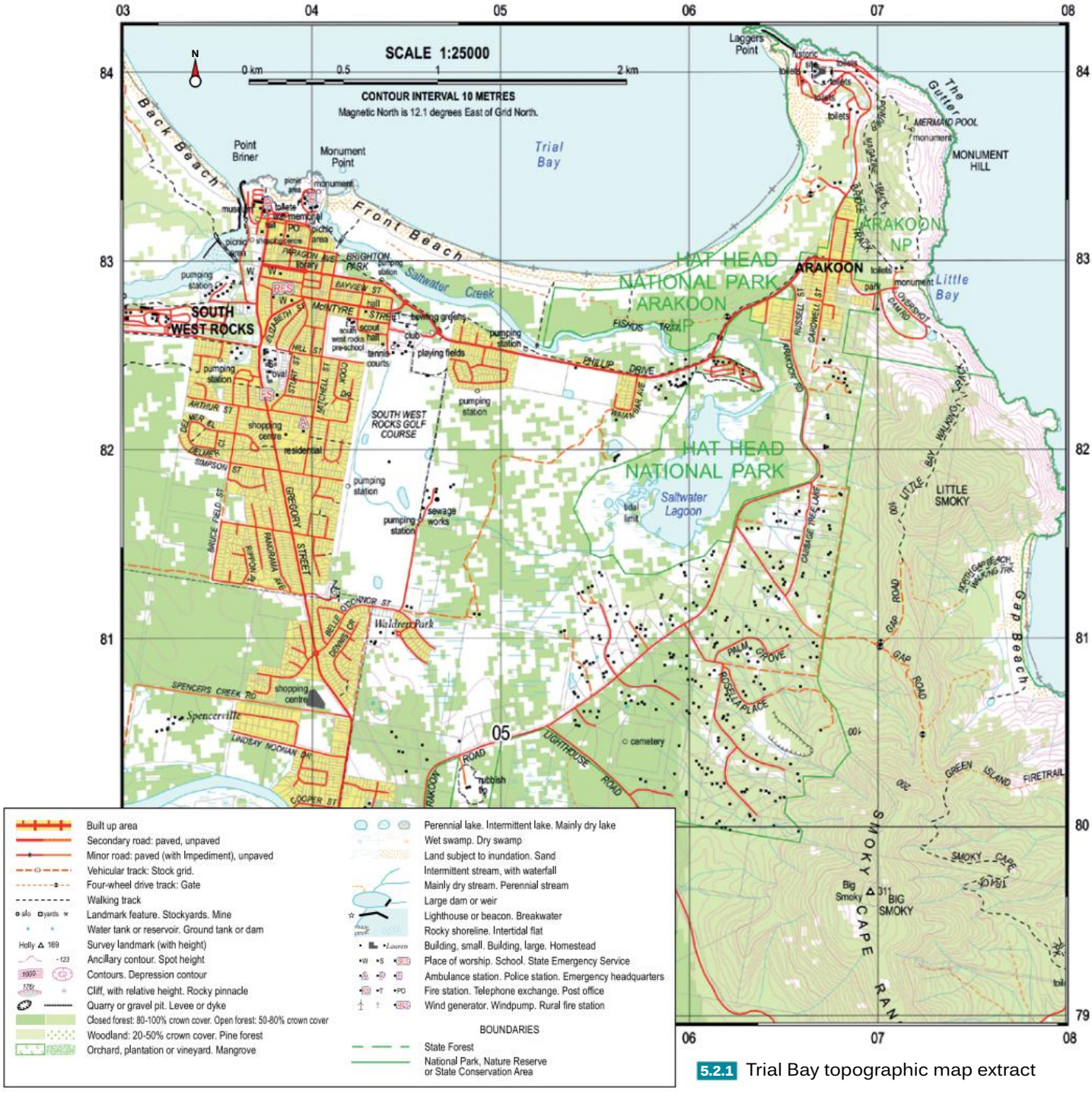
Aspect

Aspect refers to the direction (north, east, south or west) a slope faces. The aspect of a slope can be determined by studying the height and pattern of the contour lines. For example, the slope in (Area Reference) AR0782 on the Trial Bay topographic map extract (Figure 5.2.1) has a north-east aspect.

Gradient

It is possible, using the contour lines and scale on a map, to calculate the average **gradient** (steepness) of a slope, road or river. A gradient is typically expressed as a fraction or ratio.

Calculating the gradient between two points involves the following steps.



5.2.1 Trial Bay topographic map extract

Step 1

Identify the two pieces of information needed to complete the calculation.

1. The difference in height between the two points. This is called the *vertical interval*, or *rise*. Find this by subtracting the lowest point from the highest point.
2. The *horizontal distance* between the two points. This is sometimes referred to as the *run*. Find this by measuring the distance between the two points on the map and then using the scale to work out the actual distance.

Step 2

To calculate the gradient of a slope use the following formula.

Note: Because the gradient of a slope is expressed as a ratio, the unit of measurement for the rise (numerator) and the run (denominator) must be the same; for example, metres.

Example

Calculate the gradient of the slope between the summit of Big Smoky (AR0679) on Figure 5.2.1 (the Trial Bay topographic map extract) and the camping ground at GR076085.

Note: This ratio has large numbers. When we simplify it, we put a 1 on top to make it easier to follow. We have to turn the 291 into a 1, so we divide it by 291 (291/291 = 1). Then we have to divide the bottom number by 291 as well, 1350/291 = 4.6 so the ratio is 1 over 4.6.

= 1 in 4.6 (or 1 in 5 rounded) or 1:4.6

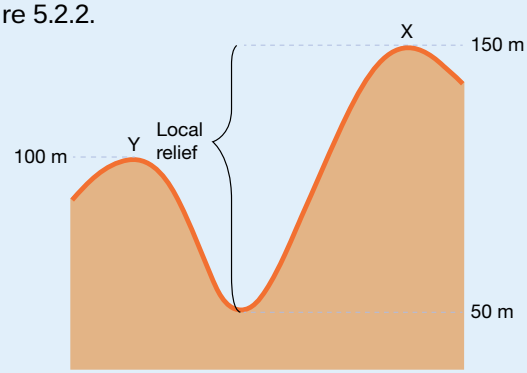
This means that for every 4.6 m travelled in a horizontal direction, you go up 1 m.

Local relief

Local relief is the variation in elevation or height over a relatively small, defined area. It is determined by working out the difference in height between the highest and lowest points in the area.

Example

Calculate the local relief between points X and Y in Figure 5.2.2.



5.2.2 Calculating local relief

150 m (X, the highest point) – 50 m (lowest point) = 100 m

Note: Always ensure you include the appropriate unit of measurement with your answer.

Activities

Remembering and understanding

1. What type of wetland ecosystem lines Saltwater Lagoon?
2. Name two vegetation types found in AR0681.
3. Into which waterway does Saltwater Lagoon drain?
4. What is the direction of South West Rocks (AR0483) from the summit of Big Smoky (AR0679)?
5. In which direction is Saltwater Creek flowing in AR0582?
6. What is the bearing of the summit of Big Smoky from South West Rocks (AR0483)?
7. What is the straight-line distance between the bridge at GR042831 and the bridge at GR053826?
8. What is the elevation of Little Smoky (AR0781)?
9. What is the difference in elevation between Big Smoky (AR0679) and Little Smoky (AR0781)?

Applying and analysing

10. Identify the feature of the biophysical environment found at each of the following grid references.
    - **a** GR069797 **c** GR074818 **e** GR043835
    - **b** GR045817 **d** GR040835 **f** GR077813
11. Identify the feature of the constructed environment found at each of the following grid references.
    - **a** GR042831 **c** GR047818
    - **b** GR072828 **d** GR062824
12. Using information from the map, account for the existence of wetlands in the area.
13. Construct the cross-section from GR060820 to the summit of Little Smoky AR0781.
14. Create a précis map showing the main land cover found on the Trial Bay topographic map extract.

5.3 Topographic map: Nambucca Heads

5.3.1 Nambucca Heads estuary

Nambucca Heads estuary

The Nambucca Heads estuary (the mouth of a river where the tide comes in) extends up the Nambucca River to the town of Bowraville, NSW. The total area covers 7.74 square kilometres and drains a catchment of 1460 square kilometres. The major tributaries flowing into the Nambucca River are Taylors Creek, Newee Creek, Watt Creek, Taylors Arm, Swampy Creek and Warrell Creek. Since European settlement, there have been changes to the estuary. The river bank (or riparian) vegetation has been removed, and sand and gravel have been extracted. As a result, severe river bank erosion has occurred, large areas of flood plain have eroded into the river, and the waterway has become degraded. However, there are still areas of diverse riparian vegetation that need to be protected. Future threats to the estuary are coming from increased urbanisation of the region and the increased levels of nutrients, sediments and toxins.

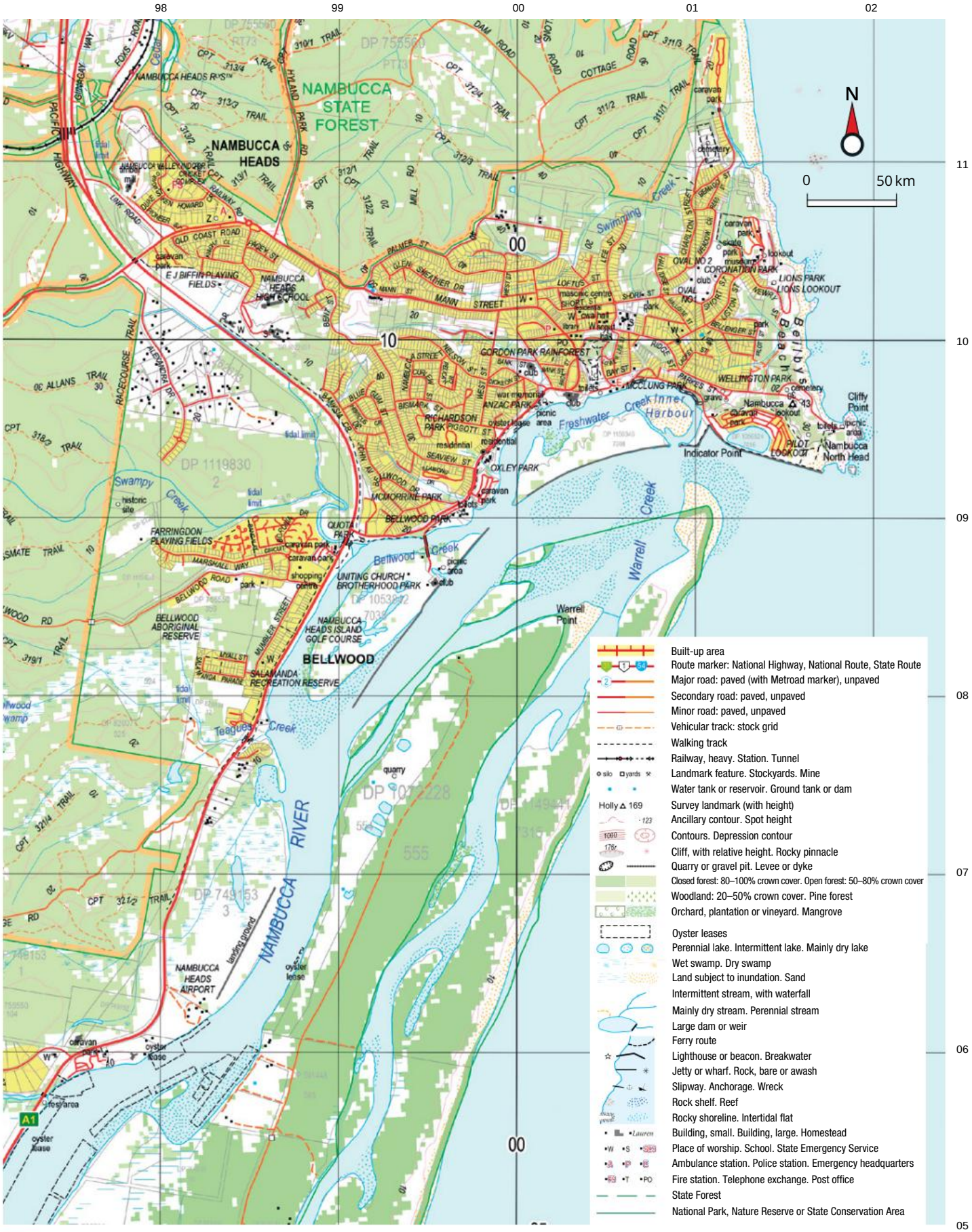
Activities

Remembering and understanding

1 State the scale of the Nambucca topographic map extract.
2 State the contour interval of the Nambucca topographic map extract.
3 Identify the features of the biophysical environment at:
   a GR019093
   b GR008096
   c GR981076
   d GR017096.
4 Identify the features of the managed or constructed environment at:
   a GR986077
   b GR995086
   c GR987102
   d GR013096.
5 State the direction of the lookout (AR0109) from Belwood (AR9808).
6 State the general direction in which Bellwood Creek flows in AR9809.
7 State the bearing of the lookout (AR0109) from the bridge in AR9807.
8 State the length of the upstream breakwater.
9 State the density of buildings in AR9807.
10 State the vegetation type found in AR9909.
11 State the elevation of the lookout in AR0109.

Applying and analysing

12 Describe the features and characteristics of the riverine environment on the Nambucca topographic map extract.
13 Describe the nature of the coastal landscape to the north and south of the Nambucca River entrance. Identify the dominant coastal processes responsible for the formation of the landform features.
14 Identify the main economic activity in the Nambucca River.
15 Outline the ways in which people have modified the biophysical environment in the area covered by the Nambucca topographic map extract.



5.3.2 Nambucca Heads topographic map

5.4 Flow diagrams

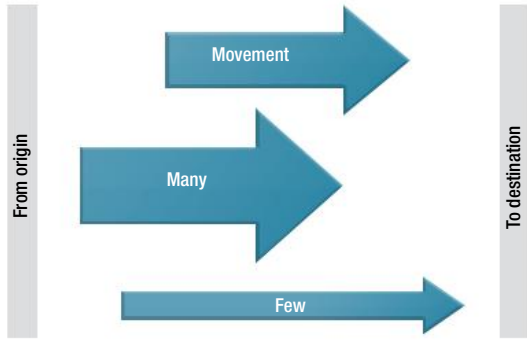
Using graphics

By its nature, geography is a visual subject. Keen observers note the spectacular interactions of the natural and human elements of landscape. Graphics tools such as flowline maps and **flow diagrams** help us to understand the workings of both the natural and the human world. Such graphics capture and highlight the important patterns and links that exist. They are a visual representation of what is happening.

Flowline maps

Flowline maps show movement between places, tracking the passage of goods, information and people. Lines or arrows link the place of origin with the destination, and the quantity that is moved is indicated by their width or thickness, as is illustrated in Figure 5.4.1.

Flowline maps are drawn using statistics of actual movements that have occurred, for the purpose of demonstrating the main patterns. Trade statistics, showing the export of Australia's wheat in 2013–14, are represented in Figure 5.4.2. It is clear that the majority of it goes to feed people in East and South-East Asia.

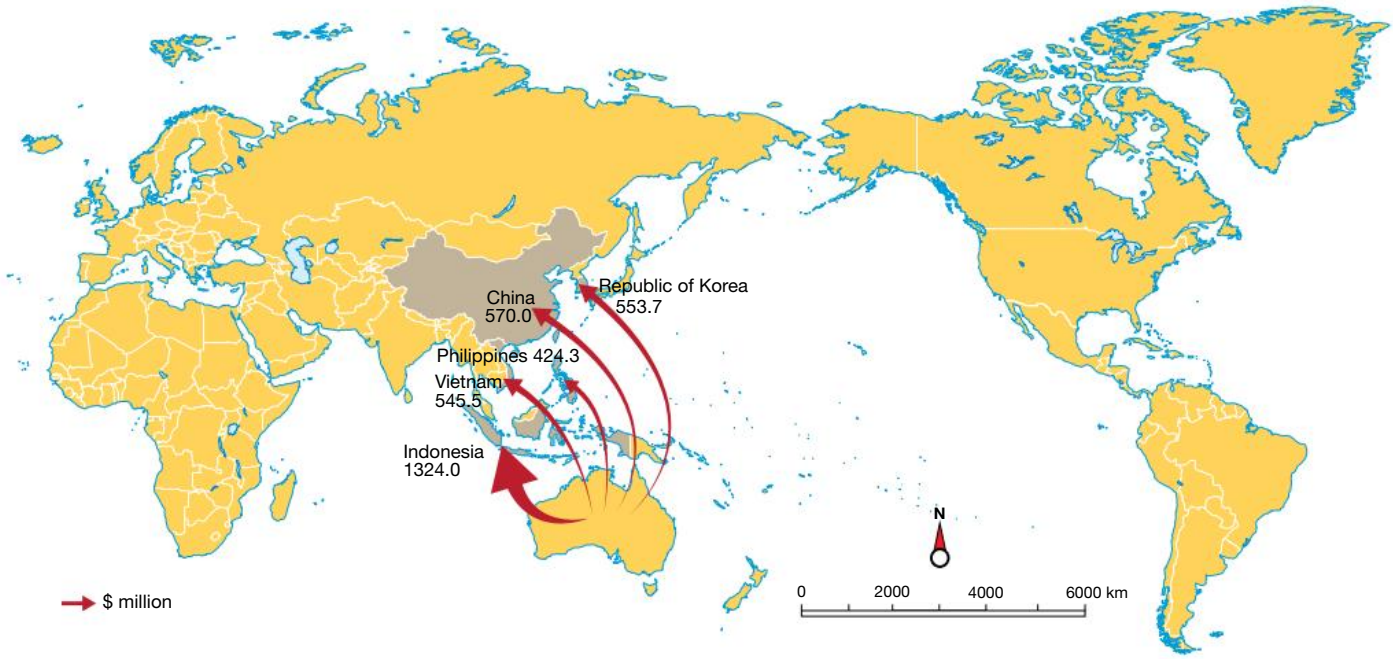


5.4.1 Flowline map lines or arrows

Constructing a flowline map

To construct a flowline map, follow these steps.

1. Select your statistics for flow or movement and arrange the data from the smallest to the largest.
2. Find a suitable base map.
3. Decide on the various thicknesses of the lines to match the different categories of the sizes of flows that will be shown.
4. Draw in the lines of varying thickness and add an arrowhead to each to show the direction of the flow.
5. Add a key and give the map a title.



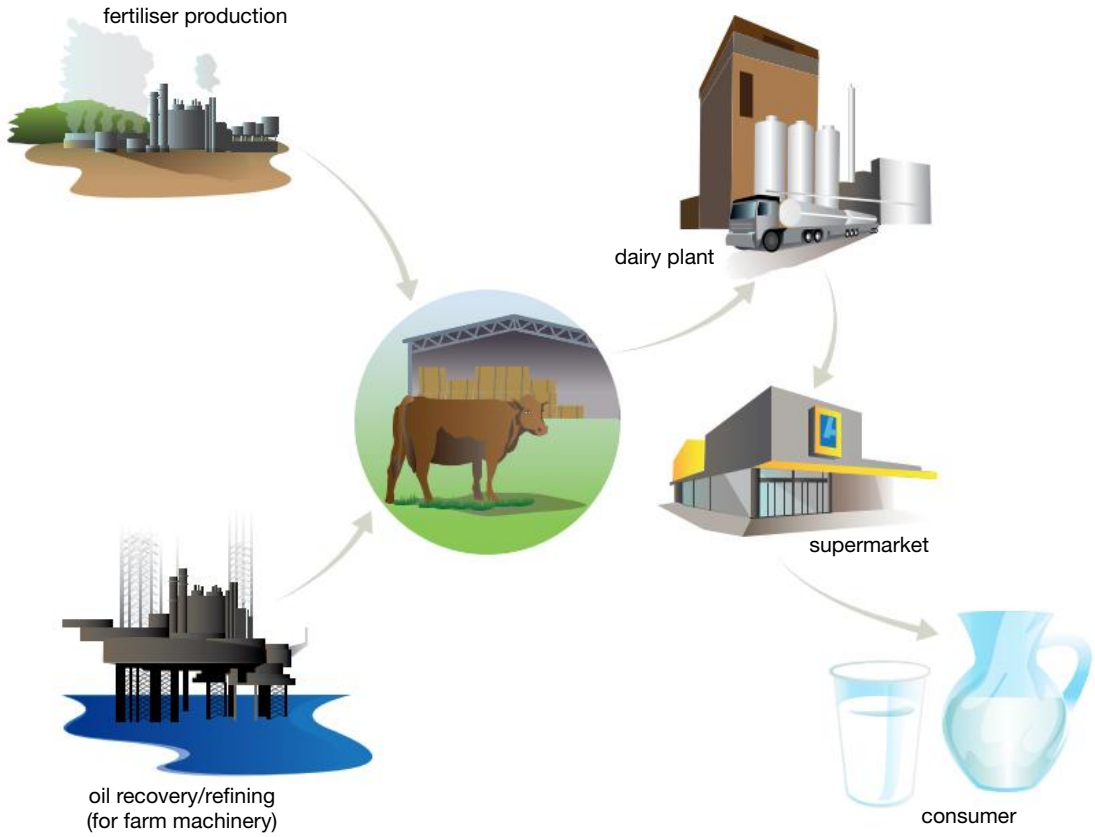
5.4.2 A flowline map showing the main destinations of Australia's wheat exports

Flow diagrams

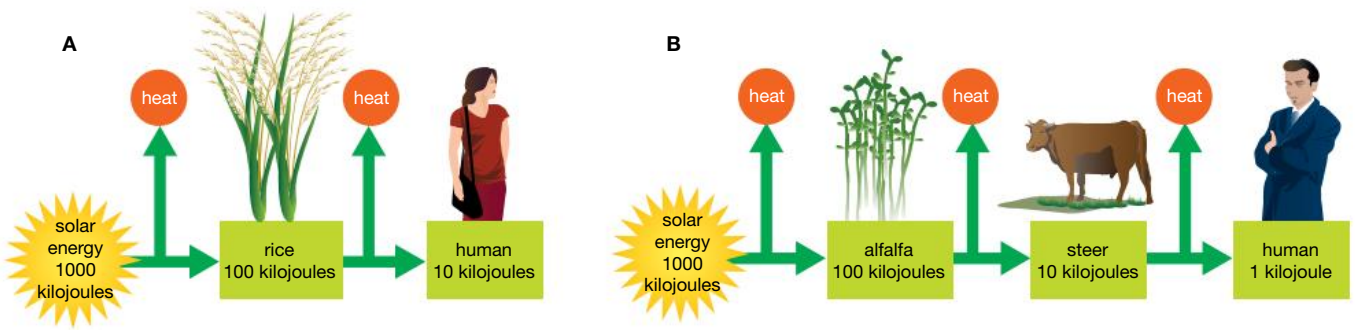
Flow diagrams are used widely in geography to illustrate how the world functions and in particular the interactions that occur within and between the physical and human environments. While flowline maps show a record of actual movement that has occurred, flow diagrams tend to be more generalised. They represent common flows that can occur in many places and they emphasise the processes and links involved. Labels are often added to the picture to provide a clearer understanding.

Simple

Some flow diagrams are quite simple, showing the clear stages of a process, such as the production of milk depicted in Figure 5.4.3. Others attempt to simplify the complexity of the real world by highlighting a simple progression, such as in Figure 5.4.4.



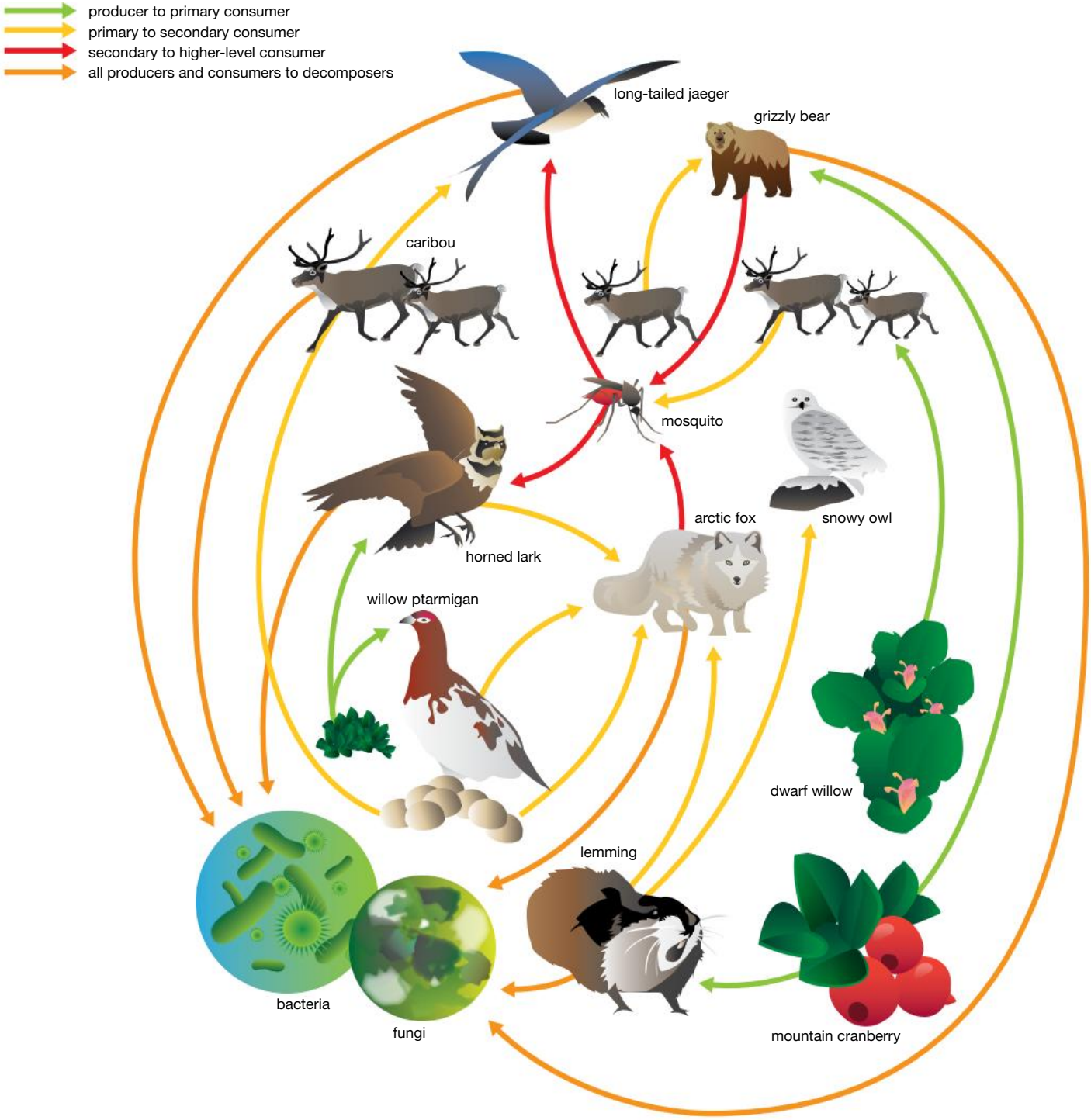
5.4.3 A flow diagram showing the production of milk



5.4.4 A flow diagram showing how the energy gained from food decreases when meat is eaten (b) compared to a plant-based diet (a)

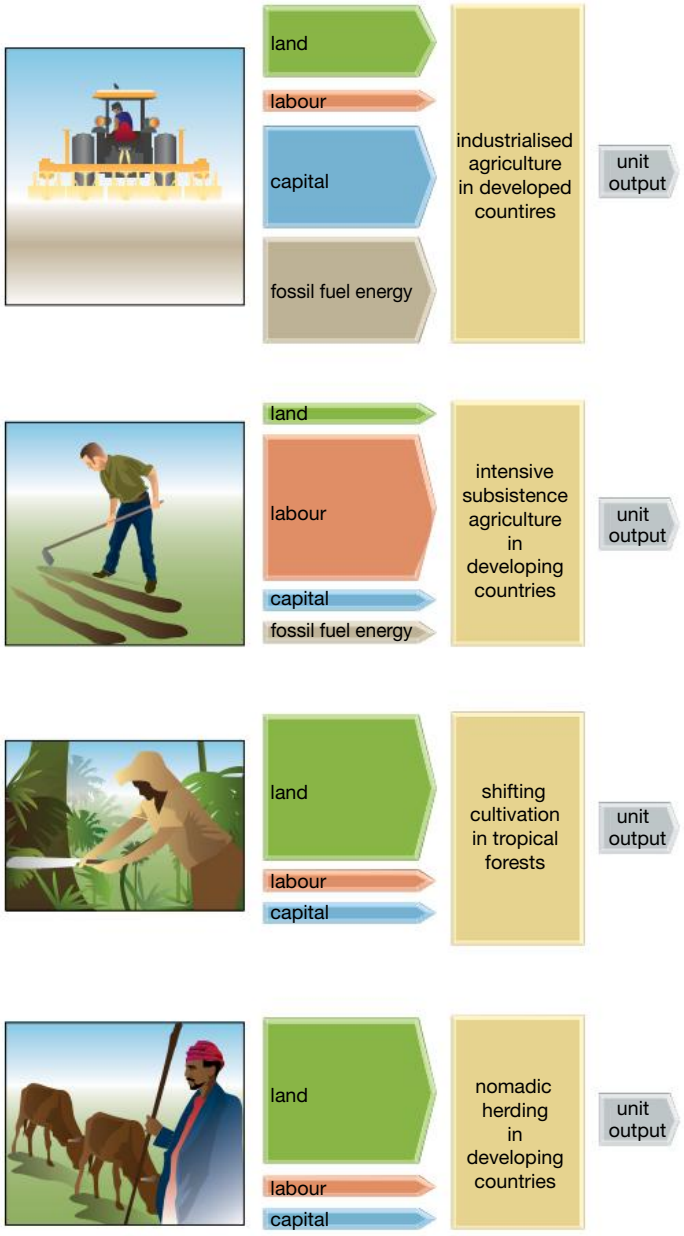
Complex

When geographers want to reveal just how complex nature is, a flow diagram (such as the one in Figure 5.4.5) does this well. For example, the flow diagram aforementioned shows how plants (such as the dwarf willow) are eaten by the deer, then the deer are bitten by mosquitos, which are then eaten by the horned lark, and the cycle continues.



5.4.5 A flow diagram showing some components and interactions within the tundra biome

Flow diagrams are also useful in analysing human activities, as illustrated in Figure 5.4.6. The diagram shows the inputs of land, labour, capital and fossil fuel energy for different types of agricultural systems. For example, the flow diagram shows that for agriculture in developing countries the largest input is labour, while for the same output, cultivation's greatest input is land.



5.4.6 A flow diagram showing the relative inputs of land, labour, capital and fossil fuel energy into major types of agricultural systems

Activities

Remembering and understanding

1 Give an example of when you would use a flowline map or flowline diagram.

Applying and analysing

2 Refer to Figure 5.4.2 and answer the following questions.

- **a** What was the value of exports to Vietnam?
- **b** What was the value of exports to Indonesia?
- **c** Suggest reasons why these countries import most of Australia's wheat.

3 Using the statistics below, construct a flowline map to show the destinations of Australia's beef exports in 2015–16.

Beef (fresh, chilled or frozen)	Weight—tonnes
USA	334 620
Japan	269 100
Republic of Korea	173 160
China	127 530
Indonesia	54 990
Middle East	43 290

Source: Department of Agriculture, 2016

4 Using the following statistics, construct a flowline map to show Australia's top import sources in 2016.

Primary products	A$ (billion)
China	61 121
USA	43 624
Japan	22 535
Thailand	15 564
Germany	16 359
United Kingdom	14 127

Source: Department of Foreign Affairs and Trade, 2015

5 Conduct a survey of the residing suburbs/towns/areas of students in your classroom. Construct a flowline map to illustrate your results.

6 Study Figure 5.4.3. Construct a simple flow diagram to show the production of bread.

7 Study Figure 5.4.6. Compare the relative inputs of land, labour, capital and fossil fuels to the major types of agricultural systems.

5.5 Population pyramids

Using population pyramids

A population pyramid is a graphical representation showing the structure of a population. A population pyramid shows the age of a population in age ranges and the sex (female or male) structure. Population pyramids show a lot of information about the different ages and structure of a population. The data is important for planning services for a community as well as planning for future population growth.

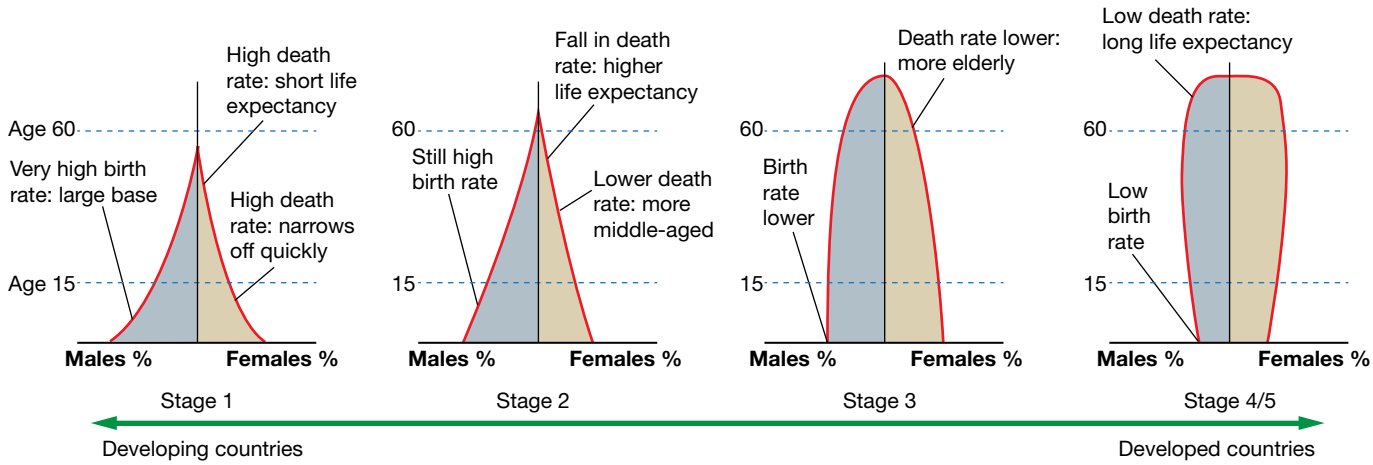
Interpreting population pyramids

A population pyramid is a special type of bar graph. The vertical axis of the graph shows the various age groups of the population, while the horizontal axis shows either the actual number or the proportion of the population for both females and males. Because each population pyramid represents 100 per cent of a particular population group, comparisons can be made with the population pyramids of other populations and of the same population over time.

The shape of a population pyramid is also important because it tells us a lot about the particular population. For example:

- if the base of the pyramid is wide, then the population is said to be 'young', or there are a lot of younger people under the age of 15 in the population
- if the upper part is relatively wide, then the population is said to be 'old' or 'ageing', because there is a large proportion of the population who are older
- fewer people than expected in a particular age group might indicate events such as war, famine, disease or large-scale emigration
- more people than expected in a particular age group might indicate the impact of a baby boom and/or immigration
- Figure 5.5.1 shows a series of pyramid shapes, with an explanation of conditions under which such population structures develop.
  - Stage 1: There is a high birth rate but there is also a high death rate of children. There is a short life expectancy so there are not many older people.
  - Stage 2: The birth rate is declining, as well as the death rate of children. Life expectancy is increasing and there are slightly more older people.
  - Stage 3: The birth rate is falling, as well as the death rate of children. Life expectancy continues to increase and the number of older people is increasing.
  - Stage 4: Birth rates have fallen and life expectancy continues to increase. The number of babies born is less than the number of older people.

Populations are often divided into broad age groups based on their level of independence or dependence on other people for their care and economic wellbeing. The dependent parts of the population are usually defined as the '14 years and under' age group and the '65 years and over' age group. The changing proportion of the population in each age group provides us with valuable information about future population trends. If the proportion of the population aged 65 years and over is growing, the population is said to be ageing. If the proportion of the population aged 14 years and under is decreasing, the birth rate is declining, as is the rate of population increase.

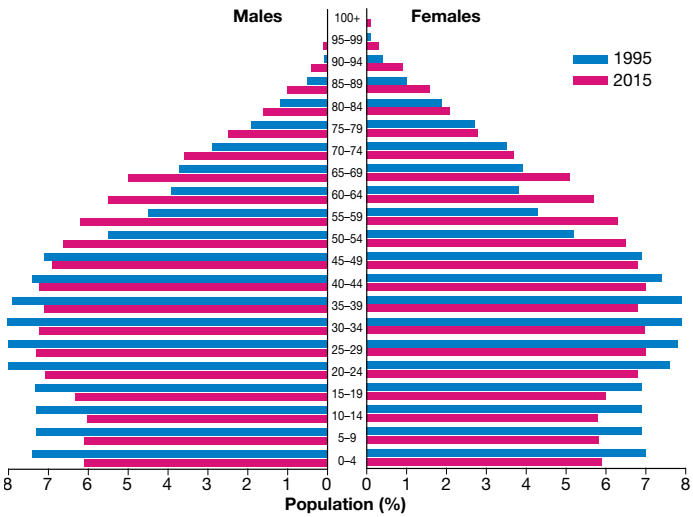


5.5.1 Common population pyramid shapes and the conditions under which they develop

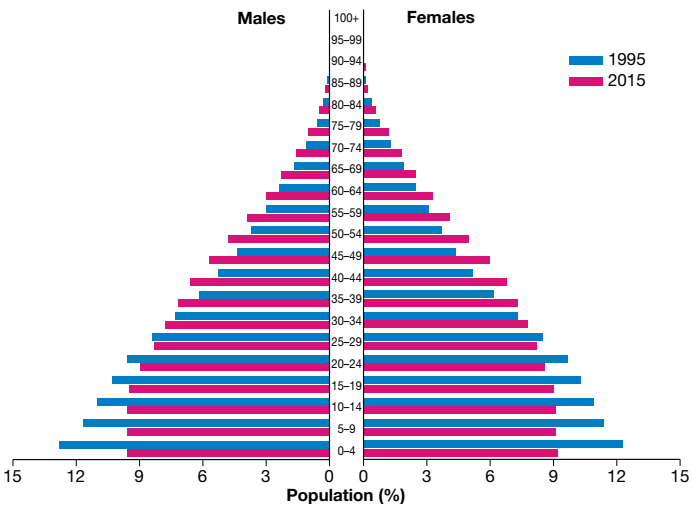
Population pyramids: Australia and India

The population size of India and Australia are different and the population structures are also different.

Figure 5.5.2 shows Australia's population in 1995 and 2015. In 20 years, there has been a reduction in the 0–19 age brackets and an increase in the 50+ age brackets. The 60–64 age bracket has increased by nearly 2 per cent and is one indication that shows Australia's population is ageing.



5.5.2 Population pyramid of Australia, 1995 and 2015 (%)



5.5.3 Population pyramid of India, 1995 and 2015 (%)

Did you know?

Despite the declining birth rate, India is predicted to have the highest population in the world by 2025.

Figure 5.5.3 shows India's population in 1995 and 2015. In 20 years, there has been a reduction in the 0–19 age brackets and an increase in the 50+ age brackets. The 0–4 age bracket has decreased by over 3 per cent and is one indication that shows India's population structure is changing.

Activities

Remembering and understanding

1 State what population pyramids show.

Applying and analysing

2 Study Figures 5.5.2 and 5.5.3 and complete the following tasks.

- **a** Estimate the proportion of the population under the age of 15 in Australia in 1995 and 2015.
- **b** Estimate the proportion of the population under the age of 15 in India in 1995 and 2015.
- **c** Estimate the number of Australians under the age of 15 in 2015.
- **d** Estimate the number of Indians under the age of 15 in 2015.
- **e** Estimate the proportion of the Australian population over the age of 64 in 2015.
- **f** Estimate the proportion of the Indian population over the age of 64 in 2015.
- **g** Using data from the graphs, contrast the population structure of Australia and India in 2015.
- **h** Using Figure 5.5.1, classify the structure of the Australian and Indian populations in 1995 according to stage of demographic transition.

Evaluating and creating

3 Using the US Census Bureau's International Data Base, construct the population pyramids of Australia and India using the 2050 population projections. Compare the 'under 15 years of age' and 'over 64 years of age' populations with the structure of the two countries' populations in 2015.

4 Using the US Census Bureau's international Data Base, generate a population pyramid for a selected developing country in Africa (1995, 2015 and 2050). Compare your selected population pyramid with those of Australia and India.

Environments 6

At the beginning of the twentieth century there were 1.6 billion people on Earth. **Pollution** and environmental degradation were problems, but were mainly local. The world still seemed vast, and large areas remained virtually untouched by the activities of people.

Just over 100 years later, the world's population was over 7 billion and the environmental problems that have resulted from this rapid growth now affect the whole planet. Our future wellbeing depends on how we manage environmental challenges. How we improve social and economic equality is critical to our future wellbeing.

This chapter introduces the concept of environmental functions, the major challenges to their sustainability and the environmental worldviews that influence how people perceive and respond to these challenges, as well as the differences in human wellbeing between places.

OVERVIEW QUESTIONS

- **6A** What is the role of natural environments? Why are they important?
- **6B** What functions of natural environments support life?
- **6C** What are the main human-induced environmental changes?

GLOSSARY

bioaccumulation the build-up of substances such as pesticides in an organism

biodiversity the variety of all life forms: plants, animals and microorganisms; the genes they contain; the ecosystems of which they form a part; and the processes that link them

biome a vegetation community occupying a large area of the Earth's surface

desertification the expansion of deserts due to overgrazing, soil erosion, climate change or prolonged drought

ecological the relationship between living things (including people) and their physical environment

environment the totality of our surroundings

extinct (species) a species of animal or plant that no longer exists

fossil fuels a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms

global warming the gradual rise in average temperatures brought about by an increase in the heat-absorbing gases present in the atmosphere

greenhouse effect the atmospheric processes that trap the sun's warmth in the lower atmosphere

habitat the physical environment in which a community of plants and animals lives

land degradation when the activities of people make the land less fertile and productive

pollution the release of any hazardous, or potentially hazardous, substance into the environment

poverty the inability to meet the basic needs for food, clothing and shelter; the absence of money, goods or the capacity to make a living

LS Before you begin

6.0.1 Human circle around the North Pole, July 2008

6.1 Life's support system

The environment

The **environment** is the totality of our surroundings and includes all the living and non-living features of the Earth's surface. The term 'biophysical environment' refers to features that are altered or created by people, called the managed and constructed environments. People recognise, adapt to and use environments in different ways.

Geographers are interested in the relationship between people and the environment. People depend on the environment for their survival and wellbeing. The environment supports and enriches our lives by providing raw materials and food, absorbing and recycling wastes, and being a source of enjoyment, inspiration and spiritual wellbeing. It also influences our lifestyles, our recreational activities and the ways in which we use the land.

Did you know?

In 2018, ten new species were identified and announced by the International Institute of Species Exploration. They included a crustacean, a tree, a beetle, an orangutan, a snail and a flower.

Environmental change

Environmental change is any alteration to an environment that disturbs natural **ecological** processes. Some environmental changes have beneficial outcomes for humans. The clearing of land for agriculture and the grazing of animals, especially when combined with irrigation, have increased food production; and mining and forestry have provided the resources necessary to construct water storage facilities, buildings, machines, vehicles and transport infrastructure. All these activities have promoted economic growth and employment. Some environmental changes can have negative effects, especially if they result in soil erosion, air and water pollution, or climate change.

Challenges to sustainability

Climate change

Over the last 200 years, the amount of carbon dioxide present in the atmosphere has increased by more than 25 per cent. The main cause of this increase is the burning of **fossil fuels** (oil, coal and natural gas) and the cutting down of trees, which convert carbon dioxide into oxygen. Increasing global temperatures, rising sea levels and the retreat of ice caps and glaciers have all been linked to this impact of people on the atmosphere.

Energy use

The burning of fossil fuels, which are used to meet people's energy needs, has had a major impact on the Earth's atmosphere. The development of alternative sources of energy, such as solar energy, wind power, tidal flow and hydro-electricity, is one way of reducing people's reliance on fossil fuels.

Population growth

Many of the challenges facing humanity are directly related to the huge increase in the world's population. Increasing numbers of human beings, combined with improved material standards of living (for some), have greatly increased the demands people place on the planet, its resources, ecosystems and environmental processes.

Pollution

Pollution is the release into the environment of any matter that has a harmful effect. Pollutants, many of which are the by-product of our demand for consumer goods, can reduce the ability of the biophysical environment to provide clothing, food and shelter (ecosystem services).

Land degradation

The removal of natural vegetation (the result of deforestation, overgrazing and farming) is the main cause of **land degradation**. When trees are removed, the land is exposed to the agents of erosion: wind and running water. As a result, the land is less fertile and less productive.

Habitat loss

A **habitat** is the physical environment in which a community of plants and animals lives. There is a high level of destruction of habitats around the world. Animals and plants are dependent on their habitats, and once these are destroyed they are vulnerable to extinction. Some, such as the orangutan in Indonesia are in fact facing extinction.

6.1.1 In the Tripa peat swamp forest of Indonesia, the Sumatran orangutan population has declined by 80 per cent, as people have burnt forest to clear tracts of land for oil palm production.

Urbanisation

The migration of people from rural areas to large cities has created many problems. The rapid growth of cities, especially in developing countries, has overwhelmed the ability of authorities to meet the basic needs of the urban population. Overcrowding, pollution and the growth of squatter settlements, where people live in temporary, dirty and unsafe housing are all results of rapid urbanisation.

Exploited oceans

The world's oceans are an important natural resource. Of particular importance are the world's fisheries. These supply vast amounts of food. Unfortunately, the rate at which this resource is being exploited is unsustainable. Pollution is another major problem affecting oceans. If oceans are to be used sustainably, their use must be carefully managed and there needs to be international cooperation.

Spotlight

Biosphere 2

A **biome** is a vegetation community and in 1991, eight men and women moved into a US$200 million purpose-built glass and steel replica of the Earth's biomes in the Arizona desert. Known as Biosphere 2, the building was designed to investigate whether the eight occupants could be self-sustaining in a sealed-off environment. It was hoped that a facility such as this could be used to colonise outer space.

The biomes included were oceans with coral reefs, mangrove wetlands, tropical rainforest, savanna grasslands and a fog desert and were designed to supply naturally recycled air and water. The original idea was for the inhabitants to grow all their own food, and for the facility to provide their air and water. Despite the use of the latest technology, Biosphere 2 could not produce enough air, water or food to support the eight people. Significantly, the level of carbon dioxide could not be controlled. The experiment was abandoned after just 3 years. Today, the University of Arizona uses Biosphere 2 for scientific research.

6.1.2 Biosphere 2, a failed attempt to recreate the complex ecological processes of Earth

Activities

Remembering and understanding

1. Define the term 'environment' and outline its importance.
2. Outline what 'environmental change' is and explain how it can be both beneficial and harmful.
3. Outline the impacts of world population growth on the environment and how this affects the wellbeing of people.

Applying and analysing

4. Study the Spotlight box 'Biosphere 2'. Describe what this example tells us about the complexity of the Earth's environmental processes.
5. Construct an annotated mind map highlighting the key challenges to sustainability.

LS 6A

6.2 Pollution

Air pollution

Air pollution is the contamination of the atmosphere by substances that can impact on human health and welfare either directly or indirectly. Sulfur dioxide, particulate matter, nitrogen oxides, carbon monoxide and lead are common atmospheric pollutants. Air pollution can irritate existing respiratory conditions, bring on an asthma attack, irritate people's eyes, produce unpleasant odours, damage property and reduce visibility. In the large cities of the developing world, air pollution is a major environmental problem.

Water pollution

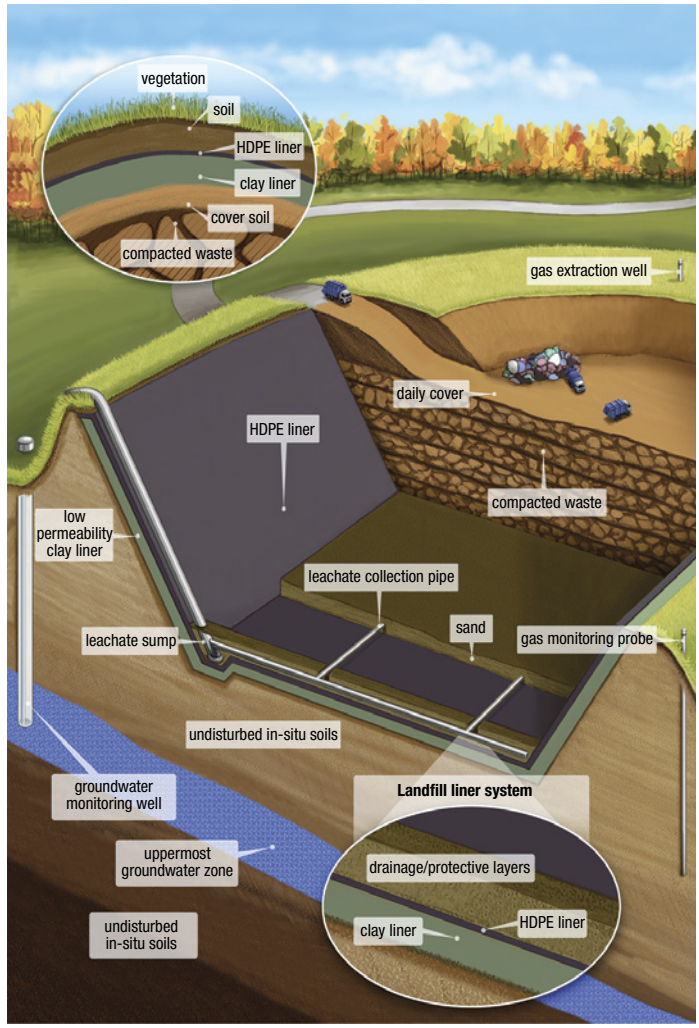
Water pollution occurs when pollutants are directly or indirectly released into oceans, rivers, lakes and aquifers (underground water storage) without adequate treatment to remove harmful substances.

Dirty water is the world's biggest health risk, and continues to threaten both quality of life and public health. Many of our water resources lack basic protection, making them vulnerable to pollution from farms, industrial plants, and activities such as fracking, a mining process that pollutes underground water supplies. This can lead to drinking water contamination, habitat degradation and beach closures. Urban run-off is a particular concern. When water from rain runs off roofs and roads into waterways, it picks up toxic chemicals, dirt, litter and disease-carrying organisms, that flows into creeks, rivers and oceans.

Solid wastes

Solid wastes include most of the rubbish we would normally throw into rubbish bins, plus many of the wastes produced by industrial plants and the building industry. As populations grow and standards of living increase, the amount of solid waste produced increases.

There are a number of environmental hazards associated with waste disposal. These include the contamination of groundwater by toxic substances; soil contamination; methane (gas) emissions; and dust, pests and odour. These hazards can also occur in poorly managed landfill sites. A well-managed landfill site, shown in Figure 6.2.1, is well managed because there are a variety of materials used at the bottom of the hole to protect groundwater and above ground as well. In addition, there is monitoring equipment to ensure the site is working well.



6.2.1 A well-managed landfill site. HDPE (high-density polyethelene) is a strong plastic.

The alternatives to waste disposal are recycling, re-using and waste reduction.

- *Recycling:* Materials such as glass, plastic, aluminium, steel and paper can be reprocessed and used again.
- *Re-use:* Printer ink cartridges, for example, can be refilled and re-used.
- *Waste reduction:* You can choose to buy goods without a lot of packaging and use re-usable bags instead of the disposable plastic bags provided by supermarkets.

In Australia, 54 per cent of waste ends up in landfill sites (this is down from 93 per cent in 1996–97). For many years, wetlands and old quarries have been sites for the disposal of this type of waste, but wetlands are now considered too important to use for waste disposal, and old quarries are in short supply. This means there is a shortage of suitable sites for landfill.

Types of waste

E-waste

Obsolete (outdated and broken) electronic goods (known as e-waste) are one of the fastest-growing waste types, and their safe disposal is a major problem. In 2013, nearly 50 million tonnes of e-waste was generated worldwide—or about 7 kilograms for every person on the planet. Mobile phones, laptops, tablets, iPods and iPads, plasma and LCD televisions and electronic gaming machines are all constantly being updated and replaced. These products are made up of hundreds of different materials and contain toxic substances such as lead, mercury, cadmium, arsenic and flame retardants (chemicals that prevent fires).

Much of the e-waste generated in developed countries has ended up in processing plants in India, China and other parts of Asia. There are concerns about the working conditions in these plants as exposure to toxic substances can be hazardous to health.

Plastic waste

Plastic shopping bags are very damaging to the environment. Consider the following facts.

- Australians consume about 6.9 billion plastic bags every year. If these were tied together they would stretch around the world thirty-seven times.
- Every year, up to 80 million of these bags find their way onto our streets as rubbish.
- The World Wide Fund for Nature estimates that more than 100 000 whales, seals, turtles and birds die every year as a result of plastic bags.

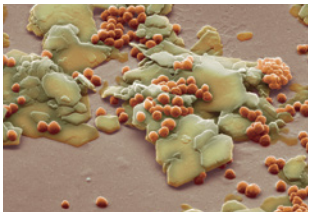
Environmental groups argue that a plastic bag levy or tax should be introduced. By imposing this added cost on retailers (and/or consumers), environmental groups hope to encourage the use of re-usable alternatives. In 2018, Coles® and Woolworths® stopped providing single-use plastic bags in their Victorian stores. Customers were encouraged to bring their own bags, or had to purchase reusable bags in-store.

Microplastics and microbeads

Microplastic pollution is made up of tiny pieces of plastic found in marine environments. Microplastic pollution originates either from larger pieces of plastic broken into smaller pieces over time, or from cosmetic products (soaps, exfoliants and toothpastes) that contain microbeads made of polyethylene. These pieces of plastic, shown in Figure 6.2.2, are too small to be filtered during wastewater treatment and are discharged into the water cycle, making their way into freshwater and marine environments, then the food chain. There are efforts worldwide to persuade cosmetic companies to stop using microbeads in their products. The campaign has had some success, and many large international companies are phasing out their use of microplastics and microbeads.

Toxic wastes

Toxic wastes (sometimes referred to as hazardous wastes) are chemicals that can cause death or injury to living creatures. Abandoned industrial sites can be a major problem, especially when the site and/or adjacent waterways contain e-waste concentrations. While toxic wastes are most often associated with industrial processes, they can also be found in the home and are widely used in agriculture, medical procedures and light industries such as dry-cleaners. Toxic wastes can pose a long-term risk to people's health. They can enter the food chain, where they accumulate (build up) in the fatty tissues of animals (a process known as **bioaccumulation**). Some of these animals form part of the human food chain. Once they accumulate, these toxic substances can cause birth defects, cancer and developmental disorders.



6.2.2 Microbead particles from faical scrub are shown in an electron micrograph. It is thought that small marine animals ingest the microplastics and pass the pollutant up the food chain.

Did you know?

Scientists have found up to 60 fragments of microplastics per 100 milligrams of sediment at the bottom of Sydney's Middle Harbour.

Activities

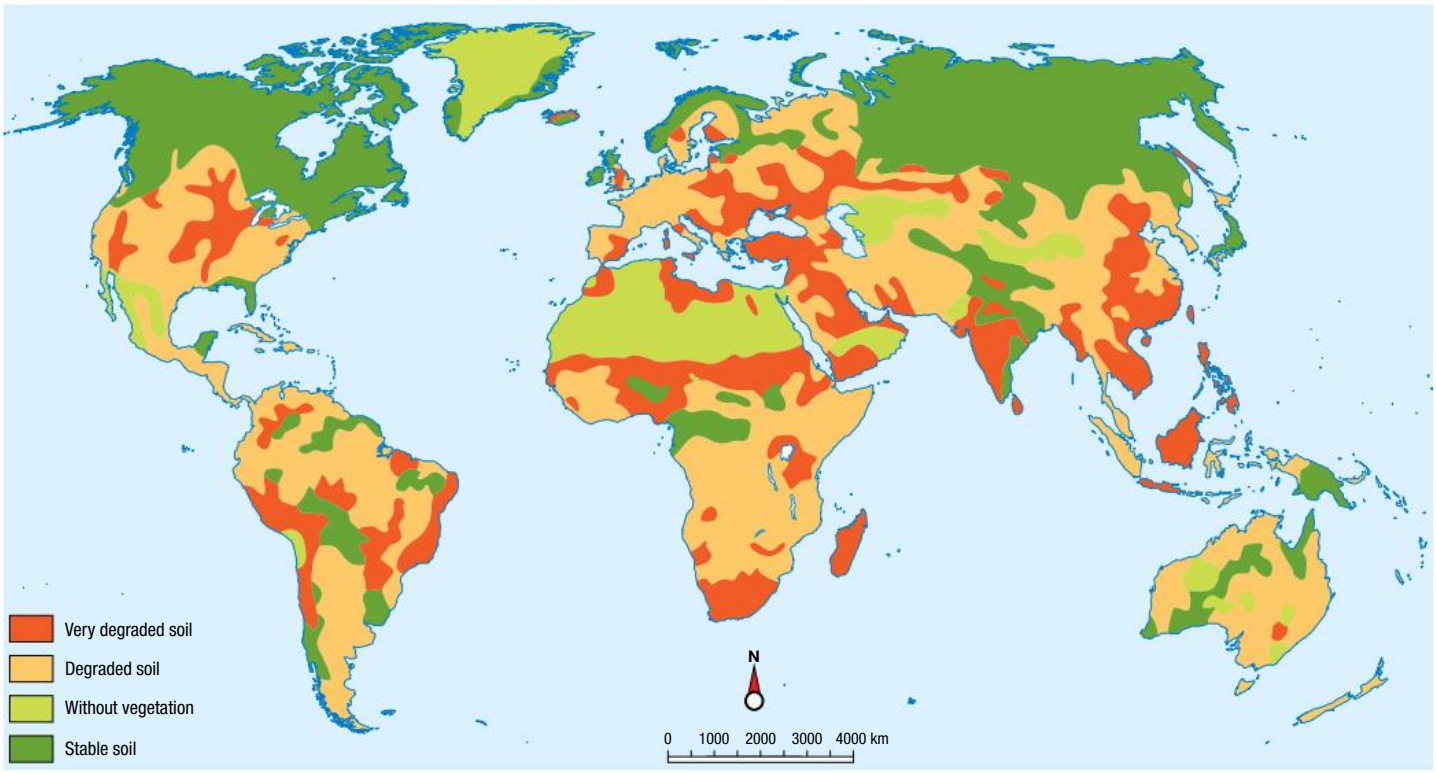
Remembering and understanding

1. Define the term 'pollution'.
2. Outline the impacts of air pollution.
3. Explain why water pollution is considered a health risk.
4. State why the disposal of solid wastes is increasingly problematic.
5. Outline the alternatives to the dumping of wastes.

Evaluating and creating

6. Undertake research about your local council landfill site. Write a short report highlighting how the landfill site is being managed in a way that protects the environment.
7. Develop an information campaign educating the public about one of the types of waste: e-waste, plastic waste or toxic waste.

6.3 Land degradation

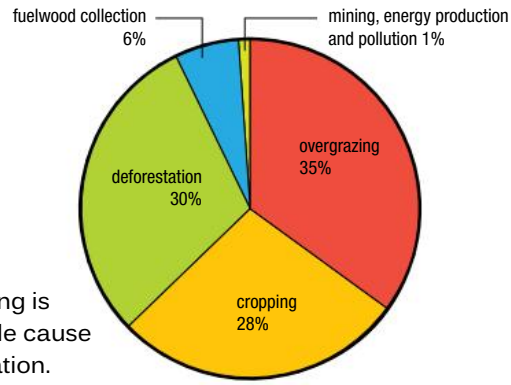


6.3.1 Land degradation is a worldwide problem.

Causes of land degradation

Land degradation is when human activities cause the land to become less fertile and productive and is a worldwide problem, as is shown in Figure 6.3.1. Land degradation can be caused by over-clearing of the natural vegetation including deforestation. Deforestation contributes to soil salinity (increased salt content in the soil) and erosion. Land degradation can also be caused by overgrazing by animals. When too many cattle or sheep are put onto an area of land, they eat all the grass and bushes, leaving nothing to hold the soil together. These heavy, hard-hoofed animals cause the soil to compact, and damage its surface. Elsewhere, cropping and overcropping (the continuous growing of crops) exposes the land to erosion, as does the collection of fuel wood by people living in developing countries. These causes of land degradation are examples of poor land management. Usually this is unintentional, but it may be caused by greed. Figure 6.3.2 illustrates the main causes of land degradation.

If land is degraded, it loses its ability to produce the quality of vegetation or crops that it once did. Land degradation is one of the most significant environmental problems in the world because it is so widespread and so difficult to reverse.



6.3.2 Overgrazing is the largest single cause of land degradation.

6.3.3 Salt deposits left behind when the salt has been brought to the surface and the water evaporated

Soil degradation

Soils can be damaged, or degraded, in four main ways: through salinity, erosion, compaction and acidification.

Soil salinity

Increasing levels of salt in soils are common in some parts of the world, including Australia. Salinity is caused by salty groundwater (water that is stored in rock and soil below the surface) reaching the surface of the soil. Normally, this water level is controlled by large trees, which pump water from the soil as they transpire (lose water through their leaves). When trees are cut down, salty water may rise to the surface. The water evaporates, leaving a salty crust. The excess salt makes soil infertile and unable to grow crops.

Soil erosion

Soil erosion is the removal of topsoil by water or wind. Erosion occurs wherever the soil is unprotected by plant cover. Once the original plant cover is removed, soil can be carried away easily by strong winds or heavy rain. Winds can strip the land of its topsoil and carry it hundreds of kilometres, and heavy rain and run-off can cut deep gullies in the soil.

6.3.4 Gully erosion

Soil compaction

Soil compaction is when soil is pressed close together. Soil can be compacted by the weight of heavy machinery or trampling by stock that are much heavier than native animals. The air spaces in the soil are compressed so that a hard layer develops on top. This reduces the ability of water to seep into or infiltrate the soil, making it difficult to use the land for crops or pasture.

Soil acidification

Soil can be made acidic by the overuse of chemical fertilisers. Often, fertilisers are essential to ensure that the soil keeps producing crops. When used over a long period of time, however, fertilisers can also harm the soil.

Vegetation degradation

Natural vegetation can also be degraded. A natural ecosystem of plants can be changed in a number of ways. For example, vegetation can be affected by introduced plants. These can upset the natural balance of the ecosystem and spread uncontrollably.

Fires can also change the vegetation greatly. Although fire can be a natural part of the environment, it has a major effect on some species. It can remove some species, and encourage the growth of others.

Weed infestations often occur when vegetation is disturbed. Weeds are plants that have run wild (like animals gone feral) and have taken over from other species. Plants turn into weeds when they find conditions that are ideal and consequently come to dominate an ecosystem.

Desertification

One of the most serious forms of land degradation in the world is **desertification**, which means the creation of deserts. Desertification is a problem in parts of Africa, where the desert is steadily advancing over what used to be good farming land.

Desertification in northern Africa has occurred on the edges of the Sahara. These marginal lands have variable rainfall and can only be used with great care. A mixture of overuse and periodic change in the rainfall has destroyed the productive ability of the land. The results are creeping desert sands and salty water holes.

Role of poverty

Land degradation is both a cause and a result of **poverty**, with one contributing to the other. In subsistence economies, where people depend on the land for food, land degradation can result in greater poverty and human suffering. Developing countries often have high rates of population growth. This places increased demands on the land, as the land must be used more intensively to feed the growing numbers. This increased intensity of land use often exceeds the capacity of the land to cope.

As a result, it becomes degraded. This means less productive land per person, increased pressure on resources and even more land degradation.

Coastal degradation

The coastline is under constant attack from the natural forces of wind and waves. Because of this, the coastline is constantly changing: beaches and sand dunes erode and are rebuilt in response to wind attack, and constant wind can push sand dunes inland. Human activities along the coastline can increase the rate at which these changes occur.

Coastal degradation is caused by inappropriate development and land use management practices along the coastline. Coastal developments for tourism, residential, commercial and recreational purposes place pressure on coastal areas, and may cause degradation.

The extent of this degradation is often related to population density. Coastal areas become degraded as more people live there. The map in Figure 6.3.6 shows population density of coastlines. The areas in red have 70 per cent of the population or more living within 100 kilometres of the coast. The most extensively altered coastal environments tend to be found where population densities are greatest.

Spotlight

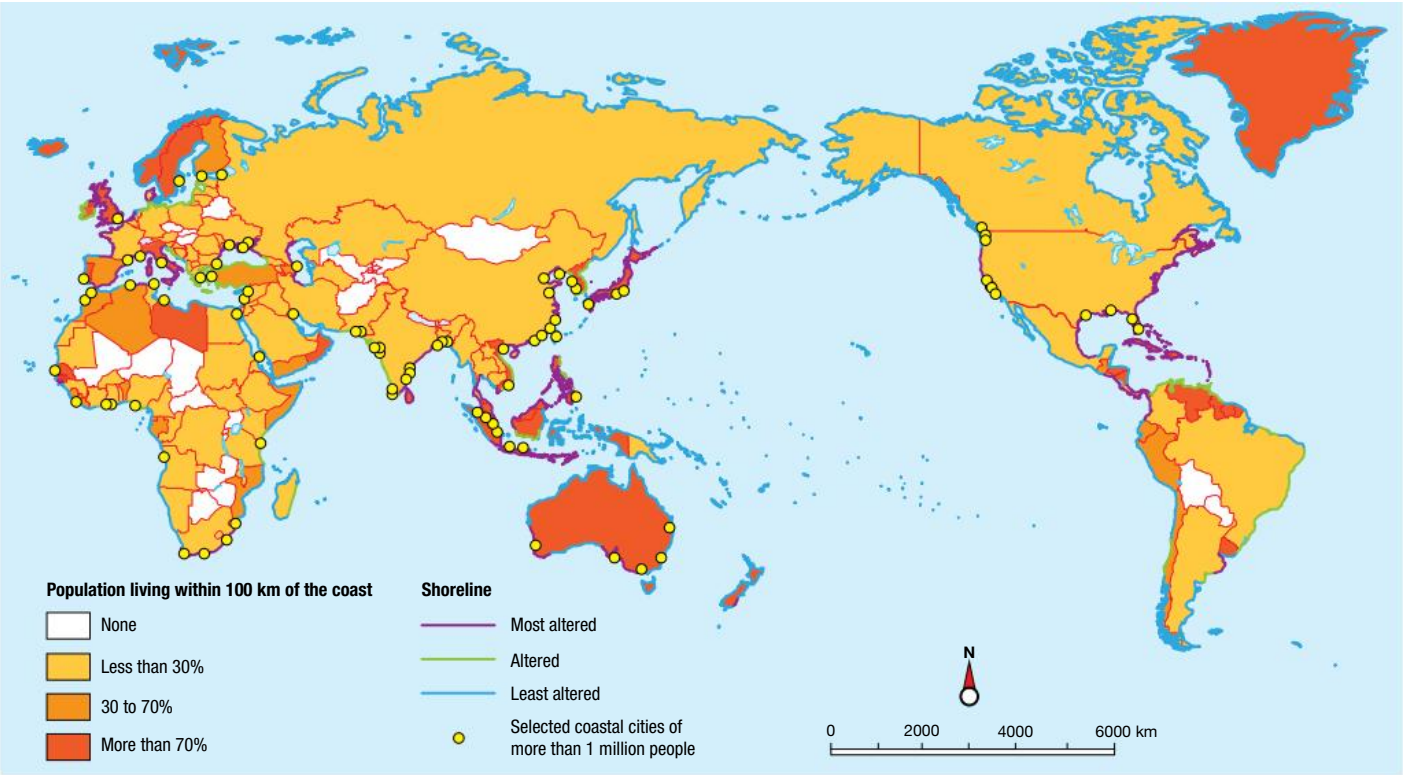
Fuel wood collection and the spread of deserts

The Food and Agriculture Organization (FAO) estimates that 2.7 billion people rely on fuel wood or charcoal (made from the partial burning of wood) as their primary source of energy for cooking and heating. This reliance is growing, as is the impact of charcoal use on the environment.

The consumption of fuel wood has increased 250 per cent since 1960, while the world's population has increased by only 90 per cent.

Because the collection of wood is time-consuming and often exhausting, people in developing countries tend to remove all suitable vegetation in increasingly wide areas around their villages. As a result, the collection of fuel wood and building materials is an important cause of deforestation, land degradation and desertification.

6.3.5 More than 90 per cent of Haiti is deforested, mainly due to 8 million people using charcoal to cook.



6.3.6 There is a close relationship between population density and the extent of human impact on coastlines.

Activities

Remembering and understanding

1 Define the process of land degradation.
2 Outline the causes of soil and vegetation degradation.
3 Outline the various types of soil degradation.
4 Define the term 'desertification'.
5 Explain how the collection of fuel wood contributes to the problem of desertification.

Applying and analysing

6 Study Figure 6.3.1 and do the following tasks.
   a Which continent has the largest area of degraded land?
   b Which continent has the smallest area of degraded land?
   c Which regions/countries have very degraded soils.
7 Study Figure 6.3.2. Identify the main causes of land degradation.
8 Study Figure 6.3.6. *The shorelines that are least altered are because they do not have cities with more than 1 million people.* To what extent do you agree with the statement? Explain.

Evaluating and creating

9 Investigate the strategies used to fight land degradation in a selected country and location. Present your findings as an annotated visual display. Include in your display a map of the location being investigated.
10 Conduct a survey of the school grounds or an area nearby to evaluate the amount of land degradation.
   a Draw up a base map of the site.
   b Look for evidence of damage to soil: erosion, compaction, waterlogging (saturation of soil with water) and salinity.
   c Map the areas where nothing grows.
   d Map the areas of plants. If possible, label them as native or introduced.
   e Use this information to make a list of steps that could be taken to improve that particular area of land.

6.4 Exploited oceans

The world's oceans

The Earth is sometimes referred to as the 'blue planet'. This is because two-thirds of its surface is covered by water: its six great oceans and the smaller seas. People have used these oceans and seas for centuries with little consideration of the long-term impact of their activities. Such indifference cannot continue. The wellbeing of the planet depends on the environmental functions performed by the oceans.

Human impacts on oceans

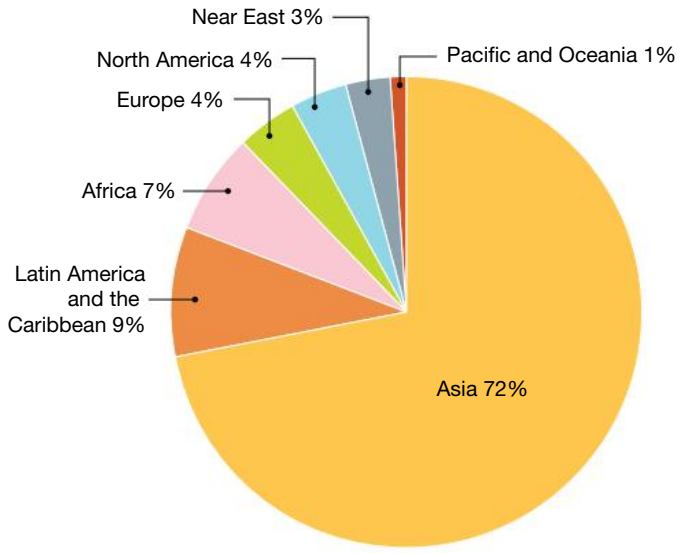
Some of the human impacts on oceans are:

- over-exploitation of the world's fisheries (see Figure 6.4.1)
- dumping of toxic pollutants and oil spills
- increased flow of nutrients (such as agricultural fertilisers and sewage)
- dumping of plastics and other solid wastes.

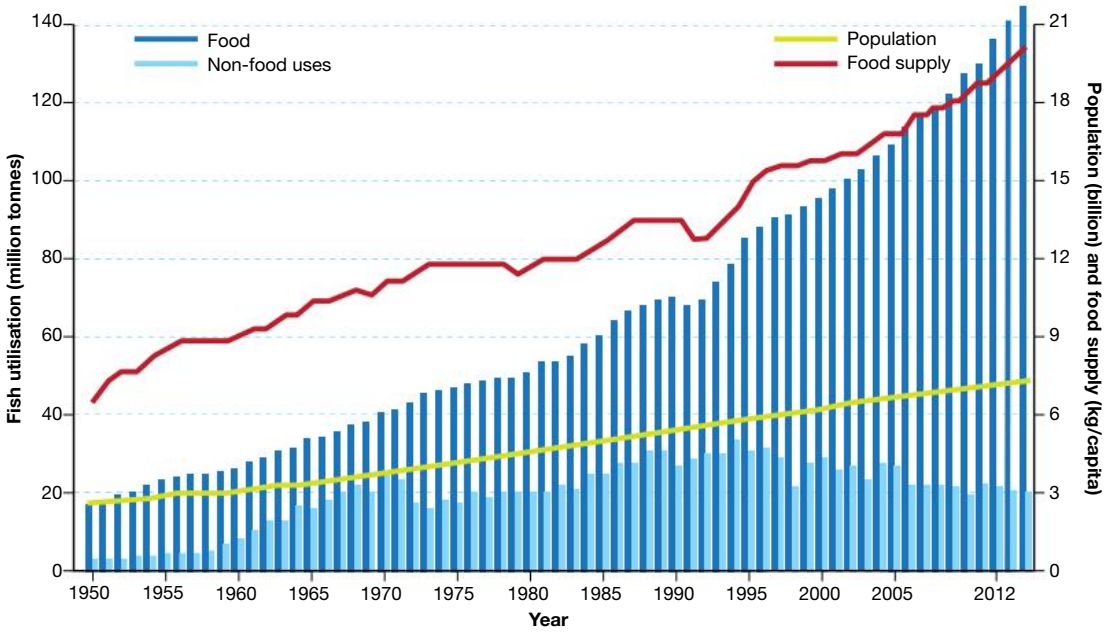
Harvesting the oceans

More than 3 million fishing vessels now sift the world's oceans for seafood. This is twice as many vessels as in 1970. The regional distribution of these vessels is shown in Figure 6.4.2. In 2014, about 168 million tonnes of fish was produced and traded. The fish came from wild-caught fisheries and aquaculture (the farming of fish and other aquatic species from both inland and marine waters).

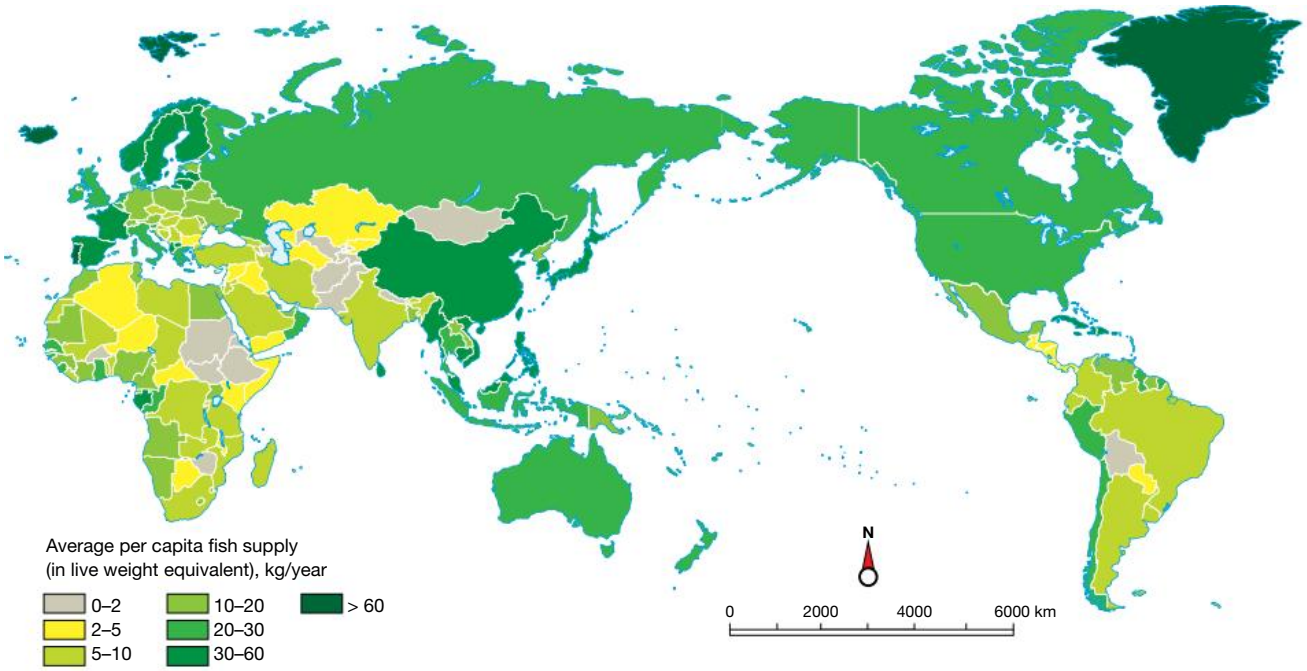
For the first time in history, there was more fish supplied for human consumption from aquaculture than wild-caught. The aquaculture export industry was worth more than US$160 billion. This total catch equates to about 20 kilograms a year for the average person. Average fish consumption per country is shown in Figure 6.4.3.



6.4.2 Distribution of the world's motorised fishing fleet



6.4.1 World fish utilisation and supply. The line graph shows the world population growth (yellow) and food supply production (red). The bar graph shows fish utilisation (usage) for both food and non-food usages, such as fishmeal for animal feed or fertiliser.



6.4.3 Fish consumption per capita (average 2011–13)

Protection efforts

In an effort to protect their fishing grounds, many countries have extended their territorial control from 12 to 200 nautical miles (300 kilometres) beyond their coastline. As a result, nearly 40 per cent of the world's oceans have now been claimed as exclusive fishing zones by countries.

In some regions, fish species have been exploited close to extinction. In other areas, fish yields are in serious decline. One such area is the Grand Banks of Newfoundland, Canada. In the mid-1990s, the Canadian government became so concerned with the rate of decline that it ordered a stop to fishing in the region. The impact on local communities was dramatic—40 000 people were put out of work. Despite this, distant-water trawlers operating out of Spain, Portugal and other countries continued to fish the edges of the Grand Banks just outside Canada's territorial waters.

Having reduced fish numbers in their own waters, many rich countries are now buying access to the waters of poorer countries. This disadvantages local fishers, who are unable to afford the technology used by the larger foreign-owned factory ships, which process the catch on board. In the waters off Senegal in western Africa, for example, locals must now travel further and further to get the same catch. Large long-range trawlers from China, South Korea, Spain, Japan and France are depleting Senegal's local fish stocks.

International efforts to regulate the industry have not yet met with much success. As the oceans are so vast, it is difficult to make sure that operators comply with international agreements.

Employment in fisheries

In 2014, there were 56.6 million people engaged in the primary sector of capture fisheries and aquaculture, a decline of 1.7 million people since 2012. More than 84 per cent of all people employed in the fisheries sector were in Asia, followed by Africa (more than 10 per cent) and Latin America and the Caribbean (4 per cent).

Activities

Remembering and understanding

1. Outline the actions countries have taken to protect their fishing zones.
2. Outline how people in developing countries have been affected by the growth of the fishing industry.
3. Explain why international efforts to regulate the industry have met with little success.

Applying and analysing

4. Create a mind map on the impacts people have had on the world's oceans.
5. Study Figure 6.4.1. Describe the trend in fish utilisation for food and non-food uses, 1950–2012. Compare this to the trends in world population and total food production.
6. Study Figures 6.4.2 and 6.4.3.
   - a. Identify the parts of the world where fish consumption exceeds 20 kilograms per person per year. Which regions have the lowest level of fish consumption?
   - b. Compare the distribution of the fishing fleet by region with average fish consumption.

6.5 Habitat loss

Habitat

A habitat is the biophysical environment in which a community of plants and animals lives. As habitats are destroyed, the communities of plants and animals that depend on them are displaced, with the result that some face extinction.

Pressures on biodiversity

As the world's population grows, so does the demand for food, clothing and shelter. As a result, whole habitats are lost and an area's **biodiversity**, the variety of plant and animal life is destroyed. While some species are already **extinct**, a growing number of species are classified as endangered, vulnerable or threatened.

Levels of threat

The International Union for Conservation of Nature and Natural Resources (IUCN) classifies the threat to species on a scale, from threatened to extinct:

- threatened—species with reducing numbers that may become vulnerable or endangered in the near future
- vulnerable—considered to be facing a high risk of extinction in the wild
- endangered—considered to be facing a very high risk of extinction in the wild
- critically endangered—considered to be facing an extremely high risk of extinction in the wild
- extinct in the wild—found only in captivity (that is, in zoological gardens or seed banks)
- extinct—not seen in the wild for the last 50 years.

The 2017 Red List, which sets out the status over 80 000 species, lists 24 431 species as threatened. At threat are 41 per cent of amphibian species, 40 per cent of gymnosperm plants, 33 per cent of reef-forming corals, 31 per cent of sharks and rays, 25 per cent of mammals and 13 per cent of birds.

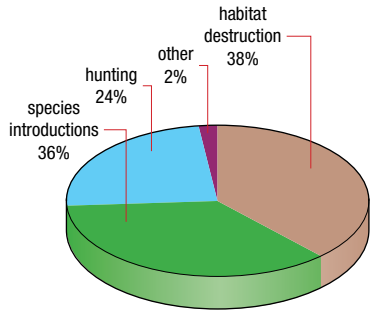
Did you know?

Only 1.9 million species have been identified out of an estimated 13 to 14 million species that are thought to exist.

Causes of biodiversity loss

Habitat loss and degradation

The main reason that so many species have become endangered or extinct in the past hundred years is loss of habitat. The clearing of land for housing, logging and farming is the main cause of this habitat destruction. The known causes of animal extinctions are shown in Figure 6.5.1.



6.5.1 Known causes of animal extinctions. Habit destruction is the main cause of species loss.

Introduced species

Introduced species of plants and animals can be an important factor in the decline of established native species. Rabbits, foxes, camels, goats, cane toads, cats, blackberry and prickly pear are some of the introduced species that have gone feral in Australia. They compete with native species and often eliminate them from wide areas. Many small species, such as the short-tailed hopping mouse and the numbat, have become endangered because of hunting by introduced species.

Hunting (over-exploitation)

Over-exploitation is a significant cause of species loss and endangerment. Animals are hunted for food and skins. In the Caspian Sea, fishing for the highly valued beluga sturgeon's eggs, used to make caviar, has pushed the fish species close to extinction.

Disease

The emergence of infectious diseases in free-living wild animals is a growing threat to biodiversity. It is likely that other factors (for example pollution) have increased the exposure of some species to disease. Since the late 1990s, Tasmania's population of Tasmanian devils has been affected by a facial tumour disease. This disease has reduced the devil population significantly and now threatens the survival of the species. The cancer's origin is a mystery, but studies indicate that the animals pass it on from one to another (it is contagious).

Pollution

Many of the pollutants released into the environment by human activities have significant, large-scale impacts on the world's terrestrial and aquatic ecosystems. Acid precipitation, for example, has had a significant impact on the forests of Europe and North America, and industrial pollutants such as DDT are known to have caused significant declines in populations of many bird species, including the peregrine falcon and bald eagle. Toxic pollutants enter the food chain, causing birth defects and, in some cases, death.

Climate change

Global warming has the potential to transform ecosystems. These transformations will affect the community of plants and animals within ecosystems. Rises in sea temperature and the acidification of oceans, for example, may cause whole reefs to die.

Other causes

The impacts of natural disasters, urban development, tourism and the illegal trade in wildlife and animal-based products are also seen as threats to biodiversity.

Wildlife trade

The wildlife trade is the second largest illegal trade-based activity. Only the trade in drugs is bigger. It is also the most serious threat to a number of endangered and vulnerable species. The items traded can be alive or dead. International law enforcement agencies estimate that the illegal trade of wildlife is valued at US$10–$20 billion per year. While the trade is global, with routes extending to every continent, conservationists say the problem is most serious in South-East Asia. Despite international and local laws that aim to eliminate the trade, live animals (see Figure 6.5.2) and animal parts—often sourced from endangered or threatened species—are openly sold in markets throughout Asia.

Why species loss matters

All species are part of different ecosystems and a full variety of life forms—that is, biological diversity—in ecosystems allows these ecosystems to function better. Diverse ecosystems can purify water, maintain the quality of the air we breathe, recycle nutrients and waste, provide food and shelter for other species and keep the population of some species from dominating an area or environment.

Plants and animals also supply many of the medicines that are used to cure human diseases. The medical potential of many species is yet to be fully realised.

6.5.2 Geckos hidden in a hollowed-out book were seized at the Cairns mail centre by Australian Customs Service officers. The geckos were destined for a European collector of exotic animals.

Strategies for maintaining biodiversity

Attempts to protect habitats and biodiversity range from setting aside and protecting large areas of land to preserving species in zoos, botanical gardens and seed banks. However, none of the actions will be sufficient to save many species from extinction.

Protected areas

Protected areas include national parks, wilderness areas, nature reserves and World Heritage sites. According to the World Conservation Union, there are now 6555 national parks worldwide, covering more than 13 000 000 square kilometres. This land has been set aside to provide protection for threatened habitats and to maintain biodiversity. This area is roughly the size of India and China combined, or 8.8 per cent of the Earth's surface. A much smaller area (just 1 per cent) of the world's seas is protected.

Spotlight

China acts to curb illegal ivory trade

In early 2014, Chinese authorities destroyed more than six tonnes of illegal imported ivory. The move was welcomed as an important signal that the country backs action to stop elephant poaching. The ivory came from more than 600 African elephants, killed by those keen to make money from the deadly trade. Conservationists say China is the world's largest consumer of trafficked ivory, most of which is used to make carved ornaments.

A global ban on the trade in ivory was imposed in 1989, in an effort to protect elephants from being hunted into extinction. Another strategy has been to sedate the elephants and to remove their tusks with saws, so denying the poachers the prize they seek.

6.5.3 Ivory being crushed by Chinese authorities

Did you know?

In the last 500 years, human activity is known to have forced 869 species to extinction.

To be successful, protected areas need to:

- be large enough to protect whole ecosystems and allow evolutionary processes to continue into the future
- have boundaries that are based on environmental rather than political considerations; for example, taking in a catchment area that might span more than one country
- take into account the interests of the local people, for example allowing traditional hunting practices
- be surrounded by a buffer zone, which is an area surrounding the protected area where human activity is carefully managed
- be well managed and adequately funded.

Zoos, botanical gardens and seed banks

Zoos play an important role in captive breeding programs for endangered species, scientific research and public education. Animals bred in zoos are being used to repopulate their original homelands. For example, the Przewalski's horse, an endangered animal, has been reintroduced into northern China and Mongolia from animals reared at the San Diego Wild Animal Park in the United States of America. Seed banks have been established to store genetic material for future study and use.

International agreements

International agreements can make a great difference to the future of endangered species and threatened habitats.

CITES

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) aims to protect species by limiting or banning international trade in particular items. It has sought to ban the trade in ivory to protect African elephants from poachers. Helped by breeding programs, the number of African elephants has increased significantly in Namibia, Botswana and Zimbabwe.

A side-effect of trade bans has been the growth of illegal trade. Private zoos, for example, are willing to pay thousands of dollars for pairs of Australian parrots and lizards. Birds are usually drugged, put into narrow tubes and packed into suitcases. Sometimes dozens of birds die on their way to their overseas destinations.

World Heritage Convention

The World Heritage Convention is an international agreement designed to protect important elements of our natural (and cultural) heritage. For a site to be included on the World Heritage List it must have important habitats for conservation of biodiversity and may contain threatened species with value to science or conservation.

Convention on Biological Diversity

The Convention on Biological Diversity was adopted at the Earth Summit in Rio de Janeiro in 1992. The convention has three main goals: the conservation of biological diversity (or biodiversity); the sustainable use of its components; and a fair and equitable sharing of benefits arising from genetic resources.

Activities

Remembering and understanding

1 Define the terms 'habitat' and 'biodiversity'.
2 Outline the main causes of habitat destruction and species loss.
3 Outline the impact that introduced species can have on established native species.
4 Explain why we should be concerned about the loss of species.

Applying and analysing

5 Outline the conditions that need to be met if the protection of an area is to be successful and explain why these conditions would help protect an area.
6 Create a PMI chart about the role of zoos. Divide the PMI into the following sections: past, present and future.
7 As a class, discuss the following question. Which is a more successful method of saving endangered species—habitat protection or a breeding program conducted in a zoo or animal park?
8 Create a mind map outlining the main threats to biodiversity.

Evaluating and creating

9 Investigate the ivory trade.
   a Construct an annotated world map showing the origin of the ivory and the destinations to which it travels.
   b Document on your map programs to stop the illegal killing of animals for ivory and to prevent people from purchasing ivory products. Do not forget BOLTSS.

6.6 Our warming planet

Climate change

Life has existed on Earth for nearly 4 billion years. During this time, the climate of the planet has undergone great change, from ice ages lasting tens of thousands of years to long periods of steamy heat. With each change, some species of plants and animals flourished, others adapted and some became extinct.

During the past century, increasing levels of greenhouse gases such as carbon dioxide (CO_2), shown in Table 6.6.1, have trapped enough heat in the atmosphere to raise the average temperatures by half a degree Celsius (see Figure 6.6.2). If present trends continue, the Earth's climate could be significantly altered, with melting glaciers, rising sea levels, increasing rates of desertification and shifting vegetation zones.

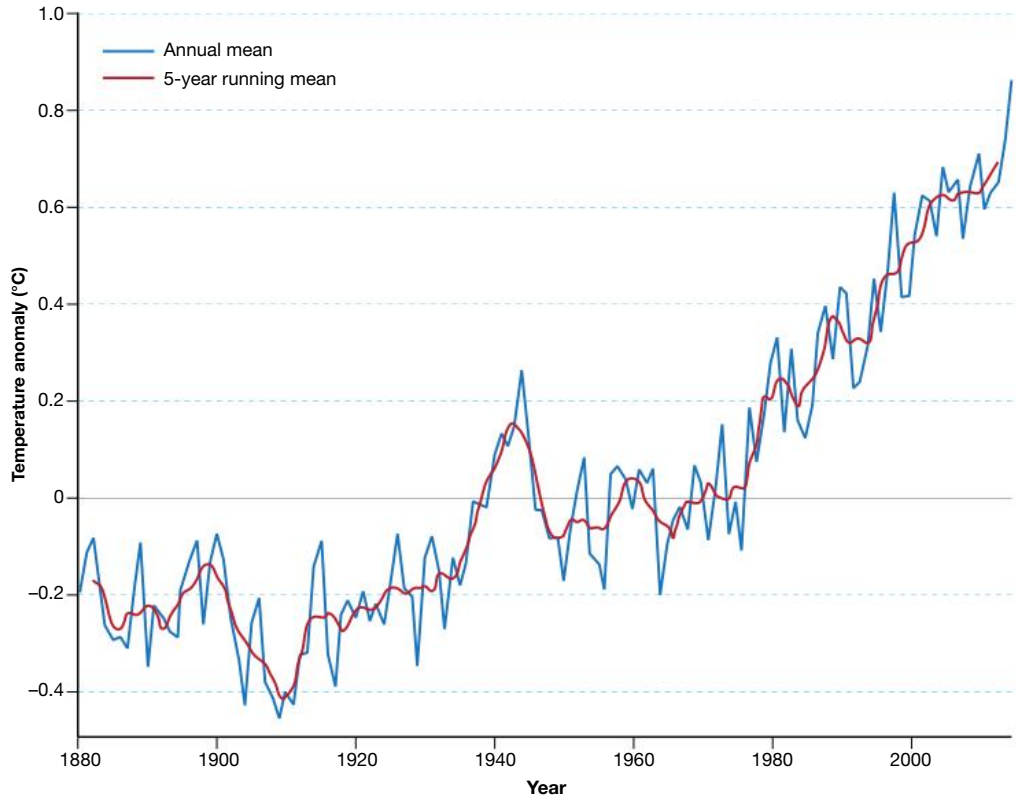
Global warming

The main cause of climate change is global warming: the gradual rise in average temperature brought about by an increase in the heat-absorbing gases present in the atmosphere. The gases that make up the Earth's atmosphere help trap and retain some of the heat radiated from the Earth's surface. Without the atmosphere, the Earth's surface temperature would average about –18°C instead of the present 15°C.

6.6.1 Concentration of CO_2 in the atmosphere, 1960–2017

Year	Concentration (ppm*)
1960	316.91
1965	320.03
1970	325.68
1975	331.15
1980	338.67
1985	345.30
1990	353.83
1995	359.85
2000	368.77
2005	378.78
2010	389.85
2015	399.96
2017	406.40

* parts per million

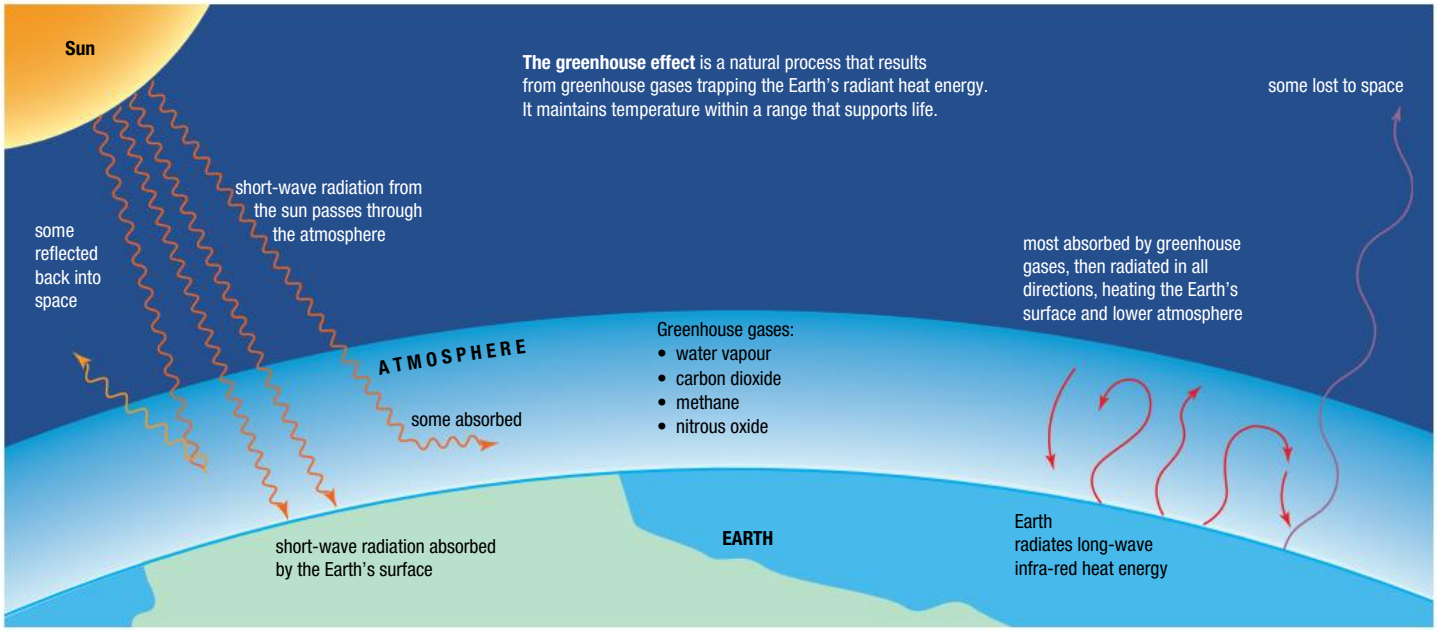


6.6.2 Global mean land–ocean temperature change from 1880 to 2000, compared to the 1951–80 mean. The blue line is the annual mean and the red line is a 5-year running mean.

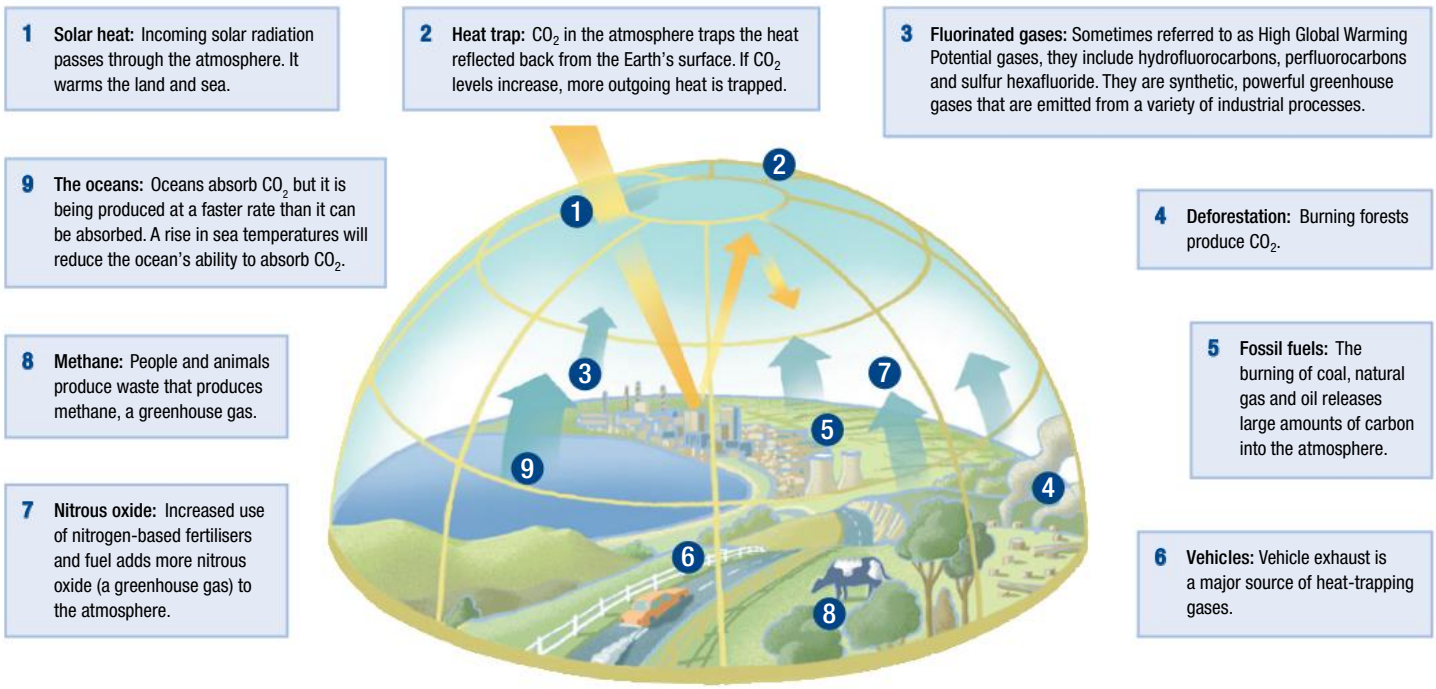
The atmosphere traps the sun's energy (heat) and lets only a fraction reflect back into space. The rest is trapped in the lower layers of the atmosphere, which contain various gases that absorb the heat and then radiate it back towards the Earth's surface. This process is known as the natural **greenhouse effect** because it is similar to what happens in a greenhouse, or glasshouse, as shown in Figure 6.6.3. The natural greenhouse effect, raises average surface temperatures of the Earth by about 33°C (that is, from –18°C to +15°C).

The most important greenhouse gases are water vapour, CO_2, methane, nitrous oxide and fluorinated gases. Water vapour is the most important of these gases, because it is able to absorb large amounts of heat. Humans have very little direct control over the volume of water in the atmosphere but they do influence the levels of CO_2, methane and fluorinated gases in the atmosphere. These, in turn, intensify the effect of the water vapour. The hotter the atmosphere gets, the more water vapour it can hold, thereby increasing the amount of heat trapped. This is called the enhanced greenhouse effect and is thought to be the main cause of global warming (see Figure 6.6.4).

6.6.3 The natural greenhouse effect



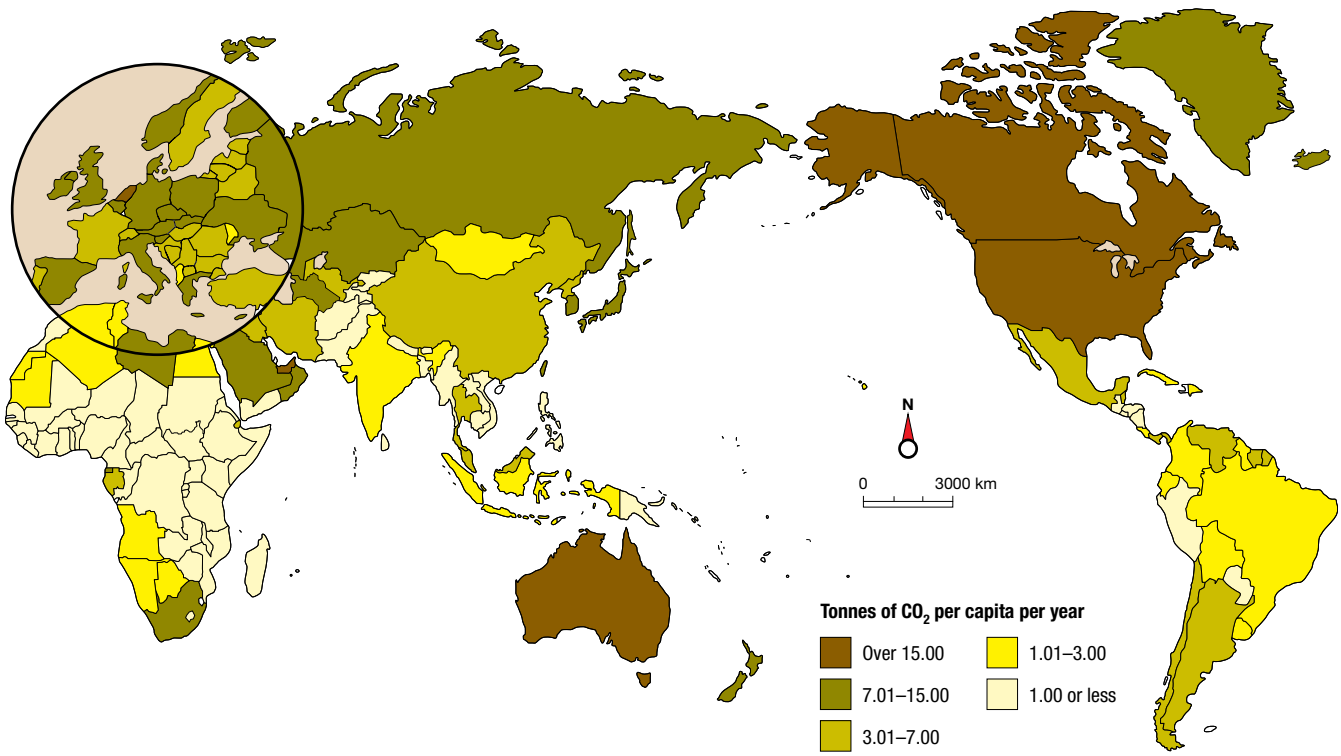
6.6.4 The enhanced greenhouse effect



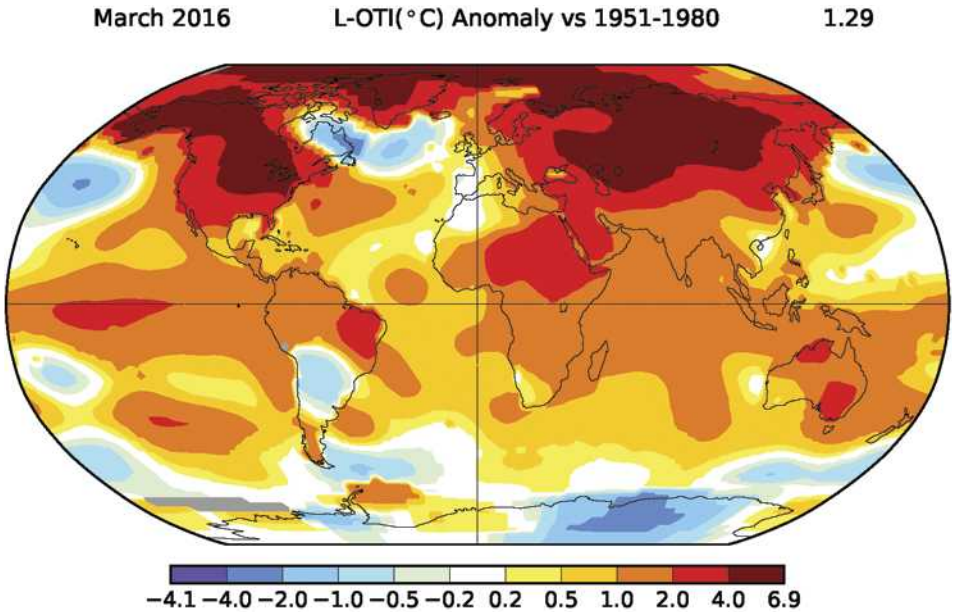
6.6.5 The contribution of selected gases to the greenhouse effect

Greenhouse gas	Natural origins	Human sources	Changes and impacts
Carbon dioxide 82%	• Volcanic eruptions • Naturally occurring fires • Respiration by plants and animals	• Deforestation • Burning fossil fuels (coal, oil and natural gas)	• Current concentrations are more than 30 per cent greater than before the Industrial Revolution. Thought to account for 60 per cent of the warming observed since 1850.
Methane 9%	• Decomposing plant and animal matter • Releases from geological deposits • Wetlands	• Ruminant animals, including cattle and sheep • Rice paddies • Landfill sites • Burning of fossil fuels	• There is now two and a half times more methane in the atmosphere than there was in the eighteenth century. Methane accounts for about 15 per cent of global warming.
Nitrous oxide 6%	• Natural atmospheric gas	• Burning vegetation • Chemical fertilisers • Burning fossil fuels • Industrial emissions	• The supply of nitrous oxides has increased by 15 per cent since 1800.
Fluorinated gases 3%	• No natural sources	• Emissions from a range of industrial processes such as aluminium and semiconductor manufacturing	• Small atmospheric concentrations can have large effects on global temperatures. They are the most potent and long-lasting of the gases emitted by human activity.

Table 6.6.5 outlines the impacts of selected gases, and shows that carbon dioxide is the largest contributor to the accelerated enhanced greenhouse effect. Figure 6.6.6 shows the amount of carbon dioxide emitted each year per capita. Estimating the actual rate of global warming is made difficult by the natural variability of the climate from place to place and from time to time. There are also other unknown factors that might significantly influence global temperatures, such as the role of the oceans. Large bodies of water can maintain their temperature for a long time so they can delay the rise of temperature rise in the atmosphere. Because so little is known of this effect, it is difficult to predict accurately the rate at which temperatures will increase.



6.6.6 Global annual per capita carbon dioxide emissions. People living in developed countries are the largest carbon dioxide emitters.



6.6.7 Mean global temperatures in March 2016, compared with the May average for 1951–80. Parts of the planet show clear signs of warming.

Impacts of climate change

Temperatures

Now that scientists have accurately recorded the increasing concentrations of greenhouse gases in the atmosphere, they are turning their attention to the long-term impact of these gases on climate. Most scientists agree that the average temperature of the lower atmosphere will increase by between 1°C and 3.5°C over the next century. This increase is likely to affect environments and communities all over the world.

Increase in temperatures will not be even across the globe (see Figure 6.6.7). Continental landmasses are likely to experience a greater temperature increase than ocean areas, because land absorbs heat faster than the sea. There is likely to be a greater temperature increase in regions in the high latitudes (that is, nearer to the poles) than near the Equator. Heatwaves are also likely to become more frequent and last longer.

Rainfall

Higher temperatures will result in much more water vapour in the air: about 6 per cent more for every 1°C increase in temperature. In some places, this will mean more intense rainfall and flooding. Increases in sea and land temperatures will produce complex changes in wind patterns and precipitation patterns.

Storm patterns

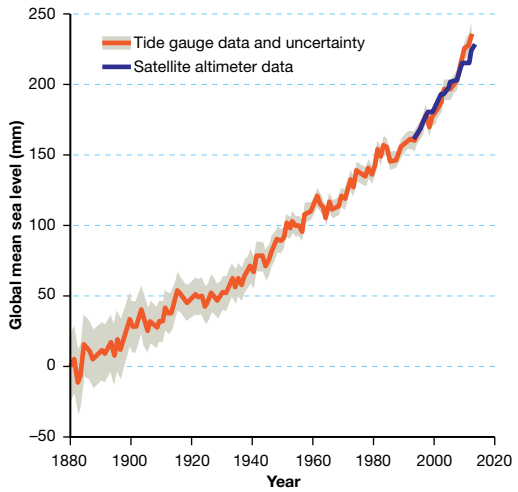
The combination of increased sea and air temperatures will affect the storm belts (areas of frequent storm activity) across the globe. At present, tropical cyclones are confined to latitudes 8–25° north and south of the Equator, where water temperatures are high enough to support the evaporation rate necessary for storms to form. With global warming, the storm belts will spread from the Equator. As a result, places on the same latitude as Brisbane (27°S) could regularly experience tropical cyclones, whereas they are presently out of range. The warmer oceans will also create more intense storms.

Melting ice sheets and glaciers

Scientists have recorded the retreat of the world's glaciers over the last century. There is growing evidence that the ice shelves surrounding Antarctica are beginning to break up and melt.

Changes in sea levels

Rising sea levels could have an impact on coastal communities. Already, average sea levels have risen by 10–25 centimetres during the twentieth century (see Figure 6.6.8). It is predicted the polar regions will experience the greatest warming. If these predictions are correct, the melting of polar ice caps could be so great that it would add a significant amount of water to the oceans. In addition, since water expands as it warms, sea levels would be forced higher still.



6.6.8 Changes in sea level, 1880–2014. Sea levels have risen by about 20 centimetres over the last 100 years.

Causes of sea-level rise

There are three processes that contribute to sea-level rise: thermal expansion, melting glaciers and mountain ice caps, and melting ice sheets.

Thermal expansion

All bodies expand when they are heated, and that is true for the water that covers 70 per cent of the planet. Ocean water is expanding and this causes sea levels to rise upwards. It is estimated that this expansion will raise levels by 10 to 40 centimetres over the course of the century.

Melting glaciers and mountain ice caps

Melting glaciers and mountain ice caps (outside Greenland and Antarctica) are adding water to rivers that flow to the oceans. However, these remain a modest source of sea-level rise—possibly around 10 centimetres.

Melting ice sheets

The Greenland and Antarctic ice sheets represent vast reserves of frozen fresh water. The Greenland icesheet would add 7 metres to sea levels if melted completely; the latter would bring a further 60-metre rise to the levels of the world's oceans.

Combating global warming

At the 2016 Paris Climate Agreement, countries agreed to deal with greenhouse gas emissions, mitigation (reduce emission), adaptation (reduce vulnerability) and finance. The plan aims to keep global temperature rise this century below 2°C above pre-industrial levels, as well as limiting increase to 1.5°C. In the face of worldwide demands to reduce emissions, developing countries are torn between going along with the plan and trying to lift the standard of living of their people. In the long run, the wellbeing of all

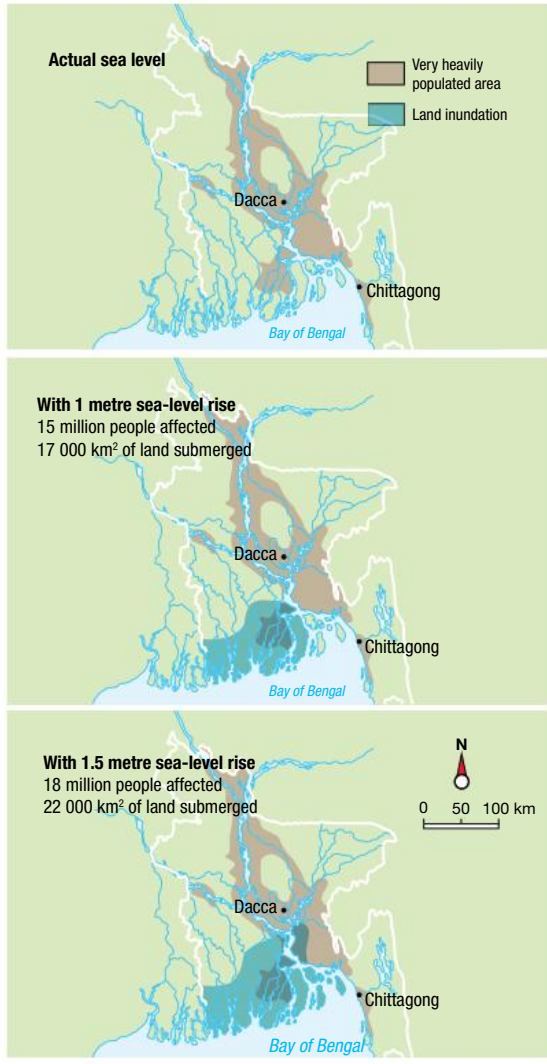
Spotlight

Bangladesh threatened by sea-level rise

Bangladesh is the seventh most populous country in the world, one of the most densely populated countries, and among the poorest.

The country is located in the low-lying Ganges–Brahmaputra river delta. This delta is formed from the sediments deposited by the Brahmaputra and Ganges rivers and their various tributaries as they flow into the Bay of Bengal. The alluvial soil deposited by these rivers has created some of the most fertile plains in the world.

Most parts of Bangladesh are less than 12 metres above sea level. It is believed that about 50 per cent of the land would be flooded if the sea level were to rise by a metre. If this happened, millions of people would become environmental refugees.



6.6.9 Large areas of Bangladesh will be flooded with even a modest rise in sea levels.

the world's people will require greater cooperation between countries and a commitment by individuals to a more sustainable lifestyle. We will, for example, need to:

- reduce the amount of fossil fuels used
- use alternative sources of energy, such as wind and solar power
- stop cutting down forests, especially rainforests
- conserve energy.

Efforts to develop a global strategy for reducing humanity's CO_2 emissions are ongoing.

Global warming deniers

Despite overwhelming scientific evidence that the planet is warming, there are still people who deny that this is occurring.

There is a range of views or perspectives, even among the sceptics (disbelievers). These range from outright denial that the Earth is warming to a belief that climate change is real but the rate of warming and the predicted impacts of climate change have been greatly exaggerated. There is another view that global warming is due to natural processes, not human activity.

Groups opposed to any program aimed at reducing CO_2 emissions have focused on trying to influence the public debate about the issue.

In 2013, the *Guardian* newspaper reported that a small group of US billionaires, most of whom made their fortunes by exploiting fossil fuels, had donated more than US$120 million to more than 100 anti-climate change groups and think tanks working to discredit the work of climate scientists.

Many large fossil fuel-based industries have also tried to discredit the work of scientists. Exxon Mobil®, the giant US oil company, has, for example, spent millions supporting organisations that cast doubt on the science on which the warnings about a warming climate have been based.

Activities

LS 6B

Remembering and understanding

1 Explain what global warming is.
2 Explain how human activity has increased the intensity of the greenhouse effect.
3 Outline the factors that make it difficult to estimate the actual rate of future temperature increase.
4 Explain how global warming will affect the world's climate.
5 Explain why sea levels will rise.
6 Outline the actions taken by the international community to address the problem of global warming and climate change.

Applying and analysing

7 Study Figures 6.6.3 and 6.6.4 and compare the natural greenhouse effect and the enhanced greenhouse effect.
8 Explain what is meant by the term 'climate change denier' and discuss the impact of these people.
9 In 2012, US President Barack Obama said: 'We must respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations. Some may still deny the overwhelming judgement of science, but none can avoid the devastating impact of raging fires and crippling drought and more powerful storms.'
Do you agree or disagree with this statement? Explain.

Geographical skills

10 Using the data in Figure 6.6.1, construct a line graph showing the increase in atmospheric CO_2 concentrations since 1960.
11 Using data from Figure 6.6.2, describe the trends in global temperature over the course of the twentieth century.
12 Study Figure 6.6.6. With the aid of an atlas, do the following tasks.
   a Identify the countries with CO_2 emissions greater than 15 tonnes per capita.
   b Identify the regions of the world with annual CO_2 emissions of less than 1 tonne per capita.
   c Using your knowledge of global inequalities, comment on the relationship between CO_2 emissions and level of economic development.
13 Study Figure 6.6.7. Identify the parts of the world that showed the greatest temperature anomaly or differences (both positive and negative) in 2016 compared with the average for 1951–80.

6.7 Environmental management

Environmental change

While environmental change is inevitable, the extent of the change and the pace at which it is occurring have accelerated in the last 50 years, largely because of human activities. As the fate of the Earth becomes increasingly linked with that of the human race, it has become even more essential that we have a deeper understanding of the connection between environmental change and human activity. 'Human-environment systems thinking' is a technique that we can use to analyse the complex interactions between people and the environment.

Scale of environmental change

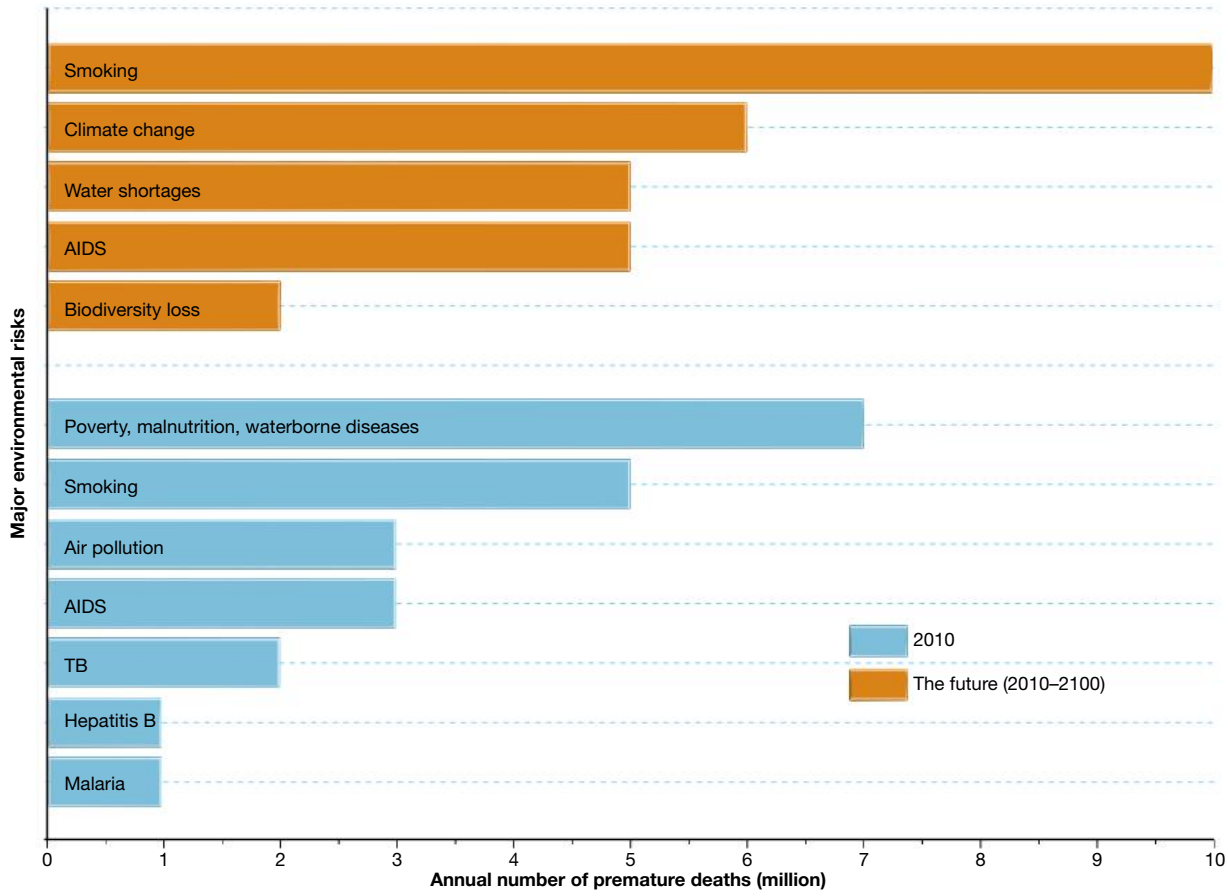
Advances in technology have significantly increased the scale of the impact that humans have on the natural world. Human attempts to dominate nature have led to serious problems. There is now a growing appreciation of the challenges facing humanity. These include resource depletion, loss of biodiversity, pollution and climate change.

Two most serious ecological risks are loss of biodiversity and climate change. Scientists have estimated the possible number of human deaths from various risk factors over the next 100 years. Biodiversity loss and climate change are included as high risks, as shown in Figure 6.7.1.

A new way of thinking

Humans are not separate from nature. Continued human wellbeing relies on the life-support systems the Earth provides. The changes needed to protect the natural world that sustains humans can only be achieved if there is a new awareness and understanding of the connections between humans and nature.

For too long, resources seemed limitless and nature was seen as being separate, somewhere out there in a wilderness area. Now, as environmental issues are seen to threaten people's wellbeing, there is a realisation that these issues must be resolved in ways that balance the needs of both humans and the environment.



6.7.1 This graph shows a ranking of the major environmental risks that cause people to die prematurely. The blue graph shows risks in 2010 and the orange graph shows estimated future risks for the next 90 years.

Systems thinking

'Systems thinking' involves looking at a system as a whole, rather than focusing on its individual parts. All system parts are interdependent and they affect the performance of the whole system. Systems thinking provides a framework for looking at the interrelationships of these individual parts and how one can influence another. Systems thinking also enables patterns of change over time to be detected, rather than providing a snapshot at one particular point in time.

A system explained

In nature, a system is two or more parts interacting to operate as a whole within some boundary. The elements and processes of a system interact and affect one another, often in ways we cannot see. In a system, it is the nature of the relationships between the parts that is important; if elements or parts are added or taken away, the behaviour of the system changes.

Human-environment systems thinking

The biophysical environment has a number of components, and human behaviour and decision making are shaped by many elements, as listed in Table 6.7.2. Human-environment systems thinking is a useful approach to use when tackling the complexities of the relationships between humans and the environment, as it enables us to consider how one affects the other. Systems thinking incorporates feedback loops, which show interrelationships and are the cause of the complexity within systems.

Spotlight

Cane toads

Ignoring feedback loops results in unintended consequences, as in the case of the introduction of the cane toad in Queensland. The cane toad was introduced to Australia in 1935 to control native beetles. The decision to introduce the cane toad was focused on an individual part, the cane industry. If a 'systems thinking' analysis had been conducted the impact of the cane toad on the whole ecosystem could have been discovered, and the ecological disaster due to the introduction of the cane toad could have been avoided.

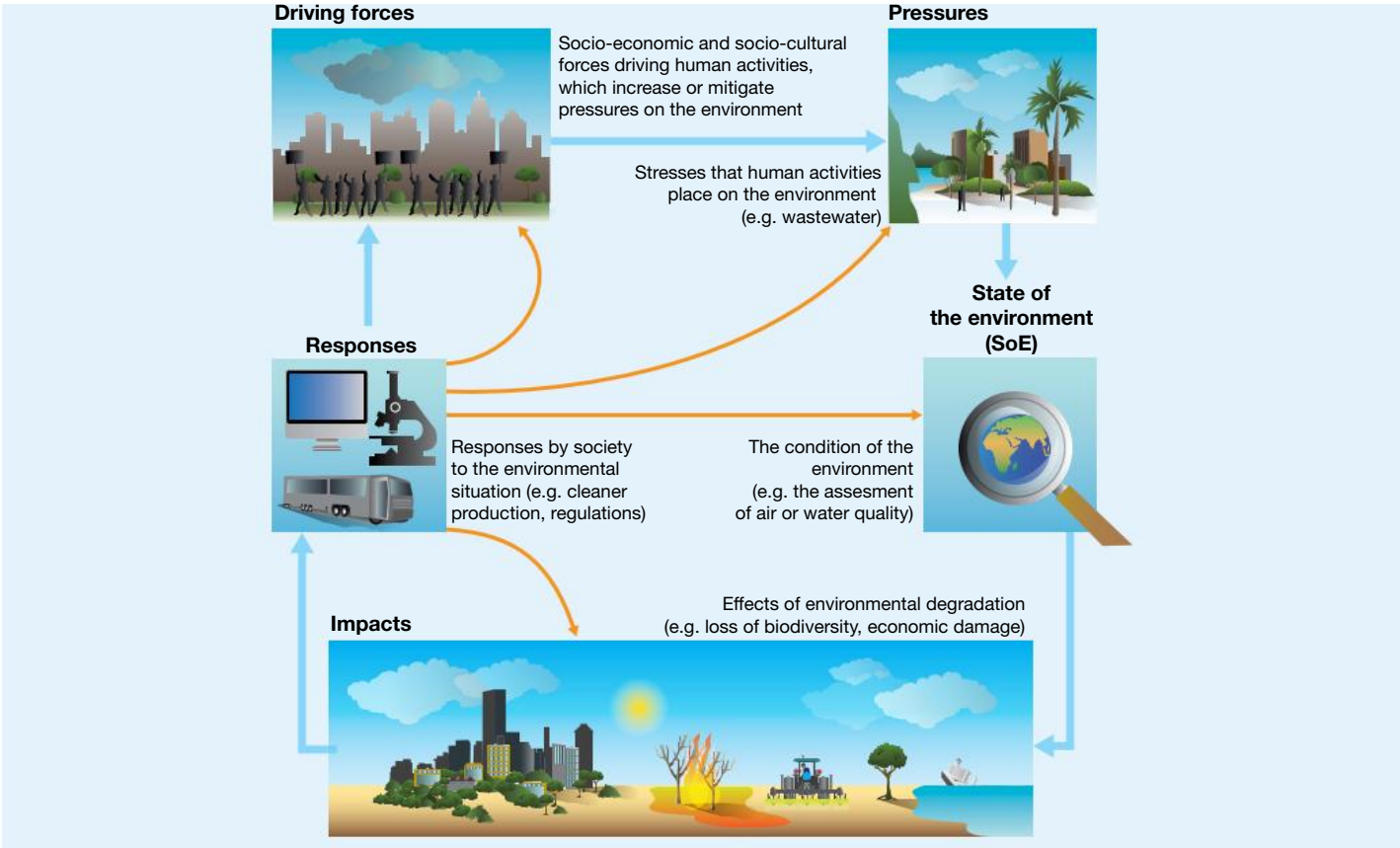
6.7.2 Human elements shaping the biophysical environment

Components of the biophysical environment	Elements shaping human behaviour and decision
Atmosphere Hydrosphere Lithosphere Biosphere Cryosphere	Economics Technology Politics Demography Religion Society Culture

DPSIR framework

An example of human-environment systems thinking is the DPSIR (drivers-pressures-state-impact-response) framework, which is used to assess and manage environmental problems. According to the DPSIR model, there is a chain of links from the driving forces to impacts and responses. The framework assumes cause–effect relationships between the various components of the DPSIR model:

1. Drivers: The forces that drive human activities that cause environmental change. They are the ultimate factors that cause change.
   Example: Agricultural production to provide food has meant that forests and grasslands have been cleared for farming.
2. Pressures: Human activities that place stress on the environment. They are the more immediate factors that affect environmental quality.
   Example: Clearing the land for cultivation and application of agrochemicals to boost yields has meant the land has been contaminated by chemicals.
3. State: The state or condition of the environment.
   Example: Land degradation and declining water quality from sediment, nutrients and toxic chemicals that wash into rivers and lakes and sink into groundwater.
4. Impacts: The effects of the environmental damage on the continued functioning of ecosystems and the Earth's life support systems, which ultimately impact on human wellbeing.
   Example: Excessive and unsustainable agricultural practices that render the land unproductive and reduce food production; declining water quality from algal blooms and toxic contamination.
5. Response: The responses by policy makers or society to the undesired impact on the environment. Responses can be directed at any part of the chain, from the drivers to the impact.
   Example: Conservation farming practices and organic methods of pest control. Total catchment management that involves all the stakeholders in a catchment working towards protecting environmental quality.



6.7.3 The DPSIR framework used by the European Environment Agency

DPSIR at work

Governments and environmental authorities can use DPSIR to help us understand and deal with environmental problems. Initially, all the data and information on all of the various components are collected and collated. They are then examined to establish possible connections, before the DPSIR model is used to determine just how effective any responses may be. A strength of this model is that it considers the possible implications of changes in order to minimise uncertainty and unexpected problems.

The model can be extended to include elements such as values and beliefs. The attitudes of humans, both as producers and consumers, can have a bearing on environmental quality and public acceptance of new ways to protect the environment that may be proposed by policy makers.

European environment agency

The DPSIR framework has gained international acceptance as a model for organising information about the state of the environment and addressing environmental issues. An early adopter of the framework was the European Environment Agency, which has used the DPSIR framework in its State of the Environment Reports, as shown in Figure 6.7.3.

Reporting on Australia's environment

The Australian government adopted the DPSIR model in the 2011 State of the Environment Report (SoE) (see Figure 6.7.4).

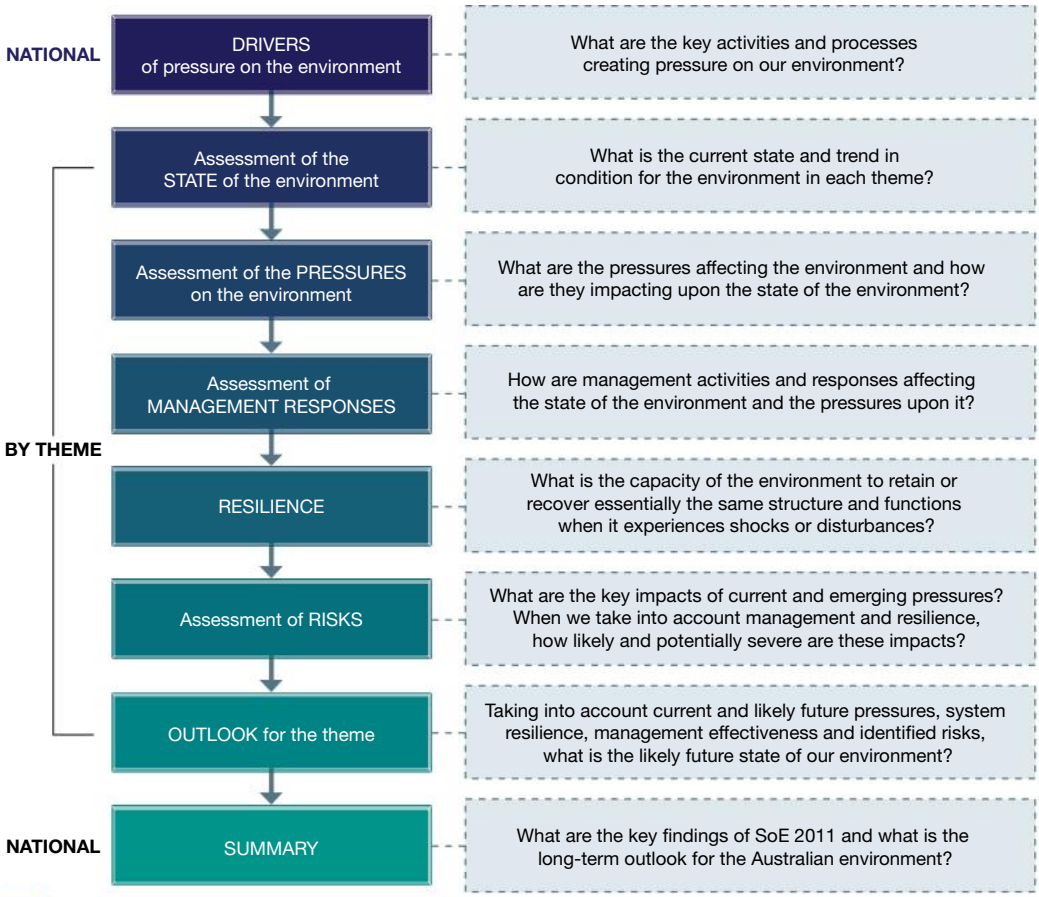
The 2011 SoE report aimed to give Australians the best possible and clearest answers to three basic questions.

1. What is the current condition of the Australian environment (atmosphere, inland water, land, marine environment, Antarctic environment, biodiversity and coasts)?
2. What are the risks the Australian environment faces and are we doing enough to protect it?
3. Where is the Australian environment headed?

This framework recognises the links from the drivers, such as economic development, through to the environmental impacts of human-induced pressures and management responses aimed at mitigating or reducing those pressures. The direct driver (influence) of environmental impact is climate change. The indirect drivers of change are population growth (with associated growth in the constructed environment) and economic growth (with associated increases in consumption of resources and generation of waste).

Environment and development

Development is the main priority of most nations. While environmental considerations may initially have been seen as limiting economic growth and development, there is now a realisation that development and the environment should be mutually supportive. The links or connections between humans and their environment are complex, and in many instances the environment is quite fragile. There has been an increased emphasis on ecological sustainability, and effective policies must be underpinned by a good understanding of the systems being managed. The framework of human-environment systems thinking enables this.



6.7.4 Approach to reporting on Australia's environment

Activities

LS 6C

Remembering and understanding

1 Describe systems thinking.
2 Assess the value of systems thinking in effectively addressing an environmental problem.
3 Describe the components of the DPSIR framework.

Applying and analysing

4 Study Figure 6.7.1 and answer the following questions.
   a What was the biggest cause of premature deaths in 2010?
   b How many people are expected to die prematurely from smoking per year in the future (2010–2100)?
   c How many premature deaths each year are expected to be a result of environmental risks in the future (2010–2100)?
5 Study Figure 6.7.3 and answer the following questions.
   a What are the two drivers of human activities?
   b Analyse how the responses are connected to the other components of the DPSIR model.
   c How might the use of this model in Australia be used to improve the quality of the environment?

6.8 Indigenous environmental management

Australia's Indigenous population

Australia's Indigenous population consists of Aboriginal peoples and Torres Strait Islander people. Aboriginal and Torres Strait Islander peoples are made up of different groups that have their own characteristic identities, histories and cultural traditions—a product of adapting to quite different natural environments. Torres Strait Islander people are still acknowledged as distinct from other Aboriginal populations within the Australian community today.

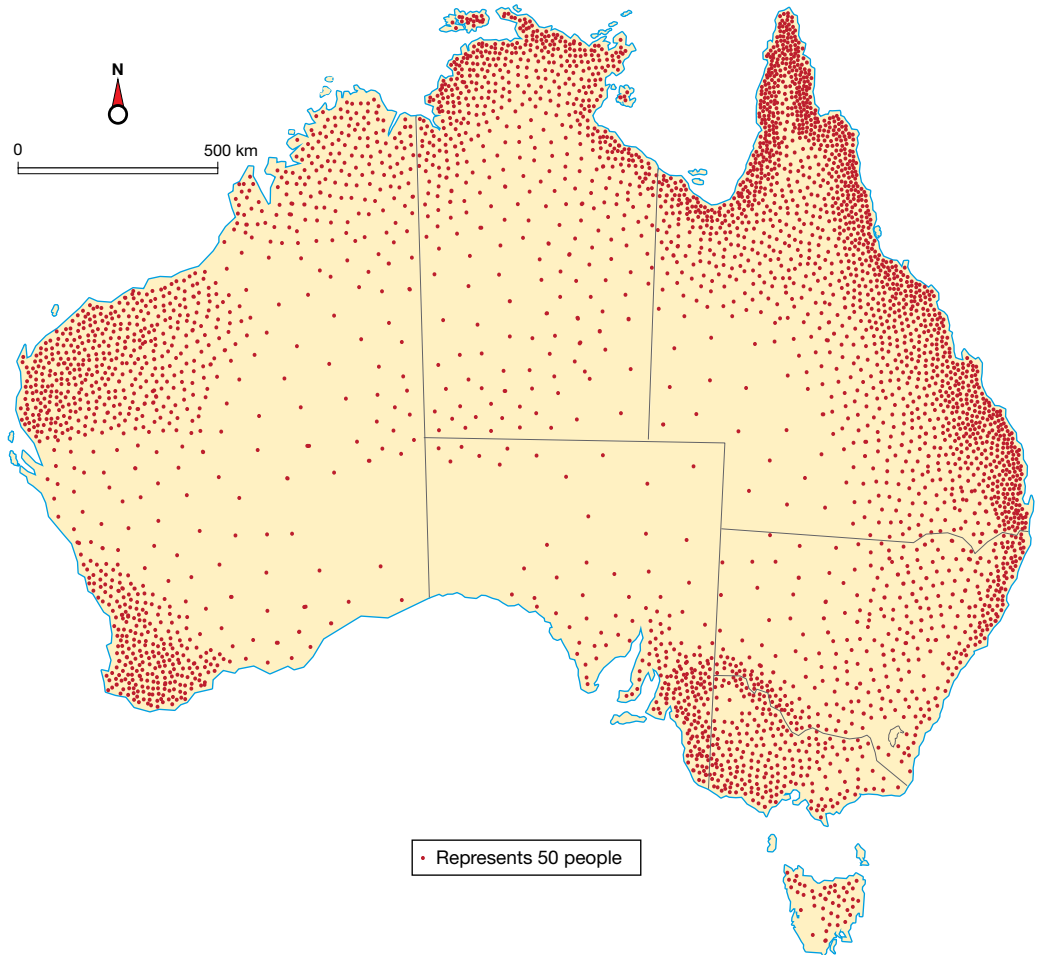
Aboriginal peoples

Aboriginal peoples lived throughout the whole of the continent of Australia at the time of the European settlement in 1788, as is shown in Figure 6.8.1. Aboriginal peoples exploited all of Australia's environmental and climatic variations, as they possessed a detailed knowledge of the natural world and its resources.

The extent to which Aboriginal peoples moved across the land was influenced by the productivity of the land. This was reflected in population densities over the continent.

In the arid interior, population density was low. Aboriginal peoples were able to live off the land in the vast dune systems, even though the resources were relatively scarce. They moved over a large area to search for water and hunt for food.

In the better watered parts of the continent along the coasts, in the tropical north and in the Murray–Darling Basin, population density was higher. In these regions there was a reliable water and food supply and Aboriginal peoples might spend months or years in one location and rarely move very far. In these regions, Aboriginal peoples modified their environment. For example, in western Victoria, the Gunditjmara built a complex of traps in waterways to trap eels.



6.8.1 Estimated number and distribution of Aboriginal people in 1788

Torres Strait Islander people

Torres Strait Islander people come from the Torres Strait to the north of Cape York Peninsula in Queensland. There are 270 small islands between mainland Australia and Papua New Guinea. Of these, seventeen are inhabited. It is thought that they were occupied as people moved down from New Guinea (present-day Papua New Guinea and the Indonesian province of West Papua) at least 2500 years ago.

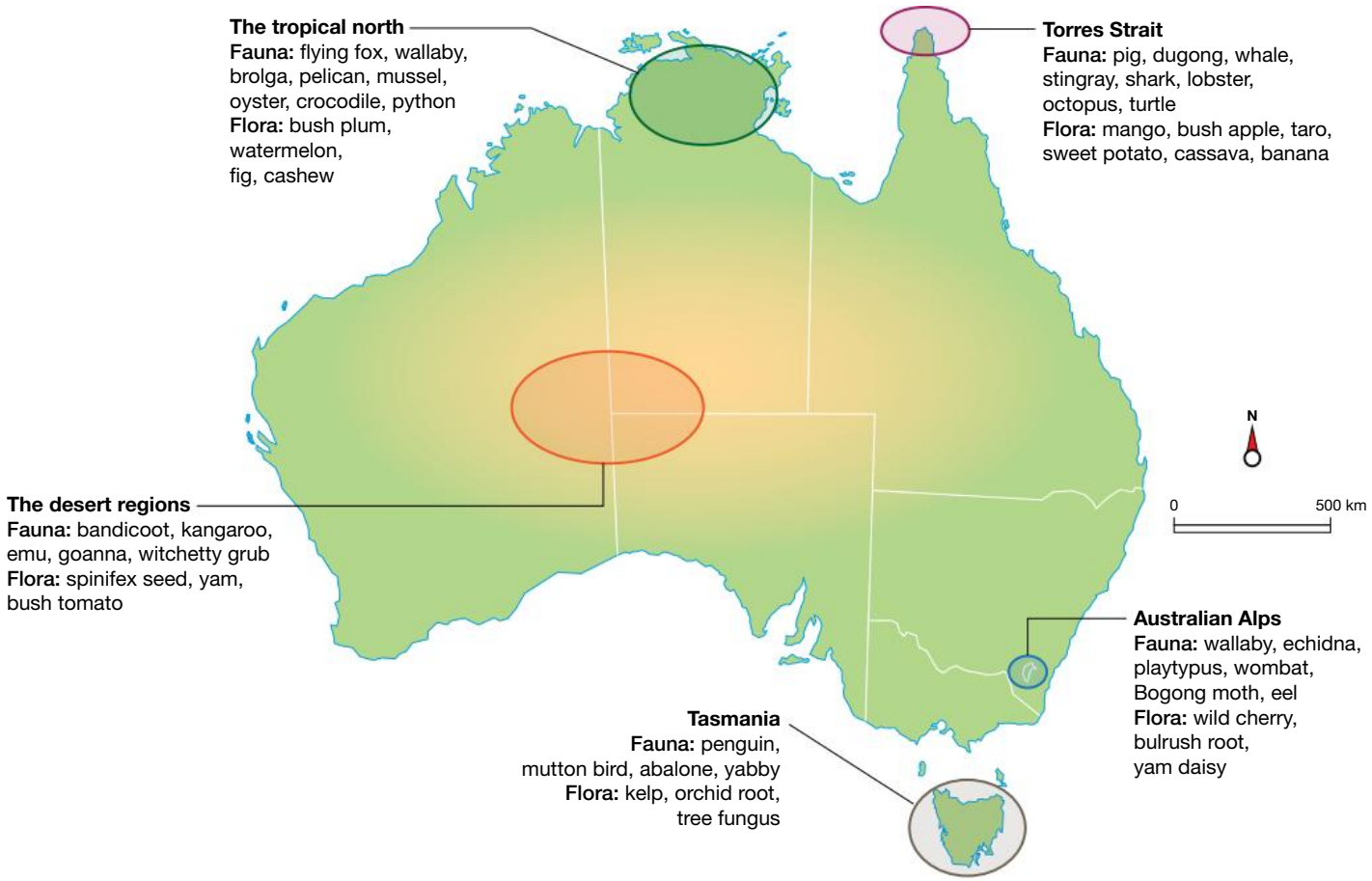
The Torres Strait Islander people have their own rich culture and traditions, which are quite distinct from those of the Aboriginal peoples. Being island communities, their lives are closely tied to the sea. This is reflected in the technology and material culture the Islanders developed, using materials such as fish bones, turtle shells and pearls. These were shaped and carved for tools such as fish hooks and spear tips, as well as highly prized decorative items used in ceremonies.

The Torres Strait Islander people relied heavily on trade with other islands in the region. For hundreds of years they had contact with visitors from Makassar (now part of Indonesia), who came to collect trepang or sea cucumbers. Trade continues with villages along the coast of New Guinea. Even though many of the Torres Strait islands are located just off the coast of New Guinea, they formally became part of Queensland in 1879. The majority of Torres Strait Islanders now live on the mainland in Queensland.

Models of sustainability

Underpinning all the interactions between Indigenous people and their environment were rules that imposed a strict discipline on the actions of each individual. The rules for action were reinforced by the Dreaming stories. These stories explained the formation of the landscape and bound people to their traditional Country. The strong attachment to this Country was not one of ownership, but rather a spiritual connection that carried with it many responsibilities.

Aboriginal and Torres Strait Islander peoples successfully adapted to live in many different and some very difficult environments, using a wide range of food sources, as shown in Figure 6.8.2. The items shown in each region are only a small selection of those used. The general pattern is similar everywhere, although there is regional variation according to the species available. For instance, seals were hunted in Tasmania and crocodiles and dugong in the north. People in Tasmania did not eat fish, a fact that researchers have not been fully able to explain. Torres Strait Islander people had gardens in which they cultivated species that were the same as those in neighbouring Melanesia.



6.8.2 The fauna and flora used by Aboriginal and Torres Strait Islander peoples in different regions of Australia

Knowing the land and seas

Aboriginal and Torres Strait Islander peoples knew the location and timing of a large number of significant natural events, as they were carefully attuned to predictable changes in the weather and the tides, as well as the seeding and fruiting times of plants and the breeding cycles and migration habits of the animals they relied on for food. Such detailed knowledge was recorded in early encounters with the Aboriginal people of Arnhem Land.

> ... as accurately as any ecologist, and they are able to state without hesitation what food supply, animal and vegetable, each association will yield ... The accuracy with which an Arnhem Land hunter could name and give an association according to its botanical composition, and the food supply, woods for spears and other purposes, as well as resins and fibre plants that would yield at any season of the year was astonishing.

Source: D.F. Thomson, 'Arnhem Land: Exploration among an unknown people', in *Geographical Journal*, p. 113, 1949, quoted in B Gammage, *The Biggest Estate on Earth—How Aborigines Made Australia,* Allen & Unwin, Sydney, 2012

Most significantly, the natural world was much more important to the Indigenous people than just a means of survival; they saw themselves as its guardians or custodians. They felt a personal obligation to look after their Country and ensure the natural world was kept in balance.

Totems: Accepting individual responsibility

The foundation for sustainable management was the acceptance by each individual of their role in protecting the land and its totems. Indigenous people have a collection of totems that represent special plants, animals or places that they believe they are descended from. They cannot eat their particular totem and must ensure that its population is sustained. Each clan had a totem that linked it as a group. In addition, individuals had their own personal totem. This ensured the sustainability of food supplies that would otherwise not be available if the people ate everything they found.

The value of traditional ecological knowledge

Aboriginal and Torres Strait Islander peoples had an intricate knowledge of the ecology of their environment and they were careful to make sure that ecosystems remained in balance. They were successful in doing this on a continent-wide basis for tens of thousands of years, over which time there was a great deal of climatic variability.

6.8.3 One of the Anindilyakwa Women Rangers, Groote Eylandt, Northern Territory. She works in the Anindilyakwa Indigenous Protected Area, which extends across the Groote Eylandt Archipelago. With relatively few introduced pests and no cane toads on the Eylandt, the rangers are in a unique position to be strongly involved in biodiversity research and conservation activities.

Indigenous people's specific knowledge about their environment is now being acknowledged. Given their holistic view of their environment, this knowledge extends to an understanding of ecosystem functioning and the interactions that occur within them. They are especially familiar with subtle yet important shifts that can occur in ecosystem relationships, and know how to respond in order to restore the natural balance.

Caring for Country

Given their vast knowledge and extensive experience, it is fitting that Indigenous Australians are having a growing, cooperative role in environmental management, as can be seen from the extract 'Indigenous land and sea management'.

Indigenous land and sea management

Indigenous land and sea management, also referred to as 'caring for Country', includes a wide range of environmental, natural resource and cultural heritage management activities undertaken by individuals, groups and organisations. In pre-colonial times, caring for Country was undertaken by individuals and clan groups with inherited rights and responsibility for particular land and sea estates, under the guidance of initiated elders and other knowledge holders. These cultural rights and practices still underpin all contemporary land and sea management activities, but they have adapted and evolved over time and are delivered by a diversity of local, regional, state, territory and national arrangements.

Contemporary caring for Country embraces a combination of long-established cultural practices, such as species-specific ceremonies, seasonal use of traditional resources and use of fire to maintain desired environmental conditions, as well as contemporary practices such as feral animal and weed management, biodiversity surveys and satellite tracking of marine turtles.

There are now several hundred community-managed Indigenous land and sea management groups or organisations around Australia. Some of these comprise ranger groups employed by local community councils. Others are more fully developed Indigenous land and sea management agencies employing specialist planning and research staff as well as operational rangers, often under the control of local Indigenous people rather than the government. Although the majority of these groups and organisations are located in remote communities in northern and central Australia, Indigenous ranger groups and other caring for Country initiatives occur throughout Australia, including the southern mainland states and Tasmania.

Indigenous ranger groups are generally engaged in patrolling, managing and monitoring areas of Aboriginal land that have returned to Aboriginal or Torres Strait Islander ownership as a result of land claims or the recognition of continuing native title under the *Native Title Act 1993*. However, Indigenous ranger groups also increasingly engage in land and sea management activities in areas that may not be formally under Indigenous ownership, but lie within the traditional land and sea estates of the groups involved. This trend from only managing tenure-based (land legally under Indigenous ownership) to managing land that has traditionally been under control of the Indigenous people (Country-based) reflects a growing change. The increase in the number of areas under Indigenous land and sea management reflects a growing appreciation by government agencies and the wider community that Indigenous Caring for Country rights, interests and obligations are based on cultural connections to traditional estates. This trend can be observed, for example, in increased Indigenous engagement in national park and marine park management, whether or not these protected areas have been returned to Indigenous ownership.

The continued growth in the capacity of Indigenous groups to undertake their own land and sea management is likely to be accompanied by new and diverse partnerships with government, research and nongovernment conservation agencies. This will lead to mutual benefits for all parties. Land and sea management may be a long-term program for Indigenous people in remote communities and elsewhere in Australia, particularly since these initiatives are grounded in Indigenous culture and have been driven by Indigenous groups and organisations, rather than by government policies.

Source: Adapted from D. Smyth, *Indigenous Land and Sea Management—a Case Study*; report prepared for the Australian Government Department of Sustainability, Environment, Water, Population and Communities on behalf of the State of the Environment 2011 Committee, Canberra: DSEWPaC, 2011

Working on Country

Working on Country is another initiative that was implemented by the Australian government. The initiative recognises that protecting and conserving the environment is a shared responsibility. It is also designed to provide sustainable employment for Indigenous Australians.

Indigenous people have long-held cultural and traditional responsibilities to protect and manage their land and sea Country. They own an estimated 20 per cent of the Australian continent, upon which lie some of our most environmentally precious natural assets and which, for Indigenous people, is rich in cultural and spiritual meaning.

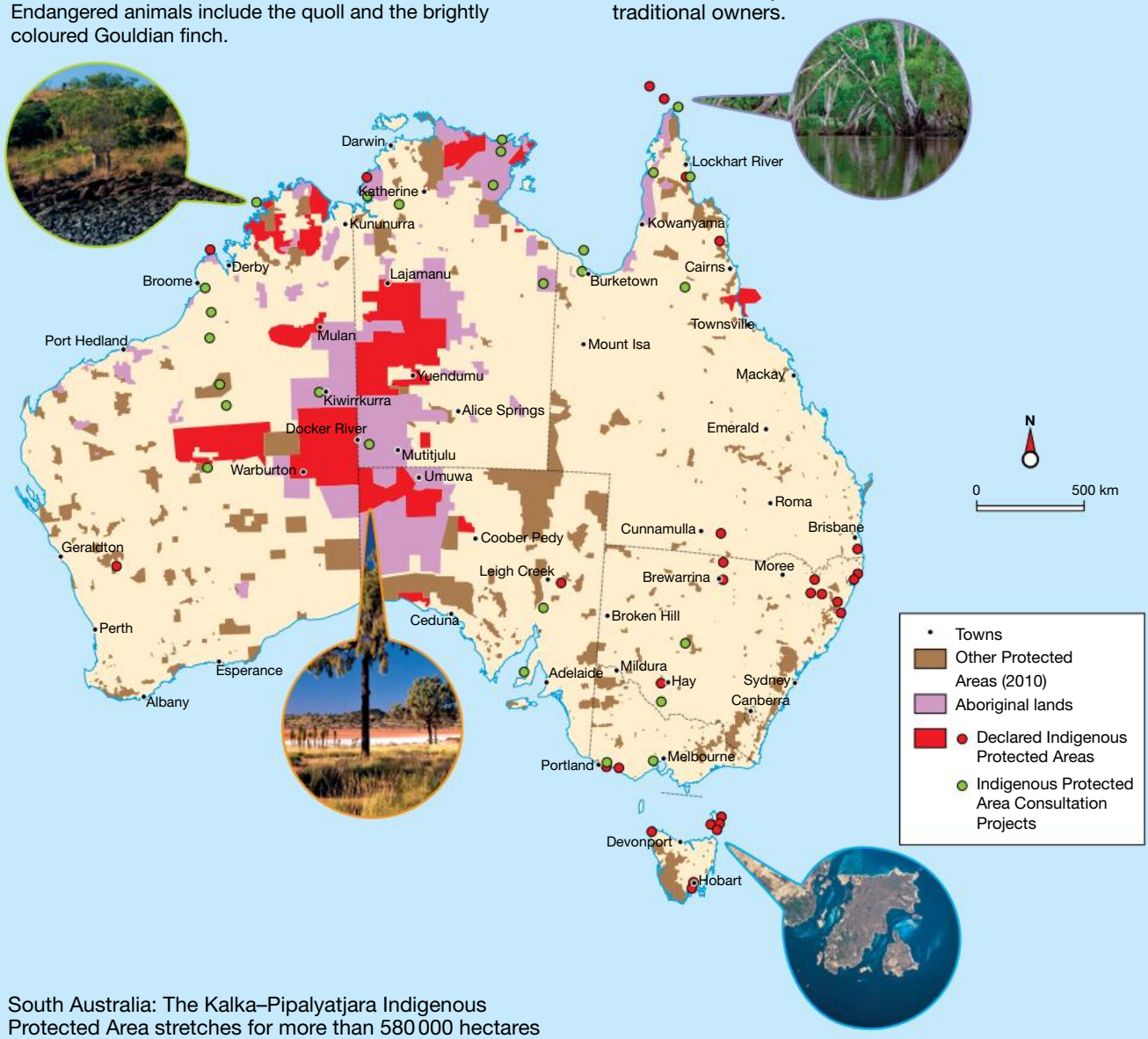
Working on Country builds on Indigenous traditional knowledge to protect and manage land and sea Country. Almost 700 Indigenous rangers across ninety-nine teams are employed across Australia on environmental projects. In 2015, over 730 rangers had been trained and employed through Working on Country.

Indigenous Protected Areas

An Indigenous Protected Area is defined as an area of Indigenous-owned land or sea where traditional owners promote biodiversity and cultural resource conservation, according to an agreement with the Australian government. Indigenous Protected Areas make a significant contribution to Australian biodiversity conservation. They make up almost 25 per cent of Australia's National Reserve System.

Western Australia: The Dambimangari Indigenous Protected Area is located on the rugged, dramatic Kimberley coast between Broome and Darwin. Situated north of Derby, it stretches east to the Prince Regent area, covering more than 1.4 million hectares. Dambimangari provides a refuge for animals that have disappeared from other parts of Australia. Endangered animals include the quoll and the brightly coloured Gouldian finch.

Queensland: The Kaanju Ngaachi Wenlock and Pascoe rivers area stretches across nearly 2000 square kilometres of wet tropical forest and sand ridge country between Lockhart River, Coen and Weipa on Cape York. The Chuulangun Aboriginal Corporation manages the area, which is a place of significant social, cultural, spiritual, historical and economic value for its traditional owners.



South Australia: The Kalka–Pipalyatjara Indigenous Protected Area stretches for more than 580 000 hectares across the north-west corner of South Australia. The Tomkinson and Mann ranges dominate the north-west landscape of the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, while in the south, sand-dune country with rocky outcrops provides habitat for a variety of plant and animal species.

Tasmania: Located in Bass Strait at the north-eastern tip of Tasmania, Mount Chappell Island and Badger Island form part of the Furneaux group of islands. These islands have long been regarded by Aboriginal people as an important part of the seasonal food-gathering cycle. The Tasmanian government handed them back to the Aboriginal community in 1995.

6.8.4 Indigenous Protected Areas

The goals of the Indigenous Protected Areas element of the Caring for our Country initiative are to:

- support Indigenous landowners to develop, declare and manage Indigenous Protected Areas on their lands as part of Australia's National Reserve System
- support Indigenous interests to develop cooperative management arrangements with government agencies managing protected areas
- support the integration of Indigenous ecological and cultural knowledge with contemporary protected area management practices. (Source: Department of the Environment).

Indigenous Protected Areas produce more than just environmental benefits. They help Indigenous communities to protect their significant cultural values for future generations. There have beneficial spin-offs in terms of health and education, as well as economic and social benefits.

There are now fifty declared Indigenous Protected Areas and over forty consultation projects across Australia, as shown in Figure 6.8.4. There are plans to increase Indigenous Protected Areas by at least 40 per cent—an increase of at least 8 million hectares.

Spotlight

The biggest estate on Earth

This excerpt from Bill Gammage's text *The Biggest Estate on Earth* explains the Aboriginal peoples' approach to looking after the land.

Management was active, not passive, alert to season and circumstance, committed to a balance of life. The chief ally was fire. Today, almost everyone accepts that they burnt random patches to hunt or lure game. In fact, this was no haphazard mosaic making, but a planned, precise, fine-grained local caring.

What plants and animals flourished were related to their management. Detailed local knowledge was crucial. Each family cared for its own ground, and knew not merely which species fire or no fire might affect, but which individual plant and animal, and their totems and Dreaming links. They knew every yard intimately, and knew the ground of neighbours and clansmen, sharing larger-scale management or assuming responsibility for nearby ground if circumstance required.

They first managed country for plants. They knew which grew where, and which they must tend and transplant. They then managed for animals. Knowing which animals prefer ... the sweetest feed, the best shelter, the safest scrub. They established a circuit of such places, activating the next as the last was exhausted or its animals fled. In this way they could predict where animals would be. They travelled to known resources, and made them not merely sustainable, but abundant, convenient and predictable ...

Three rules directed their management.

- Ensure that all life flourishes.
- Make plants and animals abundant, convenient and predictable.
- Think universal, act local.

These rules imposed a strict ecological discipline on every person.

Activities

Remembering and understanding

1 Identify the two components of Australia's Indigenous population.
2 Describe the attachment of Indigenous people to their environment.
3 Explain how Aboriginal and Torres Strait Islander peoples were able to live successfully across the Australian continent.
4 Explain why the totem system ensured a sustainable food supply for Aboriginal people.
5 Outline the benefits of the Australian government's Working on Country program and the establishment of Indigenous Protected Areas.

Applying and analysing

6 Study the extract from *The Biggest Estate on Earth*. Compare the management practices of the Aboriginal and Torres Strait Islander peoples with those of contemporary management in Australia. Assess the sustainability of each.

Evaluating and creating

7 Investigate an Indigenous Protected Area in your state and prepare a report highlighting why the area is important and how it is being protected.

Coastal environments

7

The coastline is the area where the land meets the sea. The exact point at which this occurs is difficult to determine because of the dynamic nature of tides. As a result, the term coastal zone is often used instead. This is the zone in which the interaction between the sea and land processes occurs. The coastal zone includes many types of environments: coral reefs, the continental shelf, coastal barrier islands, estuaries, salt marshes and mangroves.

Many of the planet's coastal environments are under threat. Fifty per cent of world's population lives within 10 kilometres of the sea and fourteen of the fifteen largest megacities (a metropolitan area with a population of more than 10 million people) are located on the coast. Given the scale of this human impact, and the ecological importance of these environments, it is critically important that they are effectively managed.

In this chapter, we focus on environmental change and management, using coastal environments as an example. Of particular interest are the causes and consequences of the changes taking place and an evaluation of the strategies being used to manage these changes.

OVERVIEW QUESTIONS

7A What are the principal causes of environmental change in coastal environments?

7B What are the effects of the environmental changes taking place in coastal environments?

7C Which environmental management strategies are being used in coastal environments? Are they effective?

GLOSSARY

continuous resource a renewable resource that is not affected by human activity; for example the energy of the sun

ecotourism responsible travel to natural areas that conserves the environment and improves the wellbeing of the local people

hard engineering the controlled disruption of natural processes through the use of human-made structures

land-use zoning plans outlining how land can be used in an area

longshore drift the movement of sand along a beach shoreline by waves approaching the shore at an angle

resonance the process whereby an outgoing low tide collides with the incoming high tide, causing a wave of water to be pushed into a bay

sand dunes long hills of sand formed by the wind

soft engineering the use of vegetation and other materials to alleviate land–sea interactions

turbidity the amount of suspended sediment in water

upwelling upward movement of water from deep in the ocean

LS Before you begin

7.0.1 Forillon National Park, Quebec, Canada

7.1 The importance of coastal environments

Biophysical interactions and natural balances

All ecosystems are the result of biophysical interactions. The biophysical environment is made up four parts, known as the four spheres. These spheres are:

- *the hydrosphere*—water and its movement
- *the atmosphere*—the gaseous layer that surrounds the Earth
- *the lithosphere*—the Earth's solid outer shells, including soils and rocks
- *the biosphere*—flora and fauna.

The interaction of these spheres helps to determine the nature of the ecosystem that is found at any particular location.

Coasts are often referred to as 'boundary environments'. This is because they are found at the edge of marine (water-based) and terrestrial (land-based) environments. This interaction between the sea and land is at the centre of the coastal ecosystem.

Importance of the coastal environment

Buffer zone

A coastal environment is a little like a bumper bar on a car. In a collision, the bumper bar bears the shock of the impact and absorbs much of the energy of the collision, helping to reduce damage to other parts of the car. Similarly, the coastal environment takes the full force of the waves and tides from the sea. This helps to minimise the impact to areas further inland. Every time a wave crashes into a headland, energy is transferred from the wave to the rock, and slowly breaks the rock down. When humans begin to change the coastal environment by removing **sand dunes**, clearing coastal wetlands and dredging (clearing the bed of a water body by removing the mud), this protective buffer is lost.

Breeding grounds

Coastal environments play a very important role in the broader marine environment. Many of the world's marine species, even those that spend most of their time in the deep oceans, use coastal areas as breeding grounds as well as food sources. From a human perspective, most of the fish species that are harvested for human consumption come from coastal waters (see Figure 7.1.1).

7.1.1 Most of the world's fish are caught in coastal waters.

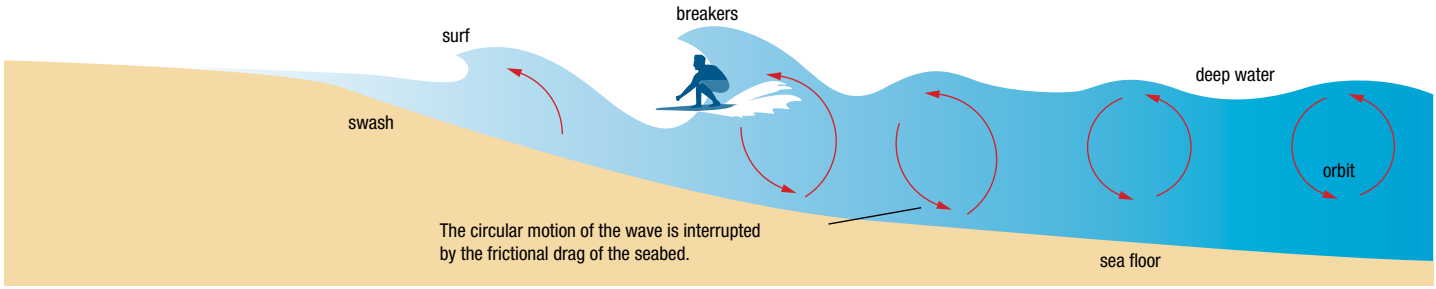
These coastal waters are the most productive. This is because they are rich in nutrients, which are brought to the coastal waters by river systems and by **upwelling**. Upwelling is a process whereby nutrient-rich waters from the deep ocean are pushed upwards towards the surface. Shallower coastal waters also have greater penetration of sunlight, which provides energy for aquatic plants (through photosynthesis). These plants are an important source of food for many species.

Cultural importance

For many indigenous cultures, coastal areas have great spiritual and cultural significance. For example, in Australia, Aboriginal and Torres Strait Islander peoples have important creation stories that link directly to coastal waters. Coastal waters have always been an important source of food for traditional owners. Traditional hunting in indigenous communities around the world is practised as part of the management of coastal environments.

Coral reefs

Coral reef systems, such as Australia's Great Barrier Reef, are among the most complex and diverse ecosystems in the world. These very important environments are found in the warm, shallow coastal waters of the tropics. They require very specific conditions to grow, and coastal areas where reefs exist require special management to ensure that they are not destroyed.



7.1.2 How a wave breaks

Waves

Waves are one of the most important features of any coastal system. A wave is created when energy is transferred from the atmosphere to the surface of the water in the form of wind. This energy can be carried vast distances until it is released at the shoreline as the wave breaks. At this point, the energy is transferred to the land.

In the open ocean, waves move as swell, with the energy moving in an orbital motion. When in deep water, the waves do not change their shape. These types of waves are known as waves of oscillation. Once the waves enter the shallow waters of the coastline, they are transformed into waves of translation. This takes place because the waves begin to interact with the seabed, which gradually slows the base of the waves, but not the crest. Consequently, the waves increase in height until they break. Figure 7.1.2 illustrates this.

Waves demonstrate interactions between the spheres at the coast. The wind that provides the waves with energy comes from the atmosphere. The energy is then transferred into the water of the hydrosphere. The wave then breaks because its orbital motion is interrupted by the sea floor, which is part of the lithosphere.

Waves may be constructive or destructive.

Constructive waves

Constructive waves tend to be less powerful and are usually created by lighter winds. They bring sediment such as sand onto the beach and so gradually construct the beach and other coastal features.

Destructive waves

Destructive waves are more powerful waves and are usually associated with large storm events. These waves strike the beach with so much power that they pull sand back with them as the swash retreats back into the sea. During very big storms it is possible for waves to take huge quantities of sand from beaches.

Tides

Tides rise and fall twice a day, due to gravitational forces. The most significant of these is the gravitational pull created by the moon. The pull of the sun and the rotation of the Earth itself also contribute to the tides.

Spotlight

Beaches washed away

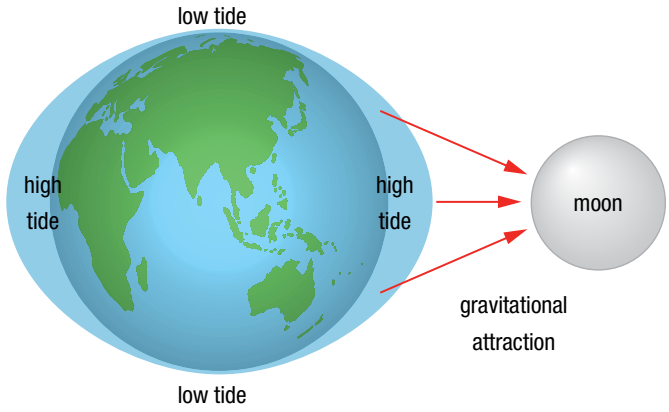
In June 2013, beaches along the coasts of southern Queensland and northern New South Wales were extensively eroded by huge waves, as shown in Figure 7.1.3. The waves were created by a weather pattern called an east coast low (series of low pressure systems). This is a very unstable weather cell that creates strong winds, which cause the very destructive waves. In 2013, a series of these low-pressure systems over a number of weeks brought flooding rains and high winds.

An easy way to tell constructive and destructive waves apart is to look at the colour of the water as the wave breaks. With a constructive wave you will see the sediment caught up in the water as the wave breaks. Destructive waves, on the other hand, will look clear and glassy.

7.1.3 During the winter of 2013, powerful destructive waves eroded vast quantities of sand from beaches, including here at Surfers Paradise on Queensland's Gold Coast.

Figure 7.1.4 shows that the moon pulls water to the side of the Earth closest to it. This creates a bulge or high tide. A similar bulge is then created on the opposite side to compensate. Between the bulges, water is pushed away to create a low tide. Every fourteen days, the gravitational forces of moon and sun are inline. This creates an extra-strong gravitational pull that results in a particularly high tide, known as a king tide.

When a king tide and a storm occur at the same time, the effects of the high tide and destructive waves often lead to a storm surge. Storm surges are caused by very low-pressure cells, such as tropical cyclones. These severe storms form over the ocean and the low pressure causes the air to rise, pulling the sea surface up with it. Storm surges can do tremendous damage.



7.1.4 The gravitational pull of the moon is the main cause of tides.

Spotlight

Superstorm Sandy

In October 2012, a powerful hurricane called Sandy developed in the Caribbean Sea. The storm caused considerable damage throughout the Caribbean, killing fifty-four people on the island nation of Haiti and leaving a trail of destruction across Jamaica and the Bahamas. The storm then headed northwards up the east coast of the United States of America.

On the evening of 29 October, the storm struck the coast near Atlantic City in New Jersey. A king tide had increased the high tide by a further 20 per cent, making the storm surge created by the hurricane even more intense. As the storm continued, sea water surged over the sea walls in Lower Manhattan in New York City. The water flowed into tunnels and even the city's famous subway was flooded. The strong winds caused a massive construction crane, seventy-four stories up on a skyscraper, to collapse, and a large tanker ran aground on Staten Island. Waves were measured at more than 10 metres in New York Harbour.

By the time the storm blew itself out, 149 people had been killed, more than 8.5 million people were left with no electricity. At least US$20 billion in damage had been caused to private property and about US$19 billion worth of damage had been caused to public infrastructure, including the subways, bridges and other important assets.

Even the Statue of Liberty was badly damaged by huge waves and was not re-opened until July 2013, more than eight months after the storm.

7.1.5 The impact of Superstorm Sandy can be seen in these photos. The same location is shown before and after the storm.

Functions of coasts

Source function

The ocean is a rich source of food. About 15 per cent of all protein consumed by humans is in the form of seafood. Most of this is taken from the coastal waters, making this a crucial environment for feeding the world's growing human population. Coastal areas are crucial habitats for many animal species that rely on the coast for both food and shelter. For example, the iconic dugongs of Hervey Bay rely entirely on the coastal seagrass beds for their food.

Service function

Coasts are important zones of transition from the marine to the terrestrial-based environment. One of the most important service functions of the coast is to act as a barrier to the sea. For example, dune systems absorb the energy of storm waves, reducing impacts such as potential flooding from storm surges.

Coastal environments play a crucial role in movement of sediment. Wave action not only erodes the coast creating sediment but it also moves it on and off the shoreline. Currents then move this sediment often very long distances. These processes allow for the creation of new landforms elsewhere, for example barrier systems and sand islands.

Coastal ecosystems such as intertidal wetlands, mudflats and estuaries (coastal rivers) are very important breeding and nursery grounds for a vast number of marine species. Many species, such as prawns, that are very important to commercial fishing begin life in coastal ecosystems.

Sink function

The value of coastal areas as important carbon sinks is becoming more recognized. Sometimes referred to as blue sinks, coastal ecosystems such as intertidal wetlands and seagrass beds are important in absorbing carbon dioxide, as well as adding vital oxygen to the water. Recent research has found that blue sinks are far more effective at capturing and storing carbon dioxide from the environment than so called green sinks, such as rainforests. Coastal environments have been used for centuries as places to dump waste. In more recent times this has become more regulated, but most coastal communities still use coastal waters to disperse treated sewage and other waste.

Spiritual function

For many indigenous cultures, coastal environments have an important spiritual value. Aboriginal and Torres Strait Islander peoples, whose traditional lands include coastal areas, have strong links through their Dreaming stories to the coastal environment. For non-indigenous people, coasts have an important aesthetic and psychological value. Coastal-based tourism is worth billions of dollars annually, as people enjoy spending time in coastal settings.

Activities

Remembering and understanding

1. Explain why coasts are considered boundary environments.
2. Outline the four spheres of the biophysical environment.
3. Explain the importance of coastal areas as buffer zones.
4. Outline the role of coastal environments in the broader marine ecosystem.
5. Describe why coastal waters are more productive than the open ocean.
6. Outline the spiritual importance of coastal environments to traditional cultures.
7. Describe the process of wave formation.
8. What are waves of translation?
9. Compare destructive and constructive waves.
10. Define a tide.
11. Outline the factors that lead to a storm surge.

Applying and analysing

12. Using a flow chart, describe the processes of a wave breaking onto the beach. In your flow chart show how the different spheres are involved.
13. Examine Figure 7.1.3. Describe the impact that the destructive waves have had on this part of the Queensland coast.
14. Read the Spotlight box 'Superstorm Sandy' and do the following tasks.
    a. Outline the nature of the storm.
    b. Explain why Sandy was such a damaging storm.
    c. With the aid of Figure 7.1.5, describe the damage done by the storm.
15. Take on the role of an environmental leader. Prepare a letter to the Australian government, encouraging it to place greater protections on an area of coast. In your letter, outline the importance of the coast.

7.2 Causes of environmental change

People's impact on coasts

About half the world's population lives within 10 kilometres of the coast, and fourteen of the fifteen largest cities on Earth are located on the coast. This places considerable pressure on our coastlines. As the human population along the coastline continues to grow, so do the environmental changes that humans cause. For centuries, humans have viewed the oceans as a **continuous resource**, a place that could be exploited and used without worrying it would be depleted. This view has led to coastal areas being extensively developed and changed. They are often seen as convenient places to dispose of rubbish, sewage and other contaminants, leading to widespread pollution and environmental damage.

Pollution

It is estimated that about 80 million tonnes of plastic are produced each year. Much of this plastic is disposed of, with a significant amount making its way into the world's oceans and coastal areas, as shown in Figure 7.2.1. Plastics have a long life span, taking about 500 years to fully decompose in the oceans. Their buoyancy means that plastic rubbish can travel vast distances.

Once in the oceans, plastics enter the food chain when marine animals mistakenly eat them. More than 200 species of animals, including whales, seals, crabs, sharks and dugongs, are known to be affected by plastics. A build-up of plastics releases toxins into the blood stream, organs and tissues of these animals. Many are also killed by being entangled in the rubbish.

Ghost nets

About 640 000 tonnes of fishing equipment is lost at sea every year. Much of this is lost in coastal waters. Lost fishing nets, known as ghost nets, kill marine life long after they have been lost, as shown in Figure 7.2.2.

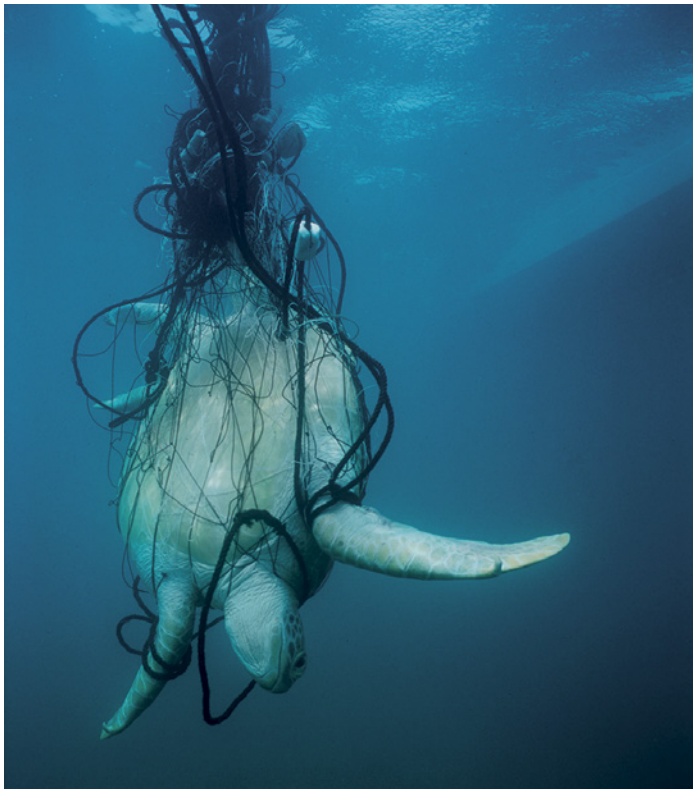
The coast of the Gulf of Carpentaria, in the far north of Australia, is one of the most isolated and least populated places on Earth. Yet there is a major problem with ghost nets there, even though there is very little fishing in the area. The nets are believed to come from fishing grounds in Asia, washed into the Gulf of Carpentaria by ocean currents.

Ghost Nets Australia is an environmental group established in 2004 by twenty-two Indigenous communities. Its task is to remove ghost nets from beaches in northern Australia.

7.2.1 The Indian city of Mumbai has a population of more than 18 million. There is considerable pollution of the extensive coastal mangrove forests that grow around the city.

Since it started work, more than 7500 nets, each capable of killing thousands of marine animals, have been removed from beaches.

Turtles are the most common species found in the nets. Turtles need to rise to the surface to breathe, but the nets trap them, causing them to drown. When Indigenous rangers and environmental volunteers remove the nets from the beaches, they stop them from being washed back out to sea to start a cycle of death again, saving countless animals in the process.



7.2.2 Ghost nets continue to kill marine life long after they have been lost.

Destroying coastal buffer zones

Coasts are home to very important infrastructure and commercial structures. Almost all the world's trade is done using ships, which require the construction of huge port facilities. These facilities are often built on reclaimed land, which is land that is created by filling in coastal areas, or by destroying important coastal environments, such as wetlands, mud flats and sand barriers.

Ships are also increasing in size and this has meant that deeper and wider harbours are needed. Dredging the sea floor is now very common in many large ports. This involves removing mud and other sediment from the sea floor, changing the environment dramatically.

Coastal development is also a major cause of coastal change

Most of the world's human population lives on or near the coast, and the demand for more and more development has seen coastal environments placed under great stress. Coastal landforms, such as intertidal wetlands and coastal dunes, are often destroyed to make way for canal housing estates, tourist facilities and other developments, as in Mandurah, shown in Figure 7.2.3.

7.2.3 Large-scale urban development has dramatically changed the coastal environment in Mandurah, south of Perth.

7.2.4 Taken in 2009, this image from an orbiting spacecraft shows some of the artificial islands off the coast of Dubai. Since then, more islands have been added.

Dubai's island building

Dubai is one of the seven emirates that make up the United Arab Emirates. It is a large city, and hugs the coastline of the Persian Gulf. Made wealthy from its rich oil reserves, Dubai has a reputation for huge construction projects. One of these projects was the construction of huge islands off the coastline for housing and resort developments, as shown in Figure 7.2.4. At present there are four main developments, three in the shape of enormous palm trees and the fourth in the shape of the world's landmasses.

The islands are made from sand dredged from the bottom of the Persian Gulf and then moulded using special sand-spraying ships. Research by environmental scientists has found that construction of the islands has had considerable environmental impact. During construction, the sand buried wildlife and increased **turbidity** (cloudiness of the water), which, in turn, reduced the amount of sunlight in the water, killing aquatic plants. Another major impact is the disruption that the new islands cause to the flow of currents in this part of the Persian Gulf. This also affects the movement of sand and other sediments.

Spotlight

Community protests over Gladstone Harbour redevelopment

Gladstone is located about 550 kilometres north of Brisbane, close to the southern end of the Great Barrier Reef. With its large harbour, Gladstone is the perfect location for port facilities for the export of billions of tonnes of coal and gas mined to the west in central Queensland.

Gladstone Harbour has been dredged to make it deeper for the massive bulk carriers that will use the port. Many environmentalists are concerned that the dredging will affect the environment of the harbour and that there will be a big increase in shipping through the Great Barrier Reef to access the port. This increased shipping could lead to devastating oil spills. Community groups such as Save the Reef have implemented a major campaign to highlight the risks to the coastal environment. The emergence of such groups over the last few decades highlights the changing attitudes towards the coastal environment and the need to protect it.

7.2.5 Greenpeace and other environmental groups have joined community groups to protect Queensland's coastal environment.

Activities

LS 7A

Remembering and understanding

1. Explain how past attitudes towards the coastal environment have led to its degradation.
2. Outline the problem of plastics in the world's coastal and marine environments.
3. Explain what a 'ghost net' is. Describe the environmental impacts of the nets.
4. Describe the construction methods used to create islands in Dubai and the impacts they have on the coastal environment.
5. Outline the concerns of environmentalists about the Gladstone Harbour development.

Applying and analysing

6. Working in small groups, take the perspective of environmental leaders. Research and prepare a presentation to be delivered to an upcoming United Nations conference on environmental pollution caused by plastics.

Evaluating and creating

7. Study Figures 7.2.3 and 7.2.4. Using the aerial photographs as a source, brainstorm a list of the ways this type of development affects the coastal environment.
8. Visit the Ghost Nets Australia website and summarise the work being done by the organisation to reduce the hazards of ghost nets.

7.3 Managing coastal environments

Coastal protection

Although much of the world's population lives near the coast, there has been little attention paid to the protection of coastal environments. This lack of concern has seen coastal environments destroyed to make way for urban development, infrastructure such as ports, and unsustainable tourism.

Whenever humans want to live near the sea, there will be a tension between the need to protect the coastal environment and the interests of humans. An increasing number of people see the value of the coastal environment and its need for protection, and there are many community-based organisations actively engaged in the protection of the coastal environment. Over recent years, much tougher environmental restrictions have been placed on new coastal developments in many countries, including Australia. These restrictions are often the result of community pressure and protests.

Coastcare, which was formed in the 1990s, is one such organisation. Across Australia there are about 2000 separate Coastcare groups working to protect stretches of the Australian coastline. Coastcare groups are made up of individuals who volunteer some of their time to undertake environmental works. For example, Coastcare groups are often involved in coastal sand dune revegetation. This is a labour-intensive task. The free labour of volunteers enables local councils to undertake this important work, which might otherwise be too expensive for them to do.

Strategies for managing the coast

Environmental management strategies can be divided into two types:

1. *protective*—used to protect coastal environments from damage in locations where human impact has been minimal, or where the environment has already been repaired
2. *restorative*—used to repair damage already done by human activities.

In order to be successful in the long term, restorative strategies need to be followed up by protective strategies.

Protective strategies

While a large proportion of the world's coastal environment has been altered by human activity, there remain large areas that are relatively intact. Protective strategies are crucial for ensuring that these areas remain safe from human impacts.

Restricting development along coastlines is one of the most effective strategies for protecting them. Determining the type of activities allowed in an area is known as **land-use zoning**. Through careful zoning, coastal environments can be protected from large-scale urban developments that can destroy the entire ecosystem.

Sometimes zoning can also be used to enable more appropriate developments. For example, zoning can be used to ensure that development does not take place on the most active parts of beaches, such as in the dunes. Keeping buildings away from this area reduces the need to construct sea walls and other sea defences. In many coastal communities, there is pressure on local authorities to build environmentally damaging sea defences to protect homes and developments against erosion from the sea.

Sea walls

Sea walls are commonly built along stretches of coastline where there is erosion that threatens property. They are usually built from concrete or large stones, to absorb the power of the waves. In nature, dune systems, which are large accumulations of sand, usually absorb the power of the waves. However, in many places the dunes have been flattened to make way for development, and the sea walls are needed.

When a wave smashes into a sand dune, much of the energy is able to pass out of the wave and into the sand. However, when a wave hits a sea wall, the energy is unable to pass through the solid surface, and is reflected back. This reflected energy is often powerful enough to erode sand from in front of the sea wall, a process known as scour. Scour in turn causes the beach in front of the wall to be eroded, as shown in Figure 7.3.1.

Fencing

A simple but highly effective protective strategy is fencing. Dunes play a crucial role in the functioning of many coastal areas. Dunes are created by winds causing sand to pile up into huge mounds, over which vegetation eventually begins to grow. The vegetation is critical to stabilising dunes and preventing them from blowing away.

As people cross sand dunes to access beaches, they walk on the vegetation and gradually kill it. This is known as trampling. Trampling exposes the sand and the dune begins to be eroded by the wind. By installing fencing around the dunes and some educative signage, trampling can be substantially reduced.

7.3.1 This sea wall at Teignmouth in the south of England has caused so much erosion that its foundations are now visible at the base of the wall.

Fencing works best when pathways through the dunes, known as access ways, are provided. For example, providing access ways linking car parks to popular beaches helps to ensure that people stay off the dune vegetation. A board and chain walk—narrow strips of wood connected by a flexible chain—can be used to cover the sand and reduce erosion in the access way. Dune vegetation is very susceptible to fire, so installing bins at either end of the access ways helps to reduce the risk of fire from cigarettes and glass.

7.3.2 Fencing dunes and funnelling people into access ways helps to reduce the impact of beach goers on the dunes.

Restorative strategies

When the coastal environment has been degraded by human activity, restorative strategies are needed to repair the damage. These strategies are often time-consuming and can be expensive, but they can be highly effective at undoing the damage. Restorative strategies are effective only if the restored environment is then protected from any future harm.

One of the most widely used restorative strategies in coastal ecosystems is revegetation. Coastal sand dunes are an important part of many coastal environments, and vegetation is essential for their stabilisation. Replanting of dune systems is often undertaken by community-based organisations, such as Coastcare.

Hard engineering

For centuries, humans have been trying to tame the coastal environment. By their nature, coasts are highly dynamic places, meaning that they are constantly changing. This does not suit human developments that require stability. To overcome the dynamism of the coast, controlled disruption of natural processes of sea is done by using man-made structures. This is often referred to as **hard engineering.**

One of the best examples of hard engineering is the Italian city of Venice, which has literally been built out of the sea. Venice lies at the north-eastern end of the Adriatic Sea within a very large lagoon. The coastal environment once consisted of 118 small islands surrounded by marshes and shallow lagoon waters. From the thirteenth century onwards, the lagoon was slowly transformed by creating 160 canals between islands, criss-crossed by about 400 bridges. Wooden pilings were driven into the soft mud of the marshes and the city was built on top. Today, Venice is one of the most visited cities on Earth. However, it requires constant maintenance and is slowly sinking into the mud.

The people of the Netherlands have been using hard engineering to protect themselves from the sea for more than a thousand years. About 20 per cent of the country's landmass, on which about 20 per cent of its population live, is below sea level. As levels rise as a result of climate change, hard engineering projects in the Netherlands are becoming bigger, more complex and much more expensive. One of the most impressive is the huge Maeslant storm surge barrier, shown in Figure 7.3.3, which protects the port of Rotterdam from flooding. The barrier has two massive doors, each 240 metres long, that can be closed within 90 minutes to stop the sea from flooding into the Nieuwe Waterweg (New Waterway) Canal, which connects Rotterdam to the North Sea. During big storms, the gates close to protect the port and surrounding land.

7.3.3 Maeslant storm surge barrier

Soft engineering

Soft engineering is a very different technique for managing the coastal environment, and is becoming more popular. Instead of being used to change and control the coast, soft engineering is meant to work with nature and change how people interact with coasts. One example of soft engineering is the restoration of old dune systems so that the dunes can absorb the power of storm waves. This in turn means that expensive and damaging sea walls can be removed.

Soft engineering is usually cheaper in the long run because there is no ongoing maintenance. However, soft engineering projects are often undertaken at the expense of development projects. For example, land has to be put aside for dune restoration that might otherwise be developed, and sometimes this can be seen as 'wasting' the resource. People with this view generally see the ecosystem in terms of its value for human use rather than its ecological value.

Figure 7.3.4 shows a soft engineering project off the coast of Louisiana, in the United States. The US National Oceanic and Atmospheric Administration (NOAA), with other partners, has constructed earthen terraces and barrier islands to create wetlands, which will trap sediment and create new land over time. It has been estimated that Louisiana lost approximately 0.5 million hectares of land during the twentieth century and continues to lose 65 square kilometres of coastal wetlands every year.

7.3.4 NOAA restoration project, Louisiana. This photograph, taken three months after the hurricanes Katrina and Rita, shows new land being built between earthen terraces.

LS 7B

Activities

Remembering and understanding

1 Outline the changing attitude towards coastal environments.
2 State the tension between the interests of humans and the protection of the coastal environment.
3 Describe the role of the community in protecting the coastal environment.
4 Explain the difference between protective and restorative strategies for environmental management.
5 Outline the concept of zoning and explain how it can be used to protect the coastal environment.
6 Describe the role of fencing dunes in protecting coasts.
7 Explain the value of access ways through fenced dunes.
8 Outline the importance of replanting dunes as a restorative strategy.
9 Explain the difference between hard and soft engineering.
10 Outline the advantages of soft engineering over hard.

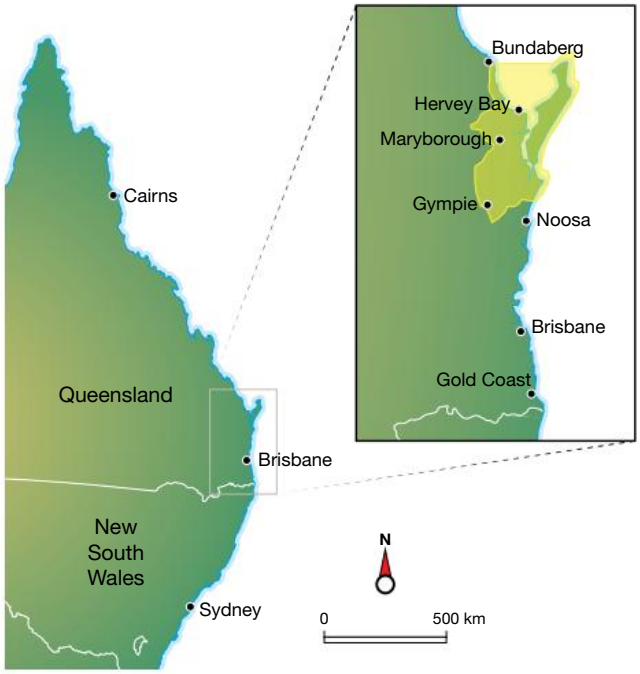
Applying and analysing

11 Examine the information in the text on sea walls and do the following activities.
   a Explain why sea walls are built.
   b Outline the environmental consequences of sea walls.
   c Taking the perspective of an environmental manager for a local council on the coast, prepare a presentation to give to residents about why the council should look for alternatives to building a sea wall that residents want.

7.4 The Great Sandy Region

Location

The Great Sandy Region is located to the north of Queensland's Sunshine Coast, stretching northwards from Noosa to the Burnett River north of Bundaberg (see Figure 7.4.1).



7.4.1 Location of the Great Sandy Region

Biodiversity of the Great Sandy Region

The Great Sandy Region is one of the most biologically diverse places in Australia. Its waters contain more fish species than the Great Barrier Reef and it provides a habitat for half of Australia's bird species. The sand there is the key geological feature of the region, which contains some of the most ancient sand dune systems found anywhere on Earth. Fraser Island, shown in Figure 7.4.2, is the largest sand island in the world.

The sand that makes up the landform features of the Great Sandy Region has been accumulating for millions of years. The vast sandstone mountain ranges of eastern Australia have been gradually worn down by running water and the sand has been swept out to sea by coastal river systems. Powerful currents, moving parallel to the shoreline, have carried the sand northwards in a process known as **longshore drift**. At Hervey Bay, in the heart of the Great Sandy Region, rocky headlands have trapped the sediment in a basin.

Over thousands of years, sea levels have risen and fallen. At times of low sea level, the sand has been exposed, enabling the wind to shape the sand into the huge sand dunes that are found throughout the region today.

7.4.2 Fraser Island

Human impacts

In the decade 2001–11, the population of the Fraser Coast Regional Council—the Local Government Area, or LGA, which is located over much of the Great Sandy Region—grew by 31 per cent, adding more than 23 000 permanent residents to the area. Much of this growth took place in Hervey Bay, where the population increased by 43 per cent.

Three major rivers flow into Hervey Bay—the Mary, Burnett and Burrum. The Paradise Dam on the Burnett River was opened in 2005. Traveston Crossing Dam over the Mary river was cancelled after being refused approval in 2009.

As the region's population grows, the amount of water used by humans increases. The amount of fresh water being taken out of these important river systems is beginning to change the chemical make-up of the waters of the Great Sandy Region. During dry years, the flow of water down the rivers and into Hervey Bay declines considerably. Marine scientists have found evidence of higher concentration of sodium chloride and other salts, which is generally called hyper-salinity in parts of Hervey Bay.

Many marine species within the Great Sandy Region are very sensitive to changes to salinity. Mangrove forests, found throughout the region, are also very sensitive to increases in salinity. These forests are critical to the health of the whole ecosystem of the Great Sandy Region, as many of the marine species breed and hatch their young in mangrove forests.

7.4.3 Mangrove forest in the Great Sandy Region

Tourism

Each year, close to 750 000 people, including 120 000 international tourists, visit the Fraser Coast region. Fraser Island and Hervey Bay are the most popular destinations. About 3 million people holiday every year on the Sunshine Coast, which is located on the southernmost part of the Great Sandy Region.

The tourism industry is vital for the economies of the towns in the region. Significant parts of the coast have been extensively developed to provide resorts and hotels. This has resulted in land clearing and the loss of important habitats, including mangrove forests. The development of a large marina and hotel complex on the shore of Hervey Bay opposite Fraser Island has altered the structure of the coastline. Tourism developments affect water quality because of increased urban run-off, sewage, rubbish and other pollutants.

7.4.4 Large-scale tourist developments have taken place in Hervey Bay.

Spotlight

Managing Fraser Island's dingo population

One of the most iconic species of Fraser Island is the dingo. The dingo is the apex species on the island, meaning that it is at the top of the food chain and it helps to keep the island ecosystem in balance. As the number of people visiting the island has grown, the number of interactions between dingos and people has also grown. In some cases, this has resulted in death and injury to people. In 2011, a 3-year-old girl was mauled by dingoes.

After each attack on a person, there have been calls to reduce the number of dingoes by culling them. After the 2011 attack, rangers shot and killed the two dingoes thought to be responsible. Part of the problem is that some campers and visitors have been feeding the dingoes and they are beginning to lose their fear of humans.

A dingo management plan was released in July 2013 by the Queensland government. The plan aims to reduce the risk of dingo attack by reducing human interactions with the dingoes. This is to be achieved by:

- temporarily closing camping grounds where the behaviour of dingoes has been modified due to human interactions
- tagging more of the animals to track their movements
- installing more signage and improving public education programs about the dingoes and the importance of not feeding them.

7.4.5 The management of Fraser Island's dingo population is challenging.

False water rat

The false water rat, or water mouse as it is commonly known, lives in the intertidal zone along the eastern coast of Queensland. This tiny creature weighs less than 70 grams. It lives in the mangrove forests and salt marshes that fringe the coast. It is currently listed as vulnerable and suffers from unsustainable human activities. Feral pigs and red foxes, which are introduced species, hunt the water rat.

7.4.6 False water rat

7.4.7 The unique patterned fens environment of Fraser Island

Fens

Fens are saturated environments in which ridges of peat, which is partially decomposed vegetable matter, lie between pools of water, creating a patterned formation (see Figure 7.4.7). They are common in wet and cold environments. The fens of Fraser Island, which began to form about 6000 years ago, are the only fens found in subtropical areas. The soils within fens are devoid of oxygen, which is why vegetation does not decompose.

The fens on Fraser Island are important to the island's overall environment because they are one of the few areas on the island that is open; the rest is covered by thick rainforest. The fens are an important habitat for several species of birds, such as the threatened ground parrot; mammals, such as the false water rat; and amphibians, including several species of endangered frog.

Managing threatened ecosystems

The Great Sandy Region contains a wide variety of ecosystems. Each of these requires specific management strategies.

National Park

The Great Sandy Region National Park was established in 1971. Covering a total area of almost 75 000 hectares, the park covers a large part of the Great Sandy Region. In 1992, Fraser Island, which is within the Great Sandy Region National Park, was also made a UNESCO World Heritage site. This inclusion was made in recognition of the island's unique natural features, including complex dune systems, dune lakes and rainforests. The inclusion of Fraser Island on the World Heritage list means that there is an extra level of protection of this important environment.

Ramsar Convention

The Ramsar Convention is an important international law that helps to protect habitats used by migratory birds. As several species of migratory birds, some of which fly from as far away as China and Siberia, spend time in the fens on Fraser Island, the fens are considered to be an important site for global bird migration.

Another important ecosystem in the Great Sandy Region that is part of the Ramsar site is the region's intertidal wetlands. This unique ecosystem includes extensive mangrove forests, which line much of the region's coastline and estuaries. Salt water moves up the tidal rivers at high tide and fresh water flows down from inland at low tide. In total, the Ramsar site covers more than 93 000 hectares, including open water, channels and creeks.

Impacts and strategies

The main environmental impacts that require management within the wetlands are:

- feral introduced animals, including pigs, which dig up the ground; and foxes, which prey on wading birds and water rats

- weeds, which take over the native vegetation—very often these weeds come from domestic sources; for example, people living in urban areas close to the wetlands have garden plants, including grass, such as kikuyu, which then invade the wetlands
- human interactions, especially the swash from boats, which causes erosion; off-road vehicles, which cause damage; overfishing; and abandoned fishing equipment such as lines and nets, which entangle turtles and birds
- pollution, including rubbish and water pollution from stormwater drains, which eventually release water and the pollution into the wetlands.

Strategies to manage these impacts include the following.

- Feral animals are tracked in order to collect data about them. Traps and culling are used to reduce their numbers.
- Weeds are carefully monitored in order to contain weed outbreaks before they can get out of control.
- Human interactions are managed through education of visitors about their impacts. Signage throughout the region helps to remind people to act responsibly, for example signs at popular fishing spots about not leaving equipment. Controls are also important, for example speed zones for boats to minimise swash from motors, and restrictions on 4WD access to confine vehicles to areas where their impacts are reduced. These controls are reinforced by education programs as well as rangers.
- The flow of rubbish into the waters of the region is reduced by simple strategies such as installing bins at popular tourist spots and using rubbish traps across stormwater pipes.

As the area is so popular with visitors, careful management of visitor numbers is crucial to protecting the region.

Introduced species

Bitou

Bitou is a highly aggressive weed that grows rapidly across sand dunes, eliminating native flora. It produces huge quantities of seed, giving it advantages over other species. The bush is native to South Africa and was introduced to Australia to help stabilise dunes after sand mining.

Bitou is a major problem in New South Wales, where it is present in 60 per cent of dune systems and 80 per cent of headlands. Within the Great Sandy Region, including Fraser Island, it is a small but growing problem. Without careful management, the species could easily get out of control. Monitoring across the region is important to keep track of outbreaks of the weed. Hand pulling—literally pulling out the plants by hand—is very effective but quite expensive, as it uses so much labour. Coastcare volunteers do much of this work across the region.

7.4.8 Bitou bush

Gambusia

Gambusia is a small fish introduced from California to help control mosquitoes. Gambusia competes with native species and since its introduction it has had a huge impact on native species numbers. Dealing with the gambusia is proving challenging but the use of biological controls (the control of pests by the introduction of a natural enemy or predator) has had some success in other parts of Australia.

7.4.9 The tiny introduced gambusia, sometimes called the mosquito fish, has devastated native small fish populations.

Spotlight

Fire management

Managing for fire is also an important strategy for protecting the Great Sandy Region's ecosystems. Some of the region's environments are very vulnerable to fire, for example the patterned fens and dune systems of Fraser Island. The peat ridges of the fens are composed of partially composed vegetation, which is very flammable—so flammable that in many parts of the world it is used as the main fuel source. In the dune system, vegetation is critical for holding the dune together. Without vegetation cover, the exposed sand is easily eroded by wind. Fires in the dunes can have a devastating impact on the whole ecosystem.

The main source of fire in both the dunes and the fens is human activity. For example, campfires lit in the dunes can easily get out of control and burn the woody plants that make up the dune vegetation. Discarded rubbish, especially glass and cigarettes, can be a source of ignition. Throughout the region, signage alerts visitors to the risk of fire. Rubbish bins have been installed and camping is confined to designated areas where the fires can be built in pre-dug pits to minimise risk. Rangers patrol regularly to enforce these rules.

7.4.10 Signs such as this are used across Fraser Island to help manage the risk of fire.

Activities

LS 7C

Remembering and understanding

1 Describe the location of the Great Sandy Region.
2 Describe the processes that have led to the creation of the Great Sandy Region.
3 Explain how vast dune systems such as those on Fraser Island have been formed.
4 Outline the population growth in the Great Sandy Region.
5 Describe the impact of tourism on the environment of the region.
6 Describe the environment of the patterned fens.
7 Why are the patterned fens such an important habitat on Fraser Island?
8 Explain the purpose of the Ramsar Convention.

Remembering and understanding

9 Copy and complete the following table to summarise the environmental issues facing the Great Sandy Region and the environmental management strategies used to deal with them.

Environmental issue	Management strategy

10 Examine Figure 7.4.4. Describe the impacts on the environment that are evident from this development.
11 In a small group, design a poster or a digital presentation for visitors to Fraser Island about management of dingoes. You may wish to visit the Fraser Island National Park website.
12 As a class, discuss the dangers of fire to the environments of the Great Sandy Region. Brainstorm strategies for managing this risk and record your ideas in a mind map.

Evaluating and creating

13 Write a short report explaining the consequences of dam building along the rivers that feed fresh water into the Great Sandy Region.
14 Prepare an extended response on the following topic. *The wetlands of the Great Sandy Region are an important ecosystem that needs careful management.*

7.5 The Bay of Fundy, Canada

Location

The Bay of Fundy is a large bay off the Atlantic Ocean on Canada's east coast. The bay covers a total area of more than 9000 square kilometres, stretches more than 150 kilometres and at its entrance is 52 kilometres wide. It is renowned for its enormous tidal range, which is the difference in height between low and high tides. Every 12 hours and 25 minutes the tide rises as high as 21 metres, it is normally 16 metres across the whole bay, the highest tide in the world.

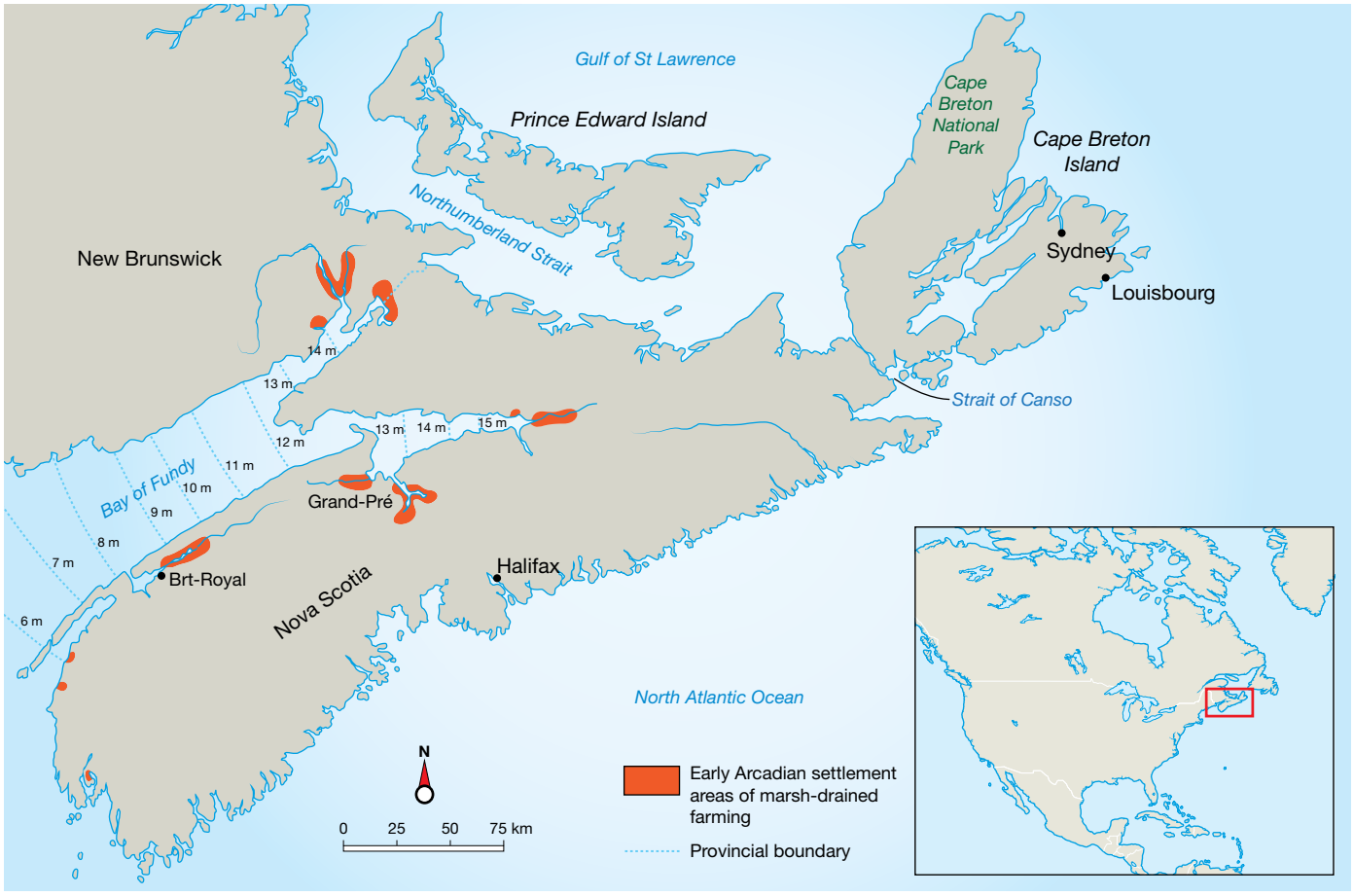
The huge tides of the Bay of Fundy, shown in Figure 7.5.2, are the result of the unique shape of the bay. High cliffs surround it, reaching upwards of 60 metres in some parts. The shape of these cliffs creates narrow inlets within the bay, which act as funnels for the incoming and outgoing tides. When the tides enter the bay at its mouth they are normal, but as they push up the ever-narrowing bay they are 'squeezed' by the surrounding cliffs and the increasingly shallow base, causing the water to rise. The outgoing low tide collides with the incoming high tide, causing a wave of water to be pushed into the bay, a process called **resonance**.

Human impacts

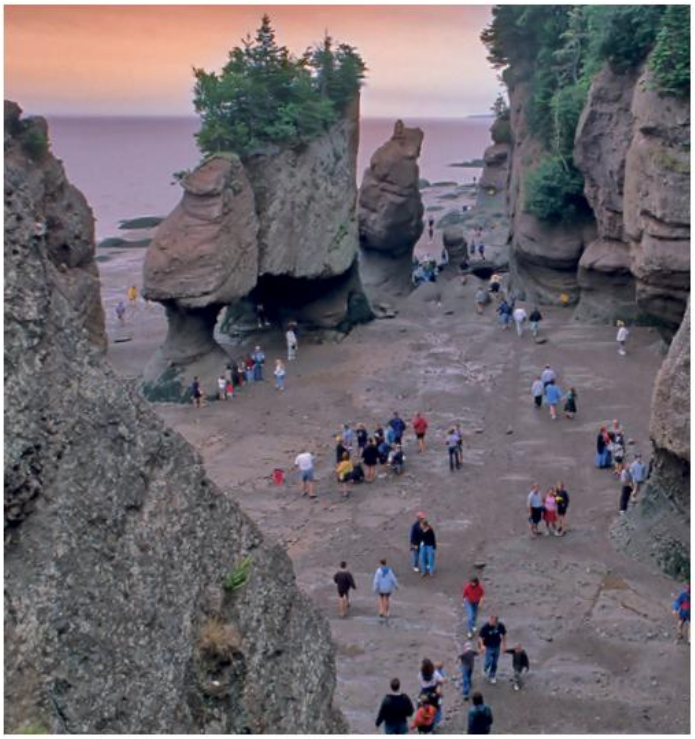
Draining the marshes

The salt marshes lining Nova Scotia's Bay of Fundy have been drained for agriculture since the early 1600s. The Arcadian people—French settlers who first claimed Nova Scotia as their home—employed their dyke-building skills to drain salt marshes, reclaiming thousands of hectares of productive farmland. A dyke is a long wall or embankment to stop flooding.

The Arcadians built the dykes along the outer marsh areas. Their construction required an enormous amount of work due to the great tidal range experienced in the bay. Sometimes these structures were constructed by driving five or six rows of logs into the ground, laying other logs, one on top of the other, between these rows, filling all the spaces between the logs with well-packed clay and then covering everything over with sods cut from the marsh itself. Sometimes dykes were built by simply laying marsh sods over mounds of earth.



7.5.1 Location of the Bay of Fundy, showing average tidal ranges



7.5.2 The Hopewell Rocks in the Bay of Fundy at high and low tides

The Arcadians also devised a system of drainage ditches with an ingenious one-way water gate called an *aboiteau*. The *aboiteau* (see Figure 7.5.3) was a hinged valve in the dyke that allowed fresh water to run off the marshes at low tide but prevented salt water from flowing onto the farmland as the tide rose. After letting rain (and snow) wash away the salt from the marshes over a period of 2–4 years, the Arcadians were left with fertile soil that yielded abundant crops.

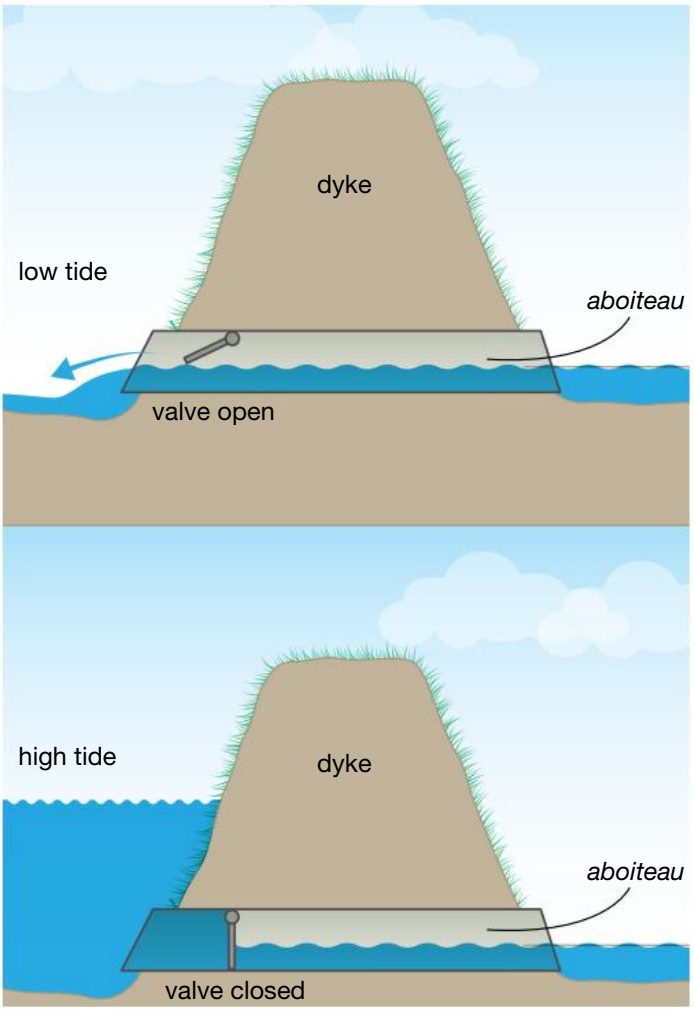
Building and maintaining the complex system of dykes and valves required a high level of cooperation. Everyone had to be vigilant and ready at all times to repair breaches that could be caused by storm waves or simply by soil erosion.

Impacts of tourism

As far back as the nineteenth century, the Bay of Fundy was a popular tourist destination. With the growth in **ecotourism** and nature-based tourism in the last 20 years, tourism in the region has boomed, and now more than 1.2 million people visit the region annually.

Tourism needs to be well managed to bring substantial economic benefits to the local community without causing significant harm to the environment. Tourism has a number of impacts on the bay's environment.

- Many migratory bird species stop in the Bay of Fundy on their annual migrations. Sandpipers feeding on the exposed mud flats at low tide are disturbed by large numbers of tourists and the time they have to feed is reduced.



7.5.3 The ingenious one-way water gate, called an *aboiteau*, used to drain Nova Scotia's marshlands

- There are more than twenty whale-watching businesses in the bay, and careful management is needed to ensure that the whales are not stressed by too much human interaction.
- About 200 000 people now visit the Bay of Fundy each year on cruise ships. The ships coming into the bay are getting larger and there are concerns that the wake of the large ships will increase erosion of both the bay floor and the surrounding cliffs.

Tidal power

The huge tides in the Bay of Fundy make it an ideal location for the development of a tidal power industry, but there some serious environmental concerns about tidal power. The large turbines (see Figure 7.5.4) and associated equipment can alter the flow of currents and sediments in the bay. The blades of the turbines can hit animals and the noise they create interferes with animal movements in the bay. One of the least understood but most significant concerns relates to the electromagnetic fields created by the turbines. Many species, such as rays, sharks and many shorebirds, use the Earth's natural electromagnetic fields to navigate. The huge turbines create their own fields and this can confuse the animals and lead to navigational errors as well as cause distress.

7.5.4 Part of a huge wave energy turbine being transported to a site in the Bay of Fundy

Climate change

The high tidal range in the Bay of Fundy means that the area is subject to very high levels of erosion. Studies conducted by scientists working for the Province of Nova Scotia have found that tides may rise by as much as 10 per cent in the Bay of Fundy as a result of climate change. Of particular concern is the impact of this on salt marshes (see Figure 7.5.5) and mud flats.

The flora and fauna located in the mud flats and salt marshes have adapted to the inundation from the incoming tides twice a day. As sea levels rise, less and less of the salt marshes and mud flats are exposed at low tide, destroying the ecosystem that the plants, animals and micro-organisms have adapted to. Climate change will also cause an increase in storm activity, which will lead to more erosion.

Local authorities are planning management strategies for reducing the impact of climate change on the delicate ecosystem of the Bay of Fundy. One of the most important strategies is to closely monitor the effects of rising sea levels on the shoreline environment. This includes gathering data on wave energy and its impacts on erosion, and undertaking detailed studies of threatened species. With a bank of data, better management strategies can then be devised to help protect the bay from climate change.

Some of the strategies being planned for the bay include:

- construction of sea walls and other sea defences
- soft engineering
- revegetating salt marshes further inland
- beach nourishment, which involves dumping additional sand onto beaches after erosion by storms and high tides
- construction of vegetation strips using plants such as seagrasses to reduce the speed of waves as they approach the shoreline.

Introduced species

Foreign species are most commonly introduced into the bay by ships. As ships move around the world, species attach themselves to the hull and 'hitch' a ride to new areas. Ballast water can also contain unwanted species. Ships take on ballast to weigh them down when they have light loads and release the water once they take on heavier loads. When pumping in the ballast, foreign species can be taken on board and then discharged elsewhere.

Common periwinkle

The common periwinkle is believed to have been introduced into the bay in the early 1800s, possibly intentionally to provide a source of food. This snail-like mollusc lives in large numbers on the rocks and mud flats of the intertidal zone. The periwinkle's success has come at the expense of native molluscs, several of which have disappeared from the bay.

7.5.5 Salt marshes, like these at Fox River in the Bay of Fundy, are at risk as a result of climate change.

European green crab

The European green crab competes with native oysters, molluscs, crabs, scallops and a range of other species in the bay. It has a wide diet and its numbers have increased significantly.

Aquatic plants

Codium, shown in Figure 7.5.6, is not yet well established in the Bay of Fundy but scientists are very concerned about it. Sometimes called green sea fingers, it grows very densely and chokes out native species. It also reduces sunlight penetration, so that the sea floor often becomes barren. This disrupts the food chain, affecting many species.

Local and international protection

The importance of the Bay of Fundy is recognised at a global level through the Ramsar Convention. Four specific areas within the bay are protected under the Ramsar Convention, which requires the Canadian government to ensure their protection and management. There are also many other areas of the Bay of Fundy that are protected by federal, provincial and local governments. These range from large areas such as national parks through to small conservation areas that are managed by local authorities.

7.5.6 Codium is an introduced seaweed that has the potential to cause great damage in the Bay of Fundy.

7.5.7 The dyke lands are an important part of the Bay of Fundy. Restoration work is beginning to return parts of them to their natural state.

Managing introduced species

Management of introduced species is complex, but the most effective strategy is to intercept them before they arrive. Strict regulation of commercial shipping is important for the Bay of Fundy; for example, the hulls of ships must be painted with anti-fouling paint. This special paint is applied to the bottom of a ship to stop molluscs and aquatic plants from attaching themselves. Without anti-fouling paint, species can 'catch a free ride' on the hulls of ships and travel into new waters, where they compete with local species.

Controls over the discharge of ballast water have also been introduced. Ships entering the Bay of Fundy must now discharge their ballast well out to sea, and nets must be installed over ballast intakes.

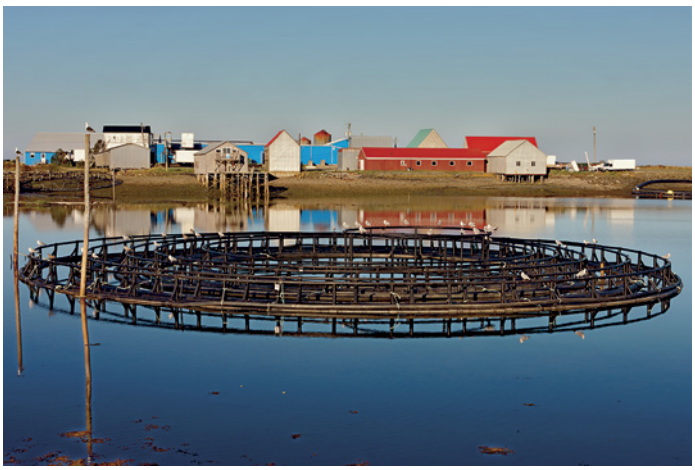
Restoration management strategies

The environmental importance of the marshes is now recognised, and a number of projects to restore this environment are now underway. In the Upper Bay of Fundy, a number of dykes have been removed, along with some dams that blocked waterways. As a result of these actions, fresh water is beginning to move back across the low-lying areas and the tidal flow is being restored.

Studies have shown that salt marshes and other wetlands can quite quickly re-inhabit the restored areas. At a 13-hectare test site on St Croix River, when a dyke was removed, former farmland began to return to a wetland habitat within a year. Plants began colonising the area once the tidal flows returned, and birds and other species began to return soon after (see Figure 7.5.7).

Managing aquaculture

There is a growing aquaculture industry in the Bay of Fundy. Most of the farms produce salmon in large cages in parts of the bay (see Figure 7.5.8). One of the consequences of the salmon farming is that large amounts of nitrogen and phosphorus are produced by uneaten fish food and the digestive systems of the fish.



7.5.8 Aquaculture in the Bay of Fundy requires careful management.

These chemicals can interrupt the normal food chain and cause the growth of algae, which can produce an imbalance in the environment. Scientists from the University of New Brunswick and elsewhere have been working on solutions for reducing the environmental impacts of aquaculture on the bay.

One strategy is to use the by-products of the fish and the uneaten food as a source of food for other commercial species. For example, kelp and mussels are grown on ropes around the cages. They use the nutrients added by the fish farms to grow, consuming them before they enter the broader environment. Ultimately, it is expected that the kelp and mussels can then be harvested and sold for food and other commercial purposes.

Spotlight

Learning from the First Nations

Canada has a significant indigenous population. In the north are the traditional lands of the Inuit people. In the rest of Canada, the indigenous people are known as the First Nations. In the Bay of Fundy region, the Mi'kmaq people are the traditional owners. They have a strong cultural and religious connection to the land and waters of the region, and have developed an intimate knowledge of the environment over the centuries.

The knowledge of the Mi'kmaq people is now being recognised and utilised to assist in the management of the Bay of Fundy. Before major projects take place in the region, the Mi'kmaq people are consulted and a special study known as a Mi'kmaq Ecological Study (MEKS) is undertaken. These special studies incorporate the unique knowledge and perspective of the indigenous traditional owners into broader environmental assessments.

Activities

Remembering and understanding

1 Explain the reason for the massive tides in the Bay of Fundy.
2 Describe the impact of tourism on sandpipers.
3 Describe the impact of climate change on the Bay of Fundy.
4 Outline the strategies being developed to manage climate change in the Bay of Fundy.
5 Describe the role of shipping in introducing foreign species into the Bay of Fundy.
6 Explain the impact of codium on the environment of the Bay of Fundy.
7 Explain how the peoples of the First Nations of the Bay of Fundy are helping to manage its environment.
8 Outline the impacts of aquaculture and the strategies used for managing these impacts.

Applying and analysing

9 Take on the role of environmental scientist for the province of Nova Scotia. You have been appointed to conduct community briefings on the impacts of climate change and how communities can better manage these impacts. Using the information in the text and research from the internet, prepare a digital presentation and present it to the class.
10 In a small group, design an educational campaign about the risk of codium to the Bay of Fundy. Your campaign should be targeted at local people and outline the problem as well as how locals can help deal with the threat. You may wish to design a digital campaign, posters or radio or television advertisements.
11 Prepare a short report on how the dyke lands of the Bay of Fundy are being rehabilitated.
12 As a class, discuss whether the benefits of tidal power outweigh the impact on the environment. Justify your response.

Evaluating and creating

13 Using the internet, conduct research into tourism in the Bay of Fundy. Make a list of the type of activities that can be done in the bay. Share your list with a partner and together brainstorm the potential impacts of the activities on the environment. Record this in a mind map or list.

Forests

G1

Each year, approximately 16 million hectares of forests disappear. Only about 22 per cent of the world's original (old-growth) forest cover remains intact. Today, forests cover more than one-quarter the world's total non-polar landmasses. Slightly more than 50 per cent of forests are found in the tropics and the rest are temperate forests in areas with mild climates and boreal forest zones.

In this chapter, we focus on environmental change and management using forest environments as an example. Of particular interest are the causes and consequences of the changes taking place and an evaluation of the strategies being used to manage these changes.

OVERVIEW QUESTIONS

G1A What are the principal causes of environmental change in forest environments?

G1B What are the impacts of the environmental changes taking place in forest environments?

G1C What environmental management strategies are being used to protect forest environments? Are these strategies effective?

LS Before you begin

G1.0.1 Aspens in full autumn colour, Carson National Forest, New Mexico

GLOSSARY

biodiversity corridors continuous and connected areas of land that connect healthy ecosystems and help to maintain biodiversity

biomass plant material that comes from living, or recently living, organisms; biomass can be burnt directly to produce heat, or converted to various forms of biofuel; it is an energy source

bioregion a region defined by the natural environment rather than by human-made demarcations

carbon sink a natural or artificial reservoir (contained area) that can absorb and store carbon dioxide

connectivity conservation a corridor of protected forest lands that extend over hundreds or thousands of kilometres to protect biodiversity and critical ecological processes

conservation reserves areas of land that are protected by law to maintain biodiversity and/or natural or cultural heritage values

deforestation the removal of large expanses of trees for their timber or to make way for other land uses

emergent trees trees that tower above the forest canopy

endemic native to a certain place

environmental strategy a plan of action intended to accomplish a specific environmental objective

overstorey the upper tree layer or canopy of a forest, where the crowns of the trees spread their branches and foliage to capture light to photosynthesise

population viability the ability of a population of a species to persist over time and avoid extinction

shifting cultivators people who clear a small patch of forest to grow food for a short period of time; when the land is exhausted, the people move on to clear another patch

subsistence producers farmers who grow just enough food to feed themselves and their families

transboundary pollution air and water pollution that travels from one area to another, often crossing state or international boundaries

understorey the smaller plants adapted to the shady conditions of the forest floor

G1.1 The biophysical environment

Forests

Forests are lands dominated by trees. They are dynamic, relentlessly changing communities of living things that also interact with the non-living components of the environment. Forests have long been considered special wild places, but humans have exploited them and the damage is becoming increasingly evident.

Elements and processes of the biophysical environment

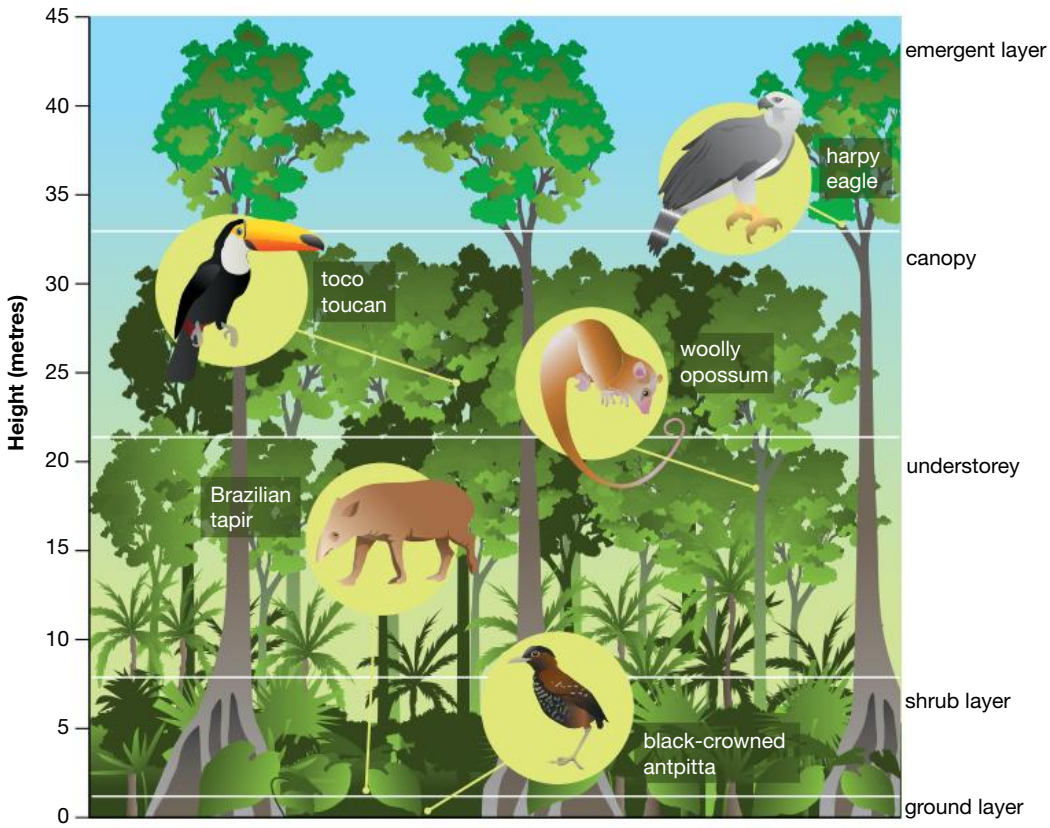
To be classed as a forest, the trees that make up the forest must be more than 2 metres high and shade more than 20 per cent of the ground. To a person standing on the floor of the forest and looking upwards, more than 20 per cent of the sky would be covered by the foliage of the crowns of the trees. The crown of a tree is all the branches and leaves that extend from the main trunk or stems.

A typical forest is composed of an **overstorey** and an **understorey**. The upper tree layer, or canopy, is made up of the crowns of the trees, where the branches and foliage spread to capture light to photosynthesise. Underneath is an understorey of smaller plants. In complex forests such as tropical rainforests, the stratification (layering) of the forest forms five distinct layers, as illustrated in Figure G1.1.1. **Emergent trees** tower above the general leaf cover of the canopy, and an understorey of smaller trees wait for their chance to fill a gap in the canopy when an old tree dies. Beneath them, in the shrub layer, are shrubs and ferns suited to the low light conditions, and a ground layer that has little vegetation other than fallen leaves, seeds, fruit and decaying organic matter amid the massive roots and trunks of the trees.

Figure G1.1.1 also gives examples of some rainforest species that live in the different layers of the forest.

Types of forests

Forests can be categorised in different ways. One is in terms of latitude in which they exist (tropical forests which have only a wet and a dry season, temperate forests which have milder temperatures with four distinct seasons and cold forests which have long winters and short summers), combined with the leaf longevity of the major species (either evergreen, which remain green throughout the year, or deciduous, which seasonally shed their leaves).

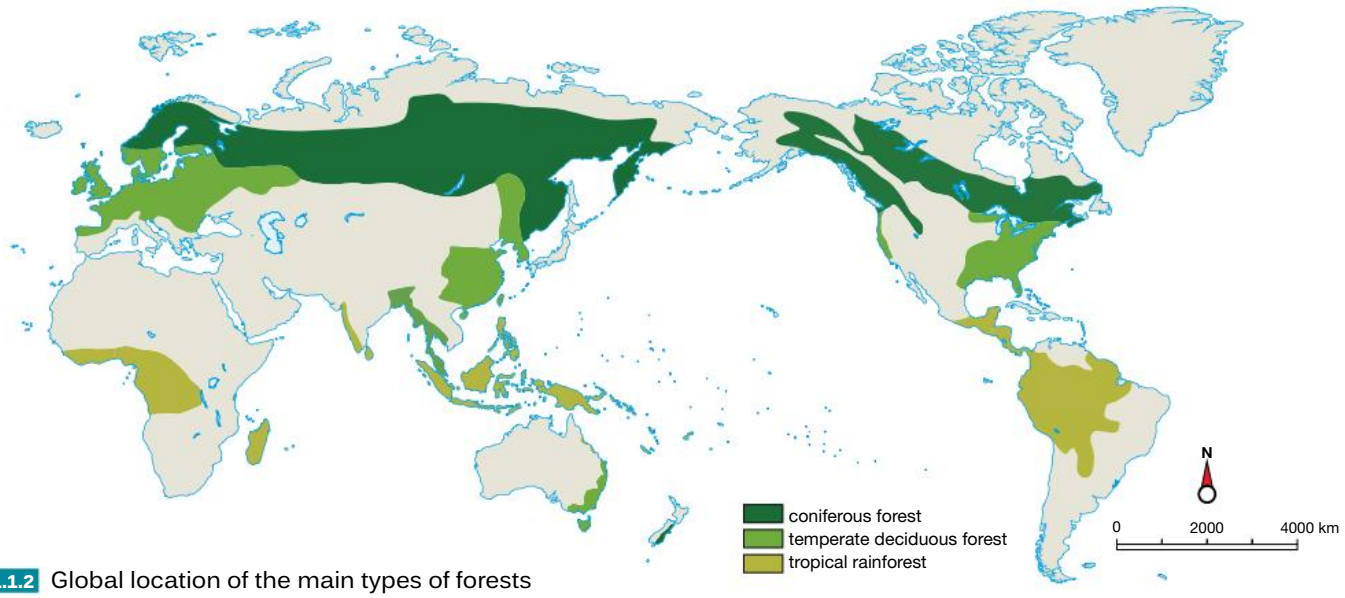


G1.1.1 Each of the five layers of a tropical rainforest has specialised niches of plant and animal species.

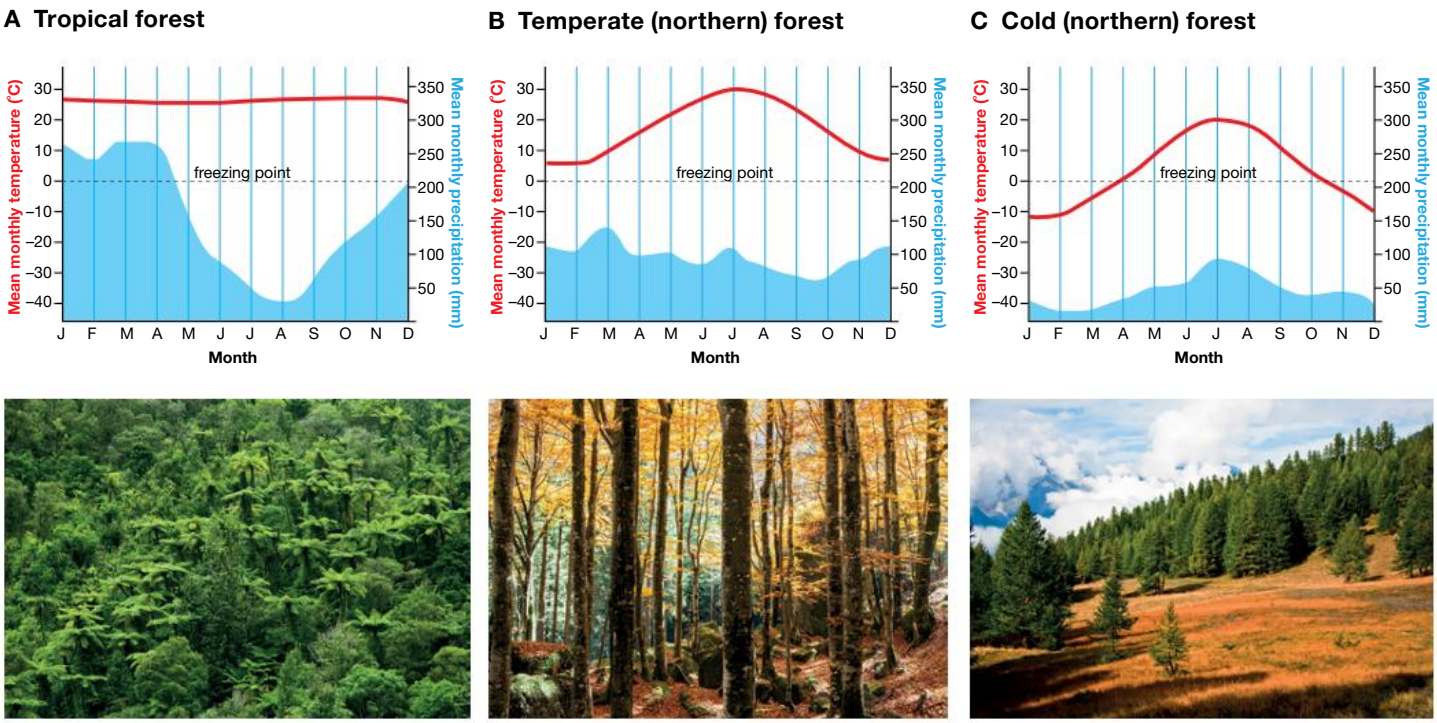
Another categorisation is based on whether they comprise of broadleaf trees or coniferous-needle leaved trees or mixed.

Figure G1.1.2 shows the location of forests around the world based on latitude.

Different types of forests respond to particular combinations of varying temperature and precipitation which create unique biophysical environments (see Figure G1.1.3).



G1.1.2 Global location of the main types of forests



G1.1.3 These climate graphs track the typical variations in annual temperature (red) and precipitation (blue) in (a) tropical, (b) temperate and (c) cold (northern coniferous, taiga or boreal) forests.

Forest characteristics

Table G1.1.4 illustrates the main locations of different types of forests, as well as the climate, characteristics and processes.

G1.1.4 The elements and processes of different types of forest environments

Type of forest	Location	Climate	Characteristics and processes
Tropical rainforests	• From 0° to 10° north and south of the Equator in areas such as the Amazon Basin, Central Africa, Central America, Papua New Guinea and the islands of South-East Asia, and also extend down the east coasts of continents, e.g. Australia, where tropical rainforests are found in northern Queensland.	• Optimal conditions for plant growth as it is constantly hot (24°C to 28°C) and continuously wet (>1500 mm/year). • Climate dominated by the unstable air of low pressure systems (a product of the intense heating). • Large volume of water readily available to the plants but presents the greatest threat—leaches out soluble nutrients.	• The most luxuriant and dense of all forests. • Dominated by broadleaf evergreen plants that keep their leaves all year, shedding only a few at a time as they become damaged, reducing their ability to capture light. • Trees are draped with vines or lianas that spread their leaves out in the canopy to access sunlight. • Very large biomass with immense biodiversity: many species; structurally dominated by trees; possesses many nutrient-conserving mechanisms (e.g. drip tips on leaves; mycorrhizal fungi wrapped around plant roots to quickly mop up nutrients in the soil before they are leached out by the excessive water). • The humus soils nourished by decaying leaves quickly become poor if the living rainforest is removed (aside the biomass is the source of nutrients).
Temperate deciduous forests	• Located primarily in the eastern half of the United States, Canada, Europe and parts of Russia, China, and Japan.	• Moderate temperatures that change significantly with the seasons. • Warm summers (20°C to 27°C) and cold winters (5°C to 10°C). • Abundant precipitation evenly distributed throughout the year. • Trees survive winter by becoming dormant (alive but not actively growing), shedding leaves in autumn and replacing them in spring.	• The forest has a simple structure dominated by a few species, e.g. oak, maple, beech. • Most trees have broad leaves that are shed in winter to avoid damage from freezing. • Deep, rich soils enriched by the thick layer of fallen leaves that accumulate in the autumn.
Evergreen coniferous forests	• These cold forests are found just south of the Arctic tundra in a broad belt across the northern regions of North America, Asia and Europe. • They also sit above certain altitudes in the Rocky Mountains and Sierra Nevada of the United States.	• In the subarctic climate, winters are long (5–7 months in a year with days having only 6–8 hours of daylight), dry (cold air holds limited moisture) and extremely cold (< –30°C). • Summers are short and mild (short growing season).	• Dominated by a few species of evergreen conifer trees (cone-bearing) such as spruce, fir, cedar and pine. • The small, needle-shaped, waxy-coated leaves of these trees conserve water at all times, which is vital when the ground is frozen. • The trees are evergreen and, as they do not have to grow new needles, when the weather warms they can quickly take advantage of the brief summer. • Plant diversity is low because few species can survive the winter when the soil moisture is frozen. • Thin, nutrient-poor soils have a deep layer of partially decomposed pine needles (because of the low temperatures) which makes the soil acidic and prevents other plants growing on the forest floor. • During the brief summer, the soil also becomes waterlogged in low-lying bogs.

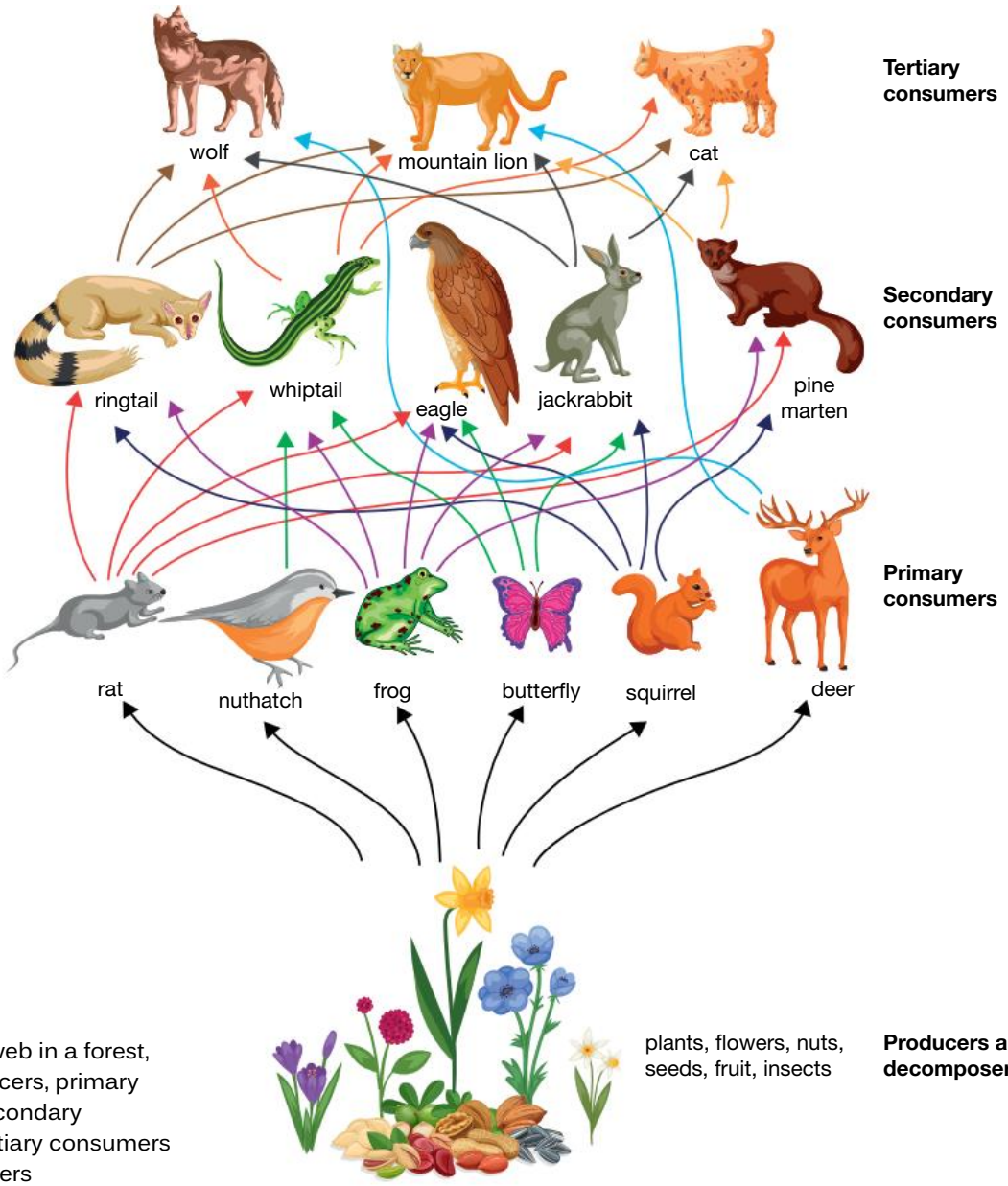
Forest animals

Many of the larger animals of the world's forests are shy and unobtrusive. Quite often the only sign of larger animals may be a distant rustle of undergrowth or leaves as they make their escape. They are, however, fierce predators. The jaguars of the tropical rainforests of Central and South America have an exceptionally powerful bite that pierces the skull of their prey. The Bengal tigers of South-East Asia are well camouflaged in the rainforests by their stripes, which enable them to get very close to their prey. They have even been known to take down elephants.

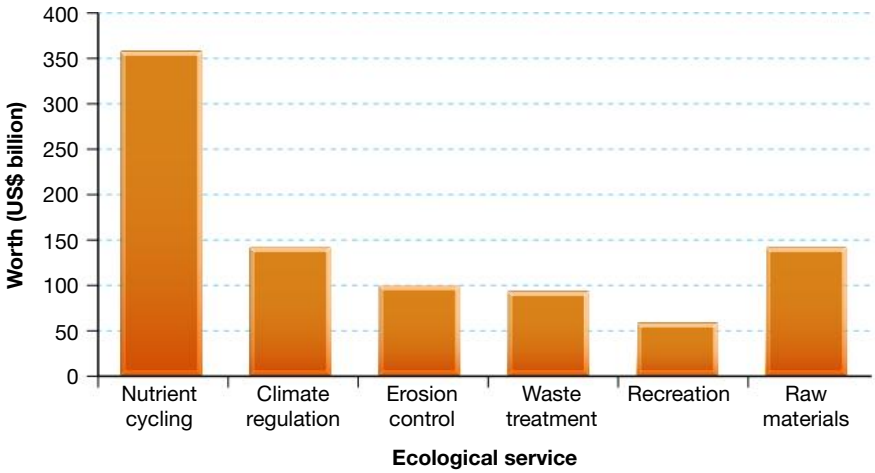
The most noticeable animals in the forests live among the branches of the trees. Birds, insects, squirrels and monkeys dart and glide from one tree to another, filling the rainforest with their calls and screeches. Yet it is the lives and habits of shyer and smaller creatures out of sight that are vital elements of the forest environment. None are more important than those found in the dark world below ground, where hordes of decomposers rapidly recycle the scarce soil nutrients that support the ongoing growth of the life forms above.

Interactions and natural balances

Forests offer many ways of living for a host of species of plants and animals. As a result, there is an immense **biomass** and biodiversity within forests. During the long course of evolution, animal and plant species have been shaped by the forest environments of which they are a part. Species, in turn, have had vital roles to play in maintaining natural balances that sustain life within those environments. The food web in Figure G1.1.5 shows some of the elements of, and interactions in, a tropical rainforest ecosystem.



G1.1.5 A food web in a forest, showing producers, primary consumers, secondary consumers, tertiary consumers and decomposers



G1.1.6 Annual global economic values of some ecological services provided by forests, and the value of the raw materials they produce

Importance of the forest environment

Forests fulfil a major role in supporting the livelihoods and welfare of vast numbers of people in both developed and developing countries. Increasingly, the significance of forests in maintaining natural balances is being recognised. Scientists warn that clearing and degrading the world's remaining forests is a serious global environmental threat.

Ecological services

Forests are of immense importance in sustaining life on Earth. They:

- support energy flow and nutrient cycling
- provide natural habitat
- promote biodiversity
- reduce soil erosion and protect water catchments by holding the soil in place
- absorb and release water, and aid in flood control
- purify water and air
- decompose wastes
- store atmospheric carbon
- produce oxygen
- influence local and regional climate.

Scientists have estimated the value of such ecological services and, as illustrated in Figure G1.1.6, it far outweighs the monetary value derived from the raw materials extracted from rainforests.

Economic services

Forests are valued for the economic worth of the raw materials they provide. More than 1.6 billion people around the world depend on forests for their livelihoods. Harvesting wood is one of the world's major industries; over half of the wood removed from the world's forests is used for fuelwood in cooking and heating, and the remainder is used in construction and papermaking. Global trade in non-wood forest products such as fruit, medicinal plants, fibre, gums and resins has recently been estimated at approximately US$11 billion per year.

Spiritual functions

People value forests for many reasons. The social and cultural values of forests are intangible and so cannot be measured in monetary terms, but they can be profoundly important to people's sense of being and belonging. These values define worldviews and shape people's interactions with the natural world around them. Forests 'often bear a deep significance, inspire affection and respect, reinforce cultural identity and are vital for spiritual wellbeing', according to the International Institute for Environment and Development.

For indigenous people living in forests there is no separation between the spiritual and the physical worlds. They believe that spirits exist in the trees and the animals in the forest, and that they as humans are connected to them. The spiritual value of the forests is reflected in their traditions and folklore.

In European folklore and fairytales, forests—often referred to as the 'woods'—are associated with mystery and lurking dangers. Powerful people have sought to have forests of their own. The Norman kings of England enclosed the forests around their castles for their own sport and pleasure. In today's world this same desire to hold onto forests can be seen in the creation of parks and reserves, which are now forests that ordinary people can enjoy. In an increasingly stressful world, making a connection with nature and experiencing the tranquillity of standing beneath towering trees has become especially appealing.

Did you know?

The total area of the world's forest cover is 4 billion hectares, which represents nearly 30 per cent of the Earth's landmass. Approximately 56 per cent of these forests are located in tropical and subtropical areas.

Spotlight

Forests are carbon sinks

Forests affect climate change because they influence the amount of carbon dioxide held in the atmosphere. Through photosynthesis, trees remove carbon dioxide from the atmosphere and store it for long periods of time until the trees fall over and rot, or are burnt, when the carbon dioxide goes back into the atmosphere. So living forests act as **carbon sinks** and they help to stabilise average atmospheric temperatures and slow climate change. The world's forests hold more carbon than the entire atmosphere.

G1.1.7 South-west Tasmania's heritage-listed forest

Activities

Remembering and understanding

1. Identify the main features of a forest environment.
2. Differentiate between the two layers of a typical forest.
3. Describe and account for the variety of plants and animals that live in forests.
4. Outline the economic services provided by forests.
5. Explain how atmospheric carbon becomes stored carbon and why forests are such vital 'carbon sinks'.

Applying and analysing

6. Explain the spiritual values that forests hold for people.
7. Prepare a poster that captures the service, carbon sink and spiritual functions of forest environments.

Evaluating and creating

8. Study Figure G1.1.6 and answer the following questions.
   - a. What is the value of raw materials gained from rainforests?
   - b. What is the combined value of all the other ecological services?
   - c. If extracting raw materials necessitates cutting down forests, what is the significance of this graph?

G1.2 Causes of environmental change

Humans and forests

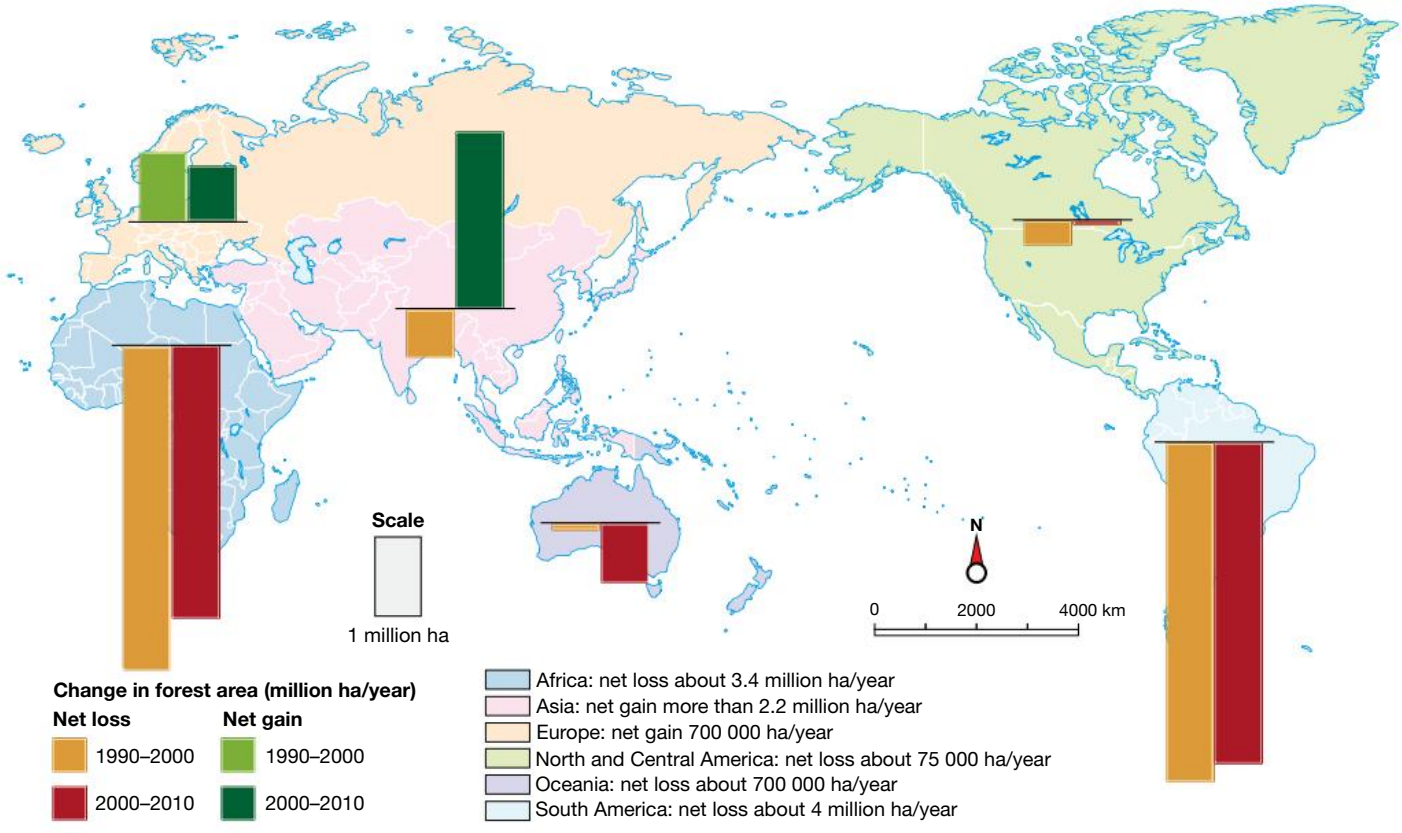
Meeting basic human needs and pursuing higher standards of living have destroyed many of the world's forests. For thousands of years, as settlement spread across Europe and North America, the temperate forests that once covered the land were cleared. The clearing of tropical rainforests escalated in the latter part of the twentieth century.

While humans have long considered forests to be special places, the products that they yield, or the ground on which they stand, is often valued above all else. Our ancestors felled trees for fuel and building materials, and cleared forests to grow crops and pastures for their stock. The trees were removed because they were obstacles to farming practices and they captured most of the available sunlight, leaving little for other types of vegetation underneath. Throughout Europe and North America, trees were associated with fertile land, which was highly favoured for agriculture.

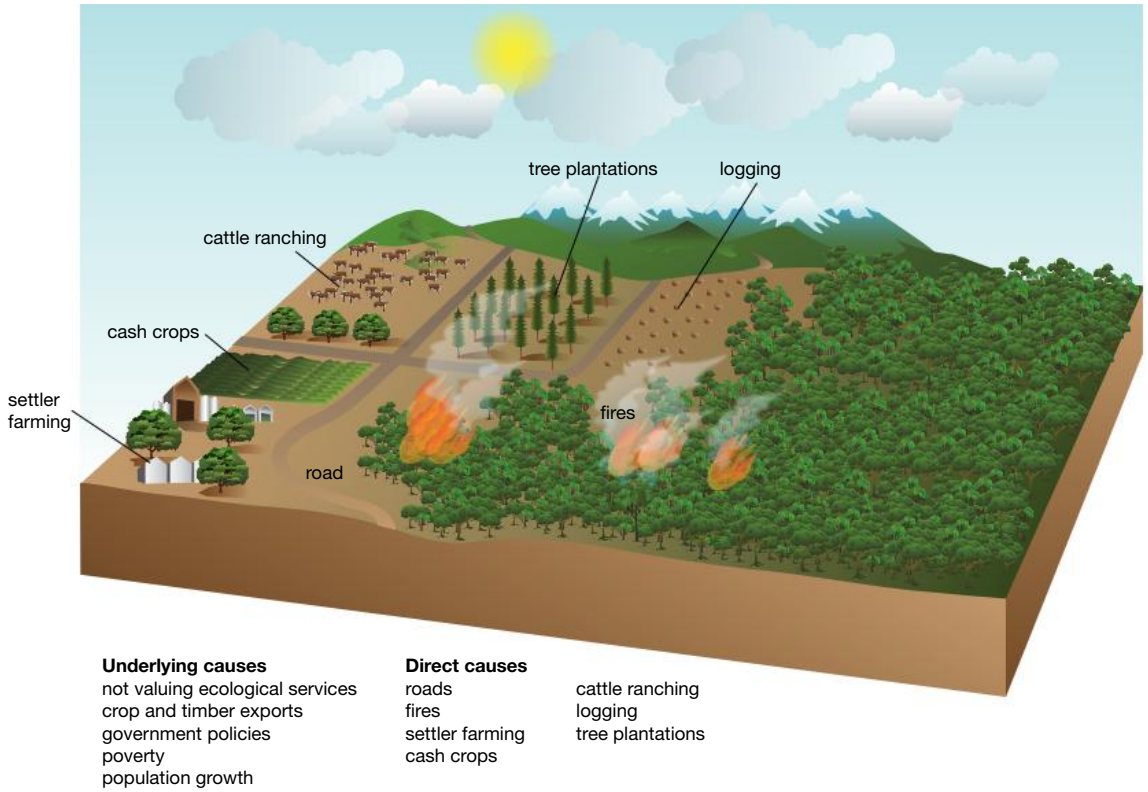
Population growth

The growth and spread of the world's population has been accompanied by increasing demands for land and forest resources. Technological advancements have meant that more forest resources can be extracted, leading to increased environmental change. Axes and crosscut saws have given way to chainsaws and modern electro-hydraulic harvesters, enabling whole slabs of forests to be clear-felled with greater speed. Areas of forest that were once spared because they were inaccessible or on slopes that were too steep are now being exploited.

Forest removal, or **deforestation**, is the most evident of the changes wrought by humans on forest environments. However, there are other significant threats to forest environments that directly or indirectly arise from human activities.



G1.2.1 Annual change in forest area by region, 1990–2010. Losses are highest in South America and Africa. Australia had significant net losses in the period 2000–10 because of drought and fires.



G1.2.2 Major causes of the destruction and degradation of tropical forests

Deforestation

Deforestation is the removal of large expanses of trees to provide agricultural land, timber and lumber products, and more recently, for energy and mineral extraction. According to the World Resources Institute (WRI), over the last 8000 years, human activities have reduced the Earth's original forest cover by about 46 per cent, with most of the loss occurring in the last 60 years. The WRI estimates that about 40 per cent of the world's remaining intact forests will be logged or converted to other uses within two decades, if not sooner.

Current global concerns about deforestation are mainly about the conversion of tropical forests to agricultural land. Such losses are concentrated in areas of South America, Africa and Indonesia. Rates of deforestation were highest in the 1990s, when 16 million hectares of forest were converted to other uses or lost through natural causes each year. This eased to about 13 million hectares from 2000 to 2010.

The rate of deforestation shows signs of decreasing, but it is still alarmingly high in several regions, as is shown in Figure G1.2.1. This map shows regions of the world and the increase in forests (net gain, shown by green graphs above the black line) or destruction of forests (net loss, shown by orange and red graphs below the black line). Two time periods are compared—the decade of 1990–2000 and the more recent decade from 2000–2010—to show if the situation is getting better or worse over time.

Deforestation usually begins when a road is cut deep into a forest. This provides access to loggers and their equipment, and also settlers (see Figure G1.2.2). Clear-cutting, whereby all the trees are uniformly cut down, is the most efficient way for a logging operation to harvest timber. Foreign companies do much of the logging in tropical rainforests, often with government support. Once the timber has been removed, the land is sold to ranchers, settlers and plantation owners. Any remaining forests are usually burnt to clear the land. Such burning has been widely used to establish large plantations of soybeans in the Amazon Basin of Brazil and palm oil in Kalimantan and Sumatra in Indonesia.

Acid deposition

Acid deposition means how much acid is deposited or falls in a forest. Industrial emissions have increased the concentrations of oxides of sulfur and nitrogen within the atmosphere. These combine with atmospheric moisture to produce sulfuric and nitric acids. The acids may then be carried long distances from their source, drifting for thousands of kilometres before they fall on the forest biomass as acid rain, snow or fog, and dry deposits such as soot and ash.

The widespread damage of acid deposition on forests has become evident in recent decades. Most of the forests in Eastern Europe, extending from Poland northward into Scandinavia, have had acid deposition. Many areas in south-eastern Canada and the eastern United States of America have been affected, particularly in the high elevation forests of the Appalachian Mountains from Maine to Georgia, where the forests sit in acidic clouds and fog.

Climate change, fire, disease and insects

Warmer and drier conditions are triggering rapid changes in the forests of North America. As trees are weakened by a lack of water they become vulnerable to diseases such as needle blight and intense insect attacks such as beetle infestations. Milder winters favour the survival of these invasive species, which multiply and kill more trees. The combination of drier forests and dead trees also increases the frequency and intensity of forest fires. As a result, millions of trees are being lost and the landscape is changing as tree species migrate (see Figure G1.2.3).

Biophysical processes changing forests

Forest environments support an immense biomass and rich biodiversity. Such great assemblages of flora and fauna are a product of 400 million years of evolution. Over this time, natural change has been evident but, as it was gradual, species had time to adjust and balances were restored. Current concerns about the impact of humans on forests, notably with climate change, are that it is happening too fast for nature to keep up with, and mass extinctions may result.

Nutrient cycling in the Amazon Basin

Nutrient cycling is the movement and exchange of organic and inorganic matter. The luxuriant growth of the rainforest is not a product of rich soils underneath. Rather, the rainforest supports itself by quickly and efficiently recycling decaying vegetation debris (waste) that falls to the forest floor. Fast recycling is especially important because almost daily downpours of rain might leach (drain) the nutrients out of the soil and carry them away. A whole range of adaptive processes help retain nutrients.

The impact of deforestation and subsequent farming in the Amazon Basin has caused the soil to become unproductive and impoverished within a matter of years. Once the biomass of the forest has gone, the source of nutrients for the soil disappears too. As the crops are harvested and consumed, little is returned to the soil. The problem is compounded when the heavy rain washes away the topsoil, leaving a clay-rich subsoil to bake in the hot tropical sun, forming a lateritic, or reddish clay, crust on the ground that is as hard as bricks.

Forest soils changing from acid deposition

Acid deposition does not usually kill trees directly, but it does weaken them by changing the biophysical processes at work in the soil in which the trees stand. The acidic water dissolves the useful minerals the tree depends on and washes them from the soil before the tree roots can use them. It can also activate aluminium in the soil, which inhibits tree growth.

Consequences of environmental change

Forest changes

A team of scientists from Oregon, Montana and British Columbia have documented large movement of tree species across North America. This change is occurring on a broad landscape level. In some cases, the causes of change are fire, insect attack or simply drought. For example, during a drought some tree species in a forest die out, these are replaced by other trees or vegetation and the original species never recovers. In central California, researchers have found that more than half the species now in existence would not be expected to survive in the climate conditions of the future.

G1.2.3 Dead, red lodgepole pines in Colorado are indicative of the landscape change underway.

Peat fires in Indonesia

In Kalimantan, Indonesia, peat (undecomposed vegetation) lays protected in boggy soils below the forest. If this peat catches alight, the fires are very difficult to stop. Forest and land fires have caused **transboundary pollution** with smoke haze over South-East Asia for decades. The indicators of air pollution in Singapore, the southern Malaysia peninsula and elsewhere in Indonesia reached dangerous levels in 2013.

G1.2.4 Forest and land fires caused choking smog and transboundary haze in South-East Asia in 2013.

Activities

Remembering and understanding

1. Define the term 'deforestation'.
2. Compare the rates of deforestation in the 1990s and early 2000s.
3. Explain why acid deposition has damaged forests.
4. Identify the major causes of landscape changes in the forests of North America.

Applying and analysing

5. Explain why humans must be included in any investigation of environmental change in global forest environments.
6. Study Figure G1.2.1 then answer the following questions.
   - a. What was the approximate net forest loss for South America in 2000–10?
   - b. What was the approximate net forest loss for Africa in the two decades shown?
   - c. What was the approximate difference in the net forest loss for Oceania in the two decades shown?

Evaluating and creating

7. Investigate nutrient cycling in a tropical rainforest. Present your findings on a poster annotated with text boxes outlining the nutrient-conserving processes that support the luxuriant forest growth.
8. Investigate deforestation and plantation agriculture in either the Amazon Basin or Kalimantan. Present your findings as a feature newspaper article.

LS G1A

G1.3 Managing environments

Forest change

As environmental changes in the world's forests have become more evident and extensive, scientists have become concerned that the changes taking place are threatening the forests' survival. Understanding different worldviews gives us different perspectives on forest management. Human-environment systems thinking are being used to identify the causes of the changes taking place and to help develop effective strategies to manage them.

People's worldviews and forest management

Human-centred worldviews

Today, many of the world's tropical rainforests support a mixed population of farmers, ranchers, rubber tappers, construction workers, and forestry and plantation workers. These workers and their families often originate from outside the forest and have a human-centred worldview of the rainforest. They see it as a resource to be exploited.

Poverty is widespread in many tropical areas. Settlers move to the forest to find ways of making a living and avoiding poverty. They can gain access to the forest on the roads built by logging or mining companies (see Figure G1.3.1). For the most part, these migrants have a human-centred worldview, driven by a desperate need to feed their families. They clear the forest using the slash-and-burn method of production, but their practices are highly destructive. Not only are they armed with steel axes and chainsaws, but they also lack the skills of the original forest dwellers. The soil is quickly exhausted, the crops start to fail and the settlers simply clear more land.

As a result, larger and larger areas of forest are cleared, creating large open tracts of land. This makes it harder for the forest to regenerate, as seeding trees are too far from the cleared land. Slash-and-burn agriculture is now the main cause of deforestation in Latin America and Africa and the second most significant cause in Asia after plantation agriculture.

Stewardship worldviews

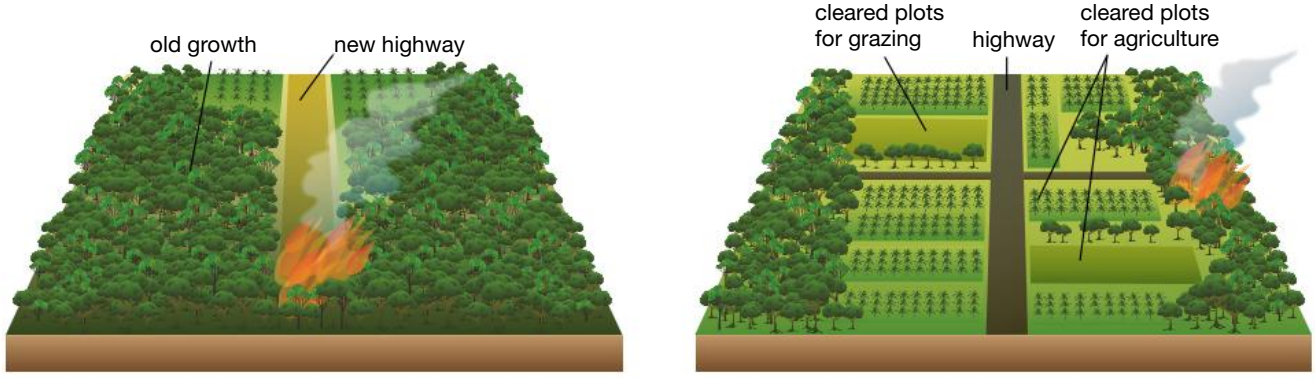
The first people to make a living within rainforests were probably hunter-gatherers, who travelled over huge territories in search of food. They had the ability to identify thousands of different types of plants and animals, and to recognise those that were edible or dangerous. The low population densities of tribes meant that forest resources were not over-exploited.

Early forest dwellers were also farmers. Traditional **shifting cultivators** cleared small patches of forest to grow food in gardens. Once a site was chosen, fruits and anything useful were harvested. Then trees were killed by ringbarking (removing a strip of bark from around the tree) and the undergrowth was hacked. When the undergrowth had dried out it was burnt to create a layer of ash that temporarily fertilised the soil (see Figure G1.3.2).

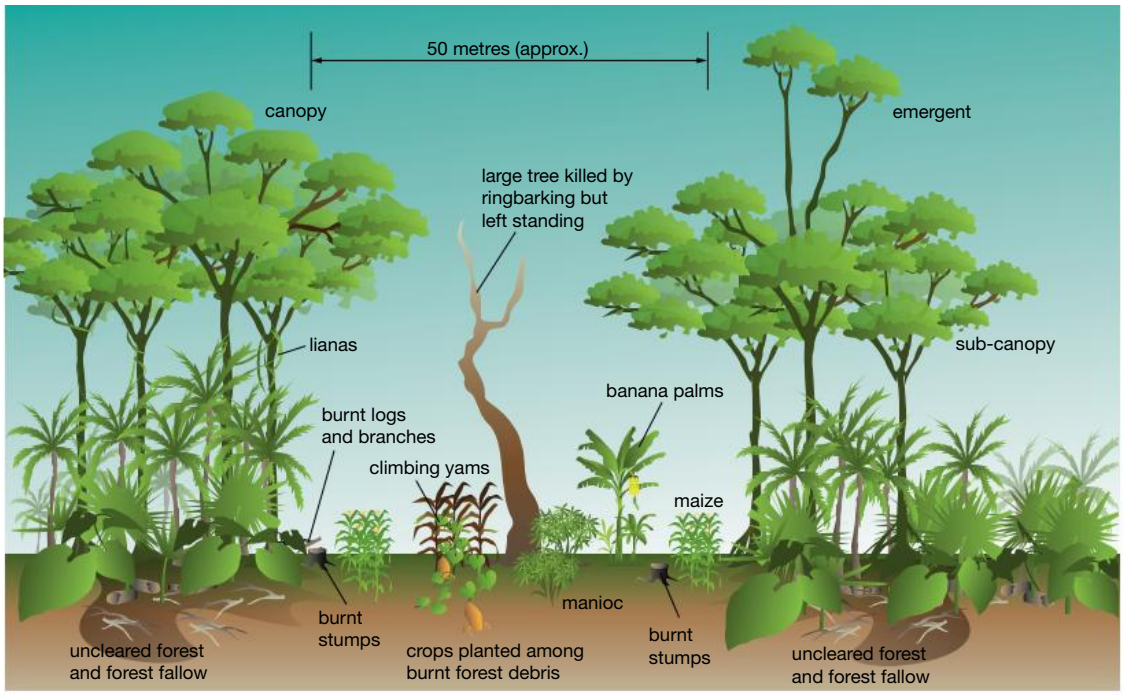
Initially, the yields from a typical garden plot would be satisfactory, but they would fall as the nutrients were used up and weeds invaded the garden. A plot would provide only a few good harvests before it was abandoned to be reclaimed by the forest. It could take up to 30 years for the site to regain its soil fertility and be ready for use again. Increasing population densities have inevitably resulted in increasing deforestation and made shifting cultivation unsustainable.

Earth-centred worldview

The first priority of the Earth-centred worldview is the protection and restoration of forest ecosystems and their related species. Forest ecosystems are considered to be the



G1.3.1 Building roads into previously inaccessible forests is the first step to harvesting timber, but it also paves the way for fragmentation, destruction and degradation of forest ecosystems.



G1.3.2 Cross-section through a typical garden of a shifting cultivator

most ancient ecosystems on Earth and they hold immense biodiversity that must be valued and maintained. With the threats associated with climate change, the role of forests as global carbon sinks is considered especially important for the future. Recognising the natural values of forests is considered essential.

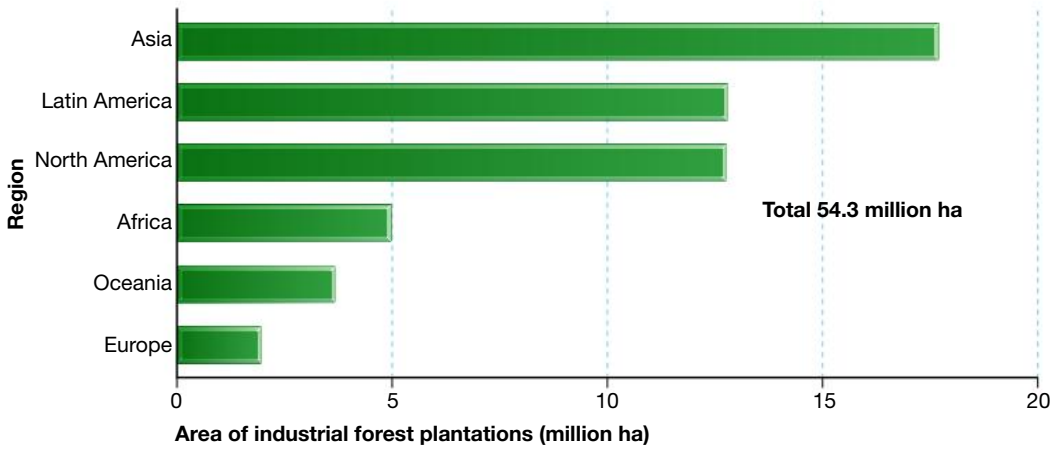
Human-environment systems thinking

Human-environment systems thinking involves analysing the causes of change and possible solutions. This section explains some of the drivers or causes of deforestation.

Globalisation

One driver of deforestation is globalisation. Global markets consume rainforest products such as hardwood timber, latex, natural oils and resins, fruit, nuts and spices, and compounds used in pharmaceuticals. The most important forest resource in economic terms is timber, used in construction and furniture, and for fibre for the pulp and paper industry. Fifty years ago, almost all industrial wood was harvested from natural forests, generally in the industrialised countries in the temperate regions of the Northern Hemisphere.

The globalisation of the timber industry is resulting in the establishment of fast-growing tree plantations in the tropical and subtropical zones in developing countries (see Figure G1.3.3). Corporations are investing in plantations in developing countries to take advantage of cheap land and labour. New technologies are being applied to generate rapidly growing trees that have all the desirable traits of industrial wood.



G1.3.3 Industrial forest plantations by region, 2012. The global area of industrial, fast-growing plantations is 54.3 million hectares. These forests are intensively managed productive plantations, mainly of exotic introduced species.

Poverty

Population pressure and poverty are major drivers of deforestation. Many people who live in the tropics are desperate to survive. They attempt to grow food in the forest because it is a source of land. For example, massive numbers of landless migrants from the poor regions of Brazil's north-east and central-west were encouraged to settle in the new frontier of the Amazon under government land-settlement schemes (see Figure G1.3.4).

Managing forests, **conservation reserves** and **biodiversity corridors** are being established on a range of scales—from small areas set up by landholders to protect a patch of forest, through to large tracts of land. A major objective of establishing reserves and corridors is to protect the biodiversity of all the flora and fauna within a forest from threat or extinction.

Conservation reserves

Conservation reserves are areas of land that are set aside to maintain biodiversity and/or natural or cultural heritage values. They are protected by legislation passed by a government or by an international agreement that a government has signed. Any human use of conservation reserves is usually restricted to activities that are compatible with the reserve's natural values.

Biodiversity corridors

Land clearing has resulted in fragmented forests, with the result that plant and animal species cannot disperse or move freely across the landscape. Being confined to smaller areas puts species at risk, as they may be weakened by inbreeding and their numbers can be decimated by disease or catastrophic events such as fire. Biodiversity corridors link isolated blocks of native forest with strips of vegetation that imitate the structure and diversity of the original forest cover.

Biodiversity corridors (or connectivity corridors) are an effective method of raising both the number and diversity of species by allowing them to spread and move from one area of key habitat to another. Corridors vary in their size. For example, a farmer may plant a corridor of native vegetation about 40 metres long following a boundary fence. This allows trees to seed and animals to move easily. Other large-scale corridors connect habitats regionally and even internationally.

G1.3.4 Poor migrant families have moved into the Amazon and cleared the forest to grow food.

Ecosystem-based management strategies

Ecosystem-based management strategies are **environmental strategies** that integrate the management of land, water and living resources and emphasise that humans are an integral component of ecosystems. They recognise that management must be ecologically sustainable and biodiversity must be protected, as biodiversity and healthy functioning ecosystems are vital for life on Earth.

Responding to drivers of environmental change

The drivers of environmental change in forests have been identified as globalisation and poverty. Lowering the demand for wood-based products reduces the pressure on forests. This may be achieved by:

- cutting the wastage of timber resources
- recycling timber wherever possible
- using wood substitutes such as cereal straw, hemp and flax as raw materials for board and paper manufacture.

Raising the farmer's standard of living will also take the pressure off forests. This could be done by:

- helping farmers to obtain formal ownership of their land, so they can use it more efficiently rather than just move on to clear more forest when soils become depleted
- involving farmers in producing new products from the natural forest that have potential as exports
- improving farming methods and promoting alternative cultivation techniques such as permaculture (following the patterns of natural ecosystems). Availability of cheap credit will assist farmers to implement the changes needed.

Principles of the ecosystem approach

The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. The following twelve principles are interlinked and complementary.

G1.3.5 The twelve principles of the ecosystem approach

1	The objectives of management of land, water and living resources are a matter of society's choices.
2	Management should be decentralised to the lowest appropriate level so decisions are made by the people who are most directly involved.
3	Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.
4	Recognising potential gains from management, there's usually a need to understand and manage the ecosystem in an economic context.
5	Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach.
6	Ecosystems must be managed within the limits of their functioning.
7	The ecosystem approach should be undertaken in appropriate places and over appropriate time scales.
8	Recognising the varying time scales and time lag for effects to be seen, objectives for ecosystem management should be set for the long term.
9	Management must recognise that the change is inevitable.
10	The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biotechnology.
11	The ecosystem approach should consider all forms of relevant information, including scientific, indigenous and local knowledge, innovations and practices.
12	The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

Activities

Remembering and understanding

1. Describe how the hunter-gatherers and traditional shifting cultivators survived in the forest.
2. Outline how forests have been exploited by those with a human-centred worldview.
3. Identify the priorities of forest management of those with an Earth-centred worldview, and justify such priorities.
4. Explain how both globalisation and poverty are driving deforestation.
5. Explain the benefits of ecosystem-based strategies.

Applying and analysing

6. Analyse how addressing the underlying and immediate cause of environmental change may protect forest landscapes.
7. Write an extended response on the following topic. *Explain how the shifting cultivation system of agriculture that has worked well for thousands of years in tropical rainforests is breaking down under the pressure of human numbers*.
8. Study Table G1.3.5 and select what you consider to be the three most important principles of the ecosystem approach. Justify your choice.

Evaluating and creating

9. Study Figure G1.3.2 and answer the following questions.
   - **a** What crops are grown in the garden?
   - **b** Why are large trees that have been killed by ringbarking left standing and debris left strewn across the garden?
10. Study Figure G1.3.3 and answer the following questions.
   - **a** What region had the most industrial forest plantations in 2012?
   - **b** How many hectares were occupied by industrial plantations in both Latin America and North America?
   - **c** What percentage of the world's industrial forest plantations were in Africa in 2012?

LS G1B

G1.4 Canada's forests under threat

Canada's forests

Canada's forests and their associated wetlands have been described as one of the world's great ecological treasures. They cover 60 per cent of the country's 9.9 million square kilometre landmass. Along with the Siberian boreal forest and the Amazon rainforest, they are the last significant stretches of forested land on Earth that have never been touched by the large-scale footprint of human industrial activity.

Coniferous forests

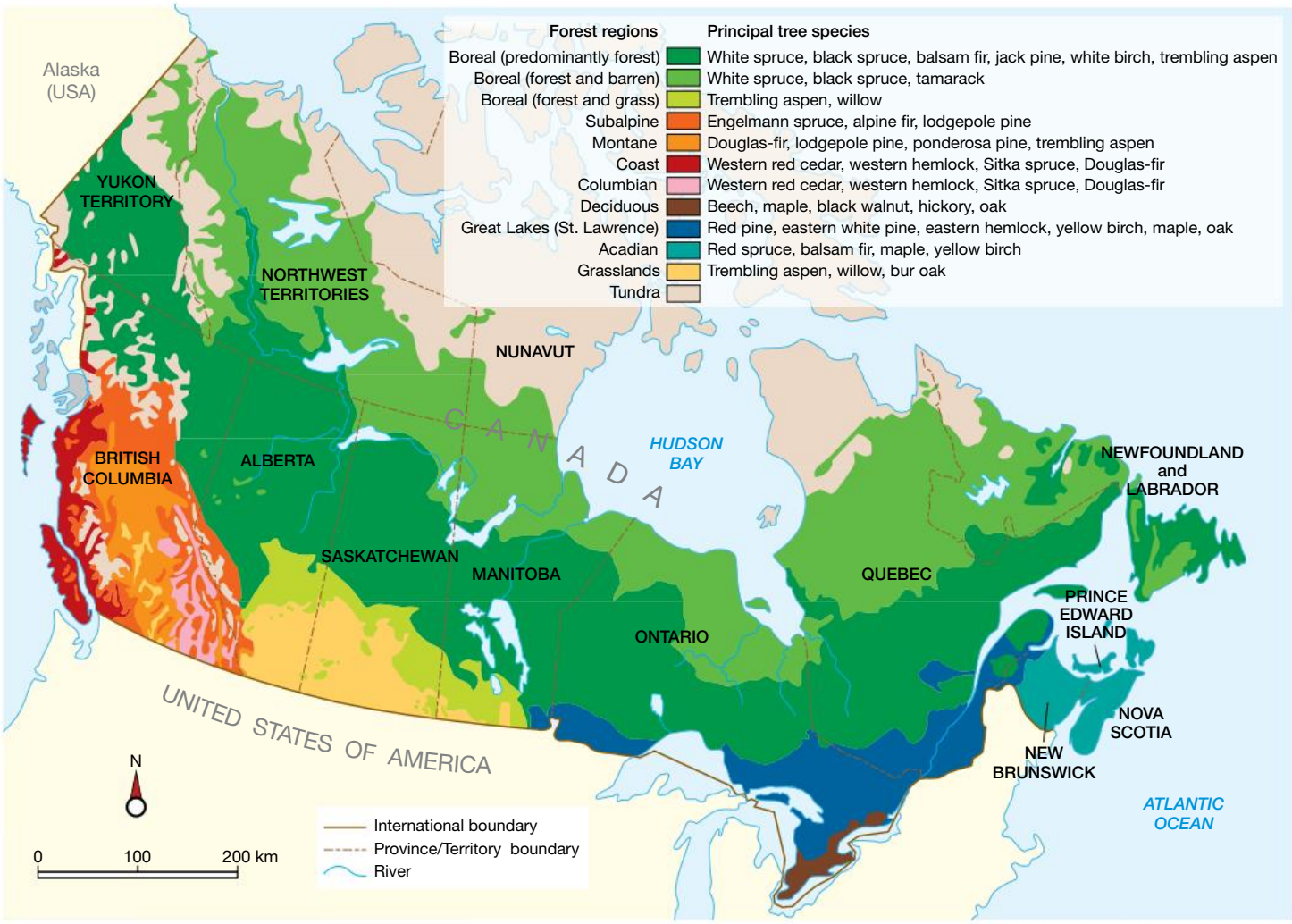
Canada's vast coniferous forests are dominated by cone-bearing trees such as the spruce, fir and pine. The leaves of these trees are usually needle-like and most stay green all year around (evergreen). The forests are able to survive cold temperatures and acidic soil. Coniferous forests are found mainly in the Northern Hemisphere. Figure G1.4.1 illustrates the distribution of Canada's forests.

Threats

Forestry, mining and energy projects across Canada are transforming huge areas of the coniferous frontier, destroying wildlife habitat, disrupting animal migration patterns, threatening water quality and compromising ecosystem services.

Today, about one-eighth of Canada's total forest area is affected by infrastructure, including roads and hydro-electric dams. Species such as the woodland caribou have disappeared from parts of the boreal forest and other wildlife, such as the wolverine, bear and wolf, are in trouble as the wave of development continues to push north.

There are now about 1400 human communities within Canada's boreal region. Many settlements were carved out of the forest to support a sawmill, pulp mill or mine, and in some cases, railway maintenance facilities. In total,



G1.4.1 Distribution of forest types, Canada

boreal forestry activities support almost 400 000 direct and indirect jobs across Canada. Oil and gas exploration and development, forestry, pulp and papermaking and mining are the largest industries, along with tourism and other service-based activities.

Human activity is also contributing to infestation through the introduction of insect species. This infestation is a side-effect of international trade. Wood packaging from abroad is thought to be the source of the Asian longhorn beetle, which has no natural predators in Canada. The Asian longhorn has the potential to destroy a whole range of hardwoods by burrowing deep under the bark. An earlier alien invader was the gypsy moth, which attacks oaks and other broadleaf trees.

Canada's native species of insects can also cause enormous damage to the forests. One example is the mountain pine beetle, shown in Figure G1.4.2, which attacks many western Canadian pine species. A recent outbreak of this pest has devastated huge tracts of forest across British Columbia and parts of Alberta. Many experts believe this outbreak is linked to a series of warm, dry summers and milder winters—a result of global warming.

Addressing forest degradation

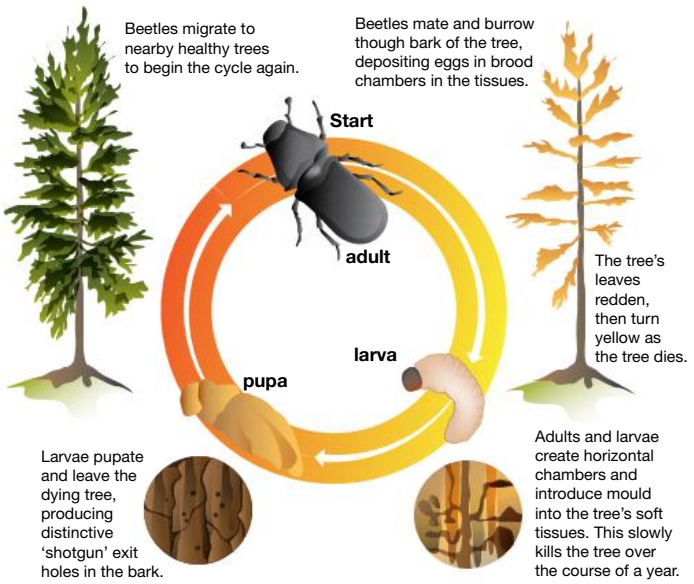
To maintain ecological processes and the full diversity of wildlife species, scientists argue that at least 50 per cent of Canada's forest ecosystem should be set aside as a permanent network of conservation areas free of disturbance. The rest should be carefully managed to preserve or restore its ecological wellbeing. Importantly, scientists also argue that these protected areas should include traditional uses of the land by Canada's indigenous (First Nations) people, and should be managed or co-managed by the First Nations in Canada.

Triad approach to forest management

A management option being trialled in Canada is the triad approach, which is being tested on 0.86 million hectares of deciduous forest in Quebec. Under the triad approach, the forest is divided into three distinct zones, with very different management objectives.

1 *The conservation zone:* The main goal is conservation of biodiversity and ecological processes. Human activities that interfere with these processes are restricted.
2 *The natural disturbance-based management zone:* Human activity such as partial logging is permitted, but it must imitate what happens with natural disturbances in the forest (such as storm damage). The goal is to build the resilience of the forest to such an event.
3 *The intensive silviculture zone:* Silviculture is the cultivation of trees. This is the intensive logging zone, where timber is extracted.

The triad approach holds the promise of balancing the exploitation of a valuable natural resource while meeting the needs of the many different stakeholders and interest groups.



G1.4.2 The life cycle of a pine beetle and its impact on the tree

Activities

Remembering and understanding

1 State what is special about the Canadian forests.
2 Outline the features of the Canadian forests.
3 Outline the range of threats to the Canadian forests.
4 Explain what should be done to protect the Canadian forests.
5 Describe the triad approach to forest management that is being trialled in Canada.

Applying and analysing

6 Study Figure G1.4.1. With the aid of an atlas, describe the distribution of Canada's various forest types.
7 Study Figure G1.4.2. Write a report describing the life cycle of a pine beetle and its impacts on the forests.

G1.5 Australia's east coast forests

Australia's forests

According to *Australian State of Forest Reports*, in Australia there is around 125 million hectares of forest, which is around 16 per cent of Australia's land area or about 3 per cent of the world's forest area (the seventh largest reported forest area of any country). To breakdown the statistics further:

- 123 million hectares are native forests, 2.02 million hectares of industrial plantation forests, and 0.15 million hectares of other forests
- native forests are dominated by eucalypt forests (92 million hectares) and acacia forests (9.8 million hectares; 8 per cent); the area of rainforest is 3.6 million hectares
- approximately two-thirds of Australia's native forest (81.7 million hectares) is woodland forest with 20–50 per cent crown cover
- around 39 million hectares (32 per cent by area) of Australia's native forests are in areas protected for biodiversity conservation.

Connectivity conservation

Connectivity conservation is based on the idea that a corridor of protected lands extending over hundreds, and in some cases, thousands of kilometres can protect biodiversity and critical ecological processes. Connectivity conservation is based on a number of key ideas.

- Largely intact areas of forests need to be formally conserved in conservation reserves in order to maintain their ecological integrity.
- The land around the reserves can be managed so that it can act as a buffer zone against any outside threats to biodiversity.
- Isolated islands of reserve are in danger of extension, so they should be connected to other reserves.
- Cleared land should be restored with natural vegetation to connect the reserves.
- Conservation planning should be done on a large scale to ensure that all the links and ecological processes essential for species to adapt to environmental change are in place.

G1.5.1 The slopes of the Great Eastern Ranges include most of Australia's forests. Connectivity conservation is an approach now being used to manage environmental change within these forests.

A conservation corridor

A conservation corridor is a strategically located area of land that links key habitats for plants and animals. It may encompass a range of land uses, including agriculture, industry and human settlement, in addition to areas conserved as national parks or reserves.

To ensure the survival, health and resilience of all species—including humans—we need to look at how we can rehabilitate and 'reconnect' islands of vegetation on a large scale, so a mosaic of ecosystems can exist across the landscape and function more effectively.

Connectivity conservation is a holistic approach that uses science to identify where, why and how 'gaps' in the natural vegetation can be restored to provide more functional links in the ecosystem.

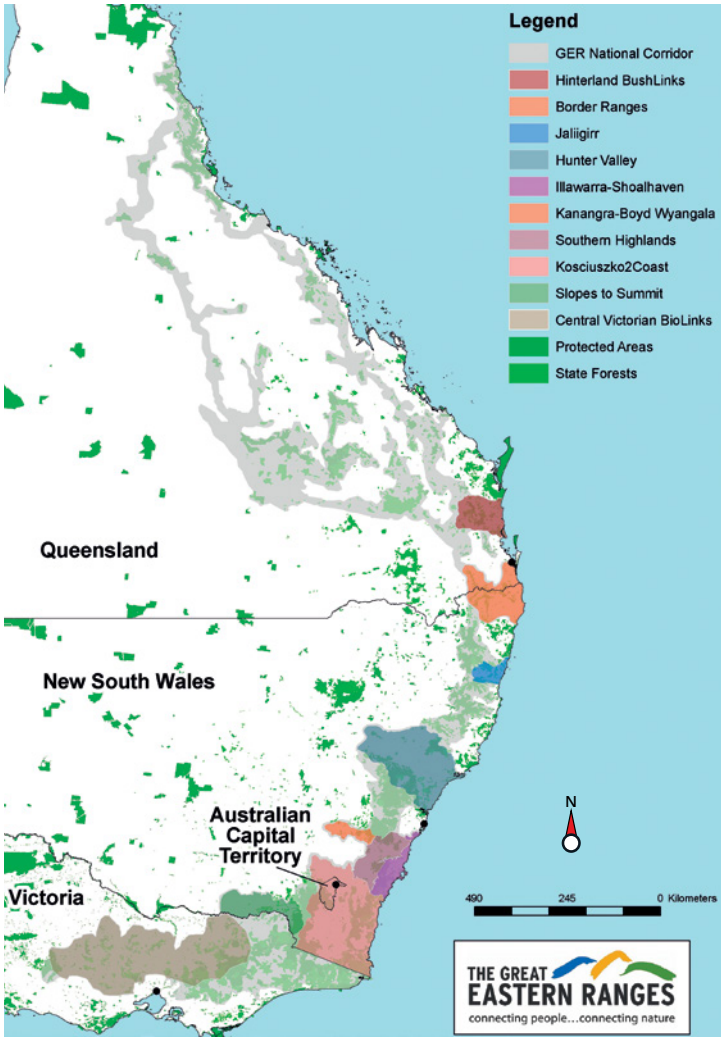
Great Eastern Ranges corridor

Seven large-scale connectivity conservation areas have been established to protect the integrity and resilience of Australian ecosystems. One of the largest is the Great Eastern Ranges corridor (GER corridor), shown in Figure G1.5.1. The GER corridor protects the forest landscape in the mountain ranges that run parallel to the east coast of Australia. The corridor extends from the Grampians in western Victoria to the Atherton Tablelands in far north Queensland and beyond, as shown in Figure G1.5.2.

Key facts

The Great Eastern Ranges corridor:

- is 3600 kilometres in length
- is 33 000 000 hectares in area
- goes across 14 **bioregions**
- contains three World Heritage Areas
- has the world's greatest concentration of primitive rainforest flowering plants
- has Australia's largest and tallest old-growth forests
- contains more than 8000 species of plants, of which 25 per cent are endemic (native to an area)
- contains the headwaters of 63 large rivers
- provides clean water to over 11 000 000 people.



G1.5.2 The GER conservation corridor, which includes the Great Escarpment of eastern Australia and the Great Dividing Range and, in various places, large sections of intervening highlands

GER corridor's biodiversity assets

The biophysical environment in the GER corridor is one of the most biodiverse on the continent. Stretching over 28 degrees of latitude, the GER corridor includes significant areas of tropical, subtropical and temperate forests. It covers a number of climate zones, with major variations in temperature and rainfall. Along the ranges, tablelands and escarpments are Australia's least fragmented habitats, containing a rich diversity of flora and fauna, all of which have evolved over millions of years.

World heritage areas

The three World Heritage areas (Wet Tropics, Central Eastern Rainforest Reserves and the Greater Blue Mountains) found in the GER corridor reflect the continent's evolutionary history. They provide evidence of the impacts of long-term global climate change, the long period of isolation since breaking clear of Antarctica (and Gondwanaland) some 60 million years ago, and adaptations to Australia's deeply weathered and infertile soils.

As a result, the region contains ancient and unique species of plants, the origins of which can be traced to Gondwanaland. The Wollemi pine is just one of these. There are many **endemic** plants and animals.

As the ranges receive high levels of precipitation, they support very productive ecosystems and thus have the largest amounts of biomass on the continent. The GER corridor contains most of Australia's rainforests and eucalypt forests and therefore the bulk of its forest-dependent flora and fauna.

Threats to biodiversity in the GER corridor

There are a number of environmental changes that threaten the rich biodiversity of the GER corridor:

- *Land clearing:* This has been the major contributor to the loss of biodiversity in Australia. The GER corridor is adjacent to the intensive agricultural zone along the east coast, where the major centres of population are also found. Habitat loss and fragmentation lead to the extinction of species, as they are unable to maintain **population viability** within increasingly smaller disconnected areas.
- *Invasive species:* The introduction of feral animals and weeds has had devastating consequences for many native species. Of particular concern is lantana, a shrub that grows along the edges of the forests of the ranges and penetrates any disturbed areas. It forms a dense thicket that excludes any native species from growing beneath.
- *Fire:* While Australia's vegetation evolved in the presence of fire, it is susceptible to considerable damage from very severe fires. For tens of thousands of years, there were frequent, low-intensity fires in the forests under traditional Aboriginal management. Since European settlement, fires have been deliberately prevented to protect people and property. As a result, the fuel load has built up in the forests and when fires do occur they can become large wildfires. The intense heat of these fires causes severe ecological damage, even killing trees outright that would have normally regenerated.
- *Climate change:* Accelerating climate change is placing even more stress on forests. According to the New South Wales Department of Primary Industries, climate change is likely to increase wildfire risk, largely through its impact on climate extremes. Projections suggest that the frequency of very high and extreme fire danger days in south-eastern Australia may increase by 4 to 25 per cent by 2020, and by 15 to 70 per cent by 2050.

Connecting nature

We need a better understanding of the complexity of the networks of interconnected systems within forest environments. The GER corridor initiative recognises that to fully understand a regional biodiversity asset (for example a particular forest), it is necessary to examine the continent-wide ecological processes that sustain it. The GER corridor uses science to identify the gaps in the forest cover and to determine how existing forest areas can be connected to restore the links and interactions that will protect biodiversity.

Connecting people

The GER initiative brings together all the people and organisations working on improving native habitats and protecting biodiversity along the eastern ranges—researchers, landholders, community and Indigenous groups, conservation organisations, local councils and other government bodies. This approach provides a broad range of expertise to draw on and is coordinated and supported by the GER. Such cooperation means that the resources can be put to use to yield the best results on a large, landscape scale.

The approach taken in the GER initiative involves raising awareness about biodiversity conservation over the full extent of the GER corridor. Local communities can be encouraged to take action that fits in with the strategic approach to protecting biodiversity in all the forests along the ranges.

Management strategies

The GER initiative is an ambitious plan aimed at combating the threats to the biodiversity and ecosystem services of the forest landscapes of eastern Australia. For over a century, these landscapes have been under pressure from land use intensification, invasion by introduced species and, more recently, rapid climate change. The GER corridor initiative is a large-scale, continent-wide approach to increasing the extent of forests and ecological connectivity within the landscape. Building such a continental lifeline will conserve biodiversity by supporting the survival of species.

Environmental

Connectivity conservation involves identifying the gaps in forest cover and restoring the natural vegetation, as can be seen in Figure G1.5.3. Connecting habitats and providing functional links between them is the key to achieving forest sustainability.

Conservation management in Australia has generally focused on short term management of a few species rather than long-term viability. The need for connectivity conservation has been sidelined. This has been due to insufficient resources (time and talent) to fully implement policies to ensure species will survive over time and avoid extinction.

Economic

Funding has not matched the scale of the initiative's vision and objectives. Delivering the aims of connectivity conservation is difficult when funding is limited. Much greater financial resources and human energy are required than have been invested to date in reducing continental-scale pressures. One of the challenges for the Australian government is to support and enable investment in time, talent and financial capital for conservation corridor initiatives.

Social

A real strength of the GER initiative is that it is socially inclusive. Local community networks have been involved in regional partnerships and people are working with an appreciation and understanding of how their efforts are contributing to the continental corridor initiative.

The future

Connectivity conservation on a continental scale is the key to providing more functional links within the forest ecosystems and thereby conserving biodiversity. The GER has the backing of the people who at a local level are committed to regional partnerships, which are part of the vision of the initiative. In time, as research advances and funds flow more freely, there will be more progress.

Did you know?

Some of the iconic species found in the region are:

Richmond birdwing butterfly, spotted-tailed quoll, platypus, sugar glider, koala, marbled gecko, Macquarie perch, regent honeyeater, glossy black-cockatoo, hop-pocket frog.

G1.5.3 Volunteers in locally organised groups can work within regional partnerships that improve the connectedness and resilience of forest landscapes.

Activities

Remembering and understanding

1. Explain how connectivity conservation protects forests.
2. Explain the purpose of the GER initiative.
3. Account for the rich biodiversity within the forests of the GER.
4. Identify the threats to this biodiversity.
5. Explain what is meant by the term 'population viability'.

Applying and analysing

6. The GER provides clean water to over 11 million people. In a paragraph, explain why protecting the forests along the ranges of the GER is vitally important to this role.
7. As a class, debate the effectiveness of the GER initiative.
8. Evaluate the GER initiative using environmental, economic and social criteria.

G1.6 Evaluating management responses

Monitoring forest management

As both communities and governments tackle the environmental issues confronting them, they have to recognise the importance of monitoring the condition of forests and evaluating the management responses. For such evaluation to be effective, environmental, economic and social criteria must all be applied.

Importance of evaluating management responses

Human wellbeing has long been connected with forests. Concern has been mounting over the threats to forests and the loss of important ecosystem services and renewable resources, species extinction and the reduction of carbon sinks. With only 10 per cent of the world's forests found in protected areas, it is evident the global forest cover is not being adequately conserved.

For too long, management responses addressing the threats to forests relied on trial and error. All too often there was not enough collection of evidence on what had or had not worked in the past. Such systematic evaluation of management was surprisingly rare compared with the work undertaken to protect forests.

There is now an increasing awareness of the importance of measuring what management responses have accomplished, and in doing so learning from past successes and mistakes. This is particularly important given the scale of environmental changes now affecting forests, especially those driven by climate change. Increasingly, monitoring and evaluation are being recognised as essential tools of forest management.

Criteria for evaluation

There are many types of management responses and no single one is appropriate for all environmental changes. Having some vague notion that management will make a difference to environmental quality is not enough. When evaluating the effectiveness and appropriateness of management practices, it is important to have a clear set of evaluation criteria.

Environmental criteria

Environmental criteria are used to judge the extent to which a policy or response meets its environmental objectives. The foundation for forest management is the maintenance or improvement of the condition of the forest environment. This includes the conservation of biodiversity, the maintenance of ecological processes and the protection of all the natural features in the landscape, such as soil, air and water.

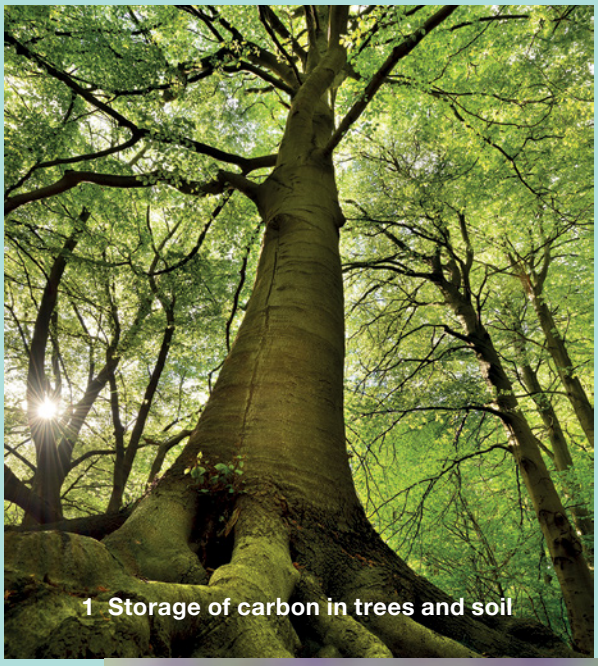
Proper forest management will ensure that the countless interrelationships between species that have evolved over time are maintained, and that intricate food chains will continue to enable the energy flows and nutrient cycling that support forests.

Spotlight

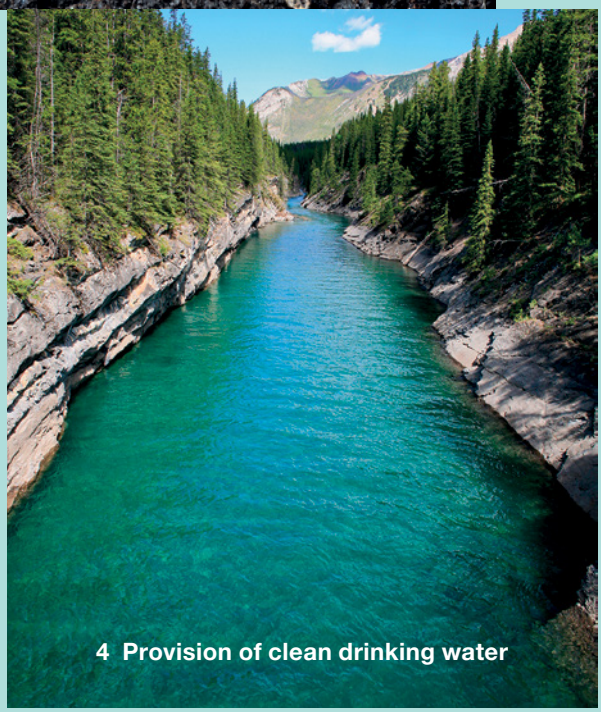
Forest Stewardship Council (FSC)

The FSC proposes eight principles of forest management:

1. *Think of your objective*. Don't collect information that you won't use. Two common mistakes are collecting too much information and collecting information without knowing how it will be used.
2. *Decide what you can measure*. What is to be monitored should be broken down into measurable values/indicators. Define simple indicators for what you want to look at.
3. *Consider scale*. There may be changes in an indicator in a small area, but not when considered over a larger area. Avoid measuring in only one small area.
4. *Collect information regularly*. This is essential for detecting change.
5. *Pick the right frequency*. The frequency of measurement varies according to the parameter. For example, stream flow might be measured daily, but tree growth might only require measurement every few years.
6. *Think long term*. Short-term fluctuations may not be indicative of long-term change.
7. *Focus on detecting change*. This is key for assessing the quality of management.
8. *Use the results*. If results are not used, why bother monitoring anything?


1 Storage of carbon in trees and soil


3 Decomposition of wastes


4 Provision of clean drinking water


2 Pollination of plants/commercial crops

G1.6.1 Services provided by healthy forest ecosystems

Economic criteria

Economic criteria should also be included. Planning and implementing management responses requires funding. This may be provided by individual landholders, community groups, governments at all levels (local, state and federal), non-governmental organisations (NGOs) and intergovernmental organisations (IGOs).

Whatever the source, it is important that management is both:

- *efficient:* it achieves its intended objectives or positive outcomes in protecting or improving forest cover
- *cost-effective:* it can be done at minimum cost to the landholder or society. Any waste or additional costs because of poor financial decisions can draw a lot of criticism and jeopardise the continuation of environmental programs.

One of the biggest challenges faced by developing countries is their inability to access the funds required to respond to environmental changes. Their governments often find it difficult to raise funds, as many of their people are **subsistence producers** who do not pay taxes.

In recent times, developed nations have faced their own economic dilemmas as national debts have increased as a result of the global financial crisis. Environmental programs are often cut to reduce government spending. Similarly, donations to NGOs may fall, as individuals become more cautious about parting with their money.

Social criteria

Social criteria such as fairness and equity are also important, as success depends on community support. In reality, the costs and other impacts of management responses may not be spread evenly across a country. If they are thought to be inequitable, they will not be supported enthusiastically.

People can be made aware of how conservation and enhancement of forest ecosystems will improve their quality of life both now and in the future (see Figure G1.6.1). Success or failure of management can depend on whether local communities have been empowered to take ownership of the decision-making processes.

Trade-offs in decision-making

Decision makers must attempt to balance environmental, economic and social criteria in environmental programs, and to determine trade-offs between them.

A trade-off is a decision to lose in one area in return for a gain somewhere else. This decision is made with an awareness of the consequences and consideration of short and long term costs and benefits. For example, management that protects the forest may result in trade-offs. The losses could be financial costs such as lost production or restrictions on the use of the forest that may affect the quality of life of the people living there. Similarly, management that ensures a reasonable degree of equity for the people may require trade-offs in lower efficiency and cost-effectiveness.

If an individual landholder considers revegetating part of their property to create a belt of trees to encourage biodiversity, as shown in Figure G1.6.2, trade-offs might involve these gains and losses:

- *gains:* ecosystem services such as crop pollination, pest control, soil and catchment protection and carbon storage
- *losses:* land is taken out of production, thereby reducing the economic returns to the landholder. Costs are also incurred in purchasing tree seedlings and fencing off the area to keep stock away from the seedlings.

G1.6.2 The landholder of this property was prepared to take land out of production in return for the ecological benefits created by this belt of trees.

The landholder has to weigh up short-term costs, which are mainly financial, against long-term environmental benefits that may guarantee the sustainability of production, both ecologically and economically.

Such choices about trade-offs must be made at every level of decision-making. National governments and IGOs must debate the practical and ethical dilemmas of national and international conservation programs aimed at tackling environmental change. The challenge is to reduce poverty and provide a higher quality of life for those living in the forests of developing countries while safeguarding the environmental quality of those forests.

Improving the evaluation framework

Properly conducted evaluations enable more effective decision-making in managing forest landscapes. Increasingly, scientific research and monitoring are being recognised as essential tools for effective evaluation. Research into the functioning of forest ecosystems and the interconnections within them helps managers to assess the impact, both immediate and future, of their actions. Research provides specific information about such processes, and monitoring shows if changes are occurring over time.

Conducting research and monitoring the condition of forest environments are crucial for determining the effectiveness of management responses and deciding if they need adjusting.

G1.6.3 Scientific research and monitoring are essential evaluation tools.

Spotlight

The forests of Kosciuszko National Park

Kosciuszko National Park is famous for its snow-covered alpine area where the climate is too cold for trees to grow. However, there are significant areas of forest at lower elevations within the park. In the steep country that falls away to the west, cool temperate rainforests are found in sheltered pockets, with drier sclerophyll forests on the lower slopes with many eucalypts, wattles and banksias. Below the alpine area to the east, the snow gums of subalpine woodlands give way to expanses of tall forests of mountain gums and alpine ash.

In the 2006 Plan of Management for Kosciuszko National Park, the importance of monitoring, evaluation and reporting was emphasised:

Monitoring and evaluation are being recognised as essential components of park management.

While research provides specific information on the park's values, monitoring is aimed at capturing baseline data, typically on the condition of these values, and charting the nature and rate of change in condition over time. When collected and analysed in a systematic way, this information can provide the basis for evaluating the effectiveness of management policies and actions in achieving stated objectives. Adjusting and refining park policies and actions on the basis of monitoring results and the outcomes of performance evaluation produces an adaptive or responsive approach to management.

Existing monitoring programs in the park are primarily directed at detecting changes in alpine and subalpine vegetation communities, populations of certain threatened animals and threatened species, vegetation responses to fire, and water quality.

Activities

Remembering and understanding

1. Identify what are now increasingly regarded as essential tools of forest management.
2. List and explain the criteria for evaluating management strategies.
3. Define a 'trade-off' and outline some of the trade-offs that are made in the management of forests.
4. Explain why baseline data is important.
5. Explain how an adaptive or responsive approach to management can be achieved.

Applying and analysing

6. Write a short paragraph discussion of the following statement: *Managing environmental change in the world's forests can no longer be left to trial and error*.
7. Undertake a 'think, pair, share' activity to determine the most important evaluation criteria. What is the consensus of the class? Discuss the relative importance of each criterion and how decision makers must make trade-offs.

LS G1C

Marine environments

G2

Marine environments cover a vast area of the Earth's surface and extend from the shallows surrounding the continental landmasses to the depths of the ocean. The deepest point is just over 10.9 kilometres below the surface of the western Pacific in the Marianas Trench.

The diverse ecosystems that make up the marine environment are facing unprecedented pressure from an increasing number of competing uses. These include oil and gas extraction, fisheries, aquaculture, shipping, port expansion, coastal development, waste disposal, recreation, tourism and conservation. Extensive science-based knowledge of our marine environments is critical if we are to protect these important ecosystems.

In this chapter, we focus on environmental change and management, using marine environments as an example. Of particular interest are the causes and consequences of the changes taking place and an evaluation of the strategies used to manage these changes.

LS Before you begin

OVERVIEW QUESTIONS

G2A What are the principal causes of environmental change in marine environments?

G2B What are the effects of the environmental changes taking place in marine environments?

G2C What environmental management strategies are being used in marine environments? Are they effective?

GLOSSARY

acidification an increase in the acidity of ocean water as a result of the uptake of carbon dioxide from the atmosphere; an estimated 30 to 40 per cent of carbon dioxide released by humans into the atmosphere dissolves into oceans, rivers and lakes

by-catch fish and other marine life caught unintentionally while catching targeted fish species

carbon cycle a series of naturally occurring processes in which carbon is exchanged between organisms and the environment

drainage basin an area of land where water collects and drains to a common outlet such as into a river or lake

heat budget the balance between incoming and outgoing heat

hypoxic water a water body in which oxygen levels are extremely low

marine debris human-created waste that has deliberately or accidentally been released in a lake, sea, ocean or waterway

thermal expansion the tendency of water (and other matter) to expand when heated

watershed high ground that marks the boundary between two drainage basins; in the USA, watershed refers to the drainage basin itself

G2.0.1 Small fish called sweepers swim around soft coral in the Red Sea, Egypt

G2.1 What is a marine environment?

The oceans

Earth is often referred to as the 'blue planet'. More than 70 per cent of the Earth's surface is covered by oceans, and they account for 96.5 per cent of all the water found on the planet. The marine ecosystem is, therefore, the largest of all the environments, but it is also one of the least explored and understood.

Salt water

Salt water is the defining feature of all marine environments. It is composed of about 96.5 per cent liquid water, in which chloride and sodium are dissolved. The salt in sea water originally comes from rocks inland. Rocks contain salt in a solid state. Chemical reactions and weathering cause salt in rocks to dissolve in water and mud. The salt-laden water and mud is then transported by rivers to the sea.

Chemical analysis shows that the salinity of the world's oceans has been fairly constant for the last 1.5 billion years. This indicates that equal amounts of salt are removed from, and deposited in, the oceans.

Salt is lost and used up in several ways. A considerable amount of salt is lost due to evaporation. The wind also blows a large amount of salt onshore each year. Some salt is also lost in underwater reactions, as salt reacts with hot basalt lava spewed onto the ocean floor by underwater volcanoes. Salt is consumed by some sea creatures, especially tiny diatoms that have a silica-based shell. Humans throughout history have also collected salt using evaporation, as shown in Figure G2.1.1.

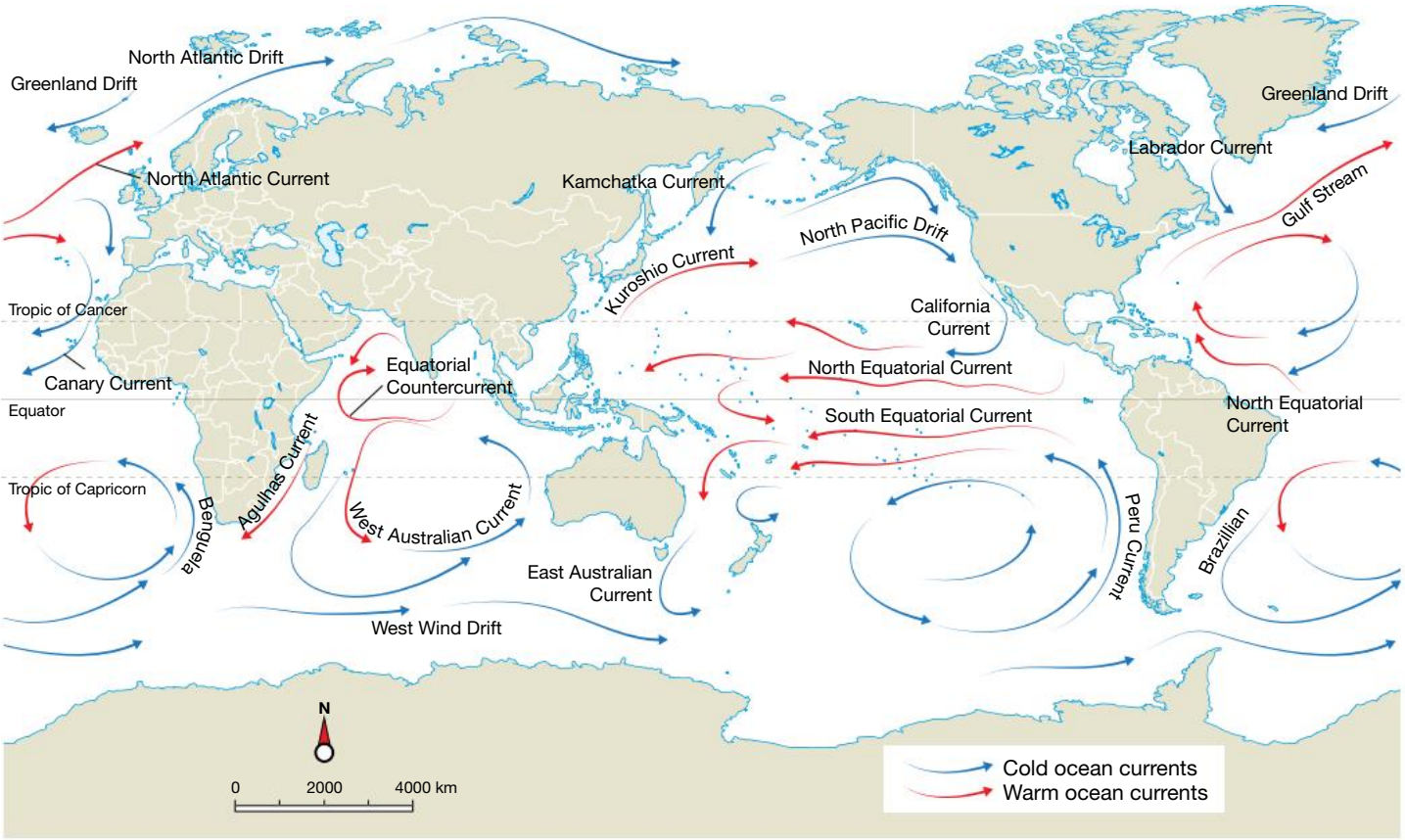
Currents

Currents are seasonal movements of seawater caused by various forces. Currents are critical to all life on Earth. They are very complex and many factors affect the direction in which they flow. Generally, currents move huge volumes of water around the globe, helping to regulate temperatures (see Figure G2.1.2). Warm water and air form around the Equator, where the sun is at its strongest. This warm water and air move in currents towards the poles, making the areas north and south of the Equator warmer. Conversely, the cooler air and water of the poles move towards the Equator in cool currents, reducing temperatures. Currents are therefore crucial in creating what scientists call the global **heat budget**.

Ocean currents are divided into two types.

- *Surface currents*: These are usually driven by the wind. They affect only about 10 per cent of the oceans' volume. However, these currents are better understood because they affect the top layers of the oceans. For example, sailors have used surface currents for centuries to help propel their ships around the globe.

G2.1.1 Salt fields in La Palma in the Canary Islands off the north-west coast of Africa. Sea water is collected in ponds and evaporated, leaving pure salt.



G2.1.2 Main surface currents in the world's oceans

- *Sub-surface currents*: These are currents below the surface that are formed by the movement of dense and less dense water. Dense water sinks due to gravity, displacing less dense water; in other words, dense water pushes less dense water out of the way, forming currents. The density of water is determined by its temperature and salinity (the amount of salt it contains). Warmer water has lower density while cool water has higher density.

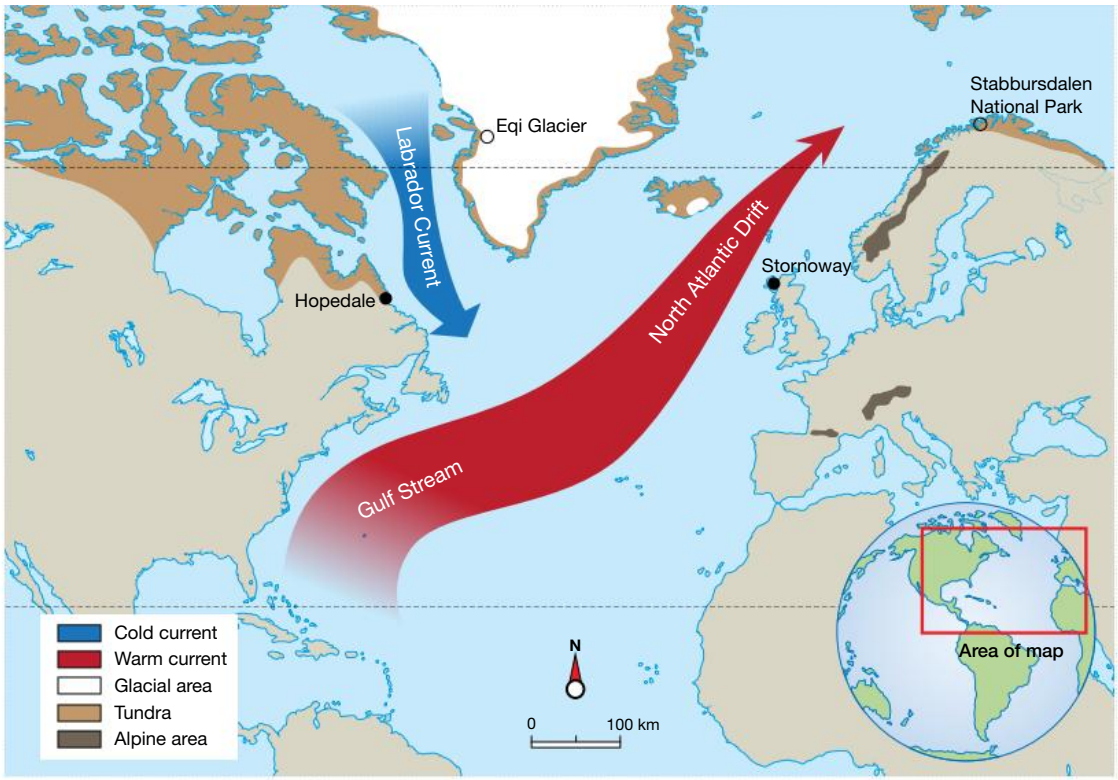
As water temperature rises, the water's density decreases. Consequently, waters close to the Equator tend to have lower densities. Salt also makes water more dense. As salinity levels rise, water density increases. Salinity levels are affected by how much fresh water is deposited into the ocean area. For example, rainfall, run-off from rivers, and melting ice all add fresh water and this in turn reduces the salinity. Changes in temperature and salinity force water to move, forming sub-surface currents.

The Humboldt Current

Sometimes called the Peru Current, the Humboldt Current is a very slow-moving current that brings cold water northwards from Antarctica up the western coastline of South America. Its cold, slow-moving waters allow for very little evaporation, creating the arid and extremely dry landscape of the west coast of the continent (see Figure G2.1.3).

G2.1.3 The Humboldt Current has a considerable cooling influence on the climate of Paracas in Peru, one of the driest places on Earth.

While the Humboldt Current produces an arid and desolate environment on land, in the ocean it has the opposite effect. As it runs into the continental shelf along the coast, it brings water full of nutrients from the ocean floor to the surface. These nutrients form the base of a complex food chain that supports the great diversity of sea life found in the eastern Pacific.



G2.1.4 The Gulf Stream is one of the most important sea surface currents in the world.

The Gulf Stream

The Gulf Stream is one of best known ocean currents. It is a surface current that forms in the Gulf of Mexico. Warm water flows into the Gulf from the Caribbean Sea, where the hot tropical sun creates an average sea surface temperature of 27°C. Southerly winds blowing northwards from the Equator towards the North Pole then push the warm current up the east coast of the United States of America and Canada. Ultimately, the Gulf Stream continues to flow into the North Atlantic Ocean as the North Atlantic Current.

The warm waters of the Gulf Stream moderate temperatures, keeping them much warmer than they otherwise would be. The Gulf Stream therefore plays a critical role in enabling human life in North America and northern Europe.

Figure G2.1.4 shows that North America's tundra and glacial areas are located next to the cold Labrador Current that flows south from the polar region. These environments support low levels of life and are constantly frozen. In areas nearer the warm waters of the Gulf Stream, these harsh environments give way to more hospitable places, such as the forests of Scandinavia. Therefore, even though Norway and Greenland are the same distance from the Equator, they have very different environments because of the influence of the Gulf Stream (see Figure G2.1.5).

G2.1.5 Grasses and shrubs grow in Stabbursdalen National Park, in Finnmark, Norway (left) under the warming influence of the North Atlantic Drift, a warm ocean current. At a similar latitude is the Eqi Glacier of Greenland, where the currents are cold.

Spotlight

The Gulf Stream slowing down

Scientists have reported that the ocean currents that keep the coasts along the Atlantic Ocean in Europe and North America warm are slowing down. Research shows that the currents have slowed significantly since the 1800s and are their slowest in 1600 years. The scientists note that this weakening may have begun naturally but is being continued by climate change.

The slowing of the Gulf Stream will impact upon:

- climate and rain patterns
- sea level rises
- marine wildlife.

Functions of marine environments

Source function

Ninety per cent of the world is ocean. With so much of the marine world unexplored, it is difficult to determine the number of marine species, but it estimated that between 50 and 80 per cent of all life on Earth is found in the marine environment. Marine environments are a major source of food for humans. About 80 million tonnes of seafood are taken out of the world's oceans each year. This accounts for about 15 per cent of all the protein eaten by humans. Marine environments are sources of many important minerals and fuels. About 26 per cent of the world's current oil supplies comes from deep ocean wells. It is expected that much of the world's future oil and gas will come from the deep ocean.

Sink function

The marine environment is the world's biggest carbon sink. It absorbs about 90 thousand million tonnes of carbon annually and releases about 88 thousand million tonnes, meaning it is an important store of carbon dioxide, which is critical for dealing with global warming. For decades, humans have used the marine environment to dump wastes. This has included deep-sea disposal of nuclear waste and other highly toxic chemicals. Today there are international laws regulating this but it is still a problem.

Service function

The marine environment is critical for supporting life on Earth. They provide crucial heating and cooling, as well as oxygen. Ocean currents, along with air currents, control the global heat budget. They transport warmth away from the Equator towards the poles, warming these regions, while transporting cooler water towards the Equator, moderating temperatures there. Fifty per cent of all the oxygen on Earth comes from the ocean's phytoplankton.

Spiritual function

For many cultures, the sea is a crucial element of their spiritual life. For example, for traditional cultures throughout the Pacific, the ocean and its animals are worshipped as gods bringing life to the island peoples.

Activities

Remembering and understanding

1 Describe the composition of salt water.
2 Outline the role of currents in the global heat budget.
3 Explain why waters close to the Equator have lower densities.

Applying and analysing

4 Construct a flow diagram showing how surface and sub-surface currents form.
5 Copy and complete the following table comparing the Gulf Stream and the Humboldt Current.

	Gulf Stream	Humboldt Current
Location		
Impact on climate		
Impact on environment		
Other		

6 Study Figure G2.1.2.
   a Compare the currents that circulate around Australia and Antarctica.
   b Using your knowledge of climate in Australia and Antarctica, explain how these currents influence the climate of each region.

G2.2 The importance of marine environments

The oceans

The marine environment is the largest of all of Earth's ecosystems. It includes the oceans, salt marshes, intertidal wetlands, mangrove forests, estuaries, lagoons, coral reefs, ocean depths and sea floor.

The Earth's oceans cover 71 per cent of the planet's surface area. Deep oceans, where ocean depths are greater than 200 metres, make up 87 per cent of all oceans. The deep ocean is an environment we know very little about, yet it is critical to all life on Earth. Figure G2.2.1 shows the angler fish, a species that lives in the deep oceans.

The marine environment accounts for about two-thirds of the world's ecosystem services. These are the services that environments provide in order to keep the world functioning: providing the oxygen we breathe and moderating temperature extremes. Phytoplankton, tiny photosynthesising plants found in the world's oceans, provide 50 per cent of all the oxygen on Earth.

G2.2.1 The angler fish lives 1000 metres below the surface of the water.

Did you know?

A 2010 study published in *Nature* reported that the number of marine phytoplankton has declined by 40 per cent since 1950, at a rate of about 1 per cent per year, possibly in response to ocean warming.

Oceans: The benefits

Carbon cycle

One of the most important service functions of the marine environment is the role it plays in the **carbon cycle**: moving and storing carbon. In recent decades, with growing knowledge of the impact of human activities on the carbon cycle through the burning of fossil fuels, the importance of the oceans in the cycle has become more apparent.

Rising levels of carbon dioxide in the atmosphere are the main cause of climate change, leading to global warming.

G2.2.2 The sea urchin on the right is healthy and has normal spines, while the urchin on the left was grown under conditions with very high levels of carbon dioxide, and has badly damaged spines.

Marine organisms, ranging from microscopic phytoplankton through to large marine mammals such as whales, take carbon from the atmosphere and deposit it in the deep oceans. Without the oceans taking carbon out of the atmosphere, there would be no life on Earth. Increasing levels of atmospheric carbon, due to human activities, are causing an increase in the acidity of the water. This process, known as **acidification**, is affecting the ocean biosphere (fauna and flora). Figure G2.2.2 shows the effect on sea urchins of the increasing acidity of the oceans.

Economic benefits

In a typical year, more than 80 million tonnes of wild fish are caught in the world's oceans. The global fishing industry employs about 35 million people directly and a further 300 million people indirectly, and is worth at least US$80 billion a year. Seafood is the major source of protein for millions of people. Additionally, the world's oceans are major trade highways. Ships transport virtually all the world's raw materials, from coal and oil to wheat and rice. More than 100 million containers of goods containing everything from T-shirts to mobile phones are moved across the oceans every year.

Social benefits

The marine environment has an important spiritual and cultural value. Many people feel joy when they see whales in the wild or hear waves crashing onto the beach. The indigenous people of Hawaii, like many other Pacific peoples, have a strong spiritual bond to the marine environment. The ocean is referred to as *ke kai popolohua mea a Kane* (the deep dark ocean of Kane) and has great religious importance. For the Hawaiians, the ocean provided everything that they needed and therefore was worshipped and honoured.

Activities

LS G2A

Remembering and understanding

1. Outline the role of the marine environment in terms of ecosystem services.
2. Explain the role played by the oceans in the carbon cycle.
3. Describe the benefits humans receive from the oceans.

Applying and analysing

4. Assume the perspective of an environmentalist. You have been asked to prepare a presentation to the United Nations on why the world needs to take better care of the oceans. Prepare a short digital presentation and oral report, and present it to your class. You may wish to do this activity in a small group.

G2.3 Human impacts on marine environments

Marine pollution

Vast areas of the marine environment have experienced significant change as a result of human activity. Unlike land environments, most of the world's oceans are beyond the control of individual nations. The oceans are largely left unmanaged and their use is unregulated. This has resulted in unsustainable fishing and dumping of wastes and toxins.

Marine debris, or marine litter, is defined as any persistent, manufactured or processed solid material discarded or abandoned in the marine or coastal environment. Marine debris is harmful to marine life, especially to protected species of birds, sharks, turtles and marine mammals. Marine debris may cause injuries or death through drowning, injury through entanglement and internal injuries or starvation following ingestion. Discarded fishing nets and hooked lines are among the most dangerous of all marine debris. They kill marine life long after they have ceased to be used by humans.

Other marine pollutants include chemical discharges from factories and farms, such as fertilisers and pesticides, sewage, urban run-off and discharges from ocean-going vessels.

Spotlight

The Great Pacific Garbage Patch

The Great Pacific Garbage Patch is an enormous collection of rubbish that has accumulated in the eastern Pacific Ocean between Japan and North America, in the North Pacific Gyre. A gyre is a circular ocean surface current created by wind movements and the rotation of the planet. The centre of a gyre tends to have very stable and calm waters. Rubbish from across the Pacific has accumulated and become trapped in the North Pacific Gyre. A similar, smaller rubbish accumulation is found in the North Atlantic Gyre. The North Pacific Gyre contains a huge array of materials. Much of it is tiny particles of plastics that enter the food chain, slowly poisoning marine life. Sea turtles, mistaking plastic bags for jelly fish, ingest them and die.

Scientists visiting the remote part of the Pacific have collected up to 750 000 pieces of plastic in a single square kilometre. The rubbish is so dense in some parts that the whole food chain is disrupted. Sunlight cannot penetrate through the surface, which leads to the collapse of the phytoplankton that form the basis of the food web and rely on sunlight.

Dealing with this vast rubbish patch has been very challenging. As no country has control over the waters in which it is found, action has been slow. In 2018 a Dutch NGO, The Ocean Cleanup, towed a giant floating barrier to the Great Pacific Garbage Patch. The U-shaped barrier, around 600 m long with a 3 m skirt under the water, will collect the plastic debris. The collected waste will then be returned to shore for recycling.

G2.3.1 Found in one of the most isolated places on Earth, the Great Pacific Garbage Patch is a vast accumulation of plastics and other rubbish.

G2.3.2 In 1979, the *Atlantic Empress* collided with another ship off the South American coast, releasing 287 000 tonnes of oil.

Oil and gas exploration

Oil and gas are the world's most widely used energy sources. Known as fossil fuels, oil and gas deposits were formed millions of years ago when dead plants and animals sank to the seabed and were covered by layers of mud and sand, which were eventually compressed into rock.

Land-based reserves of oil and gas have been exploited for decades and offshore deposits are now being identified and exploited. Huge rigs are constructed to drill through the sea floor and pump out the oil and gas under pressure. These are then transferred to processing plants, often offshore floating factories, and then sent ashore. Technological advances have made oil and gas exploration possible in areas previously too hard to exploit, for example deep-ocean drilling and drilling in the inhospitable Arctic Ocean. As oil and gas reserves closer to land are running out, more and more drilling is likely to take place in deep oceans.

The world's oil and gas reserves are not evenly distributed. Huge reserves are found in the Middle East, Central and South America and in the North and Arctic seas. To move the fuels to where they are consumed, massive oil tankers and pipelines have been constructed. The tankers are the largest machines ever built by humans and have the capacity to move more than a billion tonnes of fuel around the world each year. Since safety standards have improved, accidents are quite rare. However, the environmental impacts of oil spills can be devastating. In July 1979, the *Atlantic Empress* collided with another tanker, the *Aegean Captain*, off Tobago in the Caribbean Sea (see Figure G2.3.2). The accident led to the spill of 287 000 tonnes of oil into the Caribbean Sea and the Atlantic Ocean, and was the biggest tanker spill in history. Oil is highly toxic to marine species and its effects linger for decades.

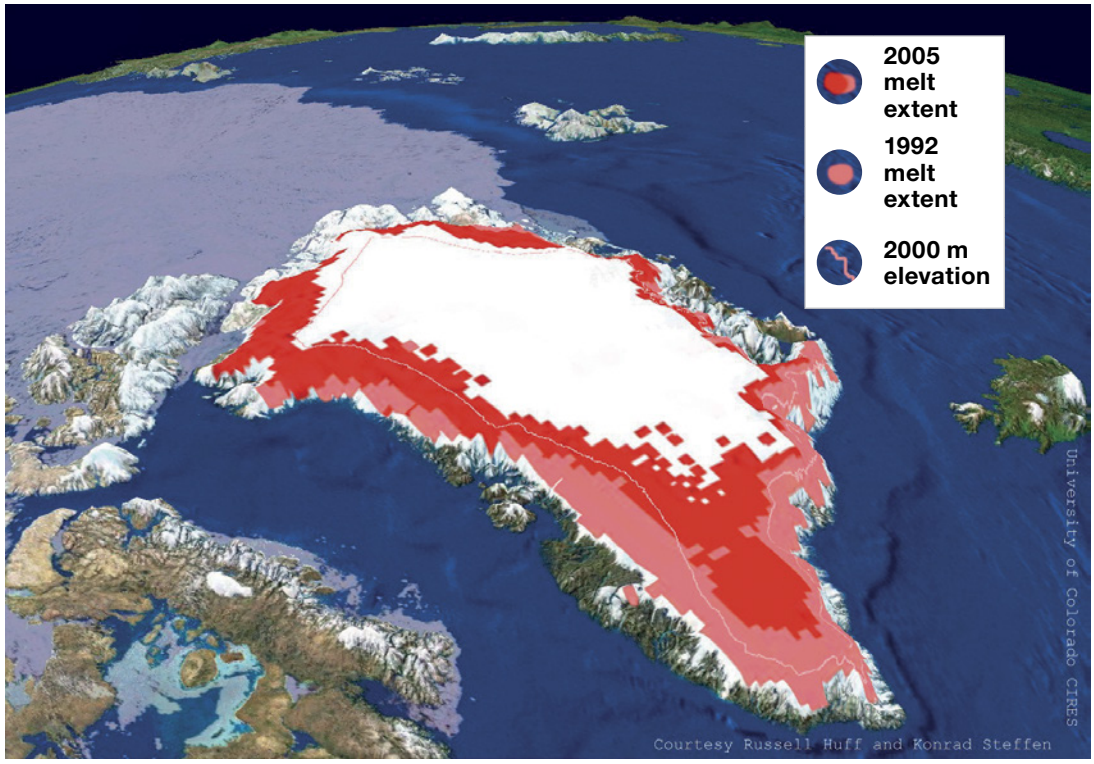
Climate change

The impact of climate change on the marine environment is extreme. One of the most obvious consequences is sea-level rise. As the world's climate warms, a process of **thermal expansion** takes place. When water warms, the particles in water expand; therefore the level of the water rises as it warms. Scientists believe that sea levels may rise by as much as 1 metre. Rising sea levels are already leading to flooding of low-lying islands and coastal areas. The world's oceans absorb huge quantities of carbon, and as atmospheric carbon increases, so does the carbon stored in the oceans.

This increase in carbon is slowly turning the oceans more acidic. This acidification is having an impact on the biosphere. For example, some animals can no longer make strong shells.

As temperatures rise, ecosystems around the world are being affected. Fragile coral reefs that require very specific temperature ranges are disappearing. There are also grave concerns for the future of the huge ice sheets that lock away most of the world's fresh water. The Greenland ice cap beyond the Arctic Circle is already beginning to shrink, as is shown in Figure G2.3.3. The fresh water that is added to the oceans as a result of the melting changes the chemical composition of the sea water. This in turn affects the movement of ocean currents, which are driven by changes in water density, associated with how saline (salty) the water is.

Scientists fear that changes to the density of waters around Greenland could affect the Gulf Stream, which regulates temperatures across the eastern part of North America and the north-west of Europe. Ironically, the world becoming warmer may cause the Gulf Stream to stop flowing, bringing freezing temperatures to a large part of the world.



G2.3.3 The melt extent (how much of the surface ice has melted) of the Greenland ice cap, 1992 and 2005

Spotlight

Polar bears

Polar bears are found north of the Arctic Circle. They rely on the sea ice to hunt seals, their main source of food. Global warming is reducing the Arctic sea ice level, affecting the ability of polar bears to hunt for food. As a result, female polar bears do not obtain enough food to store sufficient energy for pregnancy, and so are having fewer or no cubs.

G2.3.4 A polar bear with her two cubs.

G2.3.5 Cod fishing, 1979

Fishing

More than 15 per cent of the world's population rely on seafood for their main source of protein. As the world's human population has increased, the strain on the world's fish stocks has grown markedly. Since the 1970s, about twenty of the world's most important fishing grounds have disappeared as a result of unsustainable fishing practices. The collapse of the Grand Banks cod fishery (see Figure G2.3.5) in the North Atlantic Ocean is one of the best known examples. This once vast and seemingly endless fishing ground had disappeared by the 1990s, due to overfishing.

In addition to declining fish stocks, large-scale commercial fishing has other consequences for the marine environment. The heavy gear that trawlers drag across the sea floor kills species that cannot move. Large nets catch many non-commercial species that are simply thrown away—this is known as **by-catch**. Driftnets can be up to 65 kilometres long and are dragged through the water for a number of days, trapping all marine life in their path. Some nets now have special escape routes for dolphins and turtles, but they are not used in most parts of the world.

Activities

Remembering and understanding

1. What is the Great Pacific Garbage Patch?
2. Explain why there has been so little attention paid to the garbage gyre.
3. Outline the main causes of climate change.
4. Explain the impact of climate change on the marine environment.
5. Outline the impacts of commercial fishing on the marine environment.

Applying and analysing

6. Write a short report on the risks to the marine environment posed by oil and gas exploration.
7. Work in small groups. Using the text, the internet and other sources, produce a digital presentation on the impact of human activities on marine environments. Share your presentation with the class.

LS G2B

G2.4 Managing marine environments

Agreements and cooperation

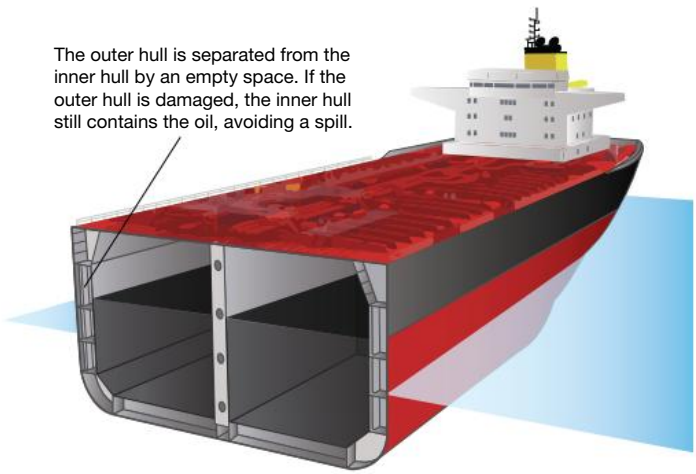
Environmental management is usually the responsibility of governments, but much of the world's marine environment lies beyond the territorial limits of individual nations, in an area known as the high seas. Individual governments do not have the power to manage this environment. Consequently, international cooperation is critical for its effective management.

Until the late twentieth century, there was very little cooperation or agreement between nations regarding environmental management. Today, a growing number of international agreements deal with the protection of the marine environment.

International agreements can only be successful in protecting the environment when a significant number of nations are prepared to follow the rules set out in the agreements. Sometimes nations act in their own interests rather than in the broader global interest, and this limits the success of international cooperation.

Convention for the Prevention of Pollution from Ships

One of the first attempts to create an international agreement regarding the marine environment was the International Convention for the Prevention of Pollution from Ships in 1973. Most countries were not interested in the agreement until a series of tanker accidents in 1976 and 1977. These accidents highlighted the danger to the environment posed by oil tankers. In 1978, Regulations for the Prevention of Pollution by Oil were added to the Convention now known as MARPOL.



G2.4.1 Cross-section of a double-hulled oil tanker

The Convention requires all new tankers to have double hulls (coverings or frames): an outer and an inner hull with a gap between them, as shown in Figure G2.4.1. If the outer hull is damaged by a collision, the inner hull should remain intact and stop oil from flowing out.

Other parts of the Convention control the movement of dangerous substances, such as radioactive materials. There are also restrictions on the dumping of toxic chemicals, rubbish and sewage from ships.

Wellington Convention

The Wellington Convention is an international agreement to protect the marine environment in the South Pacific region. Its full title is the Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific. It was agreed to in 1989. This convention protects fishery resources throughout the South Pacific Ocean by banning fishing with driftnets over 2.5 metres long.

Driftnets are sometimes called 'walls of death'. The nets are strung out to drift near the surface and capture fish by entangling them around their gills. Traditionally, driftnets were small, but modern commercial driftnet boats use very large nets. These nets are equipped with floats to keep them on the surface and weights that attach to the sea floor, creating a curtain to trap anything that swims into the net.

As the nets do not discriminate, they create very large by-catches; these are species that are not meant to be caught and they are often thrown back, already dead. Turtles are particularly vulnerable, as are dolphins and many shark species. Driftnets become even more dangerous if they are lost at sea. The nets are made of nylon, and can float around for decades, entangling animals. The success of the Wellington Convention has led to the protection of other marine environments outside the South Pacific. Authorities in the United States have banned drift netting along parts of the western US coast.

Whaling in the Southern Ocean

In 1982, the International Whaling Commission (IWC) placed an indefinite moratorium (ban or stoppage) on the commercial hunting of most whale species. A huge whale sanctuary was declared in the Southern Ocean in 1994. Known as the Southern Ocean Whale Sanctuary, the sanctuary protects the important feeding grounds for many whale species around Antarctica. Since the introduction of the moratorium, whale numbers have increased.

Although it is a member of the IWC, Japan has continued its whaling program, arguing that its program is for scientific research. Environmental groups and whale experts argue that this is a lie. They say that the program is purely for commercial whaling, and the whale meat is sold in fish markets in Japan. They also point out that almost no scientific papers about the program have been written by Japanese researchers, while scientists studying whales in other countries produce excellent research without harming any whales at all.

Japan had been exploiting a loophole in the international agreements that regulate whaling for scientific hunting. Other countries have argued that Japan is not acting in the best interest of the environment and is not fulfilling its obligations under the agreement. Environmental groups have taken more dramatic action. Sea Shepherd is a conservation organisation that is one of the most vocal critics of the Japanese program. It sends ships to harass the Japanese whaling fleet. Groups such as Sea Shepherd rely on individuals to support them and apply pressure to the Japanese Government to abandon its whaling program.

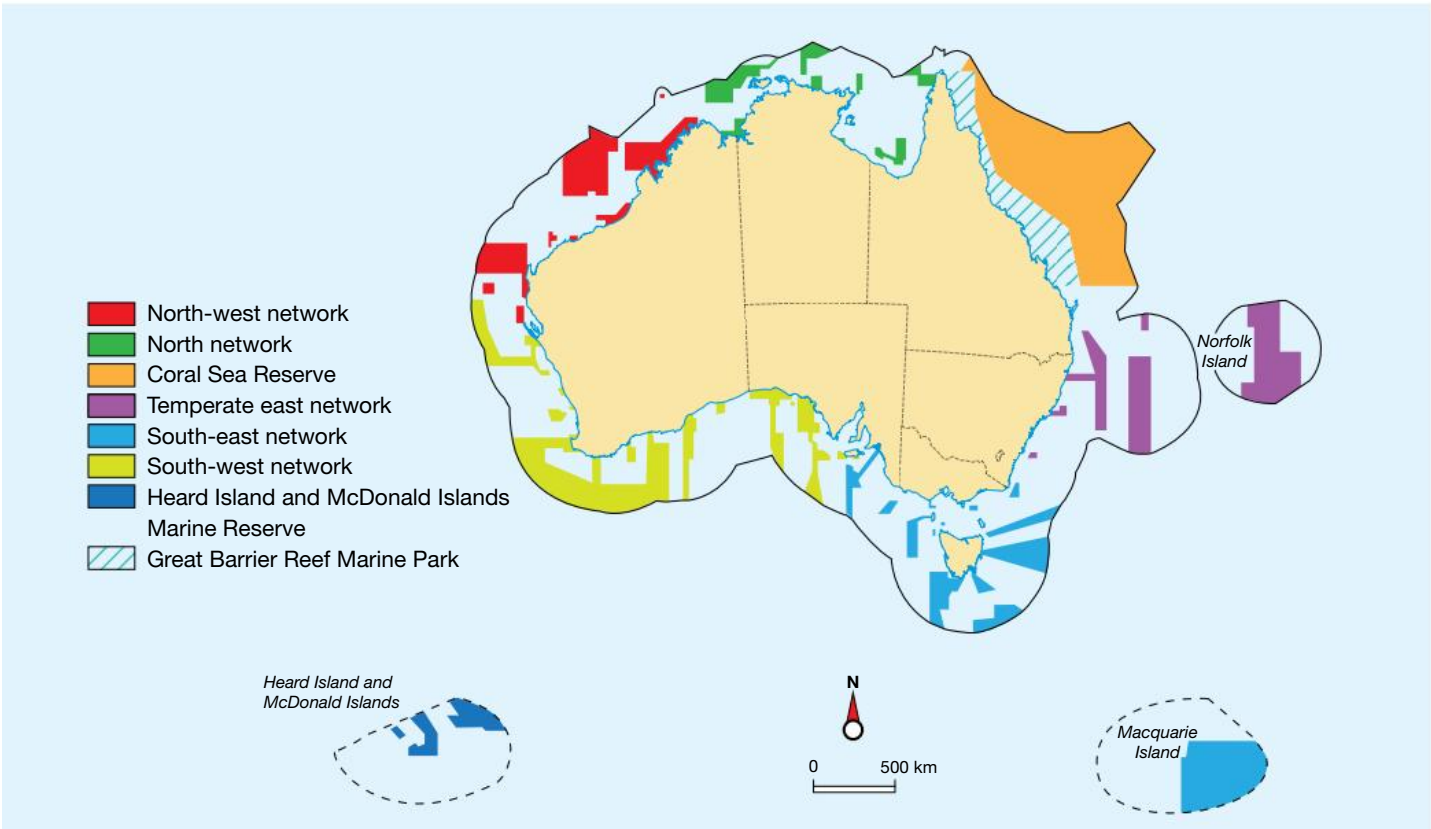
In 2014, the International Court of Justice in The Hague ordered Japan to cease whaling in the Antarctic. The ICJ ruling stated that Japanese whaling was commercial and not for scientific purposes. This was in violation of the IWC moratorium.

Marine management in Australia

Australia has become a world leader in managing its marine environment. The fishing industry is heavily regulated, with strict quotas (limits) used to maintain sustainable fisheries. Extensive marine parks have also been established along large areas of the Australian coast, as shown in Figure G2.4.2. Some people have been critical of these parks as they limit commercial fishing.

With the Australian demand for seafood growing every year, it has been argued that Australia is protecting its marine environment at the expense of environments elsewhere. Well over $1 billion worth of seafood is imported into Australian annually, much of it from South-East Asia. There are concerns that Australian consumers are fuelling the destruction of the marine environment throughout the region.

G2.4.2 Australia's extensive network of protected marine environments. Note that Macquarie Island, Heard Island and McDonald Islands are not shown on the map in their correct location according to the scale.

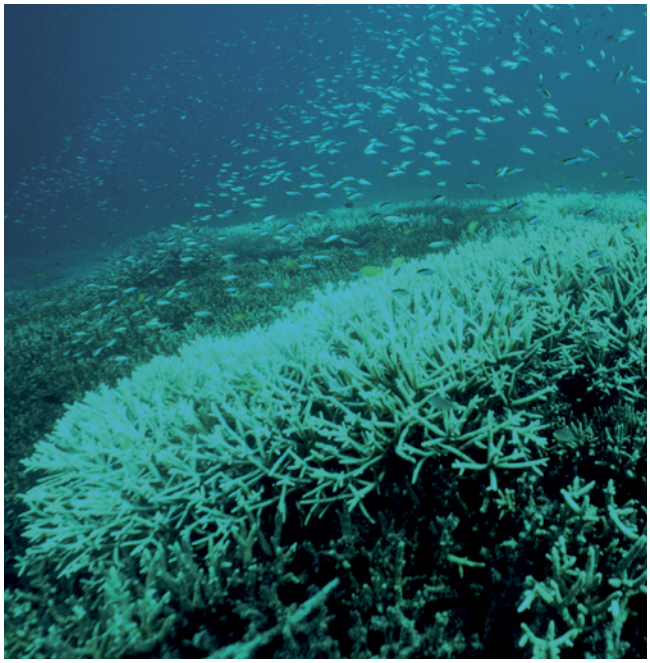


Spotlight

Managing the Great Barrier Reef

Covering an area of 348 000 square kilometres, the Great Barrier Reef (GBR) is the largest coral reef system in the world.

In 1981, the importance of the GBR to the entire world was recognised by the United Nations Education, Scientific and Cultural Organization (UNESCO) when it listed the reef as a World Heritage site. This recognition was based on the enormous biodiversity found on the reef. Fifteen hundred of the world's 13 000 fish species are found there, along with six of the seven turtle species, more than 200 species of birds, 500 species of seaweed, 600 species of echinoderm, 125 species of shark and rays and about 360 species of hard coral.



G2.4.3 Bleached coral in the Great Barrier Reef

Managing a large-scale environment with such an amazing diversity of species is challenging. The fact that it is a marine environment adds further complications. Hundreds of large ships navigate through the reef every year, travelling to and from the huge coal ports on the Queensland coast, and up to 2 million tourists visit the region every year. An increasing number of visitors arrive on cruise ships.

The Great Barrier Reef Marine Park Authority (GBRMPA) is responsible for balancing the interests of humans and the need to protect the environment. It has established different management zones in which activities are controlled. About 85 per cent of tourism activity is confined to just 7 per cent of the reef system, minimising the impact, and commercial fishing is limited to certain areas. The GBRMPA also conducts reef and marine research to learn more about how to manage the reef. Warmer water can cause corals to expel the algae (zooxanthallae) which gives them their colour, causing them to become completely white. This is called coral bleaching, shown in Figure G2.4.3. Most corals struggle to feed themselves without their zooxanthallae. GBRMPA has reported that the reef is in deep trouble. Coral bleaching has resulted in the death of nearly half of all shallow water corals between 2015 and 2017.

The role of the individual

The everyday actions of individuals can have a very significant impact on the marine environment.

Everyday actions

When individuals drop rubbish on the ground, it makes its way into stormwater systems and eventually floats out to sea. This is how rubbish collects in North Pacific Gyre. Individuals taking greater responsibility for their rubbish is more effective than the installation of rubbish traps over stormwater outlets.

The following actions could also be undertaken by individuals to limit plastic pollutants in the oceans.

1 *Problem*: Synthetic clothing sheds up to 700 000 microfibres each wash.
Solution: Fit all washing machines with filters and choose natural fibres.
2 *Problem*: Glitter is made from PET or PVC and is hard to dispose of.
Solution: Use a biodegradable cellulose film glitter.

G2.4.4 Greenpeace's *Rainbow Warrior* protesting next to a Russian oil tanker

3 *Problem*: Wet wipes are made from polyester, polyethylene and polypropylene and do not break down.
Solution: Do not buy or use.

4 *Problem*: Takeaway cups are lined with plastic and the lids are plastic that do not break down.
Solution: Use a refillable cup.

Direct action

Environmental organisations such as Greenpeace and Sea Shepherd rely on individuals for support. Direct action includes protest and awareness raising activities.

In 2013, oil companies began drilling deep-sea wells well to the north of the Arctic Circle. Environmentalists fear that the pristine environment here will be destroyed by a spill. In 2013, thirty Greenpeace activists boarded an oil rig (see Figure G2.4.4) and attempted to unfurl a banner highlighting the dangers of drilling. They were arrested by Russian police.

Consumer choice

Consumers are increasingly aware that the decisions that they make about products can have a significant impact on the environment. Much of the canned tuna sold in Australian supermarkets now is labelled as 'dolphin friendly'. This means that the tuna has been caught by methods that protect dolphins from being accidentally caught. This growth in dolphin-friendly tuna production developed at the end of the twentieth century as a result of consumer demand.

An awareness of the damage that large-scale commercial fishing causes to the environment has led to a rise in demand for sustainable seafood. The Marine Stewardship Council now provides certification that companies can use to indicate to consumers that they have met rigorous standards for harvesting seafood in a sustainable fashion.

Consumer boycott

The Brent Spar, a 4000-tonne facility located in the North Sea, was constructed in 1976 to temporarily store oil from oil rigs until it was taken ashore by tankers.

In 1997, energy company Royal Dutch Shell, which owned Brent Spar, announced it was planning to sink the storage facility, as it was no longer in use. Environmentalists feared that sinking the facility would cause huge environmental damage, as it was contaminated with toxins. Greenpeace called on consumers to boycott Shell petrol stations throughout Europe. This boycott proved so successful that Shell backed down and agreed to tow Brent Spar to Norway to be thoroughly cleaned, dismantled and recycled.

Activities

Remembering and understanding

1 Explain why managing the marine environment in the area known as the high seas is challenging.
2 Outline the importance of international agreements for managing the marine environment.
3 Describe how the MARPOL Convention protects the marine environment.
4 Outline the purpose of the Wellington Convention.
5 Assess the justifications given by Japan for whaling in the Southern Ocean.
6 Outline why the Great Barrier Reef was given World Heritage status.
7 Outline why the Great Barrier Reef is in danger.
8 Describe the role of environmental organisations in protecting the marine environment.

Applying and analysing

9 Create a PMI chart on marine parks in Australia.
10 Design an advertising campaign to encourage individuals to take action to protect the marine environment.

Evaluating and creating

11 Assume the role of a fisheries manager. You have been asked to give a presentation to the Environment Minister of a developing nation that allows large driftnets to be used in its waters. Prepare a digital presentation to convince the Minister to agree to the Wellington Convention.

G2.5 Bass Strait

Location

Bass Strait is a wide channel separating mainland Australia from Tasmania. At its widest point, it is 240 kilometres across. Where the Strait is close to the shore, its depth is often less than 20 metres, but at its deepest it exceeds 120 metres. The shallowness of Bass Strait creates a perfect environment for large swells and waves, and consequently it is famous for its rough seas.

The vast Southern Ocean lies to the west of Bass Strait and the Tasman Sea to the east (see Figure G2.5.1). Low-pressure weather cells, which form in the Southern Ocean, sweep up from Antarctica towards Australia. These cells bring with them large storms and seas, creating strong south-westerly winds in the Indian Ocean, which are funnelled into the eastern part of Bass Strait. These winds create the legendary storms characteristic of Bass Strait. During these storms, the waves regularly reach 4 metres and can exceed 7 metres.

Biodiversity of Bass Strait

The cool waters of Bass Strait are highly productive and support a wide diversity of marine life. In the coastal waters, mammals such as seals are found, and extensive kelp forests of large brown algae seaweeds provide an important habitat for many creatures.

The giant cuttlefish, a marine animal with a unique internal shell, is found in these forests. These beautiful creatures, which grow to more than 1 metre in length, have a life span of only 2 years. The short life span means that disturbances to the breeding cycle can have a dramatic impact on the species. Giant cuttlefish are commonly caught as by-catch by commercial fishing operations.

Did you know?

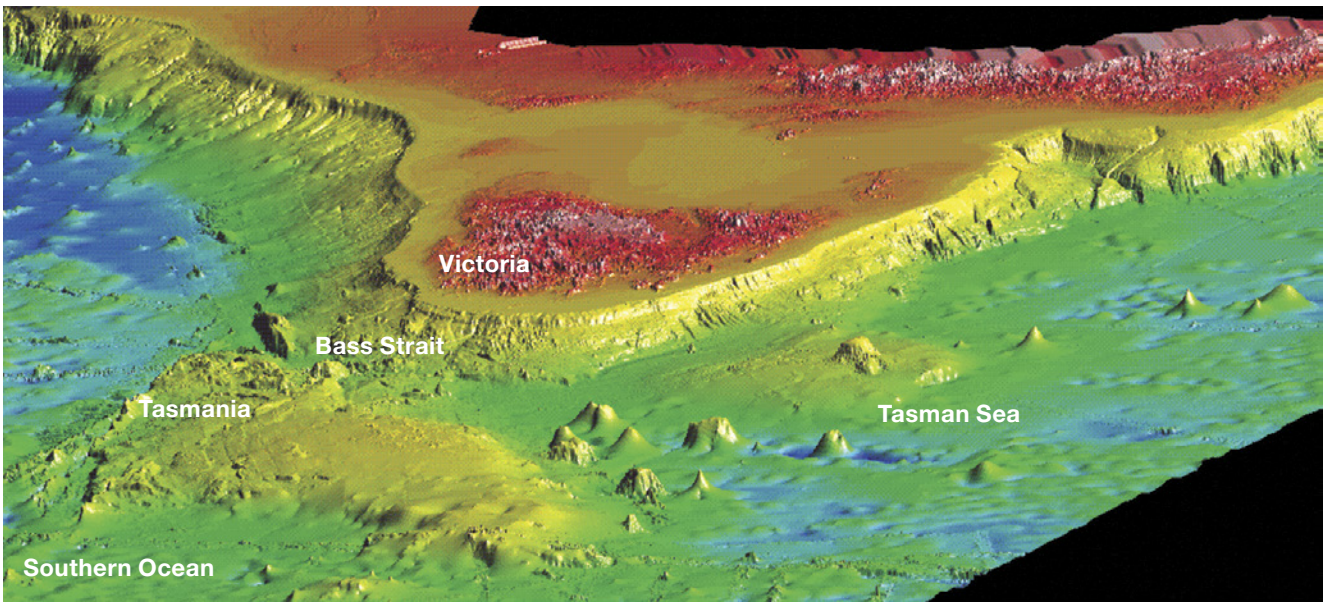
Bass Strait was not always a strait. It used to be a plain that Indigenous people could cross. The plain was covered by water around 12 000 years ago.

Human impacts

Bass Strait is a busy and important shipping route. Threats of oil spills from shipping accidents are ever-present but, fortunately, large oil spill accidents have been rare. Since the 1960s, oil and gas exploration and drilling have been undertaken in Bass Strait.

Bass Strait's oil reserves are declining and some experts predict that the fields will cease production within the next decade or two. Energy companies are now turning their attention to gas, which is considered to be a cleaner energy source than oil. The demand for gas is growing in Australia and around the world. Several large companies are now actively drilling for gas reserves in Bass Strait.

The huge oil rigs that dot the north-eastern part of Bass Strait, off the Victorian coast, pose one of the greatest risks to the environment. In October 2013, 750 litres leaked from the Cobia pipeline into Bass Strait. Although it was only a small leak, environmentalists have pointed to the spill as evidence that the oil infrastructure in Bass Strait is ageing. Some of it is more than 30 years old and it is feared that more serious spills may occur in the future.



G2.5.1 The continental shelf, showing Bass Strait, located between mainland Australia and Tasmania

G2.5.2 Oil rigs dot the Victorian side of Bass Strait.

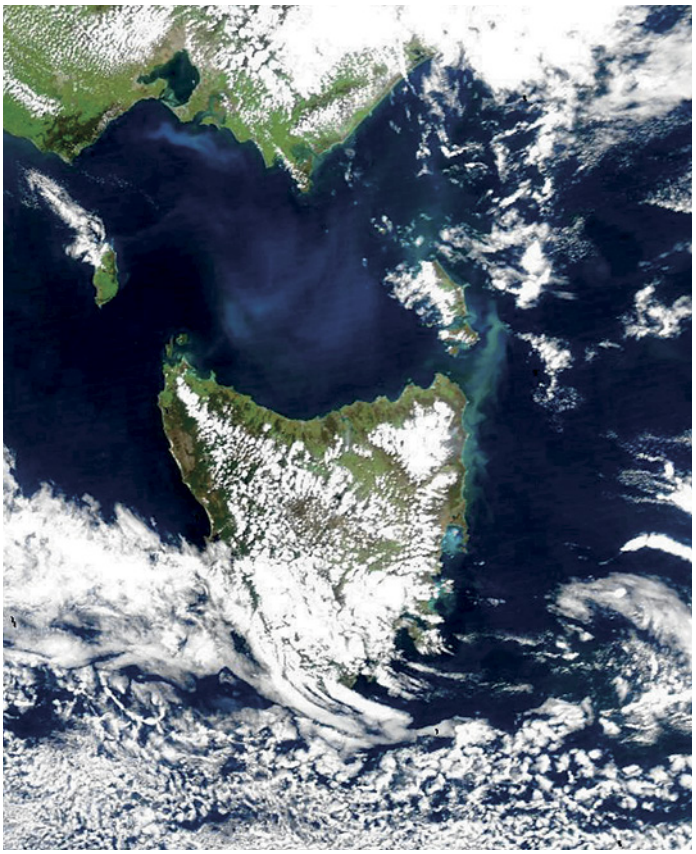
Managing Bass Strait

Although now in decline, the oil industry is important in meeting Australia's energy needs. Bass Strait is also important to the shipping and the fishing industries. This human activity takes a toll on the environment of Bass Strait. It is now extensively managed.

Dealing with pollution

The coastline of Bass Strait is quite heavily populated, especially the Victorian coastline, which takes in Port Phillip Bay. The urban areas next to Bass Strait have long been a source of pollution. Toxins from industry, sewage, plastics and other rubbish all take a toll on the marine environment.

Algal blooms have become a feature of Bass Strait coastal waters in recent years. Algal blooms are the rapid growth of algae in the water, creating a coloured scum on the surface. The blooms can grow very large and have a great impact on the environment. The algae are toxic and take oxygen out of the water, which leads to the deaths of fish and other marine life. In 2013, the emergence of toxic blooms in the north of Tasmania, shown in Figure G2.5.3, resulted in a ban on shellfish harvesting in much of Bass Strait. The blooms are caused by run-off from inland areas that is rich in nutrients, such as fertiliser, and also by the release of untreated sewage. Management and treatment of stormwater is essential for reducing the impact of the algal blooms.



G2.5.3 This 2004 algal bloom in Bass Strait, shown by the blue-green area in the water off the eastern coast, was so large that satellites were used to track it.

Research conducted by La Trobe University into seabirds in Bass Strait has revealed the impact of plastics. One study into fledgling (very young) mutton-birds on Phillip Island found that they have on average seven pieces of plastic in their stomachs. These plastics are toxic and can gradually kill the birds. Researchers found that the chicks had been fed regurgitated fish containing plastics by their parents.

Authorities are beginning to deal with this issue through education programs to alert the public that the rubbish they drop into drains and gutters makes its way into the marine environment. Traps that are installed over stormwater pipes, and booms (barriers) that are strung across waterways also capture rubbish. These are effective but require regular emptying and maintenance.

Did you know?

The Environment Protection Authority in Victoria has modelled the way plastic circulates once it washes into Port Phillip Bay. From the mouth of the Yarra River, plastic blows east and strikes the shore. What doesn't get beached will end up in Bass Strait within a year.

Spotlight

Tamar Valley pulp mill

Forestry is one of the most significant and controversial industries in Tasmania. A large pulp mill to make paper had been planned for Bell Bay in northern Tasmania since 2004. The mill had been approved but in 2013 the original owners of the site, Gunns, went bankrupt, and the approval for the mill was offered for sale.

Some local residents and environmentalists have always opposed the mill, claiming that it will have a huge impact on the environment, including Bass Strait. They have been led by the Friends of the Tamar Valley group. The group uses community action and protests to highlight the dangers of the mill. The Pulp Mill Permit lapsed on 30 August 2017 and that was the end of the project.

If built, the mill was expected to dump about 640 000 tonnes of waste water into Bass Strait daily. This waste would have contained a mixture of chemicals, including highly toxic dioxins and furans (a type of dioxin). Both these toxins remain in the environment for decades and gradually affect the entire food chain.

G2.5.4 Community and environmental groups protesting against the construction of a pulp mill in Bell Bay on the coast of northern Tasmania

Managing the oil and gas industry

Oil and gas drilling poses one of the greatest risks to the marine environment of Bass Strait. Fortunately, there has not been a major spill of oil in Bass Strait but the environmental impact of a major rig incident could be catastrophic.

The National Offshore Petroleum Safety and Environmental Management Agency (NOPSEMA) is an Australian government agency that has responsibility for regulating oil and gas exploration offshore. NOPSEMA conducts environmental assessments into drilling applications and is responsible for monitoring the environmental impacts of offshore gas and oil operations. The agency also coordinates responses to oil spills, and works with the industry to develop contingency plans to ensure that spills are dealt with quickly and correctly.

Managing the fishing industry

Bass Strait has an important commercial fishing industry. Throughout much of the twentieth century, this industry was unrestricted, and unsustainable catches led to a decline in important commercial species. Today, as in other fishing zones in Australia, Bass Strait fishing is subject to quotas and strict licences to ensure that fishing is sustainable.

One of the most significant seafood industries in Bass Strait is the scallop industry. Scallops are shellfish with fan-shaped shells that grow in sand or mud. In the 1980s, more than 300 boats harvested about 40 000 tonnes of scallops annually from Bass Strait. In December 2005, the Australian Fisheries Management Authority (AFMA), which manages commercial fishing throughout Australia, closed the Bass Strait scallop fishery. This was to allow the vast scallop beds to replenish after many years of unsustainable harvesting. In May 2009, scallop harvesting in Bass Strait was allowed again, but AFMA imposed extensive restrictions. This included reducing the number of boats to just seventeen. Strict quotas for each boat are developed each year, based on detailed surveys.

G2.5.5 Harvesting scallops in Bass Strait

Evaluating management

Table G2.5.6 provides an outline and an evaluation of the management strategies of selected industries in Bass Strait.

G2.5.6 Evaluation of the management of Bass Strait

Management strategy	Environmental criteria	Economic criteria	Social criteria
Rubbish and nutrient management	• Plastics and other rubbish and toxins from urban areas need to be dealt with • High levels of nutrients lead to algal blooms; better water management and treatment helps to reduce this	• Education programs and rubbish traps to reduce pollution are cheap to implement	• Education programs allow the community to be involved in caring for the environment
Evaluation: Urban pollution has a significant impact on the marine environment. Rubbish traps and education programs are cost-effective and provide opportunities for the community to take action.			
Scallop fishing	• Reduction in the number of boats allowed to harvest scallops • Tight quotas imposed on boats • 'No fish' areas created	• Ban on scallop fishing between December 2005 and May 2009 damaged the industry	• Reduction in the industry has caused job losses and affected fishing communities
Evaluation: The scallop industry has had to become more sustainable in order to survive in the long term. There have been negative social and economic consequences of the restrictions on the industry but the restrictions are allowing the scallop population to rebound.			
Oil and gas industry	• Regulations by NOPSEMA that require environmental assessments • NOPSEMA coordinates responses to spills to minimise impact	• Oil and gas drilling allowed within Bass Strait, providing jobs and economic growth	• Oil and gas drilling brings jobs and contributes to the national economy
Evaluation: The industry provides significant economic benefits and the regulations of NOPSEMA help to minimise the environmental impacts. However, drilling for oil and gas represents a very significant threat to the environment in the case of a spill.			

Activities

Remembering and understanding

1 Explain why the waters of Bass Strait are typically so rough.
2 Describe the impact of human activities on the environment of Bass Strait.
3 Outline the sources of pollution in Bass Strait.
4 Describe the causes and impact of algal blooms on Bass Strait.
5 Describe the management strategies used for reducing plastic pollutants.
6 Explain the potential impact of the Tamar Valley pulp mill on Bass Strait.

Applying and analysing

7 Construct a mind map to summarise the main impacts of human activities on Bass Strait and the management strategies used to reduce this impact.

Evaluating and creating

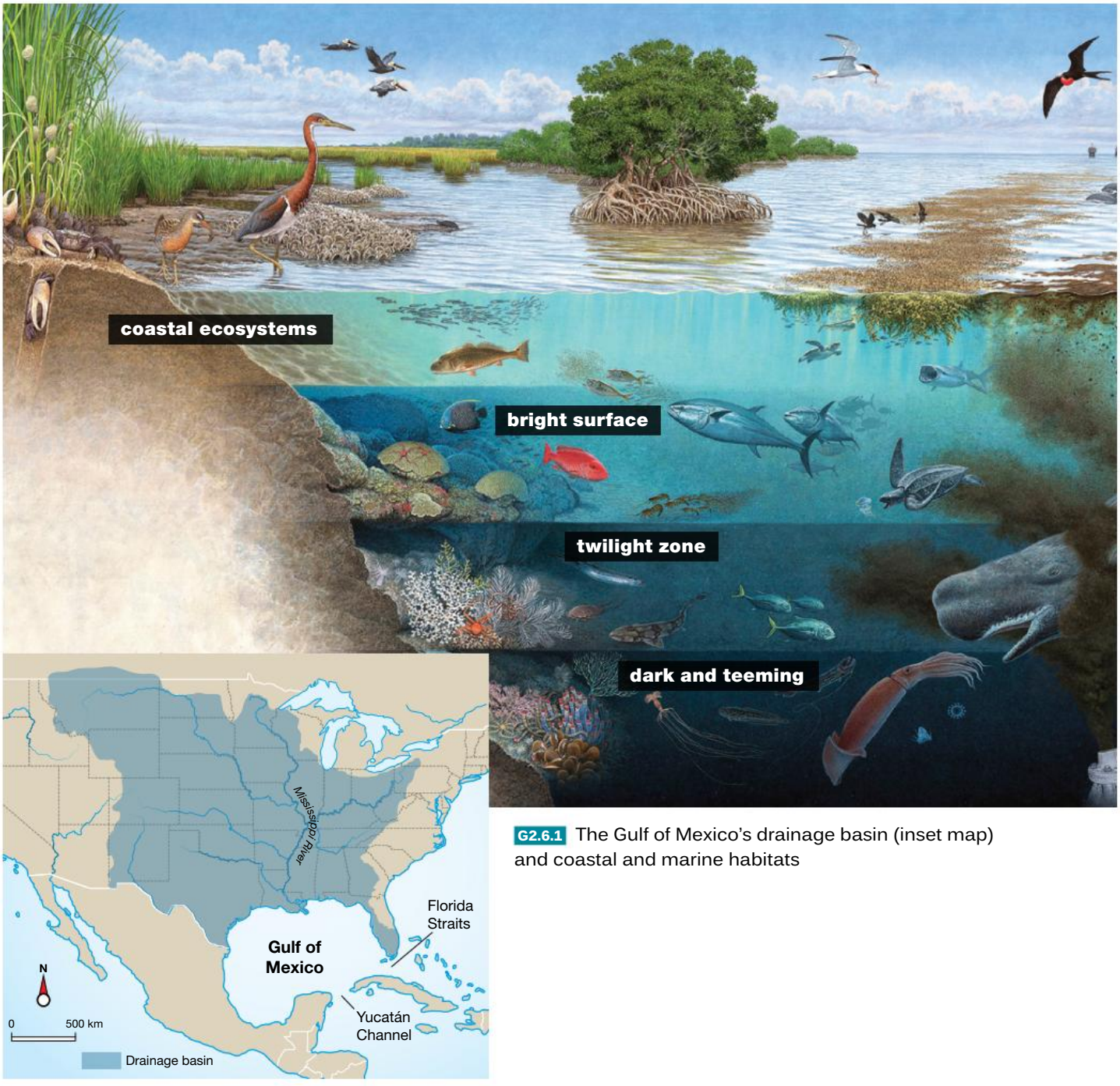
8 Using the internet, conduct research into the Tamar Valley pulp mill. Prepare a summary of the current status of the mill.
9 Write a short report outlining how the Bass Strait scallop industry is being managed to make it more sustainable.

G2.6 Gulf of Mexico

Geography of the Gulf

The Gulf of Mexico is the ninth largest body of water on Earth, measuring 1 550 000 square kilometres. Land surrounds much of the Gulf, with only the narrow Florida Straits in the east forming a passage to the Atlantic Ocean, and the Yucatán Channel in the south allowing waters from the very warm Caribbean Sea to enter (see Figure G2.6.1, inset).

The Gulf is deep, with waters in the centre plunging to more than 5000 metres. Many large rivers flow into the Gulf, which means that the water closer to the coast is far less saline than the water in the centre. These different water conditions result in diverse environments.



G2.6.1 The Gulf of Mexico's drainage basin (inset map) and coastal and marine habitats

Human impacts

Oil and gas

Human activity has had an enormous impact on the Gulf of Mexico's environment. Deep below the sea floor, huge reserves of oil and gas are being exploited. When accidents occur, oil spills have a dramatic and long-lasting impact on the environment.

Deepwater Horizon

Deepwater Horizon was a huge oil rig owned by UK energy company British Petroleum (BP). On 20 April 2010, while drilling in the Gulf, the rig caught fire after an explosion caused by a build-up of methane gas. The explosion killed eleven crew members and injured seventeen. On the sea floor, the well head was damaged and began leaking oil, which spread horizontally at a depth of about 1 kilometre.

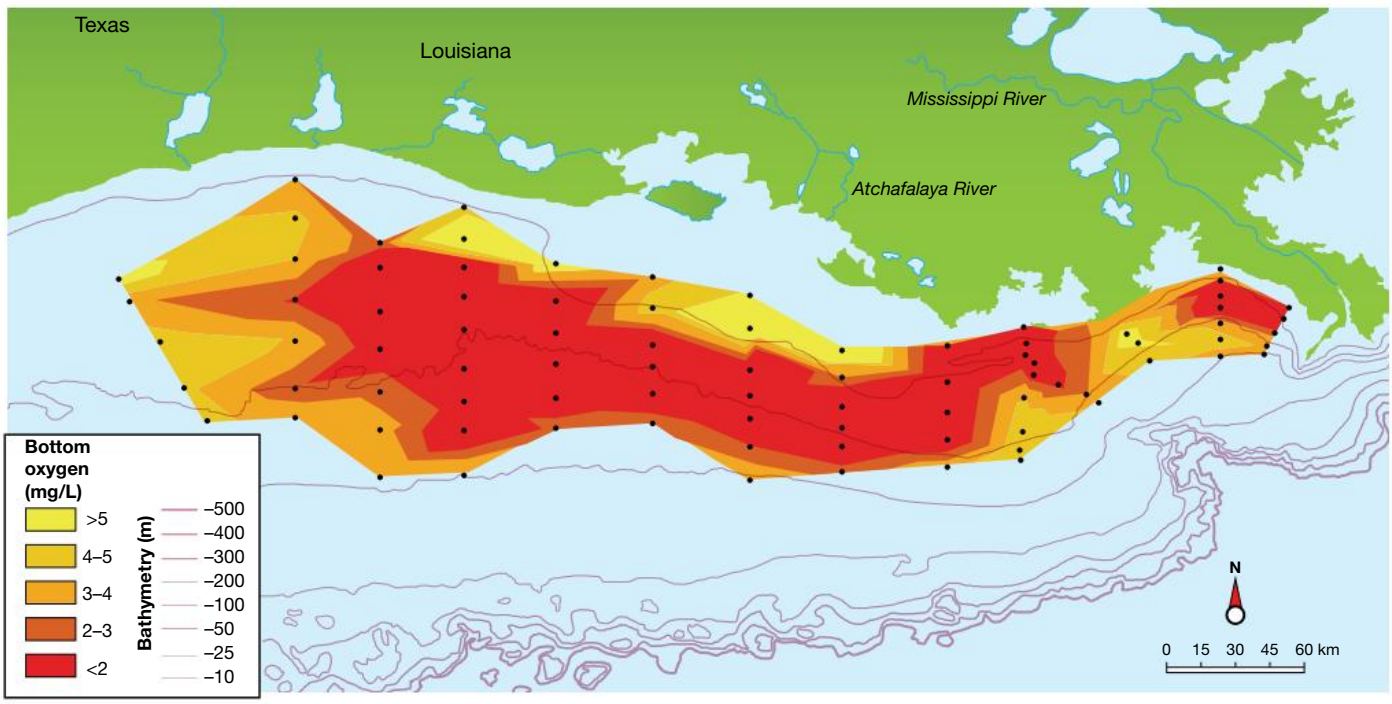
As millions of litres of oil spewed into the Gulf of Mexico, killing marine life, BP used aircraft to spray a chemical called Corexit onto the surface to break up the oil. Corexit is highly toxic and is banned in many parts of the world. It was only after 2 500 000 litres was sprayed that BP was ordered by the US Environmental Protection Agency to stop. By early May, the waters of the northern Gulf of Mexico were so polluted that the National Oceanic and Atmospheric Agency ordered that all commercial and recreational fishing be stopped. It took about three months to stop the leak.

The spill has had a huge impact on the environment. Because the oil leaked at the sea floor, many deep-sea creatures were affected, including deep-water rock reef systems, which have a rich diversity of anemones, sea lilies and whip corals. As the oil rose to the surface, seabirds and surface animals were also affected. The build-up of oil and the toxic Corexit will remain in the Gulf of Mexico environment for decades.

Agriculture

Human activities on land are also taking a significant toll on the Gulf environment. Scientists have discovered an extensive 'dead zone' in the Gulf's marine environment (see Figure G2.6.2). The **hypoxic water** in this zone contains extremely low levels of dissolved oxygen. Located off the coast of Louisiana and Texas, the zone covers an area of more than 20 500 square kilometres. The dead zone appears at the onset of spring, when huge amounts of water flow into the Gulf from the Mississippi River.

The cause of the dead zone is the use of nitrogen-based fertilisers in agriculture, manure from animals and the burning of fossil fuels. About 1.6 million tonnes of nitrogen enters the Gulf of Mexico from the Mississippi River each year from farmland throughout central United States. The excess nutrients promote the growth of algae, which take the oxygen out of the water, leading to the destruction of the food chain.



G2.6.2 The Gulf of Mexico dead zone, where dissolved oxygen levels fall below 2 mg/L

Managing the Gulf of Mexico

Management of the Gulf of Mexico presents many challenges. The Gulf is one of the largest bodies of water in the world and is under the control of multiple governments. Its waters contain vast oil and fishing industries that are economically very important. The Gulf coast is home to millions of people, and the waters that flow into the Gulf from the many rivers drain a huge area of land.

Integrated management

In order to manage the Gulf of Mexico effectively, an integrated approach has been adopted (see Table G2.6.3). It deals not just with the marine environment but also with the huge landmass that drains into the Gulf. The northern Gulf of Mexico **watershed** is one of the largest **drainage basins** on Earth. It is over 5 million square kilometres in area and covers thirty-one of the fifty states of the United States of America.

The water that enters the rivers and makes its way into the Gulf of Mexico flows across farmland, urban areas and natural landscapes. This water contains contaminants such as nitrogen-rich fertilisers, which are a major contributor to the Gulf of Mexico 'dead zone'. Environmental management of this issue sometimes takes place thousands of kilometres from the Gulf, and requires integrated approaches from many different agencies, as well as extensive education programs.

Spotlight

The Gulf of Mexico Program

The Gulf of Mexico Program was developed in 1988 by the United States Environmental Protection Authority to provide a coordinated approach to management of the Gulf. The program is based on undertaking extensive scientific research into the problems facing the Gulf and then bringing together many different agencies, volunteers and non-governmental organisations to work together to solve those problems.

The program has identified five major areas that require attention:

- improved water quality
- habitat conservation and restoration
- ecosystem research
- reduced nutrient flows into the Gulf
- environmental education programs.

Since its establishment, the Gulf of Mexico Program has had a number of important environmental successes. These include substantially improving the water quality of 109 rivers whose waters eventually find their way into the Gulf, and developing education centres and programs.

G2.6.3 Evaluation of the management of the Gulf of Mexico

Management strategy	Environmental	Economic	Social
Integrated management	• A broad approach, such as the management of watershed, maximises the management of the entire environment	• Strategies help to balance the environmental and economic values of the Gulf	• Programs allow the involvement of community groups and education programs involve individuals
Evaluation: The Gulf of Mexico is so vast it requires management of many different aspects of the environment. It also requires cooperation between many different governments and agencies.			
Fishing industry management	• Licence buybacks reduce the number of longline boats • Watershed management reduces risks of hypoxia • 'No-fish' areas created	• Watershed management reduces risks of hypoxia, which can devastate the industry • Need to balance the needs of the oil and fishing industries	• Policies to regulate recreational fishing are in place and need to be maintained • Many Gulf communities rely on the fishing industry for employment
Evaluation: The Gulf fishing industry is very significant. Policies are in place to improve the sustainability of the industry. The oil industry represents a significant threat, as does hypoxia. Both of these need constant management and attention.			
Oil and gas industry	• Enhanced regulations requiring tougher environment standards introduced following *Deepwater Horizon* explosion • Scientific research prompted by *Deepwater Horizon* is improving knowledge and reactions to oil spills	• Oil industry adds huge economic growth to the area and provides energy for further economic growth	• Oil and gas drilling brings jobs and contributes to the national economies of the US and Mexico
Evaluation: The industry provides significant economic benefits. However, as shown by the *Deepwater Horizon* tragedy, the environmental risks are enormous. Better regulations and more research are now in place to manage the industry more effectively.			

In recent years, there has been increasing cooperation between Mexico and the United States in managing the Gulf. The Gulf of Mexico Large Marine Ecosystem Project brings scientists, environmental managers and government officials from both countries to coordinate their management of the Gulf.

Managing fishing in the Gulf of Mexico

Extensive fishing industries are found on both the US and the Mexican Gulf coasts. The US Gulf fishing industry is estimated to be worth more than US$650 million. Shrimp (prawns) are the most important commercial species, with about 80 million kilograms being removed from US Gulf waters every year.

The Gulf of Mexico fishing industry is under threat from unsustainable fishing, damage from oil spills and the effects of hypoxia (inadequate oxygen supply). Fishing throughout the Gulf is now regulated and restrictions are placed on the size of catches. Mexican authorities have instituted closed seasons for shrimp fishing periodically. During these seasons, commercial shrimp boats are not allowed to take any shrimp at all, in order to allow the population to recover.

There are also concerns over the sustainability of fishing of other species, including the iconic grouper. There are concerns that grouper numbers are in decline and that longline fishing, a method of fishing using fishing lines with thousands of hooks, creates a huge by-catch.

Management approaches have included extensive scientific research into grouper populations and the impact of fishing. An education program for commercial and recreational fishers, as well as fish buyers, aims to encourage more sustainable fishing approaches. A licence buyback program has also been implemented, whereby licences for longline fishing are bought back from commercial fishers to reduce the number of boats. These strategies are beginning to prove effective and the number of groupers in the Gulf is growing.

Managing the Gulf's oil industry

The oil and gas industry represents one of the most significant human uses of the Gulf of Mexico. There are about 4000 wells in the US waters of the Gulf, and more in Mexican waters. These operations provide extensive employment and economic development throughout communities along the Gulf coast. However, they also represent a real and ever-present threat to the environment of the Gulf.

The environmental risks created by oil drilling were dramatically demonstrated by the 2010 explosion of the *Deepwater Horizon* rig. This tragedy has led to the implementation of new environmental management strategies. The Offshore Drilling Safety Reforms were introduced after the explosion and require more thorough environmental risk assessments and more thorough planning for oil spills.

There has also been a significant increase in scientific research into oil spills. Government agencies and environmental groups have undertaken studies throughout the Gulf to assess the impact of the *Deepwater Horizon* spill. The Gulf of Mexico Research Initiative (GoMRI) brings together scientists from several universities and non-governmental agencies. GoMRI is now developing better strategies to detect and reduce the impact of oil spills, as well as better remediation strategies for areas affected by oil spills.

Activities

Remembering and understanding

1. Define the term 'hypoxic water'.
2. Outline the causes of the Gulf of Mexico dead zone.
3. Outline the role of the Gulf of Mexico Program.
4. List some of the successes of the Gulf of Mexico Program.
5. Explain why the Gulf of Mexico Large Marine Ecosystem Project is important.
6. Describe the importance of the fishing industry in the Gulf of Mexico to the United States of America.
7. Explain how the *Deepwater Horizon* disaster has affected the management of the oil industry in the Gulf of Mexico.

Applying and analysing

8. Construct a table to summarise the challenges facing managers of the Gulf of Mexico. Add the strategies used to overcome these challenges to your table.
9. Prepare a short report explaining the strategies used to manage the Gulf of Mexico more effectively.
10. Study Figure G2.6.1.
    a. Describe the location and extent of the Gulf of Mexico and the extent of the landmass drained by rivers flowing into the Gulf.
    b. Briefly describe each of the Gulf marine habitats.
11. Summarise the impact of the *Deepwater Horizon* disaster on the marine environment.

LS G2C

Inland water

G3

Life on Earth depends on the waters of inland aquatic environments. These include flowing waters such as groundwater, creeks, streams and rivers; and standing waters such as lakes and wetlands. Some of these bodies of water are permanent while others are only flooded sometimes (intermittently).

Inland waters and wetlands not only meet the needs of humans, they also provide habitat for a variety of plant and animal species.

In this chapter, we focus on environmental change and management using inland water environments as an example. Of particular interest are the causes and consequences of the changes taking place and an evaluation of the strategies being used to manage these changes.

OVERVIEW QUESTIONS

G3A What are the main causes of environmental change in inland water environments?

G3B What are the impacts of the environmental changes taking place in inland water environments?

G3C What environmental management strategies are used to protect inland waters? Are these strategies effective?

LS Before you begin

GLOSSARY

aquiclude an impermeable (water resistant) body of rock or a layer of sediment that acts as a barrier to the flow of groundwater

aquifer an underground layer of water-bearing (permeable) rock or unconsolidated materials like gravel, sand or silt from which groundwater can be extracted

base flow the portion of stream flow that is not runoff and results from seepage of water from the ground into a channel slowly over time

ecosystem approach a management approach that integrates the management of land, water and living resources in ways that promote conservation and sustainable use in an equitable way

fracking the process of creating fractures in rock strata by injecting fluid into cracks to force them further open; the process allows more oil and gas to flow out of the rock strata and into a bore, from where they can be extracted

freshes the sudden rise in the level of a river caused by heavy rain or melting snow

groundwater water held underground in the soil or in pores and crevices in rock

hydrologic cycle the circulation of water between the Earth's oceans, atmosphere and land, involving precipitation as rain and snow, drainage in streams and rivers, and a return to the atmosphere through evaporation and transpiration

overland flow the water flow that occurs when the soil is penetrated to full capacity and excess water flows over the land

sequestering removing or withdrawing

stream flow the flow of water in streams, rivers and other channels; a major element of the water cycle

transboundary crossing at least one political border, either a border within a country or an international boundary

turbidity a measure of water clarity that reflects the amount of material suspended in water

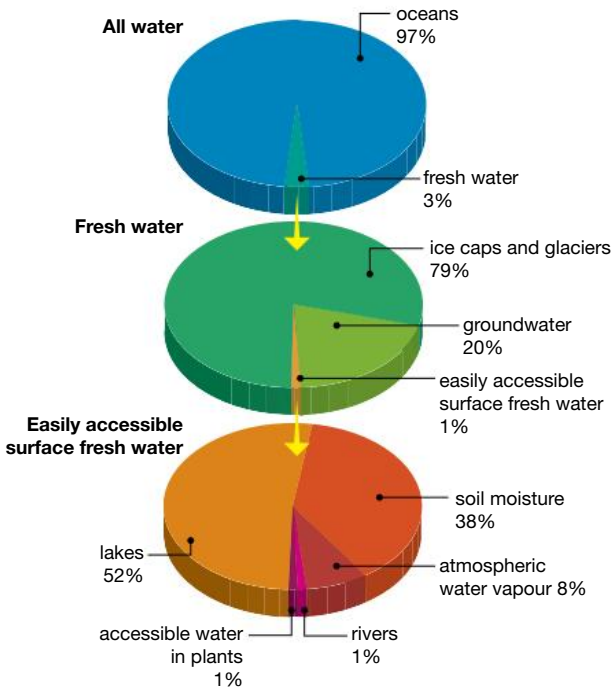
water table the level below which the ground is saturated with water

G3.0.1 Dalyan Delta, near Mulga, Turkey, where silting has created a warren of reed-covered streams

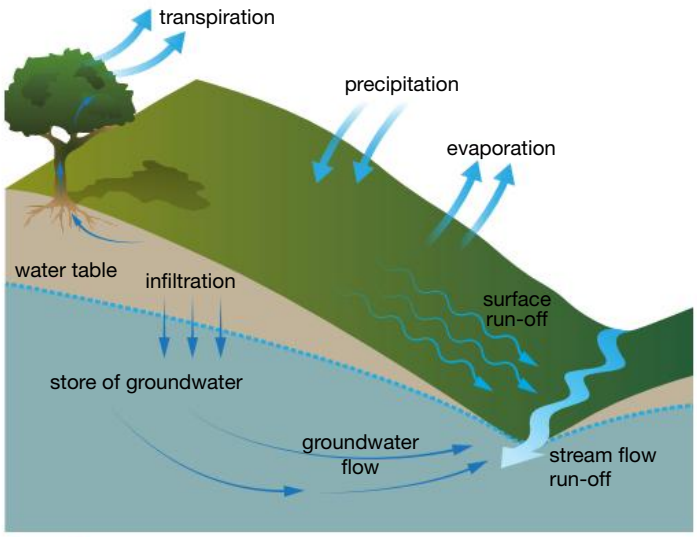
G3.1 The inland water environment

Inland waters

Inland waters are critical to life on land. They are part of wider landscapes that are rich in biodiversity and provide many services that sustain the Earth's continuing productivity. Humans need water for their survival and use it extensively, withdrawing water from surface and ground-based sources, and as a means of disposing of pollutants. A decline in the health of inland waters is evident and must be addressed.



G3.1.1 Global water distribution



G3.1.2 Portion of the global water cycle showing water involved in the circulation over land areas

Elements and processes of the biophysical environment

Inland waters include springs, streams, rivers, ponds, lakes, flood plains, groundwater, cave waters and swamps and marshes. They are mostly fresh water, but in some areas are saline or a mixture of the two (brackish). All inland waters are part of the endless global circulation of water in the **hydrologic cycle**. Only 3 per cent of the world's water is found on land, and most of this is locked up in glaciers and ice caps, so the availability of fresh water is limited, as is shown in Figure G3.1.1.

Types of inland waters

Inland waters are quite distinctive, especially in terms of where they are found in the landscape, and the manner and speed with which the water moves. Inland waters accumulate, either permanently or seasonally, in water storages above and below the land surface. Flowing water and still water are very different, as is the water that trickles through underground.

Much of the water that falls as precipitation returns quickly to the atmosphere through evaporation, or is transpired by plants. Some disappears under the land to become **groundwater**, while the remainder flows or accumulates as surface water, as shown in Figure G3.1.2. Both groundwater and surface water are closely interrelated. Water that runs across the land surface or collects upon it is the most visible and the most accessible to humans, and is considered the most important as a resource.

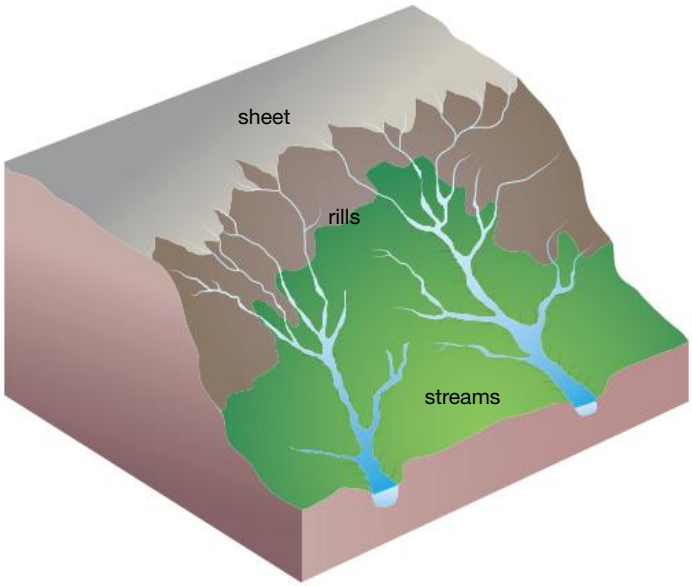
Surface water

Running water

Surface water flow is called run-off. It may take one of two paths downslope toward a surface body—**overland flow** or **stream flow**. On a fairly smooth surface, overland flow can be seen as a sheet of water, but on steeper and rougher slopes the flow can be interrupted or broken, with the water concentrating in small rivers called rills or rivulets, as shown in Figure G3.1.3.

Further downslope, the water concentrates in long, narrow channels or streams. The channel is the easiest path for the rapid flow of water and the load of sediment it carries. These channels or streams, which usually begin high up in hills or mountains, form the tributaries (branches) of rivers. Streams can vary enormously in width and length.

Streamflow is the flow of water in streams, rivers and other channels.



G3.1.3 Movement of running water down a slope

Standing water

When surface water flows into natural dips on the land surface it can collect as still water in small shallow ponds or large bodies of deeper water known as lakes. Some lakes are the sources of rivers, and other rivers end in lakes. Australia is a continent with a sunken centre, and inland rivers such as the Barcoo and Diamantina drain towards Lake Eyre, which is 15 metres below sea level. When rivers break their banks during a flood and spill out onto their adjacent flood plain, water can fill any depressions and sit there until it evaporates.

Wetlands

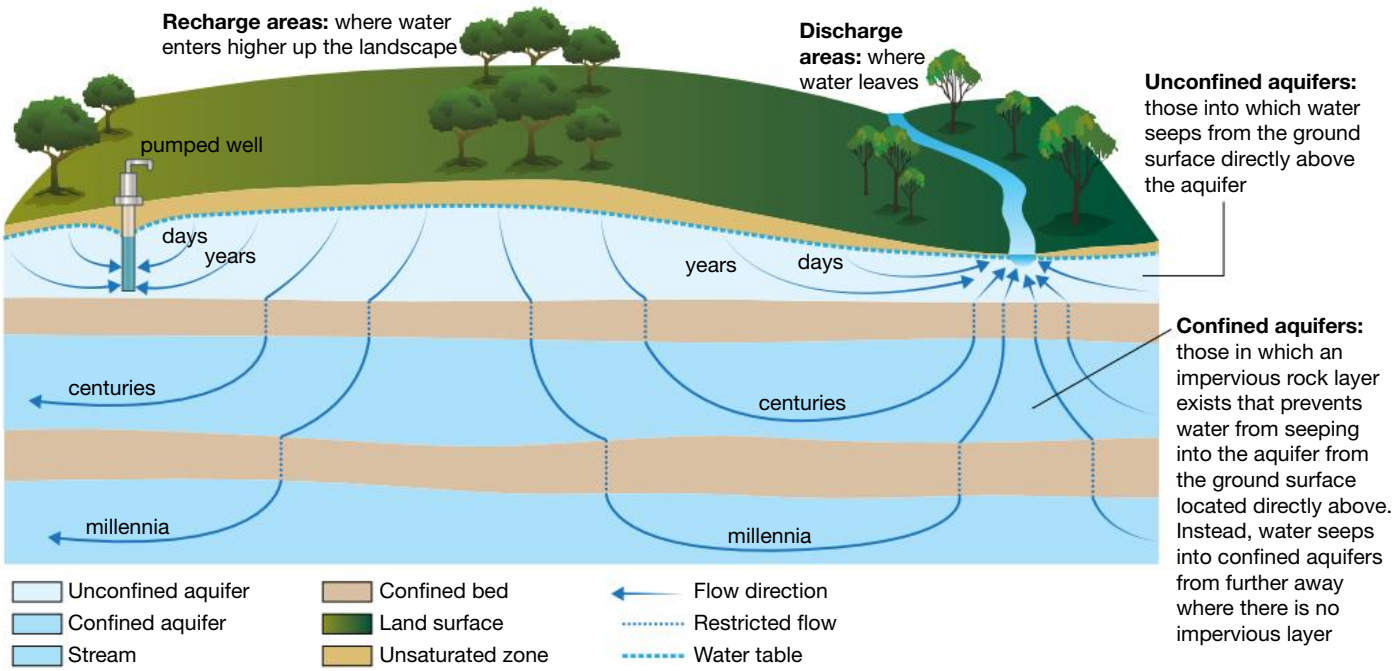
When shallow water permanently or temporarily covers any area of flat land, wetlands are created. The water in a wetland may be still or flowing, and fresh, saline or brackish (a mixture of saline and fresh water). Wetlands such as swamps and marshes are found adjacent to rivers and lakes, and are characterised by water-saturated soils and aquatic plants.

Groundwater

When precipitation falls, it seeps into, or infiltrates, the soil and disappears below the ground. As gravity continues to pull the water downwards, it percolates or moves through the cracks and holes in porous rocks until it reaches impervious rock that stops any further downward percolation. Groundwater builds up in porous water-bearing rocks, forming an **aquifer**. Typically, water sits in tiny pores or spaces between the smallest rock particles in the aquifer. Its upper surface is called the **water table**. There are two types of aquifers: an unconfined aquifer into which water seeps from the ground surface directly above the aquifer; and a confined aquifer, in which an impervious rock layer exists that prevents water from seeping into the aquifer from the ground surface located directly above.

Groundwater is recharged or replenished slowly when infiltrating rainfall or floodwaters seep down into the aquifers, in time scales ranging from years to millennia. Figure G3.1.4 illustrates groundwater flows. Eventually, all groundwater discharges back to the surface or the ocean.

G3.1.4 Cross-section of two types of aquifers. An unconfined aquifer and a confined aquifer



Interactions and natural balances

Most of the water flowing down rivers comes from groundwater seeping into riverbeds. This is most visible in small streams higher up in the hills that are 'spring fed' as the water table reaches the surface. The most compelling evidence of this is that permanent rivers flow all the time, when months have gone by without a drop of rain or any overland flow into them. It is the constant, slow discharge of groundwater that sustains constant river flow. In many places where groundwater discharges naturally to the surface, bubbling into natural springs, it not only sustains these streams and rivers but also supports many other ecosystems, such as wetlands.

Rivers, lakes and wetlands are rich and diverse habitats. Even big rivers have quiet pools within them, and seemingly calm lakes have turbulent (fluctuating) currents under the surface. Flowing water feeds into and moves out of bodies of still water. Inland waters are directly nourished from the land. As they move over the land they collect nutrients from fertile soil, as well as any leaf fall or organic debris that settles on the water surface. The nutrients are used by aquatic plants and continue to be recycled within the ecosystem. The shallow waters of wetlands are very favourable to life and are especially rich in biodiversity. They have complex, interrelated food webs, as can be seen in Figure G3.1.5.

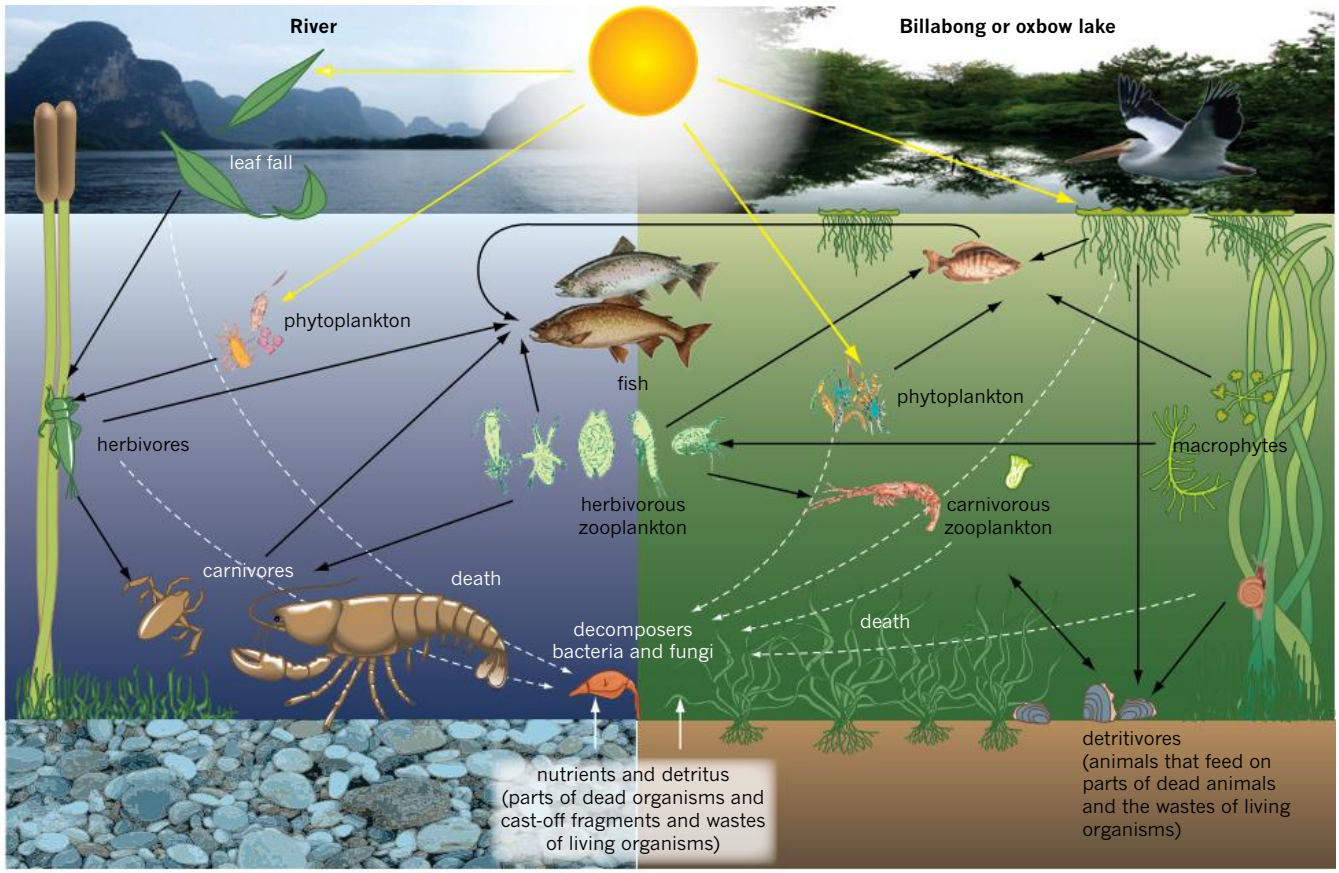
Distribution and extent of inland waters

The planet's freshwater supply is virtually limitless in the sense that it is continuously recycled by the hydrologic cycle. However, it is unevenly distributed, with some regions being well watered and others having very little water. Australia is described as a continent with a wet rim and a dry interior.

Precipitation and run-off levels influence the distribution of river networks. Australasia contributes only 2 per cent of the world's fresh water discharged into the ocean, whereas over 30 per cent pours in from each of Asia and Latin America. There are estimated to be between 5 and 15 million lakes across the world, over 10 000 of them larger than a square kilometre. An excessive share of the larger lakes is found in North America, especially Canada, where erosion caused by glacial action—glacial scouring—created many depressions that have subsequently filled with water.

Inland water biodiversity

Water and biodiversity are interdependent and they affect each other. This is because all life depends on water. The hydrologic cycle not only drives the functioning of the biophysical environment, it also sustains life.



G3.1.5 A billabong is a branch of river made by water flowing from the main stream when the water level is high. This is a food web in a billabong.

Quite apart from the various processes of the cycle itself (such as precipitation, infiltration, surface run-off), water is fundamental to the physical and chemical processes upon which life depends. In turn, the storage, movement and transfer of the water are driven by physical attributes of the environment, which is a product of biodiversity.

Such interdependence can be seen in the following examples:

- Vegetation cover directly affects the rates of transpiration, evaporation, infiltration and run-off in a drainage basin. Slopes covered by forests absorb and capture water and maintain water quality by preventing soil erosion.
- The flora, fauna and micro-organisms in inland waters play a significant role in purifying the water itself, by removing high levels of nutrients and contaminants.

Importance of inland waters

The major concentrations of the world's population demonstrate the importance of inland waters to humans. Fresh water is used in households, agriculture and industry. It is essential to our way of life and our economy. Water resources are an input in the production of almost all goods. Inland waters also support fisheries and tourism. Australia exports most of its agricultural produce and effectively supports a population of 67 million people globally.

Water environments have long held a deep spiritual value for Indigenous Australians. In a continent as dry as Australia, rivers, lakes and estuaries are also valued for their recreational opportunities and have become part of the national identity. Some people have a strong sense of place and quite an emotional attachment to iconic water environments, such as the Murray River.

Globally, inland waters are critically important for poverty reduction and the achievement of human development targets. Inland water biodiversity, especially inland fisheries, provides food security for millions of the world's poor. It is estimated that groundwater supplies drinking water for an estimated 1.5 to 3 billion people and, in most areas, groundwater is recharged through functioning wetlands. The rest of the world's population relies on the surface water provided by functioning freshwater ecosystems.

Ecological services

There are many important benefits derived from the ecological services provided by inland waters, including:

- habitats for terrestrial and aquatic species
- an extraordinarily high level of biodiversity, which includes not only life within the waters, but also life that depends on inland water habitats
- processing waste and absorbing nutrients, which keeps water clean
- flood management, as wetlands in particular absorb enormous amounts of water after extreme rain events
- climate regulation and carbon sinks.

Spotlight

Climate regulation and carbon sinks

One of the most important functions of wetlands is their role in the reduction of global climate change through **sequestering** (storing) and releasing a major proportion of fixed carbon in the biosphere. Wetlands contain peat, which is undecomposed vegetation. Peat contains a lot of carbon. Although peatlands cover only an estimated 3 to 4 per cent of the world's land area, they are estimated to hold 540 gigatonnes of carbon, representing 25 to 30 per cent of the carbon contained in terrestrial vegetation and soils. The peatlands hold carbon and stop it from being released into the atmosphere.

Peatlands are typically covered with water but are increasingly being cleared and drained to make way for plantations—palm oil, pulp and paper.

Activities

Remembering and understanding

1. Describe inland waters.
2. Identify the paths that water may take after it falls on land as precipitation.
3. Describe a wetland.
4. Explain why rivers continue to flow long after rain has fallen.

Applying and analysing

5. Study Figure G3.1.3 and describe how water flows down a slope to a river in a drainage basin.
6. Study Figure G3.1.4 and answer the following questions.
   - a. Which type of aquifer is in more danger of contamination? Give reasons for your answer.
   - b. Which aquifer is safer to drill into for a drinking water well?

Evaluating and creating

7. Research carbon sequestration in peatlands to determine why peatlands are so effective in storing carbon. Prepare a poster promoting the protection of peatlands.

G3.2 Causes of environmental change

The condition of inland waters

Humans change almost all aspects of inland waters and the landscape they are part of—shifting water around for different uses, overusing and polluting it, and degrading the environment that supplies it. Globally, inland waters are being modified by human activities and they are in serious decline, due largely to the pressures placed on them by their various users.

Over half the world's largest river systems have been moderately or extensively modified by dam construction, flow regulation and water extraction. Over half the world's wetlands have been lost. Freshwater populations of vertebrate species were reduced by 50 per cent between 1970 and 2005. This is a sharper decline than has been observed in marine or terrestrial ecosystems.

Australia does not have a comprehensive account of the distribution or condition of its freshwater ecosystems. Major loss of habitat has been observed, but the exact loss in terms of worth and species cannot be accurately reported. We do know that in the 40 per cent of the continent that has been most intensively used, over 85 per cent of the rivers have been degraded by human activity.

In the Murray–Darling Basin, twenty of the twenty-three rivers have been rated as being in poor or very poor ecological condition. Populations of native fish have declined significantly over the past five decades, with fish communities around 10 per cent of the size they were before the European settlement. More than half of the thirty-five native fish species in the basin are considered threatened or rare. Exotic (introduced) species make up 56 per cent of the total fish biomass (total weight of stock) in the lower catchment.

According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), approximately 50 per cent of Australia's wetlands have been lost to other uses, including 90 per cent of the flood-plain wetlands of the Murray–Darling Basin, 50 per cent of coastal wetlands in New South Wales and 75 per cent of wetlands on the Swan Coastal Plain in the south-west of Western Australia.

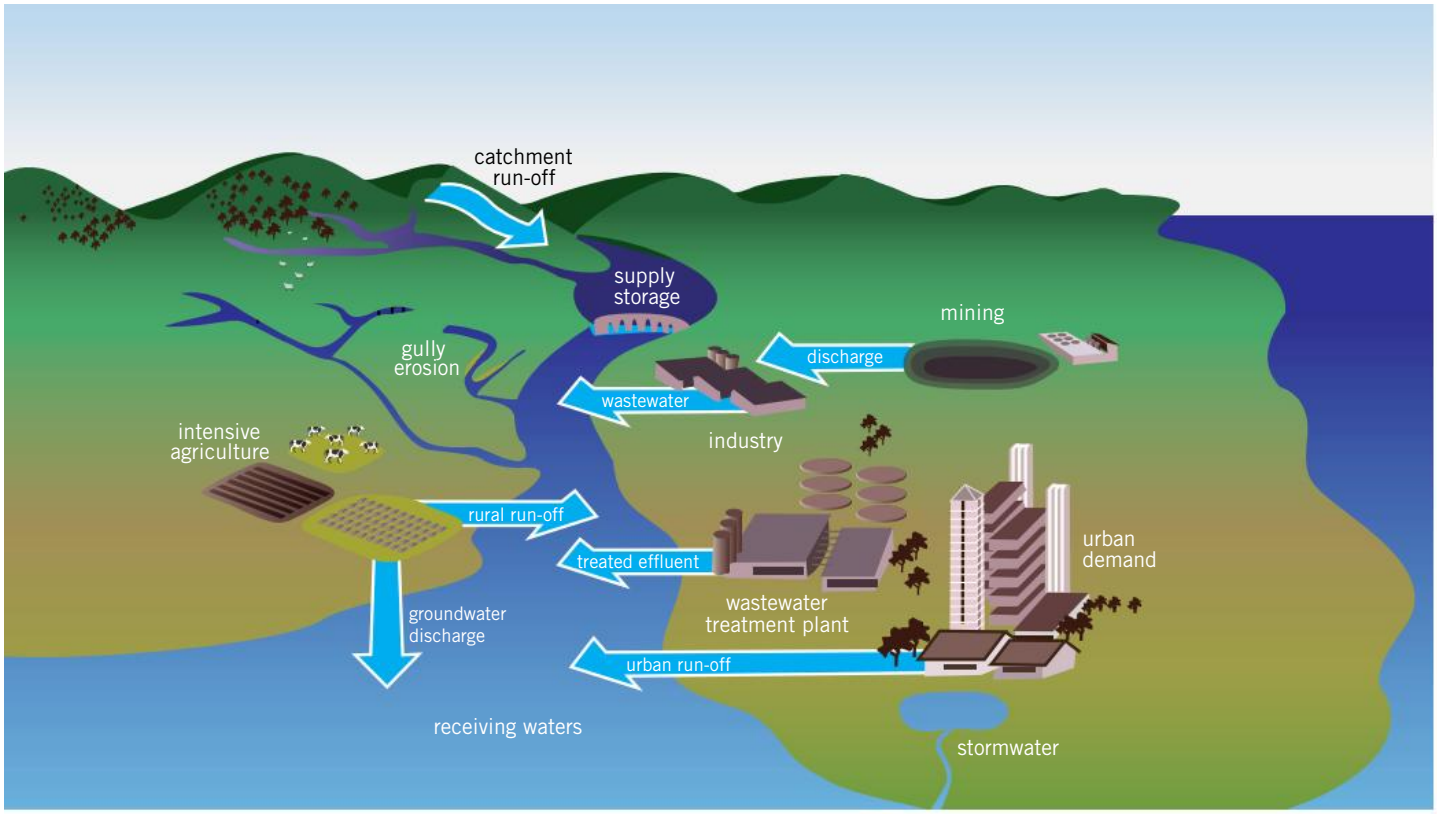
G3.2.1 Monoman Creek, Chowilla flood plain, South Australia, during the millennium drought (around 2000), with dying red gums and a blue-green algal bloom

Humans and inland waters

Disturbance and regulation of water flows

The demand for water has exploded over the last century, and the extraction, storage and diversion of water (diverting from natural channels for commercial use) have significantly changed the distribution and movement of both surface water and groundwater. People have been altering rivers for thousands of years, but the scale of modifications has escalated. Most of the world's major river systems have been regulated; that is, they have dams, weirs, inter-basin diversions, canals and irrigation channels.

G3.2.2 Warragamba Dam, Sydney. The concrete barrier of the dam has been built across the river to impound its water.



G3.2.3 There are many potential sources and pathways of pollutants in water bodies.

Dams, such as the one in Figure G3.2.2, are the most significant form of river regulation. They capture and store river water and hold it until it is released to downstream users, giving water security to those in urban centres (for drinking water and industry) and on the land (for irrigation and stock water). Dams safeguard against extremes of both drought and flood in regions that have unreliable rainfall. Dams also have the capacity to catch and hold back excessive run-off that would otherwise cause severe flooding problems downstream. Embankments are constructed along the banks of rivers to contain floodwaters within river channels so they do not inundate flood plains. They have also been built along rivers to improve navigation, as rivers are a major means of transportation.

Inter-basin diversion or trans-basin diversions are man-made diversion schemes which move water from one basin where there is plenty of water to another where the water is lesser or could be used more for human development.

Canals and irrigation channels are channels created artificially to supply land with water to promote growth of food crops.

Deterioration of water quality

Over the past four decades, the contamination of water by toxic chemicals and the excessive loading of nutrients has contributed to the degradation of inland waters, as shown in Figure G3.2.3.

Did you know?

One drop of oil can make 25 litres of water unfit for drinking.

Toxic chemicals

Over 200 000 human-made industrial and household chemicals are commonly used in Australia. They can enter waterways in run-off from cities and agricultural areas, wastewater discharge from industry and sewage works, and even settle on the water surface from the air above. Pesticides, herbicides, insecticides, polychlorinated biphenyls and petroleum hydrocarbons are all found in waterways. At worst, industrial accidents such as major chemical spills can have devastating consequences.

Another concern is the seepage of chemicals into aquifers. Contaminated rivers may be flushed clean after a big rain event, but aquifers are not, because groundwater movement is so slow and the water does not flush out or dilute the contaminants.

Nutrient loading

Sewage is the largest and most common cause of poor water quality in inland waters. Up to 90 per cent of sewage in the urban areas of poor developing countries flows untreated into waterways. Not only does sewage add excess nutrients to waterways, but it may also carry dangerous pathogens or disease-causing organisms such as bacteria and viruses. The rivers downstream of the largest cities are like an open sewer.

The excess application of fertilisers can load run-off with concentrations of phosphorus and nitrogen. This process is called nutrient loading and is predicted to become an increasingly severe problem for inland waters.

Sediment

Deforestation, overgrazing and ploughing have caused a massive acceleration of erosion in many catchments. Overland flow (movement of water over the land) has carried the sediment into waterways. Nutrients are attached to the soil particles, compounding the problem of nutrient loading.

Pests and invasive species

The introduction of exotic (or introduced) species is the second biggest cause of extinction of freshwater species. The main cause is habitat degradation. Invasive species can become the dominant life form in an inland water environment and, as a result, native species may die.

The water hyacinth was found in the upper reaches of the Amazon in the mid-nineteenth century and taken all over the world as an ornamental plant. It is now considered one of the worst aquatic weeds on the planet, infesting rivers, lakes, dams and channels on all continents apart from Antarctica. It quickly extends its range, choking waterways and reducing the availability of light and oxygen to other organisms.

G3.2.4 Water hyacinth is a weed that floats in a mass, covering waterways and causing the water underneath to putrefy.

The global spread of exotic species has increased with the expansion of global commerce, shipping and aquaculture. Exotic fish introductions have eliminated or reduced the populations of native fish. Carp is a large freshwater fish native to central Asia. Introductions in many countries have helped to make carp the most widely distributed freshwater fish in the world. It is extensively farmed in Europe, Asia and the Middle East, and is a popular angling fish in Europe. However, in North America, Canada and Australia, carp is considered a significant pest.

Climate change

Climate change and, in particular, reduced rainfall, increased drought, more intense rainfall events, sea-level rise and warming of the water column will have an impact on inland waterways and wetlands in many ways. They will cause:

- reduced river flows and changes in seasonality of flows
- changes in species composition and community structure (such as loss of adapted aquatic species)
- reduced availability of areas for waterbird breeding
- saltwater entering into freshwater bodies (through sea-level rise)
- changes in water quality, eutrophication (dissolved nutrient) levels and the incidence of blue-green algal outbreaks.

Changing inland water environments

Inland water environments have been sustained by the cycling of water in the hydrologic cycle. Altering the flow patterns of both surface water and groundwater, as well as changing the physical and chemical properties of the water, have affected the biophysical processes that sustain these environments.

Altered flow regimes in rivers

Inland water ecosystems rely on the availability of water. When water is moved away, biophysical processes of inland water ecosystems are affected.

The construction of dams and weirs to control river flow interrupts the downstream movement of water and sediment.

- Dams change the pattern of the flow of a river, both lowering its overall volume and altering its seasonal variations. A more regular flow of water replaces the peak and low flows associated with normal variations in the climate. This can cause the ecological web in a river system to unravel, as species cannot adapt.

- All parts of inland water landscapes can be affected by changes to flow patterns. Flood-plain ecosystems such as wetlands are closely tied to a river's flooding cycle, as the river replenishes them with water and nutrients. Many aquatic species depend on the variations in flow for reproduction, hatching, migration and other important life-cycle stages.
- Above the dam wall, the free-flowing river ecosystem is transformed into an artificial slack-water (water which is unstressed and with no movement) reservoir habitat. This alters many of the physical and chemical properties of the water held there, such as temperature and dissolved oxygen levels. These new conditions may not suit the native species that evolved in the river and they suffer.
- The dam wall itself blocks fish migrations, so fish downstream can no longer reach their spawning areas.
- The dam wall holds back sediments that would naturally replenish ecosystems downstream.

Excessive extraction of groundwater

Some aquifers are replenished after rain when water seeps through soils or leaks out of gravelly riverbeds. However, most of the largest groundwater storages hold ancient water from wetter times, millions of years ago. They are hidden deep below the ground and have complex geological patterns. Groundwater is often extracted but the impact of this activity is not well understood. We need to know more about groundwater before we extract any water.

Aquifers are being depleted, resulting in falling water tables and lower pressures in aquifers. The problem is that it may take considerable time for the impact of pumping to be shown. Given that many inland water environments depend on groundwater, their needs play a key part in determining sustainable groundwater extraction rates.

Irrigated agriculture is now the largest consumer of groundwater, with 40 per cent of all cultivated land dependent on wells and bores. The countries with the biggest groundwater use are India (39 million hectares) and China (19 million hectares). Where aquifers lie under deserts, the groundwater has often been pumped to the surface and transformed the landscape, as in the case of Israel and California.

Spotlight

Do rivers all reach the sea now?

Some of the world's greatest rivers no longer reach the sea for much of the year. The Nile flows out of the Mountains of the Moon in East Africa, revives in Lake Victoria, and crosses the Sahara through Sudan and Egypt via the High Aswan Dam before giving up the last of its water just short of the Mediterranean Sea. Even in the monsoon season, every last drop of water is usually extracted before the Nile has the opportunity to pass through its delta.

The Yellow River in China, having watered the cities and fields of half a billion people, is a trickle by the time it encounters sand bars at its mouth.

The Indus in Pakistan, the Euphrates in Iraq, the Rio Grande on the border of the United States and Mexico, and the ancient, once mighty Oxus of Central Asia all appear on maps as flowing into the sea. But the maps are one thing; the reality is often quite different since the rivers have run out of water before they reach the sea.

Activities

Remembering and understanding

1 Assess the condition of Australia's inland waters.
2 Describe how surface water flows are disturbed and regulated.
3 Identify the sources of pollution in inland waters.
4 Explain how exotic species change aquatic ecosystems.
5 Describe the impact of dams on rivers.

Applying and analysing

6 Complete the following statement. *I used to think that there would always be plenty of fresh water available. Now I think ...*
7 Conduct a class debate on the following topic. *Big dams are appropriate for Australia.*

LS G3A

G3.3 Water flow and environmental health

Inland water and sustainability

The sustainability of inland waters depends on habitats supporting a stable and diverse mix of species. Altering the water flow changes the population of the producers (water plants and algae), which then affects the population of dependent species higher up the food chain. All these species need to maintain viable, suitably dispersed populations, or they are at risk of extinction.

Water needs of rivers

The distinctive flow patterns of rivers create a variety of habitats: **base flows** are slow and steady; **freshes** are rises of water level with faster currents, but with flows contained within the channel; flood peaks spread beyond the riverbanks to recharge flood plains and wetlands and reconnect them with the river. These are illustrated in Figure G3.3.1.

Water needs of flood plains and wetlands

Floods that spill out over flood plains bring with them a nourishing load of sediment. They also recharge shallow, unconfined aquifers, which can continue to feed into wetlands. This connection between the river and its flood plain is vital for life to continue in these watery habitats.

Different species are adapted to different flooding frequencies and depths. In the Murray–Darling Basin, for example, river red gum forests are found where floods occur typically every 1 to 5 years. If flooding does not occur at regular intervals, the red gum forests suffer extreme stress.

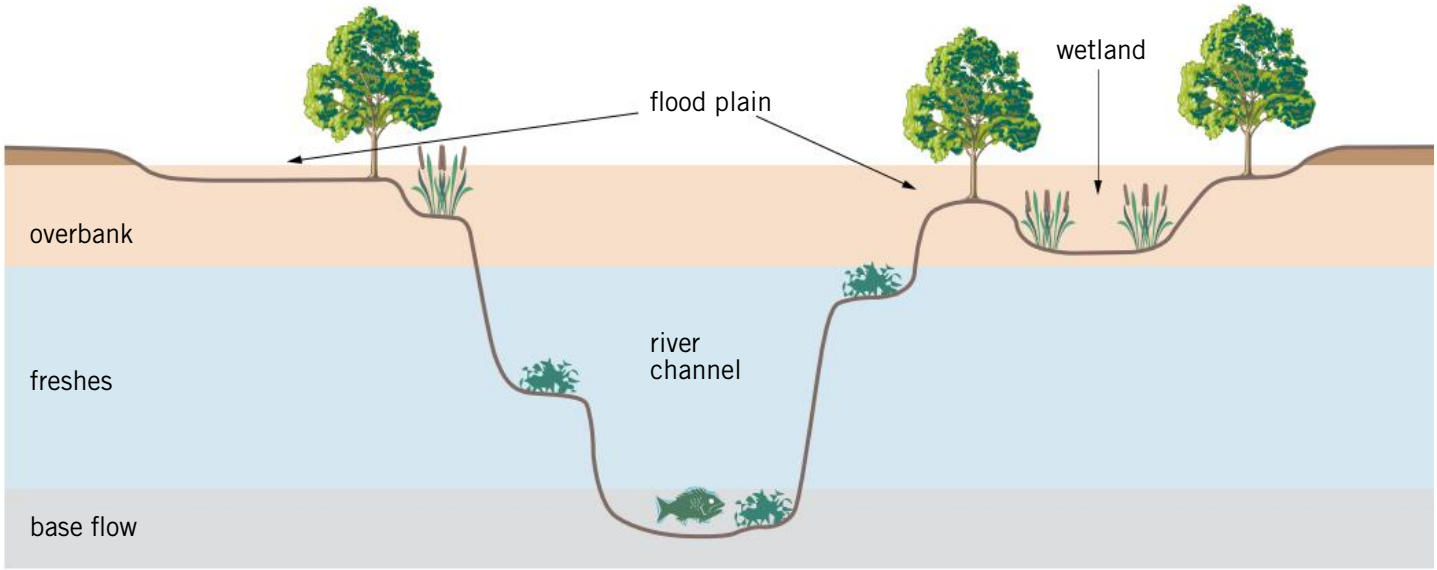
Spotlight

Ngurunderi's story

One of the main Dreaming stories telling of the creation of the River Murray is that of Ngurunderi, the all-powerful ancestor of the Ngarrindjeri people. Ngurunderi's long journey to the Coorong created the Murray and its landscape.

While there are several different recounts of Ngurunderi's story, the common theme is his long chase of the Murray cod (Ponde), towards the River Murray's mouth. As Ponde swam to escape Ngurunderi's spear, the wide sweeps of his tail widened the river and created its bends and turns. At last the giant fish arrived at Lake Alexandrina, where it struggled in the shallows.

With the help of Nepele (the brother of Ngurunderi's wives), Ponde was speared in the Lake. Ngurunderi divided the fish with his stone knife and created a new species of fish from each piece.

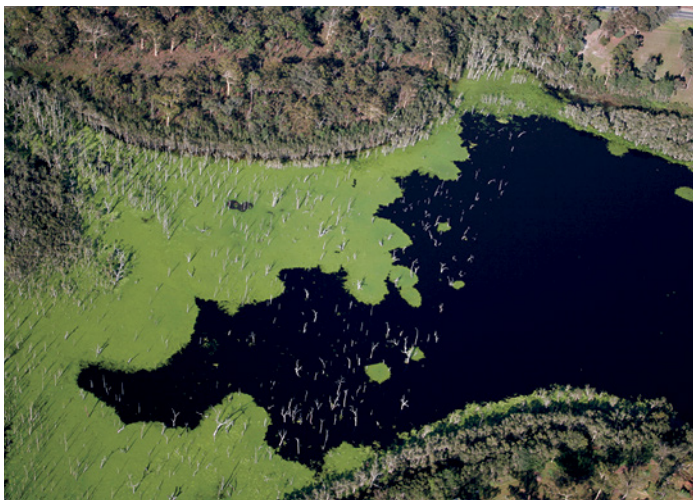


G3.3.1 Different river features are inundated at different levels of flow. Base flow inundates the freshes, freshes fill much of the river channel with fast-flowing water and overbank flows inundate flood plains and wetlands.

Water quality and ecosystem functioning

Changes in flow regimes are often accompanied by more pollution and sedimentation, which can lead to a significant loss in ecological functioning, such as the following.

- *Eutrophication:* Algae occur naturally in inland waters and play an important role as producers. However, when the water becomes enriched with nutrients such as nitrogen and phosphorus, the algae grow rapidly in blooms and disrupt ecosystem functioning by covering water surfaces. They prevent light penetration by using up the oxygen in the water and they excrete toxins. Blue-green algae, or cyanobacteria, are especially poisonous when their cell walls rupture (see Figure G3.3.2).
- *Sedimentation:* Sediments are transported by surface flow in rain events and are deposited when the flow decreases. They can cover and smother aquatic plants, preventing them from photosynthesising, which affects the food chain. Even while the sediments are in suspension in the water, they have an impact on ecosystem functioning, as they absorb heat. This increases the temperature of the water and, as it warms, the water loses its ability to hold dissolved oxygen. Deposited sediment can also become stirred up and re-suspend, releasing both nutrients and contaminants into the water.
- *Biomagnification:* Biomagnification is the increasing concentration of a substance in the food chain, usually a toxic chemical. Biomagnification is a problem in aquatic ecosystems that are polluted by toxic substances such as heavy metals. At successively higher levels of the food chain, these substances become more concentrated. As a result, organisms at the top of the food chain generally suffer greater harm from a persistent toxin than the levels below.



G3.3.2 Blue-green algae at Chaffey Reservoir near Tamworth, New South Wales

Spotlight

Tarmageddon

Tar sands are sludgy deposits of oily soil. As conventional sources of oil are limited, the tar sands in the Canadian wilderness are being exploited. The tar sands, which now produce more than 1.3 million barrels of oil a day, are located in the largely untouched boreal (cold) forest of Alberta, and cover 140 000 square kilometres.

To extract the oil requires enormous quantities of energy and several stages of industrial processing, which creates poisonous tailings ponds. In 2008, 1600 ducks accidentally landed on one of these ponds and all died instantly. This mining activity occurs above Canada's biggest aquifer, and there is no guarantee that there will be no contamination of the aquifer.

G3.3.3 Alberta tar sands

Activities

LS G3B

Remembering and understanding

1. Identify the various types of flows within rivers.
2. Explain why it is vital to maintain the link between a river and its flood plain.
3. Define the terms 'eutrophication' and 'biomagnification'.
4. Explain how high levels of sediment in surface flows have an impact on inland water environments.

Applying and analysing

5. Create a KWL chart about tar sand extraction in Canada.

G3.4 Managing inland waters

Worldviews and environmental management

Humans must work towards a better understanding of how water can be managed, so that it will continue to meet both the needs of humans and the ecosystems on which they depend. Securing adequate fresh water has always been at the forefront of people's interactions with the environment, because without water they cannot exist. Yet there have been very different approaches to such interactions, reflecting the worldviews of those involved.

Human-centred worldview

For people with a human-centred worldview, water has become a commodity. It is to be extracted, exploited and traded. In this worldview, humans do not have a spiritual connection with water and they do not appreciate that water is an ongoing giver of life. Water is an input into the vast range of economic activities to produce the food and all the commodities people want in order to secure higher standards of living.

The demands on inland waters include household drinking water and water for cooking; personal hygiene and sanitation; irrigation and other agricultural uses, such as water for animals; industrial production for such purposes as fabricating, processing, washing, diluting, cooling and being incorporated into products; fisheries and aquaculture; waste disposal, whereby waterways carry away residuals from processes of human production and consumption; and recreational uses such as swimming, boating, waterskiing and angling (fishing).

As populations and economies grow, national governments invest heavily in water infrastructure to increase the availability of water. For more than 4000 years, dams and reservoirs have been constructed across rivers to collect and store vast amounts of water and then manage releases into rivers to meet the ongoing needs of people. Many of these dams are still in operation today. A human-centred worldview is exemplified in river basin diversion projects, when water is moved from one river basin to another for better utilisation by humans.

San Juan–Chama Project

The San Juan–Chama Project in the states of New Mexico and Colorado in the Unites States consists of a series of tunnels and diversions that take water from the drainage basin of the San Juan River—a tributary of the Colorado River—to supplement water resources in the Rio Grande watershed. The project delivers water for irrigation and municipal water supply to cities along the Rio Grande, including Albuquerque and Santa Fe. Such schemes divert vast amounts of water, taking much of the natural flow away from one basin purely to meet the demand for water of people living in another.

G3.4.1 San Juan–Chama Project, New Mexico and Colorado, USA

Where countries share river basins, **transboundary** issues of water quantity and quality may arise and conflicts can occur. Future wars could well be fought over control of this critical resource, just as they were over Gulf oil in the twentieth century.

Stewardship worldview

Water is central to the cultural and spiritual values of many indigenous communities. In many instances, indigenous people regard water not merely as being essential for human survival, but as an important part of their spiritual wellbeing. Water is an important part of the Australian Aboriginal Dreaming narratives used to explain the creation of the world and natural features of the environment. Significantly, indigenous knowledge systems are based on the principles and practices that balance their immediate needs and the needs of the environment, people and other living things, as well as the needs of future generations.

In Australia, inland waters not only provided Indigenous people with drinking water, they were also a particularly plentiful source of food—not just fish, but also the animals that were drawn to waterholes and streams to drink. Water was also taken from wells and rivers to irrigate crops.

Indigenous people developed successful systems of water management. Underlying this was the acceptance of a communal need to be at one with nature, and a recognition that water resource management was the responsibility of every person. As a consequence, they employed the principles of sustainable management, ensuring the ongoing supply and quality of water.

Aboriginal peoples of the Murray–Darling Basin

The traditional owners of the lands in the Murray–Darling Basin have deep cultural, social, environmental, economic and spiritual connection to their lands and waters.

Aboriginal peoples have lived in the basin for thousands of years and there are at least 10 000 known water-related Aboriginal sites in the basin. The rivers and flood plains are of particular importance. Today there are over forty Aboriginal Nations in the Murray–Darling Basin.

The lands of the Murray–Darling Basin provided the region's Aboriginal people with a diverse and abundant source of food, water and shelter (see Figure G3.4.2). Evidence from middens (old piles of waste) containing freshwater mussel shells, together with bone remnants of wallabies, yabbies, lizards, fish and birds, give us an insight into the diet of Aboriginal people.

The Aboriginal peoples still talk about how the waters of the basin sustain their life and identity. They view themselves as an integral part of the river system, and as a result they feel a responsibility to ensure the health of rivers.

Earth-centred worldview

Inland waters and the sediments they carry are integral to the processes that support ongoing life on land. When water is extracted or polluted for exploitation by humans, the resulting environmental changes can be disastrous. People with an Earth-centred worldview have been more active in protecting inland waters than other environments. It is important to maintain a supply of fresh water but, in an Earth-centred worldview, lakes and rivers must also be protected.

One individual with an Earth-centred worldview is businessman Douglas Tompkins. He bought 320 000 hectares of land in Chile to protect the lakes, forests and mountains from exploitation for power generation, industry and agriculture. He established Pumalin Park, which is now recognised by the Chilean government as a nature sanctuary, despite the government's early efforts to promote the development of the region.

Most people with an Earth-centred worldview do not have the financial resources to accomplish what Douglas Tomkins did, but they can bring about change that provides protection for inland waters at risk. They can pressure governments to be more mindful of the natural values of inland waters and the importance of these values in sustaining those waters. Protection can be sought under the intergovernmental Ramsar Convention.

G3.4.2 Low stone-walled, Brewarrina fish traps once used by Aboriginal people for catching fish in the bed of the Barwon–Darling River

Spotlight

The Bontoc people of the Philippines

Mountain Province is a landlocked region on the island of Luzon in the north of the Philippines. It is characterised by a belt of volcanoes from which arose a large mountain range known as the Central Cordillera. The region is dissected by a number of swift-flowing streams that carry the heavy rains of the summer monsoon. The Bontoc are a highland tribal group who have lived on the banks of the Chico River for centuries.

The Bontoc are agriculturalists and support themselves by growing rice, corn, coconut, sugar cane, bananas, pineapples, coffee, mangoes, tobacco and abaca (a banana-like plant). Securing their food supplies is only possible with careful management of water resources. They are fortunate to live in a tropical climate with constant high temperatures that are favourable to plant growth. The soils are also particularly fertile, as they are derived from volcanic rock and have a rich mix of nutrients. There is little flat land available, as 83 per cent of the region is mountainous, but the Bontoc overcome this by cutting terraces into the hillsides, creating level fields to cultivate. While plenty of rain is brought by the summer monsoon, the Bontoc have had to cope with a dry season from December to February.

The Bontoc's stewardship worldview guides their water management practices; they believe that humans are at one with nature and can never be above it. Nature is viewed as the source of all life and as such it is respected and nurtured.

The Bontoc live by the principle of communal ownership, whereby equity and cooperation are a priority. A foremost consideration in their water management is ensuring that water is equally distributed to all rice-field owners in the dry season. Through a cultural irrigation practice known as oblis, they take turns in watering their rice fields in the dry season.

Water sites (springs, rivers and lakes) are considered sacred places, and rituals and ceremonies are performed to express respect for and devotion to the spirits that guard their water. In return, the spirits bestow abundant and clean water on the people. There are also myths that warn of conflict over water.

The Bontoc's approach to water management is holistic, linking the forests and the mountains with their water. The very old practice of terracing prevents soil erosion and maintains the forest watersheds. The Bontoc mastered the ancient stone walling techniques, using stones they hauled up from Chico River. The stone walls hold back water, and so the terraced fields act as reservoirs, which are used to water crops in the dry season. The standing water has altered the microclimate in the area, as more evaporation results in more local rainfall. The Bontoc also have taboos forbidding disturbance of any springs or forests in catchment areas.

Today, the Bontoc have by choice retained most of their traditional culture. The Bontoc society possesses a wealth of traditional knowledge that sustained their water resources through centuries. The Bontoc municipal government has a more human-centred worldview and has adopted a modern bureaucratic approach to managing the water resources of the Central Cordillera. Officials are concerned that the once clean and reliable supply of water is becoming murky and depleted and there is a potential water crisis.

There are other pressures on the mountains, as the Central Cordillera not only has mineral resources, but the region also holds enormous potential for hydro-electric production. At least 5 million kilowatts of power could be generated if its rivers were dammed, which would provide over half of all the electricity needs of the Philippines. If the rivers were dammed, the Bontoc lands would be flooded and the people displaced.

G3.4.3 The Bontoc are particularly skilled at rice terrace farming.

G3.4.4 Lake Barombi Mbo, south-west Cameroon

Ramsar Convention

The Convention on Wetlands of International Importance, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. The Ramsar Convention is the only global environmental treaty that deals with a particular ecosystem. The convention uses a broad definition of wetlands, including lakes and rivers, swamps and marshes, wet grasslands and peatlands.

The convention's mission is 'the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world'. Lake Barombi Mbo is a small crater lake in Cameroon, Africa. It is especially important because it is an area where speciation (the process of evolutionary adaption) has been proven to take place. It is at risk from pollution, overfishing and sedimentation, and it has been nominated as a Ramsar site so that it can be protected.

Ramsar Convention Australia

Australia has sixty-five wetlands of international importance listed under the Ramsar Convention. The Australian Ramsar sites cover approximately 8.3 million hectares and are found in every state, territory and overseas territory. The wetlands include freshwater and marine, as well as permanent and ephemeral habitats. The three largest sites are Coongie Lakes (SA), Kakadu (NT) and Coral Sea Marine Reserve (Qld).

Activities

Remembering and understanding

1 Describe the way in which many indigenous people view inland waters.
2 Explain how the Bontoc people managed their water resources in a sustainable manner.
3 Outline the demands on inland water by people with a human-centred worldview.
4 State the mission of the Ramsar Convention.

Evaluating and creating

5 Refer to Figure G3.4.3. Construct a photo sketch and label the main features. Explain how terracing is carried out and how it benefits the mountainous environment.

G3.5 Applying human-environment systems thinking

Aim of water management

The aim of managing water resources is to safeguard human access to quality fresh water while maintaining sustainable aquatic and associated terrestrial ecosystems. Human-environment systems thinking provides a useful framework for developing effective and sustainable water management practices.

Assessing the state of an environment

To manage inland waters it is important to assess the current state of the environment and how it has changed over time. In assessing the state of an environment, the following questions are useful to frame the inquiry.

1 State of water
- What is the water quality? (An assessment based on the ecological quality of the water and levels of nutrients, pesticides and heavy metals)
- How much water is there? (An assessment based on data on run-off, availability, demands and any evidence of water stress)

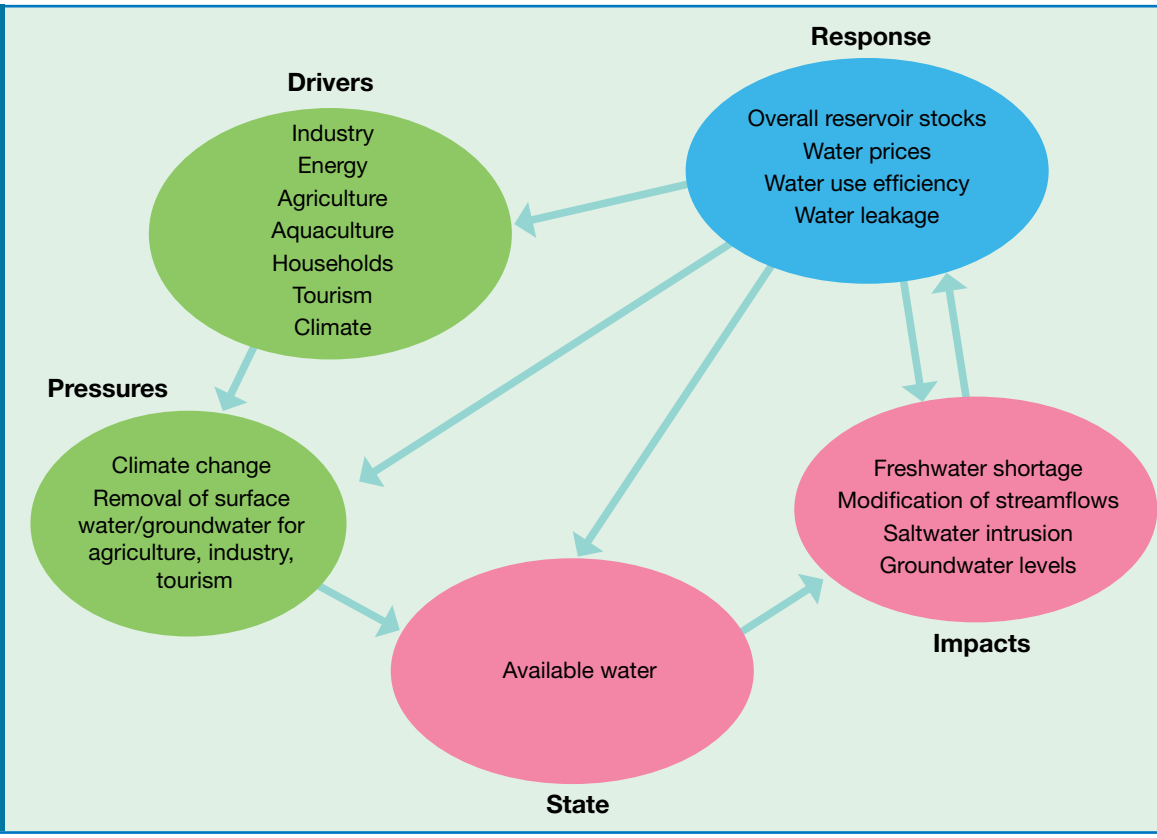
2 Time-based trends
- Is water quality getting better or worse?
- Is the amount of water increasing or decreasing over time?

3 Is there a problem, and if there is, what is causing the problem?
- Humans and their domestic-based uses?
- Industry?
- Agricultural uses?

4 Are there policies in place to work on solutions?
- Have aims and targets been decided upon?
- Who has been employed to work on solutions?
- Has a time frame been implemented?

The state (type, quality and quantity) of water is determined by natural factors such as geology and climate and also by the pressures exerted by human activities. For example, geology will influence the amount of mineral material in water, while agriculture is a significant driver in terms of ecological quality, nutrient and organic pollution, hazardous substances and water quantity.

Water quantity
Water availability problems occur when the demand for water exceeds the amount available during a certain period. Fresh water shortages occur frequently in areas with low rainfall and high population density and in areas with intensive agricultural or industrial activity.



G3.5.1 A DPSIR framework for managing water quantity

The European Environment Agency (EEA) applies human-environment systems thinking, acknowledging that humans have an impact on the biophysical environment. The EEA applies the DPSIR (drivers–pressures–state–impact–response) framework to water issues. The analytical DPSIR framework allows a comprehensive assessment of the issues through examination of the relevant driving forces and pressures on the environment. The use of this framework to assess water quantity and quality is illustrated in Figures G3.5.1 and G3.5.2.

Management strategies

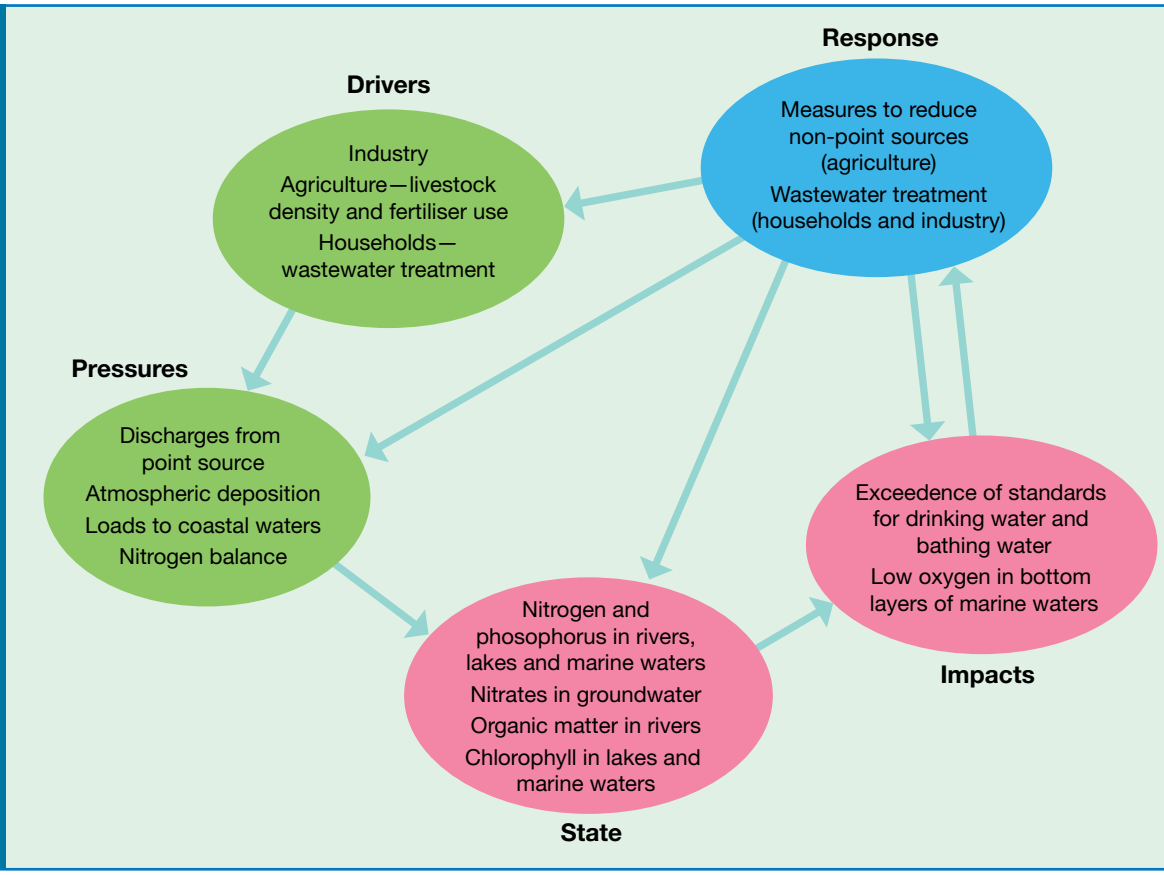
Much of the pressure on inland water environments is a legacy of the past and a human-centred worldview: the seizure of rivers, the drainage of wetlands, the clearing of native vegetation in catchments and the introduction of pests and invasive species. Given the magnitude of such changes, and the recognition that they cannot be reversed, these pressures remain. This makes the choices made now even more important if inland water landscapes are to be managed more sustainably and restored.

The challenge ahead is to rehabilitate and protect inland water environments while enabling sustainable use of water resources. Humans cannot do without water, and with their increasing numbers they are going to want more of it. This comes at a time when it is clear that more water needs to be given back to the environment to restore natural balances—otherwise the quantity and quality of water in the future will be compromised, not just for humans, but for all life. The biodiversity of inland waters is the evolutionary capital for continued productivity. This is especially important given the threats associated with climate change.

Ecosystem approach

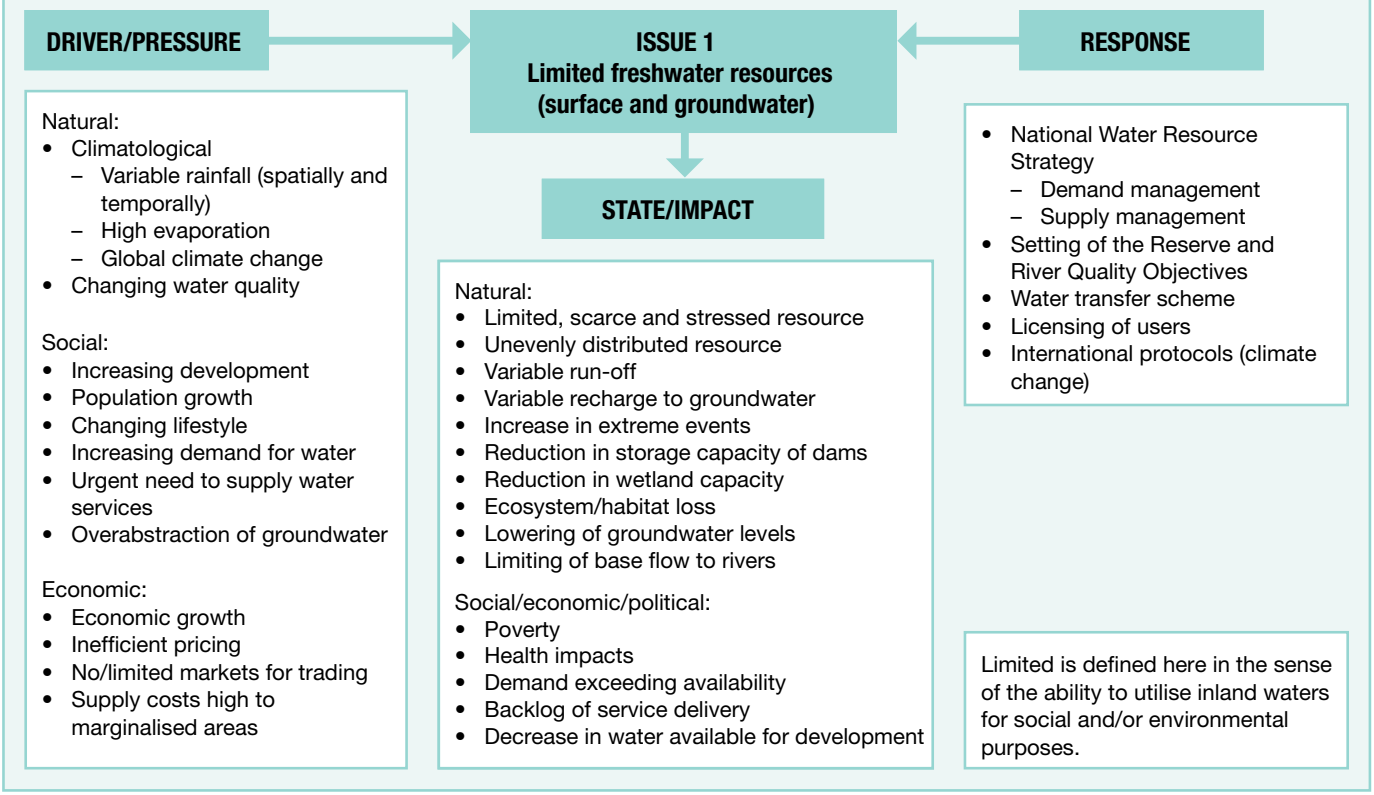
The **ecosystem approach** to inland water management integrates the management of land, water and living resources in ways that promote conservation and equitable sustainable use. The ecosystem approach calls for the focus to be on the ecosystem: its components, structure, processes and functions, and all the interactions that occur among its organisms and their environment.

Water quality: Organic pollution and eutrophication
The effects on the aquatic environment of organic pollution, caused by discharges from wastewater treatment plants, industrial effluents and agricultural run-off, include reduced river-water chemical and biological quality, as well as impaired biodiversity of aquatic communities.



G3.5.2 A DPSIR framework for assessing water quality—organic pollution and eutrophication

Drivers affecting South Africa's inland water resources
Inland water systems are affected by two main drivers: natural (e.g. climate) and human-related (e.g. development). These drivers cause certain pressures on inland waters, which result in impacts on freshwater resources, by changing the quantity of ground/surface water and/or by changing the quality of ground and/or surface water. The DPSIR framework for managing limited freshwater resources in South Africa is shown here.



G3.5.3 A DPSIR framework for managing limited freshwater resources in Africa

Adapting the DPSIR model

The ecosystem approach includes humans in the mix. Given the complexity and the dynamic nature of ecosystems, there is recognition that management must be adaptive, as shown in the DPSIR model for South Africa in Figure G3.5.3.

UN Watercourses Convention

The UN Watercourses Convention (UNWC) was established to govern the management and protection of international watercourses. It deals specifically with international water law and policy. The Convention applies to surface and underground water systems that cross international borders, and includes all major rivers, their tributaries, and connected lakes and aquifers. The UNWC takes into account and promotes the ecosystem approach in the use of such watercourses by considering transboundary environmental effects. This enables cooperation between nation states in:

- arriving at a reasonable and equitable use of shared water resources
- undertaking measures to rehabilitate and restore degraded ecosystems.

Following the ecosystem approach, the UNWC makes it clear that environmental concerns and ecosystem protection are just as much within their area of responsibility as the amount of water used. Thus both water quantity and quality are examined. A priority is also the rehabilitation and restoration of degraded inland water ecosystems.

Integrated Water Resource Management

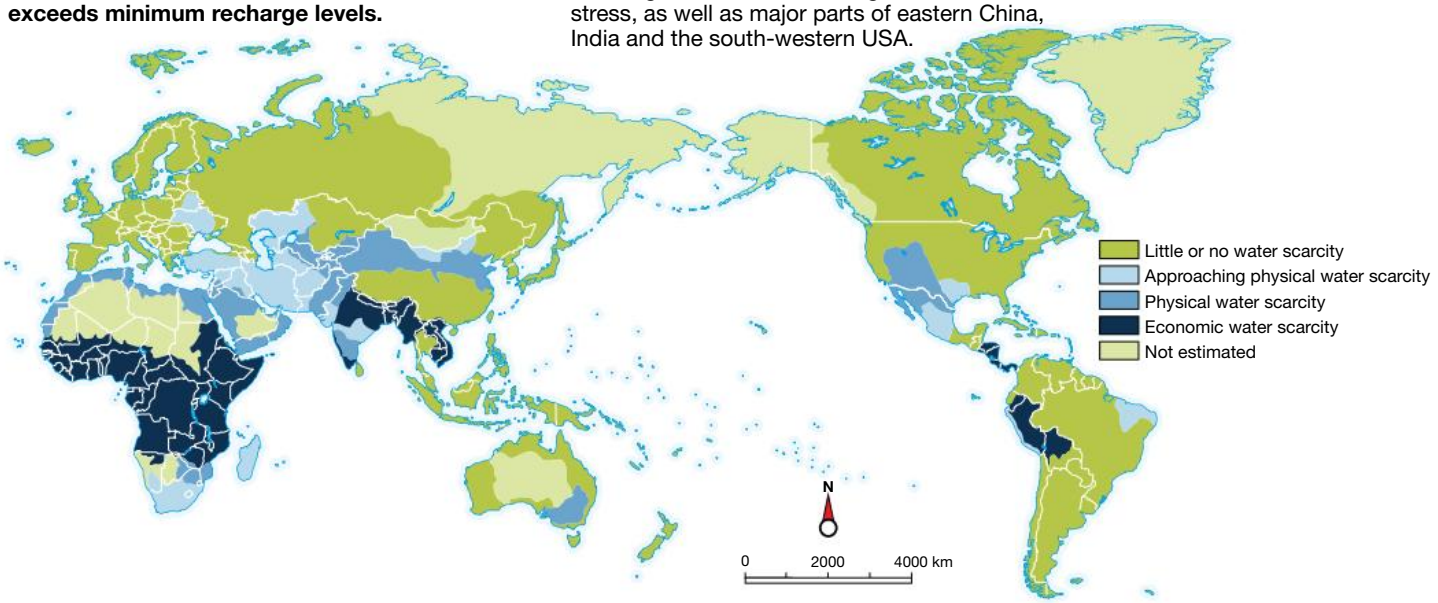
The increasing need for a more holistic approach to environmental management has led to the development of Integrated Water Resource Management (IWRM), now considered to be the most effective means of managing inland waters. In the IWRM approach, water is viewed as less of a commodity and more of a resource that needs to be equitably shared by all users, including nature. The IWRM approach involves all stakeholders working together to identify the costs and benefits of various water uses and finding an appropriate balance between development and sustaining ecosystems.

Addressing the causes of environmental change

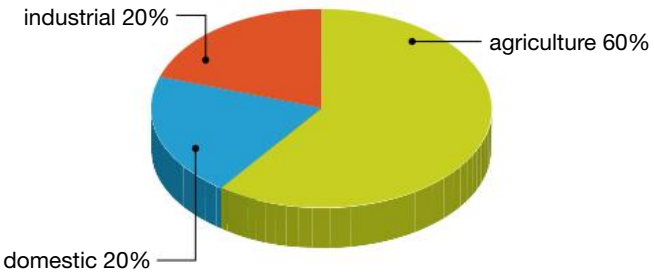
The current state of inland waters—that is, declining water quantity and quality—is a result of too much water being extracted, too many pollutants being added, and little concern about inland water environments (see Figure G3.5.4).

An estimated 1.4 billion people live in river basin areas where water use exceeds minimum recharge levels.

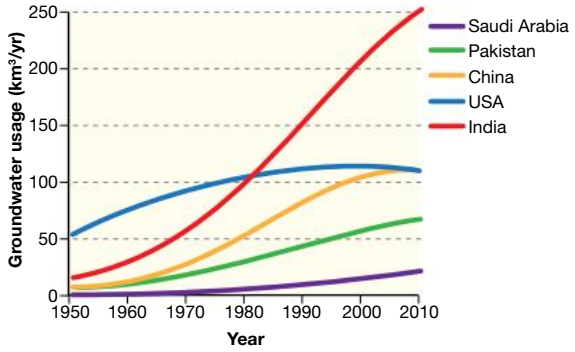
GLOBAL WATER STRESS
Arab region countries have high levels of water stress, as well as major parts of eastern China, India and the south-western USA.



DEMAND FOR GROUNDWATER
As of 2010, the world's aggregated groundwater abstraction is estimated at up to 1000 km^3 per year



Trends in selected countries



G3.5.4 All the world's inhabited continents are experiencing water stress as consumption levels rise.

In order to address the causes of environmental change, all users must be more aware and responsible in their water usage. People must realise that they are all downstream or across the shore from someone else. There needs to be a universal appreciation that:

Water is unique among our natural resources because while it is renewable, it is not replaceable. We have various substitutes for energy resources and most commodities, but there is no substitute for water. Once it is gone or degraded through overuse or pollution, it cannot be substituted.

Source: Convention on Biological Diversity, Drinking water, Biodiversity and Development, 2010, UN Water

Activities

LS G3C

Remembering and understanding

1 Describe Integrated Water Resource Management.

Applying and analysing

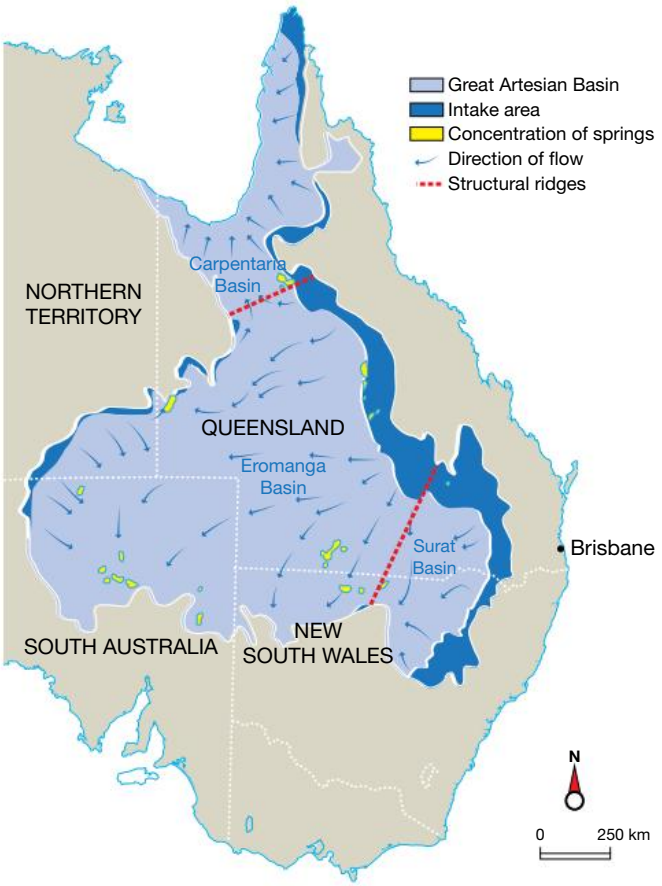
2 Refer to Figure G3.5.4 and do the following tasks.
- **a** Identify the parts of the world that experience the greatest water stress.
- **b** Suggest reasons why water stress is an issue in these regions.
- **c** What was the approximate consumption of water by Saudi Arabia in 1990?
- **d** What was the approximate increase in consumption by the USA from 1950 to 2010?
- **e** Which country had the biggest increase in consumption from 1950 to 2010? What do you think this is a result of?

G3.6 The Great Artesian Basin

Australia's fabled inland sea

From the early 1800s, European explorers thought there might be an inland sea in Australia, west of the Blue Mountains in New South Wales. As no major rivers were seen to be entering the sea along the coast, it was believed that the rivers must flow to an inland sea. The first expedition to look for the inland sea was led by John Oxley, NSW surveyor-general, in 1817. Later expeditions were undertaken by Charles Sturt in 1828, who mapped the Macquarie River and reached the Darling River. There was no inland sea to be found above ground, but underground was the Great Artesian Basin (GAB).

The GAB is Australia's largest freshwater resource. It underlies one-fifth of the continent, including parts of Queensland, New South Wales, South Australia and the Northern Territory—an area of more than 1.7 million square kilometres.

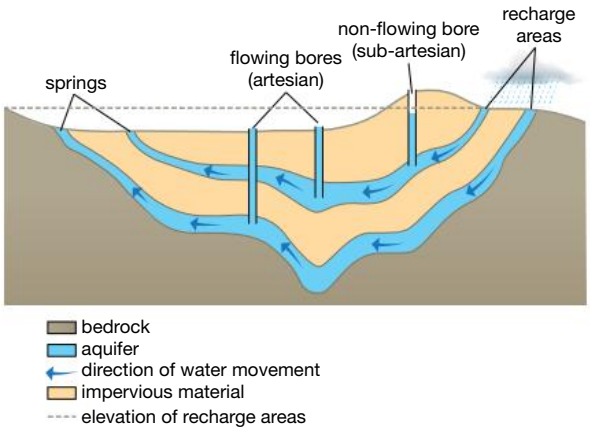


G3.6.1 Location of the Great Artesian Basin

The GAB is composed of many different layers of rock. Some layers, such as sandstone, are aquifers, while others are impermeable, as rocks such as mudstone and siltstone will not allow water through them. These impermeable layers are called **aquicludes**.

Figures G3.6.1 and G3.6.2 show that the GAB aquifers fill, or recharge, on the edges of the basin, where the sandstones are exposed. Water moves through the aquifer very slowly, at a rate of only 1 to 5 metres a year. The GAB is bowl-shaped and the aquifer is sealed by aquicludes. The water at the lowest part of the basin is stored under pressure. To extract water, people can use a long narrow pump called a bore that makes water rise to the surface.

Water can naturally discharge at the surface in springs where the water table is intersected. There are numerous springs on the basin's fringes. As they are permanent sources of water in an otherwise dry environment, they support rare flora and native invertebrates and fish. The aquifer supports lush growth of vegetation such as sedges, bulrushes and reeds as high as 3 metres. They are also referred to as 'mound springs', as they look like miniature volcanoes.



G3.6.2 If the water in a bore reaches the surface unassisted, it is known as a flowing or artesian bore. If it has to be pumped up, it is called a sub-artesian bore.

G3.6.3 A mound spring in the desert

Spotlight

Indigenous people's connection with kwatye (water)

Dean An Chee of the Southern Arrente people is Senior Ranger, Witjira National Parks and Wildlife Service, South Australia.

Witjira National Park is located on the western edge of the Simpson Desert in the far north of South Australia. The responsibility to care for this country belongs to my people, the Indigenous Southern Arrente people, and the Irrwanyere Aboriginal Corporation. We have cared for this country for a long, long time.

Located in this area are many mound springs, which are central to our Tjukurpa. Tjukurpa contains our spiritual connection, our law, our culture, our heritage and the stories associated with the land. *Kwatye* is an Arrente word for water within the Great Artesian Basin. Well before my elders' time it provided more than just a source of water for Indigenous people. For it was and remains a travel path, which connects many Indigenous groups.

This water is a source of healing when we are sick, and it provides us with many spiritual and cultural interests. For it is our lifeblood, which we need to survive. It allows us to continue our ceremonies, which incorporate our rich and unique culture that is still strong today. For it is these sources of water that provide an adequate and valuable food source rich in fish and other foods for my people. As one of the traditional elders of this country, Mr Bigey Lowe, says: 'We are in the middle of *kwatye* (water), it is all around us, we have to look after this place.'

Precious water in a parched land

The fresh water of the GAB is the only reliable source of water in many arid (dry) and semi-arid regions of Australia. It supports pastoralism, industry, mining and tourism in the region.

For tens of thousands of years, the mound springs and their pools provided Australia's Aboriginal peoples with permanent water supplies and food. Knowing where to find the springs was a matter of survival as they moved through the desert. Their use of this inland water was sustainable, as they only collected what they needed and what was naturally replenished.

When Europeans arrived and discovered these large pools of water, they set up pastoral properties. In 1878, a shallow bore was sunk near Bourke, New South Wales. It produced flowing water. Within a decade, more than 500 bores had been sunk around the margins of the basin. Because the water was held under pressure, most of it flowed freely into open drains to water stock. Initially, some of the bores would shoot water 100 metres into the air and supply up to 455 megalitres in a day.

Within just a decade, there were concerns about the decline in flow from bores. Despite this, more were drilled and thousands of kilometres of open drains were dug for over a century. In that time, an amount of water equal to 100 times the volume of Sydney Harbour was extracted—and more than 90 per cent of it was wasted. It was wrongly assumed that rainwater would seep through quickly into the sandstone in the east and recharge the basin. Scientists now know that this will take millions of years.

Coal seam gas

Coal seam gas (CSG) is a type of natural gas extracted from underground coal seams at depths of 300 to 1000 metres. CSG can be captured and used for generating energy, or processed into liquefied natural gas and exported. The extraction of CSG has raised many issues, including fears about damage to the aquifers and the contamination of the water in them.

Water must be removed from the coal seam to enable the CSG to move up to the surface. There is a fear that this will alter groundwater levels, thereby damaging the aquifer. In some coals seams, it is necessary to create fractures to provide pathways through which the gas can flow. This is done using a technique known as hydraulic fracturing, or **fracking**. This technique involves injecting a fluid made of water, sand and chemicals into the well under high pressure (see Figure G3.6.4). The fluid is then pumped back to the surface, where it has to be disposed of. There are concerns that some gas could escape and that the chemicals used could contaminate both groundwater and surface water.

Strategic Management Plan

The Strategic Management Plan (SMP) was launched in 2000 to provide a framework for responsible groundwater and related natural resource management in the GAB. It guides governments, water users and other stakeholders on policies, programs and actions required to achieve optimum economic, environmental and social benefits from GAB groundwater resources. The aspirations of basin-wide management for the future are listed in Figure G3.6.5.

The Great Artesian Basin Sustainability Initiative has helped landholders to implement the SMP by providing finance to rehabilitate bores and replace bore drains with piped systems, as shown in Figure G3.6.6.

Evaluation of the Strategic Management Plan

The plan has been assisting land managers to achieve more sustainable property and stock management. The success of such efforts can be judged by considering the criteria used in evaluation.

Environmental criteria

The water savings are substantial and in many places the water pressure is on the rise. Some springs have started flowing again, restoring the aquatic habitat and ecosystem functioning. However, the rate of recovery in the western side of the basin is slow.

Economic criteria

The financial assistance provided by the government has helped landholders to attend to their bores and reduce waste. This is an expensive process and the landholders would have been unlikely to undertake it otherwise. Funding from the government is dependent on the state of the economy and political priorities.

Social criteria

The third criteria involves how well the people involved are interacting. The greatest conflict relates to the relatively new practice of coal seam gas extraction.

G3.6.4 A coal seam gas well

Aspirations for basin-wide management

Key elements of the vision for the state of the Great Artesian Basin in 50 years:

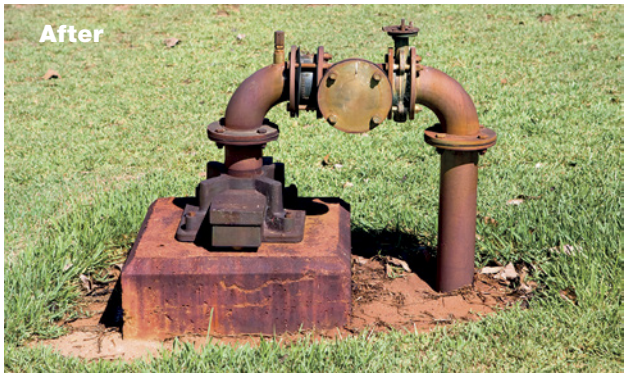
- The GAB is widely recognised and cooperatively managed as a resource of national importance.
- Water managers have a sound understanding of the dynamic functioning of the GAB resource.
- Recognising the benefits for all Australians, careful management of GAB water:
  - maximises productivity within limits of sustainability, based on scientific evidence
  - retains options to allocate water for future anticipated uses.
  - enhances biodiversity associated with GAB water
  - is integrated effectively with management of land and management of other water resources.

Improvements in the state of the Great Artesian Basin from careful management of water are evident in the following Key Outcomes (20 years):

- Basin pressure continues to be restored to the levels required to meet balanced biophysical, cultural and socio-economic objectives in state/territory plans, and this pressure can be sustained.
- Wastage of water is reduced to negligible levels.
- Improved productivity is enabled and sustained.
- Land degradation from water-use practices is reduced to negligible levels.
- The 'natural' condition of biodiversity is enhanced by improved water distribution.
- The health of GAB springs and groundwater-dependent ecosystems is enhanced and sustained.
- Cultural heritage assets associated with the GAB are recognised and protected.

These aspirations form the basis for Resource Condition Targets in the GAB Strategic Management Plan Assessment and Reporting Framework.

G3.6.5 Aspirations for basin-wide management



G3.6.6 Before: a free-flowing bore drain; after: a capped bore

Activities

Remembering and understanding

1. List the states in which the GAB is located.
2. Explain how groundwater moves through the GAB.
3. Describe the process of fracking.
4. Assess the significance of the GAB to Aboriginal peoples.
5. What has been the impact of Europeans on the GAB?

Applying and analysing

6. Why will it take millions of years for the GAB to be replenished?
7. a Complete a KWL chart about coal seam gas extraction.
   b Conduct a class debate on the following topic. *Coal seam gas extraction should be banned from northern Australia.*

Evaluating and creating

8. Refer to Figure G3.6.2. Using the internet, research groundwater movement in the GAB. Redraw the diagram and replace the labels with text boxes providing more detailed explanations.

G3.7 The Pangani River Basin

The Pangani River Basin

The Pangani River Basin drains a large area in north-eastern Tanzania along the border with Kenya (see Figure G3.7.1). The source of water is rainfall on the mountains and snowmelt from Africa's highest mountain, Mt Kilimanjaro. The major threats to water security are environmental degradation, climate change and increased usage.

Water usage in the Pangani River Basin

The Pangani River Basin is one of the most productive areas of Tanzania. As it is fed by snowmelt from Mt Kilimanjaro, it is feeling the adverse impacts of climate change. There is currently not enough water to meet demands in the basin and conflicts are emerging between various water users.

The Pangani River Basin has a population of 3.7 million people. Eighty per cent rely on agriculture for their livelihood. Most live in the highlands and foothills, where rainfall is higher. There is large-scale production of sugar, coffee and flowers, as well as small-scale growing of corn and rice. All these crops are, for the most part, irrigated. A large proportion of the farmers believe that they do not have enough access to water.

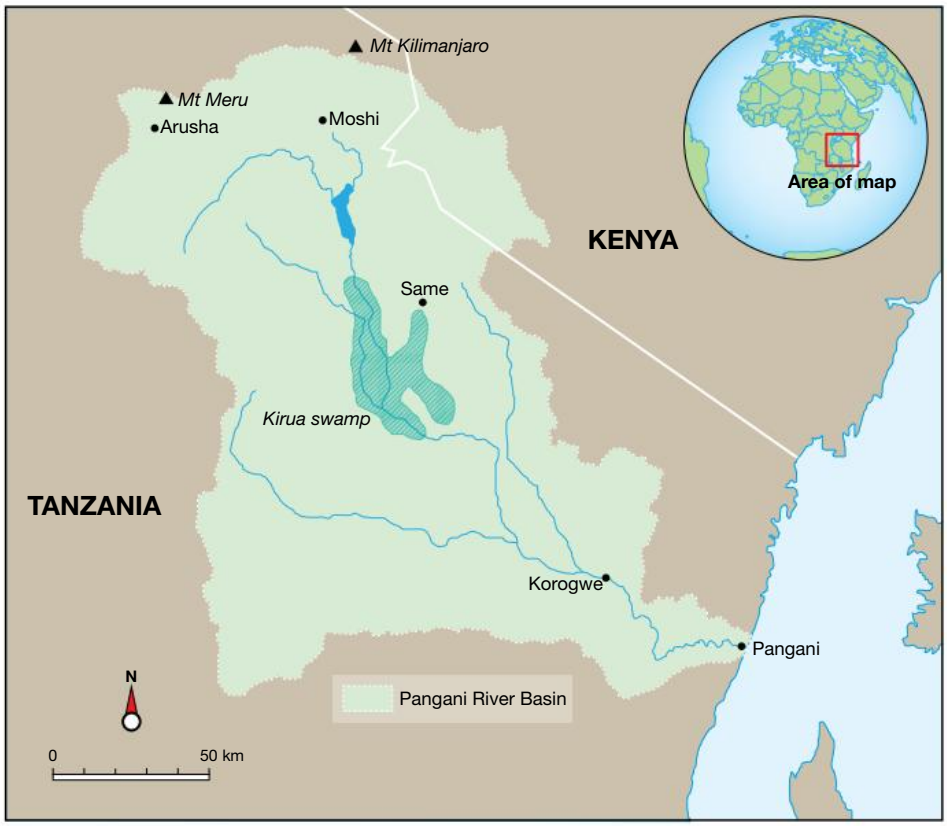
There are also many nomadic pastoralists who depend on livestock and are forced to move from place to place in search of water (see Figure G3.7.2). The river provides a livelihood for some of the poorest people, who turn to fishing when crops fail (see Figure G3.7.3). In addition, the basin also has four hydro-electric power facilities that supply 17 per cent of Tanzania's power needs.

Considerable conflict has arisen over water resources in Tanzania, the extent of which is evident in Table G3.7.4. Some conflicts have been quite violent, with farmers accusing pastoralists of destroying their livelihood, as herds of cattle eat and trample crops when heading to the river to drink.

Inland waters are already clearly over-allocated, and this is without allowing for the vital needs of the basin's aquatic ecosystems and inland water environments.

Did you know?

Almost 90 per cent of the surface flow from the Pangani River is used for irrigation and hydro-electric power generation.



G3.7.1 Location of the Pangani River Basin

G3.7.2 Pastoralists and their cattle on the move, seeking water

G3.7.3 Fishing is very important for the survival of the poorest people in Tanzania.

G3.7.4 Conflicts in the Pangani River Basin

1. *Communities and conservationists:* In the highlands, conservationists conflict with the community. The establishment of national parks to conserve catchment areas and increase tourism has generated revenue. The farmers would like to use the conservation areas for farming and gathering fuel wood. The pastoralists would like to graze or move their livestock there.
2. *Upstream and downstream users:* Conflict is caused by higher allocation of water for highlands users, hence inadequate water for small farmers in the lowlands. There are complaints that the share for downstream users is not adequate.
3. *Hydroelectricity producers and other users:* Since the establishment of hydroelectric power stations along the Pangani River, small-scale irrigators have complained that water rights were introduced to protect the power-generating plants.
4. *Communities and donor agencies:* The competition between donor agencies in the basin generates confusion in the community. They exacerbate water problems in the basin because they compete for the same resources.
5. *Farmers and pastoralists:* Conflict between these two groups is a result of an increase in the number of livestock in the basin. Cattle destroy natural vegetation and crops.
6. *Rural-urban competition:* Water pollution increases as the urban areas grow and as farmers use more chemical inputs to grow enough food to feed the fast-growing population.
7. *Communities and river basin authorities:* Communities are not satisfied, as they are not involved in making decisions when it comes to policy formulation.

Key challenges

Several studies have shown that the Pangani River Basin is already water-stressed (deterioration of fresh water). The river's flow has decreased dramatically in recent years and water demand is expected to double within a decade. The Pangani River Basin Management Project (PRBMP) identifies a number of challenges that need to be addressed. These include:

- frequent cycles of droughts and floods
- population and economic growth
- conflicts over access to water resources
- environmental degradation.

Deterioration of inland water environments

The rivers in the highlands of the basin are no longer perennial (that is, flowing all year). The Kirua swamp has, as a result, been reduced to a fraction of its original size due the over-extraction of water, which has prevented its flooding.

Impact of climate change

The overstretched water resources of the Pangani River Basin are also being adversely affected by climate change. The most visible effect is the diminishing snow on Mt Kilimanjaro. An increase in temperature of 1.8 to 3.6°C, increasing evaporation and decreasing rainfall would also result in a 6–10 per cent reduction in annual flow in the drainage basin. Meteorologists have already noted that the climate patterns are changing and the trend towards shorter rainy seasons is set to continue. The more frequent and severe droughts associated with climate change are affecting Tanzania.

Development and implementation of the project

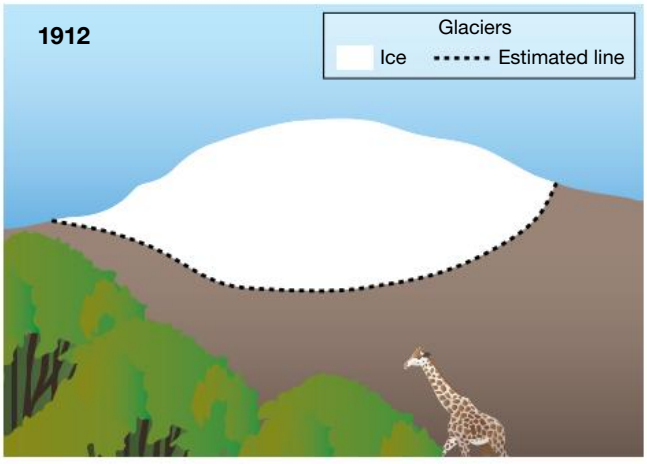
In 2002, the PRBMP was established to manage the basin's water resources. As Tanzania is a developing country, it could only undertake such a project with financial support and technical expertise from a number of sources. These include the United Nations Development Programme (UNDP), the European Union, the Netherlands Development Organisation, and the International Union for Conservation of Nature (IUCN).

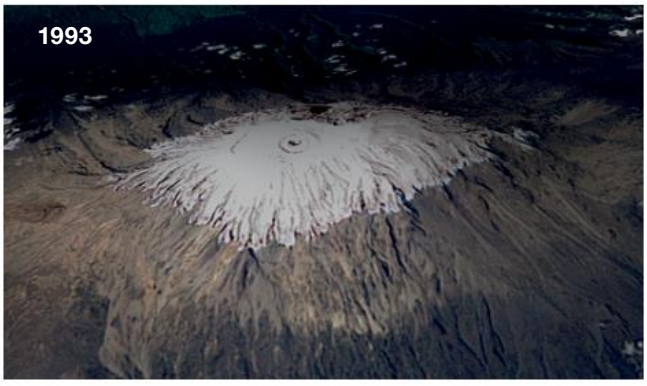
Spotlight

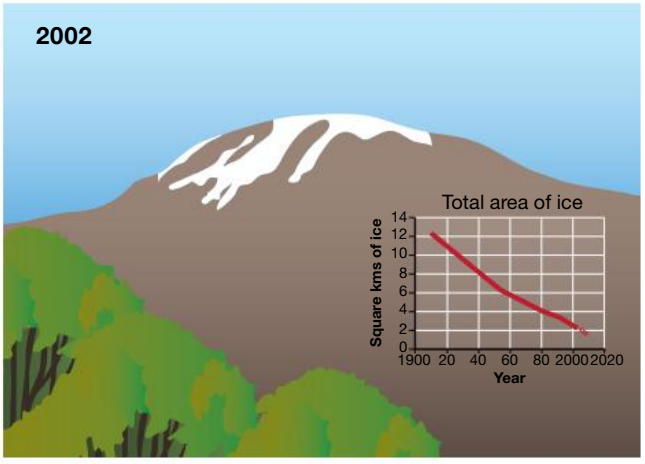
Melting ice on Kilimanjaro

Mt Kilimanjaro is an important water source for the Pangani River Basin. With its famous glacial ice cap rapidly melting, Kilimanjaro has become an international symbol for climate change. It is predicted that its ice cap will be completely gone by 2025.

G3.7.5 Melting ice on Kilimanjaro







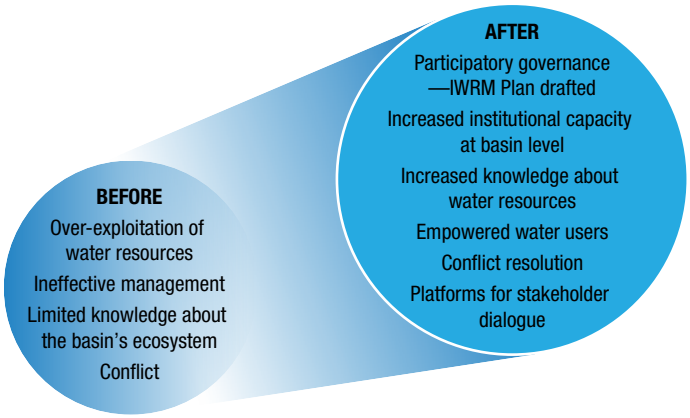
The project promotes Integrated Water Resource Management (IWRM), which involves the coordinated development and management of water, land and related resources, in order to support the equitable provision and wise governance of fresh water for livelihoods and to protect the environment for current and future generations. There are two priorities for water use: allocation of water for basic human needs, followed by maintenance of aquatic ecosystems.

The emphasis is on the sustainable use of water and achievement of this requires people to consider the needs of other potential water users and take into account the overall distribution and scarcity of water across the entire river basin.

The PRBMP has undertaken to:

- generate technical information: an Integrated Flow Assessment has been implemented to build an understanding of the hydrology of the river basin and the flow-related nature and functioning of the river ecosystem
- develop participatory forums: the establishment of catchment associations and community-led projects will enhance conflict resolution in the basin, as people are being consulted and participating in decision making.

The full development and implementation of the plans for the project go beyond simply allocating to one or more water-use sectors (see Figure G3.7.6). To truly move towards sustainability is far more complex and will occur over a considerable time span. The timeline of implementation may be one to two decades, even though the political will, funds and technical skills exist.



G3.7.6 Changes in the Pangani River Basin

Evaluation of the project

The success can be judged by considering the criteria used in evaluations.

Environmental criteria

Tanzania has met some environmental criteria but there is still not enough water for human consumption. It is the first nation in East Africa to raise awareness about climate change impacts. It has also given priority to the maintenance of aquatic ecosystems and has undertaken extensive field assessment of the quality of these systems. However, there is currently not enough water in the basin to meet demands of the people, let alone allow for environmental flows.

Economic criteria

The PRBMP is fortunate to receive substantial international funding to undertake field investigations and generate important technical information about the basin. However, the high level of poverty in the region puts a lot of pressure on people desperate to support themselves. Their actions can have a negative impact on inland waters.

Social criteria

The PRBMP is certainly socially inclusive; it has, for example, developed participatory community forums. However, conflict is still rife in some areas, which again is driven by poverty. There have been a number of deaths in the struggle between the small farmers and the pastoralists.

Activities

Remembering and understanding

1 Describe the drainage of the Pangani River Basin.
2 Explain why the highlands are favoured for agriculture.
3 Identify the challenges being faced.
4 Explain the impact of climate change on river flows.

Applying and analysing

5 Study Table G3.7.4. List the conflicts in the Pangani River Basin and decide whether or not each conflict has a social, economic or environmental impact. Note that some conflicts will have more than one impact.

Evaluating and creating

6 Study Figure G3.7.1. Describe the location of the Pangani River Basin. Find out what Mount Kilimanjaro's elevation and altitude are, and explain why it has snow on its summit.
7 Study Table G3.7.4. Research the various conflicts identified. Show where these conflicts are occurring on an annotated visual display based on a map of Tanzania.

G3.8 In the field: Rivers and water quality

Aim

The aim of this fieldwork activity is to investigate a river and its water quality. A fieldwork investigation of a length of river provides an opportunity to learn more about these important features of the physical environment. It also allows you to practise a range of geographical skills.

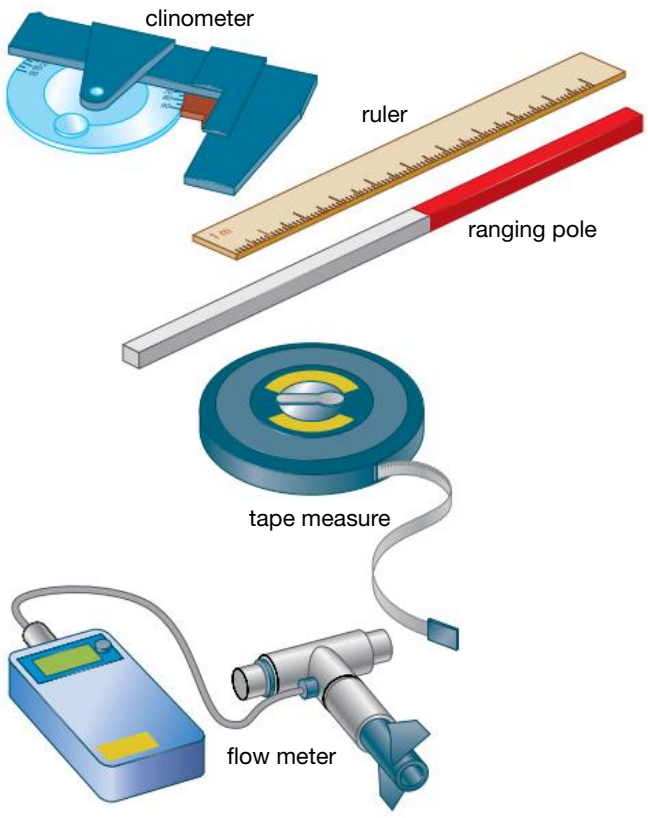
How to investigate a river

A variety of instruments will be required to investigate a river (see Figure G3.8.1):

- clinometer
- ruler
- ranging pole
- tape measure
- stopwatch
- flow meter.

You will need to select a river or steam location that has the following features:

- a bridge to cross
- easy access to riverbanks at a variety of locations.



G3.8.1 Tools used to collect data in the field

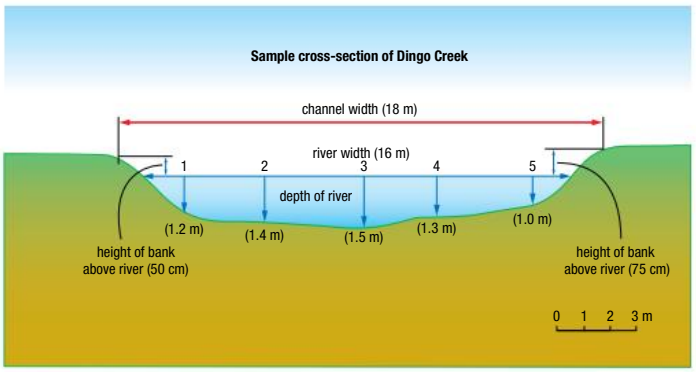
Drawing a cross-section

To draw a cross-section of a river, you need measurements of the:

- depth of the river
- width of the channel
- width of the river from bank to bank
- height of the bank above the river.

Using these measurements, construct your cross-section by carrying out the following steps.

1. Study the measurements you have collected and select a scale that will fit on your paper. Start your cross-section by drawing a line representing the width of the river. Make sure you leave enough space to draw in the river channel below it.
2. Look at the measurements for the height of the bank above the river level on both sides and mark the position of both banks. Measure the width of the channel from bank to bank. Now draw in the banks.
3. Mark in the riverbed by using your measurements of the depth of the river from the surface. Join the points together to show the shape of the riverbed. Add a scale and a heading, as shown in Figure G3.8.2.



G3.8.2 Sample cross-section

Calculating the cross-section

To calculate the cross-section of an area of river, carry out the following steps.

1. Use a long tape measure to determine the average width of the river.
2. Measure the depth of the water at regular intervals across the width of the river (for example every 100 centimetres).

A 2-metre pole marked with 10-centimetre intervals will assist you in this task. If there is a low bridge over the river, stand on it to measure the depth of the river. Record your measurements on your data record sheet.

3 Calculate the average depth by adding all the depth readings and dividing by the number of readings. Using the data shown in Figure G3.8.3, the average would be (1.2 m + 1.4 m + 1.5 m + 1.3 m + 1.0 m) ÷ 5 = 1.28 m.

4 Multiply the average depth by the average width of the river to give the area. Using the data shown in Figure G3.8.2, the area would be 1.28 m × 16 = 20.48 m^2.

G3.8.3 Data sample for a cross-section

Width of channel (bank to bank) 18 metres						
Average width of river: 16 metres						
Height of bank above river:		• Left side: 50 centimetres • Right side: 75 centimetres				
Depth of river		**Left bank**				**Right bank**
	Reading	1	2	3	4	5
	Depth	1.2m	1.4m	1.5m	1.3m	1.0m

Calculating water velocity

The most accurate way to measure water velocity is to use a flow meter. If you don't have a flow meter you can use the following procedure.

1 Select a straight section of the river that is free of pools and/or shallow, fast-flowing sections. Measure out a distance of 50 metres.

2 Find an object that will float on the surface of the river. The object should be brightly coloured and it is best if it is heavy enough to be partly submerged in the water. With the aid of a stopwatch, measure how long it takes for the floating object to cover the 50 metres. Ensure that you select an area of riverbank you can easily and safely access.

3 Take at least three readings. For greater accuracy, take readings on both sides of the river and in the middle. Record your readings on your data record sheet. Average the readings to determine the water velocity.

Calculating river discharge

Discharge is the amount of water that flows from a river catchment and into another river system, the sea or a lake. The discharge can be calculated by using the following formula:

Discharge = velocity × cross-sectional area

Measuring suspended load

The suspended load of a river comprises fine sand particles, silt and clay. The amount of suspended material in water is closely linked to the level of discharge. To measure the amount of suspended load in a river, carry out the following steps.

1 Use four 1-litre plastic bottles to collect water samples at four sampling sites along the course of a river. When preparing each plastic bottle, block the opening with a cork and then drill two holes through the cork. Push two flexible plastic tubes through the holes, as in Figure G3.8.4.

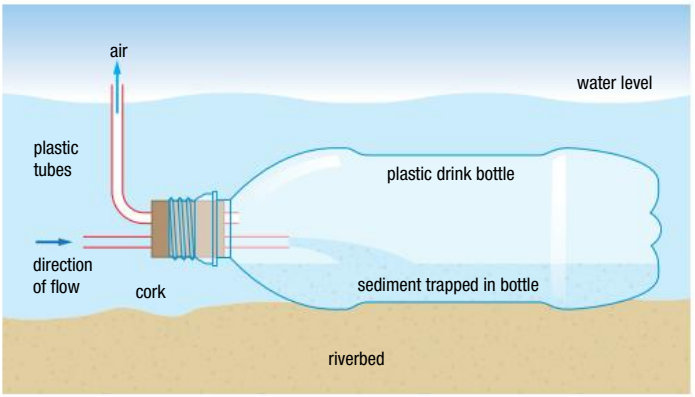
2 Anchor the bottle to the riverbed with two or three stones. When doing so, make sure that you stand downstream, so that you do not stir up too much sand and sediment.

3 When the bottle is full, remove it from the river and remove the cork and plastic tubes. Seal the bottle with its original screw cap. Repeat the exercise at your other sampling sites. Allow the bottles to stand overnight.

4 Observe the layer of sediment that has collected at the base of the bottle. Make note of the sediment's colour, the water's clarity (turbidity) and, if possible, the amount of time it takes for the sediment to settle.

5 Shake the bottle so that the sediment is again redistributed through the water sample and then very slowly pour the contents of the bottle through a previously weighed piece of dry filter paper. You could use a filter suction pump to assist in this process.

6 Allow the sediment-encrusted filter paper to dry for at least 48 hours, or dry it in an oven for 1–2 hours at 100°C. Subtract the weight of the dry filter paper to find the weight of the suspended sediment. Express your answer in grams per litre of water.



G3.8.4 Sediment sampler

Measuring turbidity

Turbidity refers to the cloudiness of water, which is caused by suspended sediment. To measure the turbidity of a river, carry out the following steps.

1. Collect a 1-litre sample of water at a number of sites along the course of a river.
2. Transfer the samples into separate glass containers. Allow the water to stand for at least 24 hours so the sediment will settle.
3. Using a ruler, measure the depth of sediment at the bottom of each container. Record your data in a spreadsheet file and present your data as a graph.

Measuring water quality

You can measure how clean river water is without having to use expensive equipment. One simple method involves looking at the kinds of animals that are found in creeks and rivers. The health of a river ecosystem can be measured by the variety of animal species present. If the water is polluted, many species find it almost impossible to survive. To assess water quality, carry out the following steps.

1 Select a suitable site

You can approach the task in one of two ways. You can:

- compare pollution levels in two or more rivers or creeks
- measure how pollution levels change down the course of one river or creek.

2 Equipment

You will need the following equipment:

- a white dish or tray
- a magnifying glass
- bottles and jars for water samples
- a pond dipping net
- turmeric paper (which turns brown in ammonia)
- pH paper (which measures acidity)
- a clipboard, pencil and recording sheet for drawing up a results sheet, as shown in Figure G3.8.5.

3 Take measurements and make observations

At each of the selected sites, complete the following experiments. Repeat each experiment three times at each site to make sure the results are reliable.

Turbidity

Fill your jar with water. Is the water clear or is it muddy? Allow the water to stand for 10 minutes. How clear is the water now? How much sediment has settled on the bottom of the jar?

Filter another sample of the same water through some filter paper or blotting paper. Observe what remains on the paper.

Smell

Using the same jar of water, smell the contents. Does the water smell? Record your observations on the results sheet.

pH test

Fill your dish with water taken from the river or creek. Place a piece of indicator paper in the water. Estimate the pH by comparing the test strip with the indicator chart (see Figure G3.8.6). Significant variation in recordings taken at different sites may indicate pollution.

Ammonia test

Use the turmeric paper to test a sample of water taken from the creek or river. If the paper turns brown, ammonia is present in the water. Ammonia is a poisonous chemical that builds up in water when it is polluted by sewage, rotting vegetation and carbon-based chemicals.

Water quality results

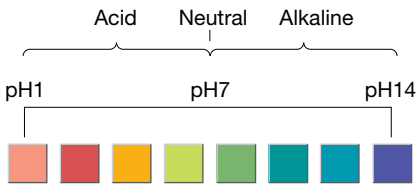
Name of waterway: _____ Date: _____

Location: _____

Site number: ☐

Test	1	2	3	Comments
Turbidity				
Smell				
pH				
Ammonia				
Organisms				
Site observations				

G3.8.5 Water quality results sheet



G3.8.6 A pH chart

Organism survey

Scientists have found that the number and variety of water bugs found in a stream can indicate the amount of pollution present. By sampling the water bugs in a local stream, you will get an idea of the quality of the water.

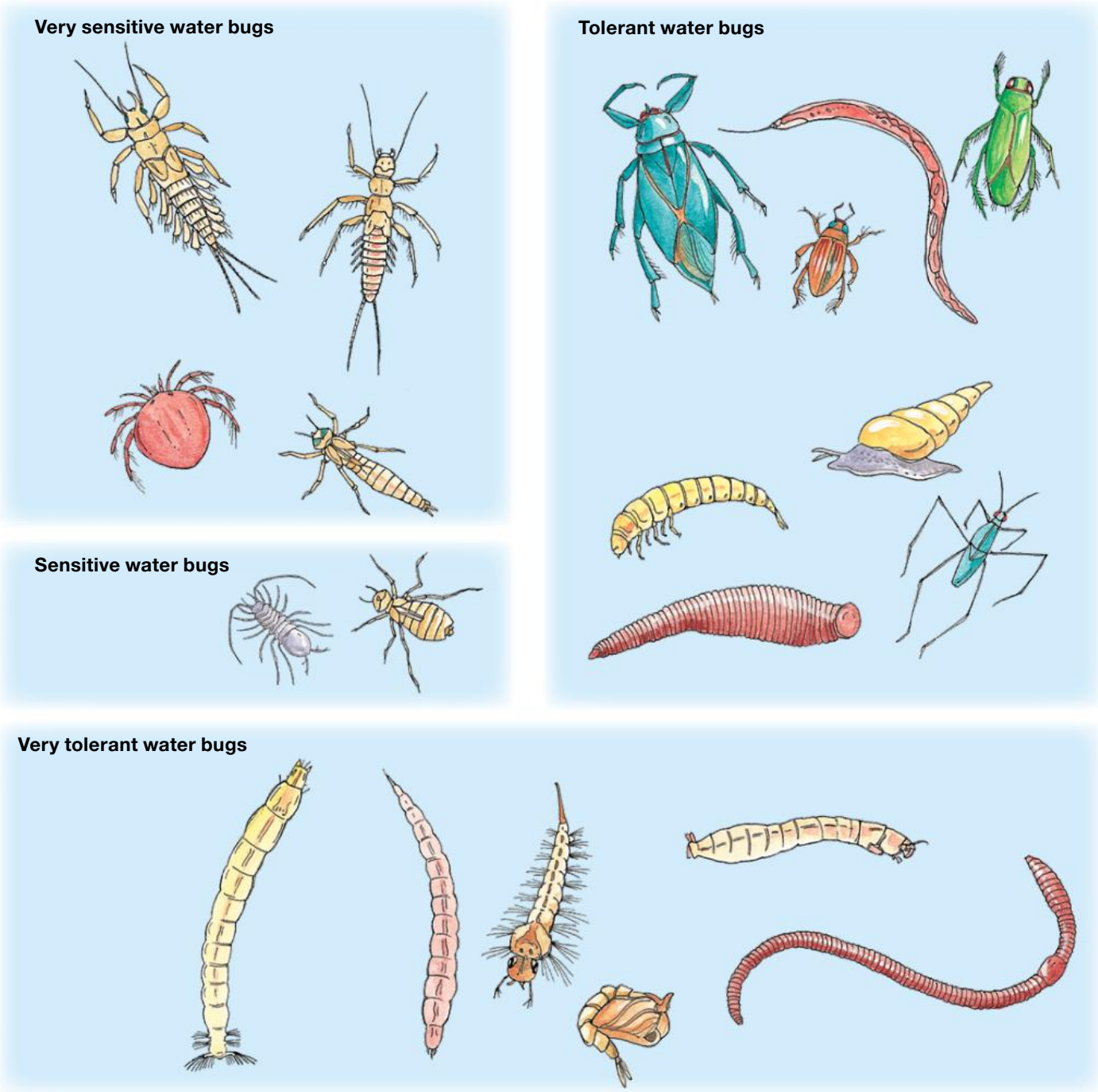
Water bugs live in many different parts of the stream. Some live on the water's surface, others at the bottom of the river or creek, in the surrounding vegetation or among the rocks.

Scoop your net through the weeds growing on the riverbed, through the plants growing on the water's edge, and through the water at various depths. Wash off the excess mud by dunking the base of the net into the water. Empty the contents of the net into your white tray and, with the aid of a magnifying glass, look for bugs similar to those shown in Figure G3.8.7. List the organisms present in your sample.

If you can identify sensitive and very sensitive bugs, the quality of the water is quite good. If only tolerant and very tolerant bugs are present, the creek or river probably has quite high levels of pollution.

Site observations

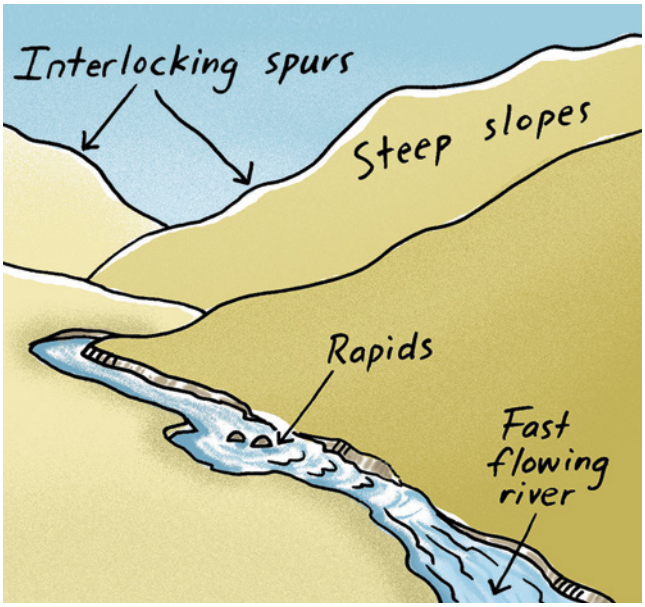
Record any additional observations about the sites selected. Identify any possible sources of pollution. Use photography to illustrate your notes.



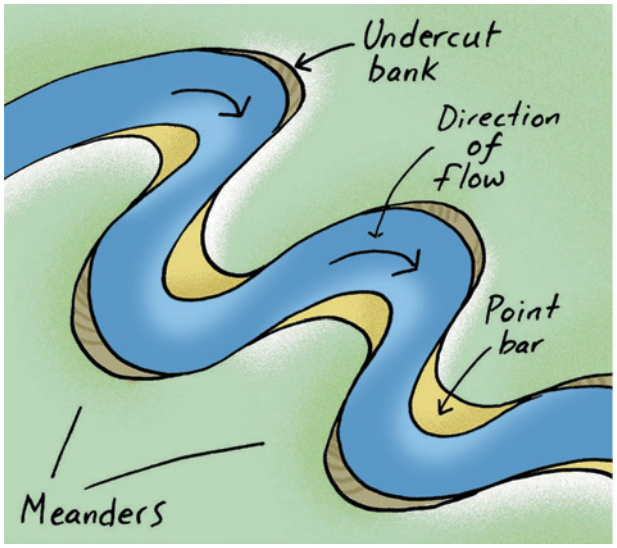
G3.8.7 Some of the small aquatic animals found in rivers and creeks

Drawing a field sketch

To draw a field sketch of the river being studied, use Figures G3.8.8 and G3.8.9 as a guide.



G3.8.8 Annotated field sketch of the upper reach of the river being studied



G3.8.9 Sketch plan of the mid-reach of the river being studied

Activities

Aim

To investigate the physical features of a river and water quality.

Instructions

1. Select a suitable river to investigate and include a map of the area investigated.
2. Draw a cross-section.
3. Calculate the cross-section of the river. Collect data and record it in a data record sheet similar to the sample below.

River: Sandy Creek	Location: Site 1	Date: 23 May 2014
A. Cross-sectional area		
Average width of the river 15 metres		
Channel depth at various points (in centimetres)		
Point 1: 20		
Point 2: 25		
Point 3: 35		
Point 4: 45		
Point 5: 30		
Point 6: 20		
Average depth: 175/6 = 29 centimetres		
Cross-sectional area: average river width × average depth 15 × 0.29 = 4.35 square metres (ii)		

4. Calculate water velocity.
   a. Collect data and record it on a data record sheet similar to the sample below.
   b. Select data from two different locations and follow the steps.

River: Sandy Creek	Location: Site 1	DATE: 23 May 2014
B. Water velocity		
Length of river section: 50 metres		
Measurement 1: 75 seconds		
Measurement 2: 90 seconds		
Measurement 3: 85 seconds		
Average: 83.3 seconds		
Average velocity: 50/83.3 = 0.6 metres per second (i)		

5 Calculate river discharge.

River: Sandy Creek	Location: Site 1	Date: 23 May 2014
C. Discharge		
Velocity (i) × cross-sectional area (ii) 0.6 metres per second × 4.35 square metres = 2.61 cubic metres per second		

6 Measure turbidity. Collect data and record it in a data record sheet similar to the sample in Figure G3.8.5.

7 Measure suspended load.

8 Measure water quality. Collect data and record it in a data record sheet similar to the sample provided.

9 Draw a field sketch of the river area being studied.

Option 1

Create an annotated visual display of the area investigated.

- **a** Take images of the river channel, upstream and downstream, and land on either side of the river channel.
- **b** Explain how each has influenced, or might influence, the river channel.
- **c** Annotate the photos and explanations around the map of the area of river investigated.

Option 2

Investigate the river from its source to the mouth of the river. Include the following information:

- topography, vegetation and land use
- how the river water is being used (agriculture, irrigation, recreation, household use, etc.)
- problems associated with the river (pollution, reduced water flow, etc.).

Present your findings in a multimedia presentation and/or oral presentation.

Evaluation

10 Once you have collected enough data, display the results and comment on your findings. Include the following in your commentary:

- **a** a description of the features of the section of river that you investigated
- **b** information about changes in speed flow along the river
- **c** information about levels of turbidity and suspended load—was there a correlation between the two?
- **d** information about water quality.

Option 3: Taking action

If you find that your local creek or river is polluted, you might like to do something about it. In small groups, discuss the actions you could take. You might consider:

- writing to the Environment Protection Authority and your local council
- mounting a public information campaign using posters and leaflets warning of the dangers of water pollution.

Conclusion

11 Describe what you have learnt about river profiles.

Fieldwork reflection

12 Write a short report outlining:

- **a** the way you gathered your data
- **b** what worked well and what did not
- **c** how you would improve the effectiveness of the fieldwork if you were to repeat it.

13 In a group, list the skills you have developed when undertaking the fieldwork activity. Share your findings with other groups. What were the most commonly cited skills? Which skills did other groups identify that differed from your group's list?

G3.8.10 High school students checking nets for aquatic indicators of water quality on a river field trip

Spatial variations in human wellbeing

8

Enhancing the wellbeing of people living in the world's poorest countries is one of the great challenges facing humanity. In geography, the study of **development** identifies ways in which developing countries can improve wellbeing and eliminate **absolute poverty**.

In recent decades, the peoples and governments of the most developed countries have acknowledged that they have a responsibility to assist the world's poorest countries to improve the lives of their people.

In this chapter, we examine the global pattern of human wellbeing and how it is measured. We also investigate the causes of the global differences in these measures among countries.

OVERVIEW QUESTIONS

- **8A** To what extent does human wellbeing vary between and within countries?
- **8B** How is human wellbeing measured and mapped?
- **8C** Why are there spatial variations in human wellbeing and what are their consequences?
- **8D** What are the principal issues in human wellbeing?

LS Before you begin

8.0.1 An Indian girl searches through garbage for scrap at a landfill site in New Delhi, India

GLOSSARY

absolute poverty a lack of access to the minimum essentials required for living

debt bondage when a person is forced to pay off a loan by working or offering services for no salary, rather than actually repaying the debt

developed world rich countries of the world with high incomes; after fulfilling their everyday needs of water, food and shelter, most people have money left over for buying consumer goods and luxury items

developing country a poor or middle-income country; in many of these countries, most people depend on subsistence farming; for most people in developing countries, life is a constant struggle to satisfy the basic needs

development a process of change that results in an improvement in the quality of life of a community; it usually involves reducing poverty

fertility rate a measurement of the average number of children born, usually measured in the number of children per 1000 women of child-bearing age

indentured servitude a system where a person is bound by a signed contract or is forced to work for an employer for a fixed time, in exchange for an agreed service or benefit

Industrial Revolution a period of industrialisation that took place in Britain and the rest of Europe during the late eighteenth and early nineteenth centuries

maternal mortality the death of a mother during childbirth

middle class the social group positioned between the upper and working classes; it includes professional and business people and their families

relative poverty a condition in which people are unable to maintain the average standard of living in the society in which they live

social infrastructure the basic facilities necessary for human development; includes health (hospitals), education (schools) and housing

subsistence production production at a level sufficient for a person's own use or consumption, without any surplus for trade

8.1 Development and human wellbeing

Wellbeing

The term 'human wellbeing' refers to the quality of life experienced by individuals and groups of people. It can be measured using statistics such as life expectancy, educational achievement and income, and by the personal judgements people make about their own quality of life.

Global variations in wellbeing

The quality of life experienced by people largely depends on whether they live in a developed or a **developing country**. In Australia, a child born today can expect to live to about 81.85 years of age, but a child born in Ethiopia can expect to live to just 59 years.

Variations in human wellbeing can also be found within countries. A homeless person living on the streets of an Australian city or a disadvantaged Indigenous Australian living in a remote outback community may have much in common with people living in the squatter settlements of a developing world city. Similarly, a wealthy business owner living in Ethiopia may enjoy a quality of life as good as that experienced by people living in a developed country. Geographers call these differences 'inequalities'.

Defining development

Development can be viewed as simply the outcome of economic growth. In contrast, it can be understood as an ongoing, dynamic, socio-economic process, aimed at a sustained improvement in people's quality of life or wellbeing.

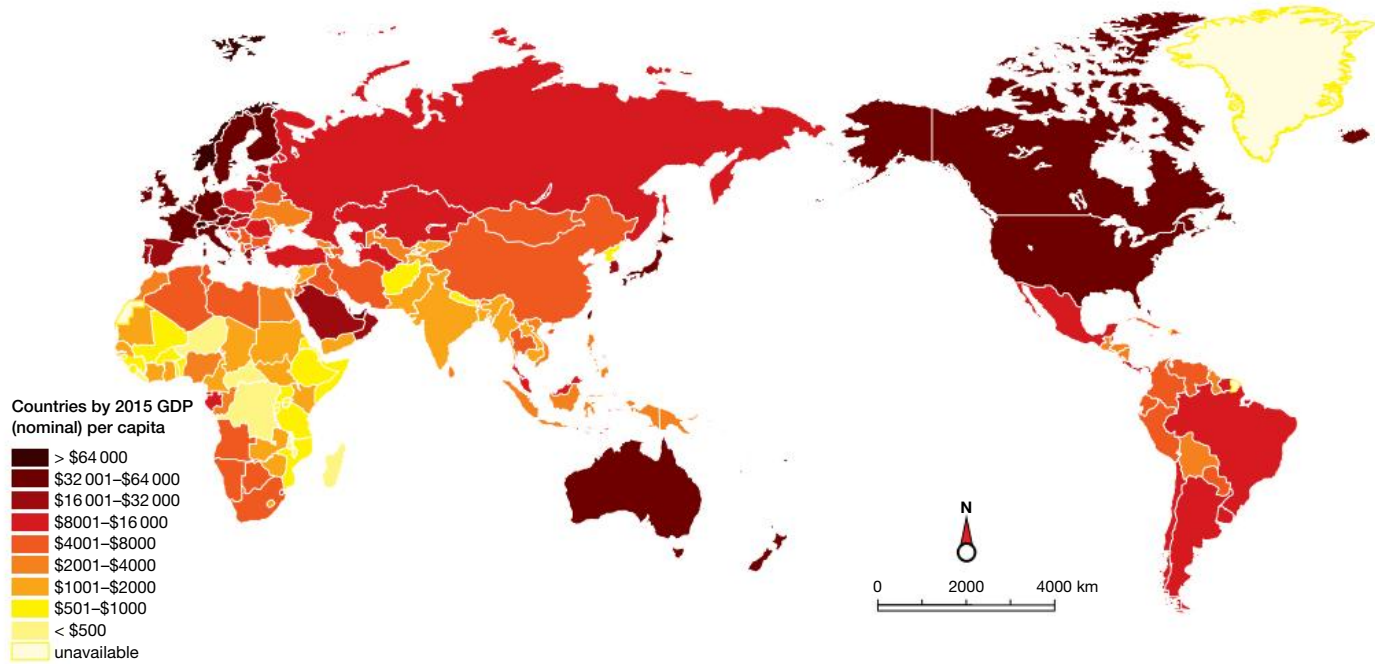
Definitions of development sometimes include better education, improved health and nutrition, conservation of natural resources, a cleaner environment and a richer cultural life. It can also include relief from the problems and challenges that limit the life choices people are able to make.

Development involves taking action on issues such as poverty, child labour, malnutrition and starvation, tyranny (unfair and cruel government), repression (preventing people from doing something by force), human rights, the rights of women and minorities, the denial of economic opportunities and social deprivation.

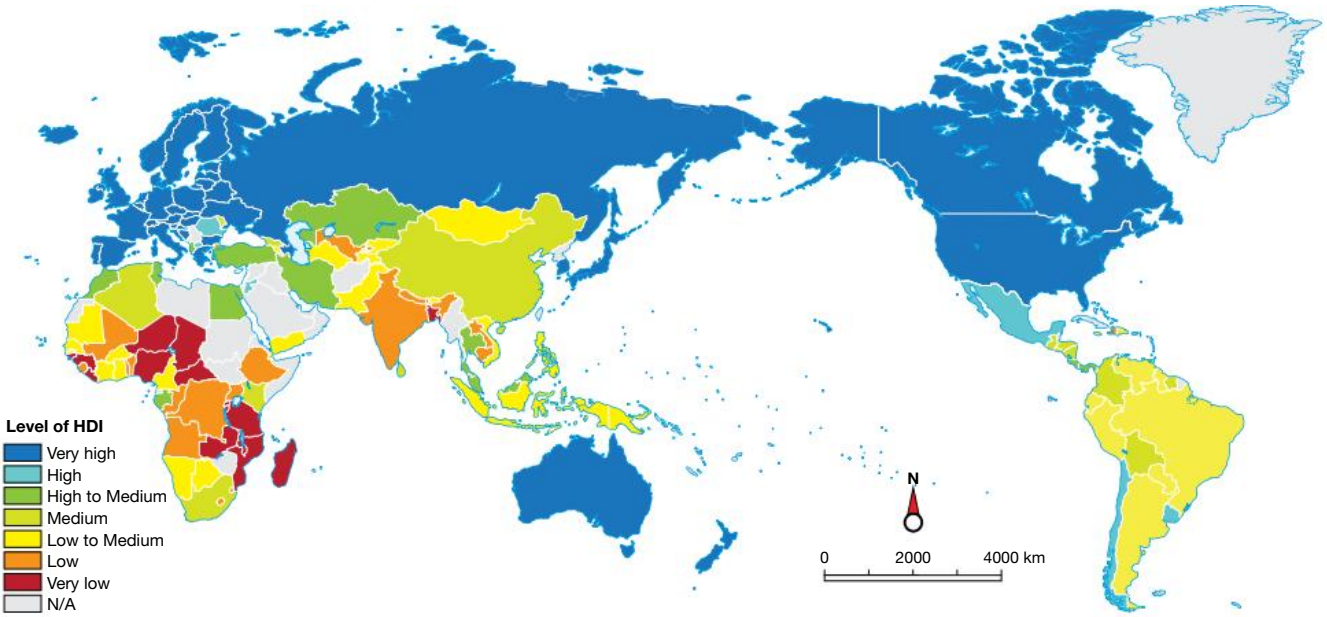
Defining wealth

A country's wealth is often measured using gross domestic product (GDP): the total value of the goods and services produced each year. GDP per person, or per capita, is calculated by dividing the country's GDP by the number of people living in that country (see Figure 8.1.1). Another commonly used measure is the Human Development Index (HDI) (see Figure 8.1.2), which takes into account income, life expectancy and education. The Inequality-adjusted Human Development Index (IHDI) measures the level of human development, taking inequality into account. In a country with no inequality, the IHDI is equal to the HDI, but falls below the HDI if inequality rises.

GDP per capita, or the HDI, tells us only part of the story. Other factors contribute to our sense of wellbeing. We often refer to these as qualitative factors, which are qualities that cannot be easily measured. Examples are happiness, environmental quality, personal freedoms and lifestyle.



8.1.1 GDP per capita, 2015



8.1.2 Human Development Index, 2015

Defining poverty

GDP can also be used to rank the world's poorest countries but, as with wealth, this gives you only part of the picture. Before you can make a judgement about the overall level of a country's development, you need more information about the way that people in that country live.

Poverty is often defined as either absolute or relative. Absolute poverty is coping without the resources (food, clothing and shelter) necessary for life. People living in absolute poverty are barely surviving. **Relative poverty**, on the other hand, is the situation in which some people are poorer than others in the community but still have access to adequate food, clothing and shelter.

Global inequalities

In early 2014, Oxfam, the international non-government aid agency, reported that the world's eighty-five richest people controlled wealth of $1.7 trillion, an amount equal to the wealth of the world's poorest 3.5 billion people. In other words, a small group of people, just enough to fill a double-decker bus, had accumulated as much wealth as half the world's people. This staggering figure highlights the inequalities evident in the world today. The wealth of the richest 1 per cent of the world's population was about $110 trillion, 65 times the total wealth of the bottom 50 per cent of the world's population. Although poverty has been reduced, inequality has not. In the 20 years between 1990 and 2010, the number of very poor fell by half (as a percentage of the total population) in developing countries, from 43 per cent to 21 per cent—a reduction of almost 1 billion people. Despite such gains, 1.1 billion of the world's 7 billion people still live below the internationally accepted extreme-poverty line, surviving on $1.25 a day.

Activities

LS 8A

Remembering and understanding

1. Define 'human wellbeing'. How can it be measured?
2. Identify the scales at which variations in human wellbeing occur.
3. Explain how the HDI differs from GDP.
4. Explain how the IHDI differs from the HDI.
5. Explain the difference between absolute and relative poverty.

Applying and analysing

6. List the inequalities that exist in your own community.
7. In groups, discuss what you consider to be the basic minimum requirements for a person living in your community. Consider food, education and health facilities. Draw up a list as a result of the discussion. See how much agreement there is between individuals and groups.
8. Study Figure 8.1.1. With the aid of an atlas, identify the parts of the world with the highest and lowest GDP per capita.
9. Study Figure 8.1.2. With the aid of an atlas, identify those parts of the world that have the lowest ranking on the HDI. Which countries have the highest HDI?

8.2 Measuring and mapping human wellbeing

Assessing human wellbeing

Human wellbeing can be measured using qualitative (subjective) measures of how people perceive the quality of life they experience, or quantitative (objective) measures, for example life expectancy, education levels and income.

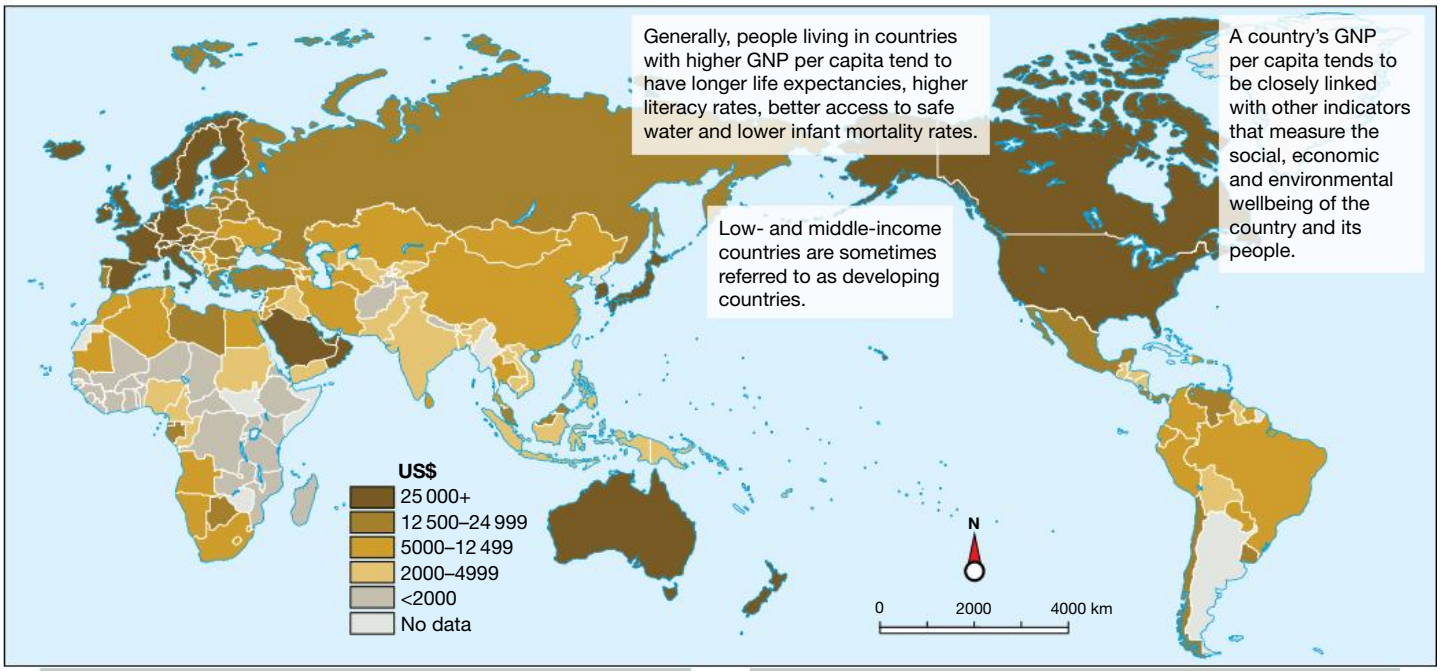
Qualitative indicators

The qualitative or subjective indicators of human wellbeing are those aspects of our standard of living that are difficult to measure, such as political freedoms, social opportunities and personal security. They include human rights, the nature of governing institutions, the quality of the environment, the level of social participation and access to leisure. These aspects are about the capacity of the individual to exercise their rights, especially economic, cultural and social rights. They involve the elimination of poverty, inequalities, suffering and injustice.

Quantitative indicators

Gross national product per capita

When many people think about human wellbeing, they often focus on economic growth. It is not surprising, therefore, that gross national product (GNP) per capita is one of the most commonly used measures of human wellbeing, as is shown in Figure 8.2.1.



World's 10 richest countries, GNP per capita (purchasing power parity), 2014

Rank	Country	GNP per capita (PPP) in US$
1	Luxembourg	110 665
2	Norway	97 363
3	Qatar	93 397
4	Switzerland	84 733
5	Australia	61 887
6	Denmark	60 634
7	Sweden	58 887
8	Singapore	56 286
9	USA	54 629
10	Ireland	53 313

World's 10 poorest countries, GNP per capita (purchasing power parity), 2014

Rank	Country	GNP per capita (PPP) in US$
1	Malawi	253
2	Burundi	295
3	Central African Republic	378
4	Gambia	422
5	Niger	440
6	Madagascar	449
7	Liberia	461
8	Dem. Rep. of the Congo	475
9	Guinea	550
10	Ethiopia	567

8.2.1 GNP per capita, 2013

GNP per capita is the total value of goods and services produced within a country in a particular year, together with income received from other countries (for example interest and dividends), less similar payments made to other countries, divided by the country's population.

The use of GNP has been criticised for failing to accurately measure economic activity, especially in developing countries, where activity often takes place outside the formal economy or where data collection processes are often under-resourced. Other indicators used to measure economic growth are energy consumption per capita and employment. Such production-based indicators can be used to rank countries on the basis of their relative economic development. However, they tell us very little about the spatial and social inequalities in how the benefits of economic growth are shared, and nothing about the qualitative dimension of human wellbeing.

Composite quantitative measures

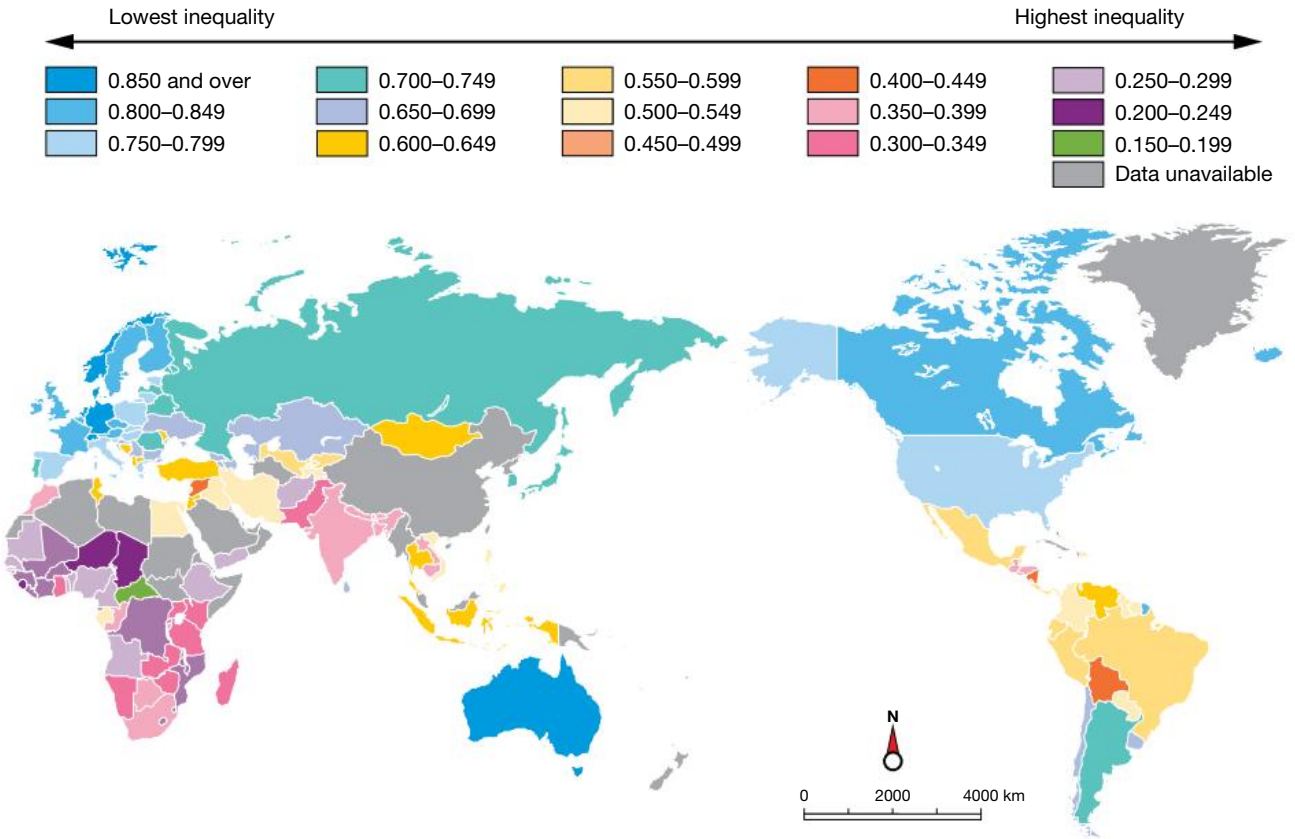
Several new indices have been introduced over the years to provide a more accurate insight into human wellbeing. These include a range of measures that include multiple measures or combined measures such as the Human Development Index (HDI), the Inequality-adjusted Human Development Index (IHDI), the Multidimensional Poverty Index (MPI) and the Gender-related Development Index (GDI).

Human Development Index

The HDI allows for a range of developmental factors to be taken into account when measuring human wellbeing or progress. These factors are income, life expectancy and education. The index is not without its limitations. While it allows for easy comparisons of the total measure (or score) between countries, it does not explain the relationships between the measures or indicators within these total scores. It also tells us little about inequalities in wellbeing within countries.

Inequality-adjusted Human Development Index

The IHDI seeks to measure the level of human wellbeing and the level of inequality. Under conditions of perfect equality, the IHDI is equal to the HDI, but the IHDI falls below the HDI if inequality rises. IHDI is a measure of the actual level of human development (taking into account inequality), while the HDI is a measure of the potential human development that could be achieved if there were no inequality (see Figure 8.2.2).



8.2.2 Inequality-adjusted HDI, 2014. A score of over 0.850 shows countries with the lowest levels of inequality; a score below 0.150 shows the highest levels of inequality.

8.2.3 HDI and IHDI by rank, 2016

HDI rank		IHDI rank	
1	Norway	1	Norway
2	Australia	2	Iceland
2	Switzerland	3	Australia
4	Germany	3	Netherlands
5	Denmark	5	Switzerland
5	Singapore	6	Germany
7	Netherlands	7	Denmark
8	Ireland	8	Sweden
9	Iceland	9	Ireland
10	Canada	10	Finland
10	USA	11	Canada
12	Hong Kong	12	Slovenia
13	New Zealand	13	UK
14	Sweden	14	Czech Republic
15	Liechtenstein	15	Luxembourg
16	UK	16	Belgium
18	South Korea	17	Austria
19	Israel	18	France
20	Luxembourg	19	USA
20	Japan	20	Slovakia
21	France	21	Japan
22	Belgium	22	Spain

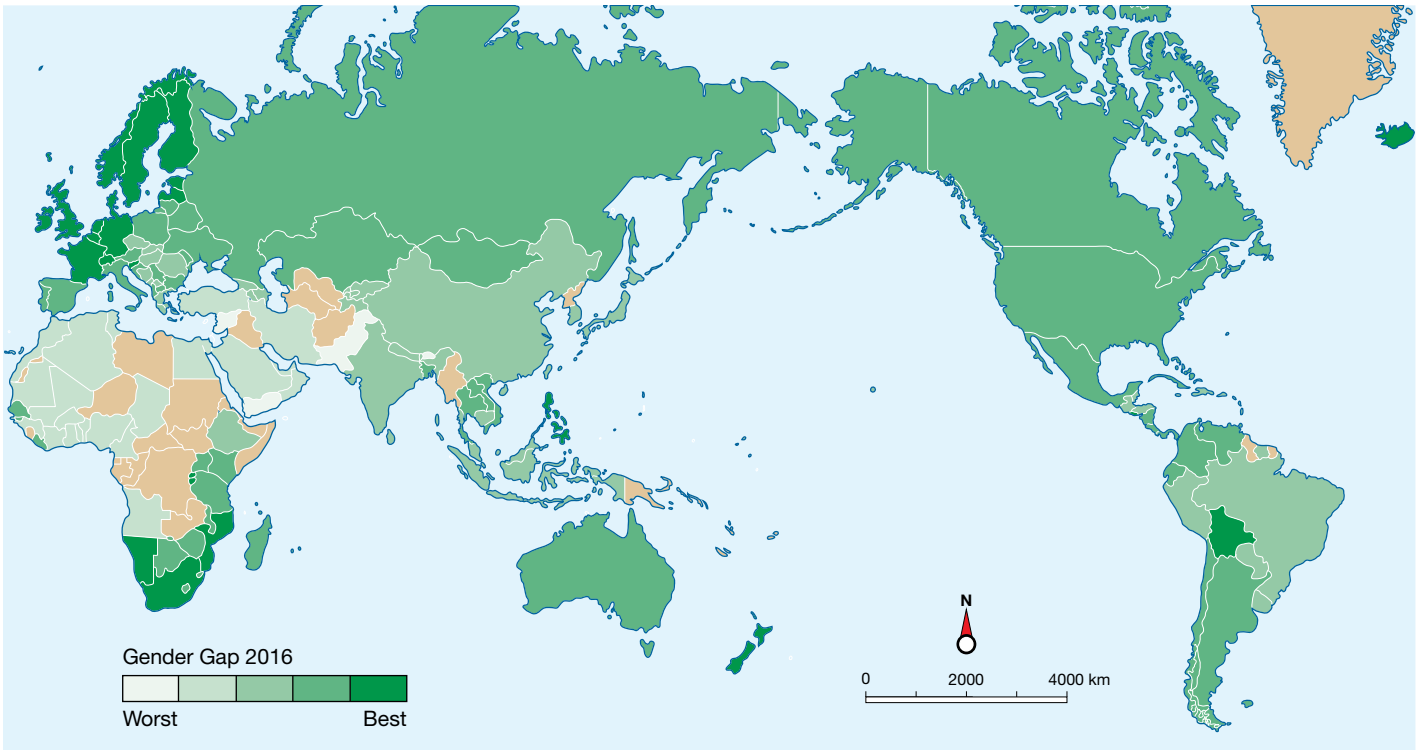
Table 8.2.3 shows the HDI ranking for the top twenty-two rated countries as well as the top twenty-two according to IHDI ranking. While the USA has the tenth-highest HDI, its ranking dropped to 19 when it was adjusted for income, health and educational inequality. This shows that the USA has a high level of inequality.

Multidimensional Poverty Index

The MPI was developed in 2010 by the United Nations Development Programme and the Oxford Poverty and Human Development Initiative. It uses a range of factors, beyond just income-based criteria, including nutrition and child mortality (deaths); number of years at school and percentage of children completing 5 years at school; percentage of households with electricity, proper sanitation, access to safe drinking water; and factors such as the type of household flooring and the type of cooking fuel used.

Gender-related Development Index

The GDI is designed to measure gender equality between males and females. The GDI re-calculates the HDI by factoring in gender inequalities. The GDI identifies gaps between men and women in health, knowledge and living standards. Another index called the Gender Empowerment Measure (GEM) measures gender inequality in terms of political and economic participation by women, for example the number of female politicians, and participation in the labour force and types of work. The GDI is shown in Figure 8.2.4.



8.2.4 The Gender-related Development Index measures the gap between the sexes in four key areas—health (life expectancy, etc.), access to education, economic participation (salaries, job type and seniority) and political engagement.

Spotlight

Sustainable Development Goals

The Sustainable Development Goals (SDGs), officially known by the title 'Transforming Our World: The 2030 Agenda for Sustainable Development', are a set of seventeen goals with 169 targets.

- Goals 1–6: No poverty; zero hunger; good health and wellbeing; quality education; gender equality; and clean water and sanitation (see Figure 8.2.5)
- Goals 7–12: Affordable and clean energy; decent work and economic growth; industry, innovation and infrastructure; reduced inequalities; sustainable cities and communities; and responsible consumption and production
- Goals 13–17: Climate action; life below water; life on land; peace, justice and strong institutions; and partnerships for the goals

A report for every country's performance in regards to the SDGs is released annually. The Index and Dashboard Report describes each country's progress towards achieving the SDG aims. Australia has dropped down the list. In 2017 it was ranked 26th in the world and in 2018 it was ranked 37th. Australia is performing well in the areas of health and wellbeing but performing poorly in regards to climate action.

8.2.5 Collecting water from the water pump, Malawi

Activities

Remembering and understanding

1 Distinguish between quantitative and qualitative data.
2 Explain why geographers are interested in mapping such data.
3 List the various quantitative measures of human wellbeing. Explain what each seeks to measure.
4 Explain what is meant by the term 'composite measure'.
5 Outline the disadvantages of relying on a narrow measure such as GNP per capita.
6 Explain what the IHDI seeks to measure.
7 Outline the qualitative measure typically used to measure human wellbeing.

Applying and analysing

8 Study Figure 8.2.1. With the aid of an atlas, describe the distribution of countries classified as:
  a 'high income'
  b 'low income'.
9 Study Figures 8.2.1 and 8.2.2. Write a sentence or two outlining any significant differences in the pattern of human wellbeing illustrated by GNP per capita and the inequality-adjusted HDI.
10 Study Table 8.2.3. Identify those countries whose:
  a IHDI is considerably below its HDI rank
  b IHDI is considerably above its HDI rank.
11 Undertake research to complete the following table.

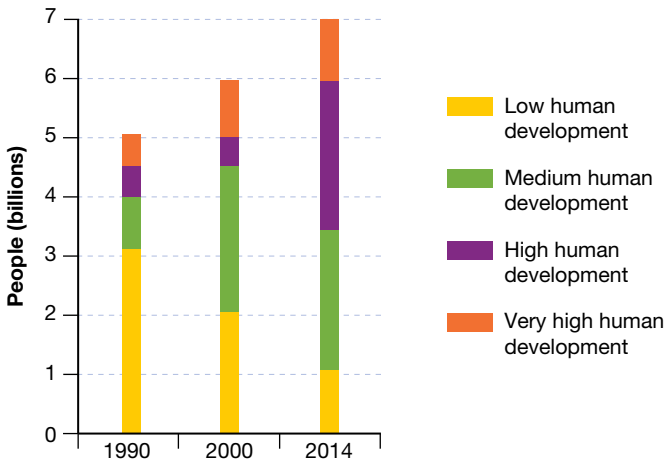
Country	GNP per capita	Life expectancy	HDI	IHDI	MPI
Australia					
Mexico					
Turkey					
Uganda					
Niger					

LS 8B

8.3 Progress in human wellbeing

Poverty reduction

In 2013, the United Nations (UN) reported that poverty reduction in the developing world was succeeding beyond expectations. It concluded that there was a 'global rebalancing' taking place, with higher growth in at least forty poor countries, helping to lift hundreds of millions of people out of poverty and into a new global **middle class**. It also concluded that the wellbeing and prospects of so many people had never changed so dramatically in such a short period of time. Showing the way are nations such as Rwanda, Nepal and Bangladesh, where extreme (or absolute) poverty could disappear in the lifetime of present generations. Close behind are Ghana, Tanzania, Cambodia and Bolivia. Figures 8.3.1 and 8.3.2 illustrate the progress in human development around the world.



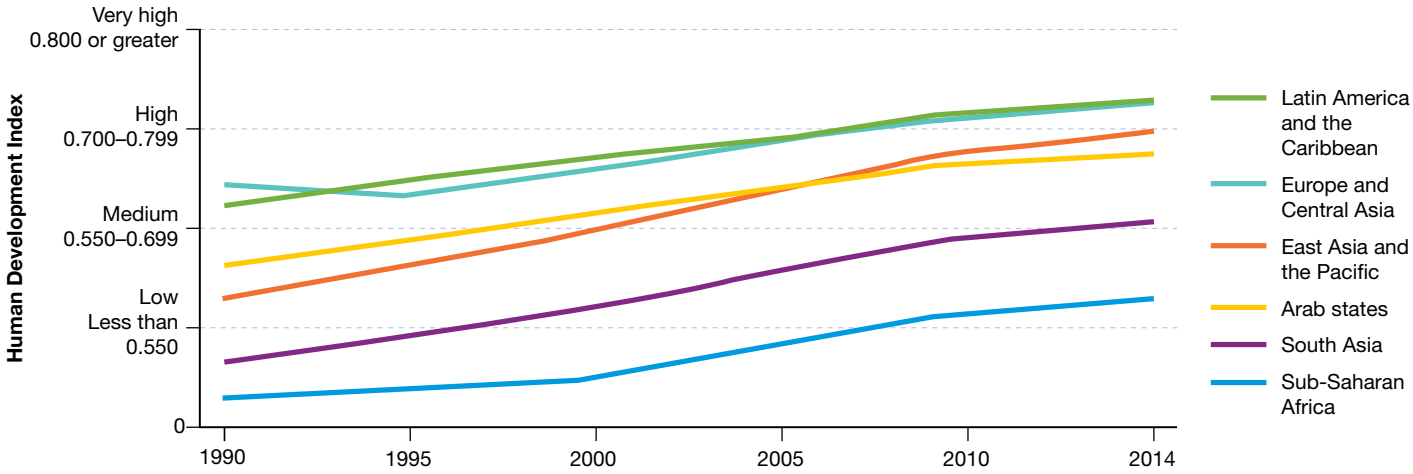
8.3.1 Human development, 1990, 2000 and 2014

This improved global picture is the result of international aid and development projects investing in schools, health clinics, housing, infrastructure and access to water. The UN noted that trade is a key factor in improving conditions in countries such as Afghanistan, Ethiopia, Rwanda and Sierra Leone. Any improvement in the wellbeing of people now includes measuring factors such as health, education and living standards, not just income.

This improvement can, at least in part, be attributed to the success of the UN's Millennium Development Goals (MDGs). The MDGs were eight goals aimed at reducing extreme poverty and hunger, promoting education and literacy and raising the status of women. The MDGs were replaced by the Sustainable Development Goals in 2015.

India's and China's changing fortunes

Experts conclude that at the dawn of the **Industrial Revolution** (about 1750), India's per capita income was 10 per cent above England's per capita income. They also argue that India's and China's technological sophistication once exceeded Europe's. For example, when Marco Polo visited China in the 1290s, he found that the Chinese were far ahead of the Europeans—he brought back to Europe porcelain, paper, paper currency and the compass. By 1800, levels of human wellbeing in China, India and Japan were lower than those in Europe. The balance had changed. The people of Europe (and North America) were then to enjoy generally higher levels of human wellbeing for the next two and a half centuries.



8.3.2 Progress in human development since 1990

Looking to the future

In the future, there will be a major shift in the global balance of economic power compared with today. Emerging economies will grow in importance and China will probably overtake the United States of America in terms of GDP. Consumer markets in emerging economies will present great opportunities, but their rapid growth will pose a challenge to the global environment. Translating this economic success into improvements in human wellbeing will be a major challenge. China has had great success in alleviating poverty, but qualitative indicators of human wellbeing, such as human rights and the state of the environment, lag behind most of the **developed world**.

Australian wellbeing

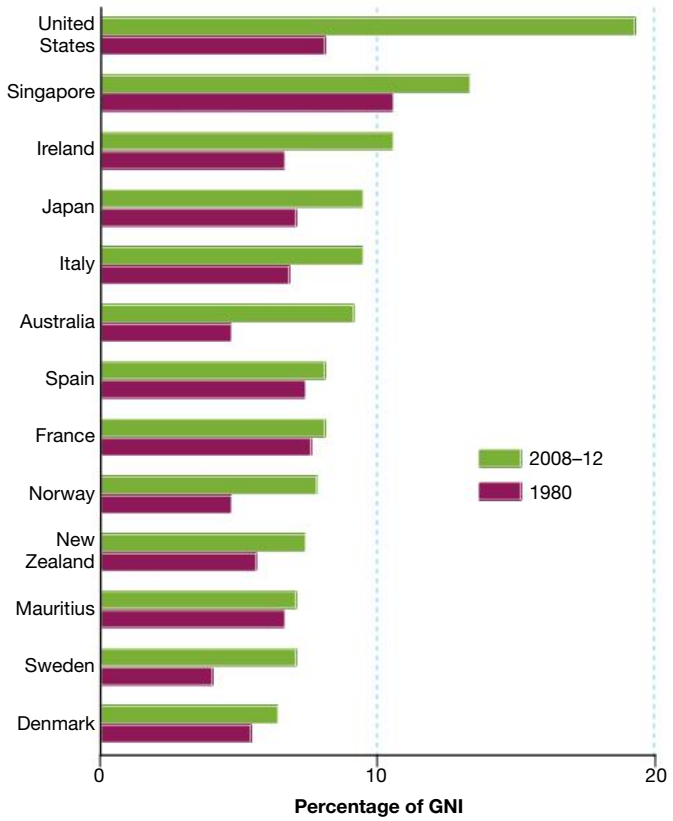
Australian levels of human wellbeing are now among the highest in the world. Australia's Aboriginal and Torres Strait Islander peoples, however, experience levels of wellbeing well below those of non-Indigenous Australians.

Challenges to poverty reduction

Despite reductions in poverty levels worldwide, inequalities within countries continue to grow. The share of national income of the richest 1 per cent has grown significantly since 1980, as is shown in Figure 8.3.3. According to a report by Oxfam, the total wealth of the richest sixty-two people in the world is the same as the total wealth of the poorer half of the world's population, or 3.6 billion people. Since 2010, the wealth of the world's poorest people has declined 1 per cent, or a trillion US dollars. The Oxfam report estimates that, globally, super-rich individuals have amassed a total of US$7.6 trillion in offshore accounts where no tax is paid. If these individuals paid tax on this undeclared money, an extra US$190 billion in tax revenues would be available to governments worldwide every year.

In order to reverse inequality and increase the wellbeing of all, Oxfam's report called for governments to:

- crack down on tax evasion and end the use of tax havens where no tax is paid by businesses and wealthy individuals
- invest in public services
- increase the income of the poorest paid people.



8.3.3 Share of national income going to the richest 1 per cent of the population, selected countries, 1980 and 2008–12

Activities

Remembering and understanding

1. Outline the key pieces of information relating to the changes in spatial wellbeing over time highlighted in this unit.
2. List some key technologies Marco Polo brought to Europe from China.
3. Explain how the spatial pattern of wellbeing is likely to change in the future.

Applying and analysing

4. What implications will the shift in the global balance of power have for human wellbeing?
5. Study Figures 8.3.1 and 8.3.2. Using data from the graphs, write a paragraph outlining the advances made in raising human wellbeing.
6. Study Figure 8.3.3. Estimate the difference in percentage between 1980 and 2008–12 for each country. Rearrange the graph from the greatest to the least difference. Describe any changes between Figure 8.3.3 and the new list. Can you account for these differences?

8.4 Causes of spatial inequality

Spatial inequality

Spatial inequality means unequal amounts of resources or services in different areas or locations in the world. This module explores the reasons for spatial inequalities in the world, including external and internal factors.

External factors

Legacy of history

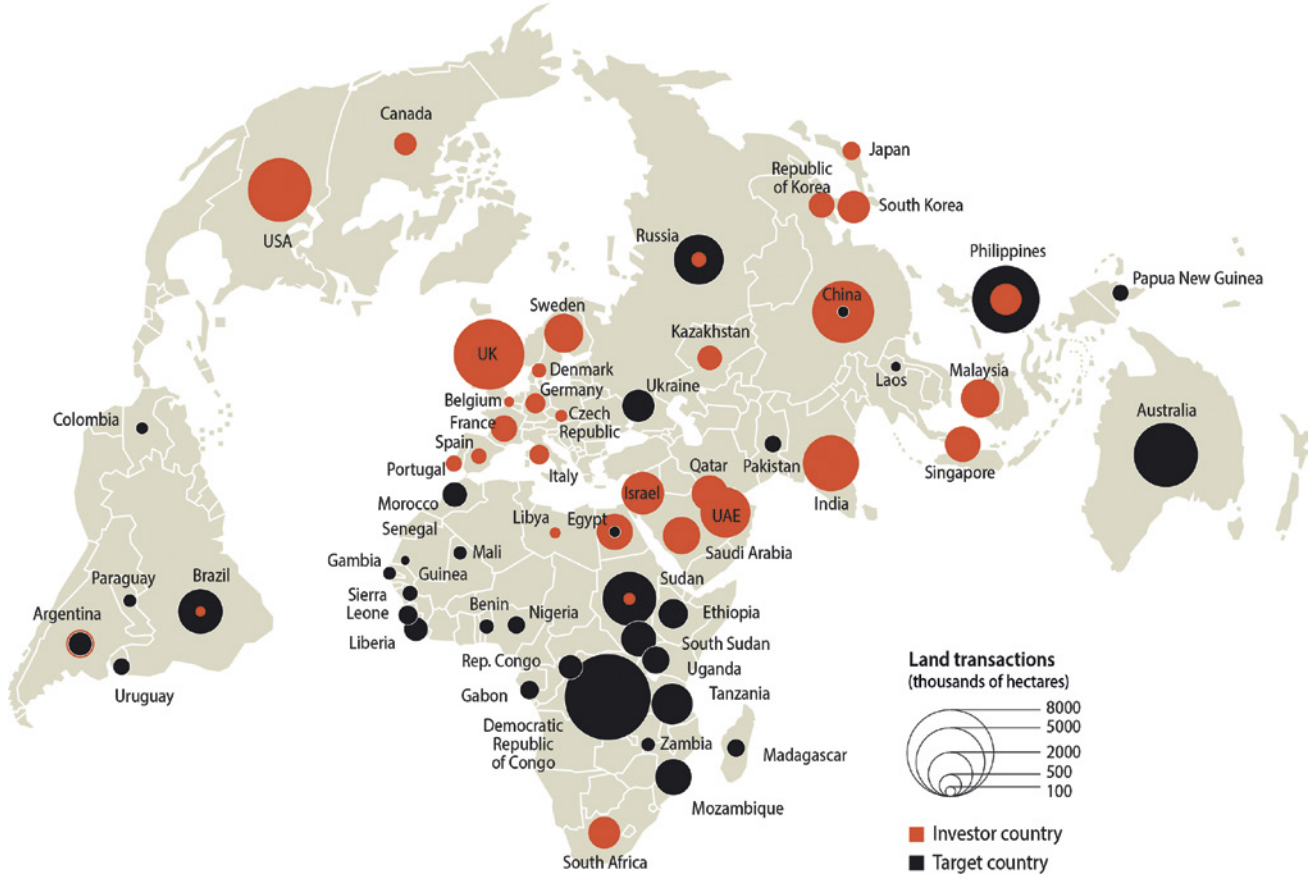
Many of the world's poorest countries were once colonies that were ruled by European countries and part of vast colonial empires. In the years immediately after World War II, most colonial powers gave up, or were forced to give up, their colonial territories. The legacy of colonialism remained and it influenced the development paths of many of the former colonies.

Many of the colonies were used as markets for finished products and other surpluses produced in the industrialised European countries. At the same time, the colonies supplied raw materials and foodstuffs needed by the colonial power. Restrictions were often placed on colonies so that they could not produce goods that were already produced by the colonial power, and they were forced to trade only with the colonial power. Such arrangements were obviously designed to benefit the colonial power rather than the colony (see Figure 8.4.1), and placed severe limits on the colony's economic activities. Many of these established trade relationships have continued after the end of colonialism, and wealthy countries continue to dominate international trading relationships. The uneven distribution of wealth between countries is thus shaped by relationships established in the colonial era. Many of the former colonies still suffer from continued economic dependence on the more developed regions of the world. In addition, the large-scale purchase of land in the developing world by developed nations, shown in Figure 8.4.2, threatens traditional forms of agriculture in places such as Africa.

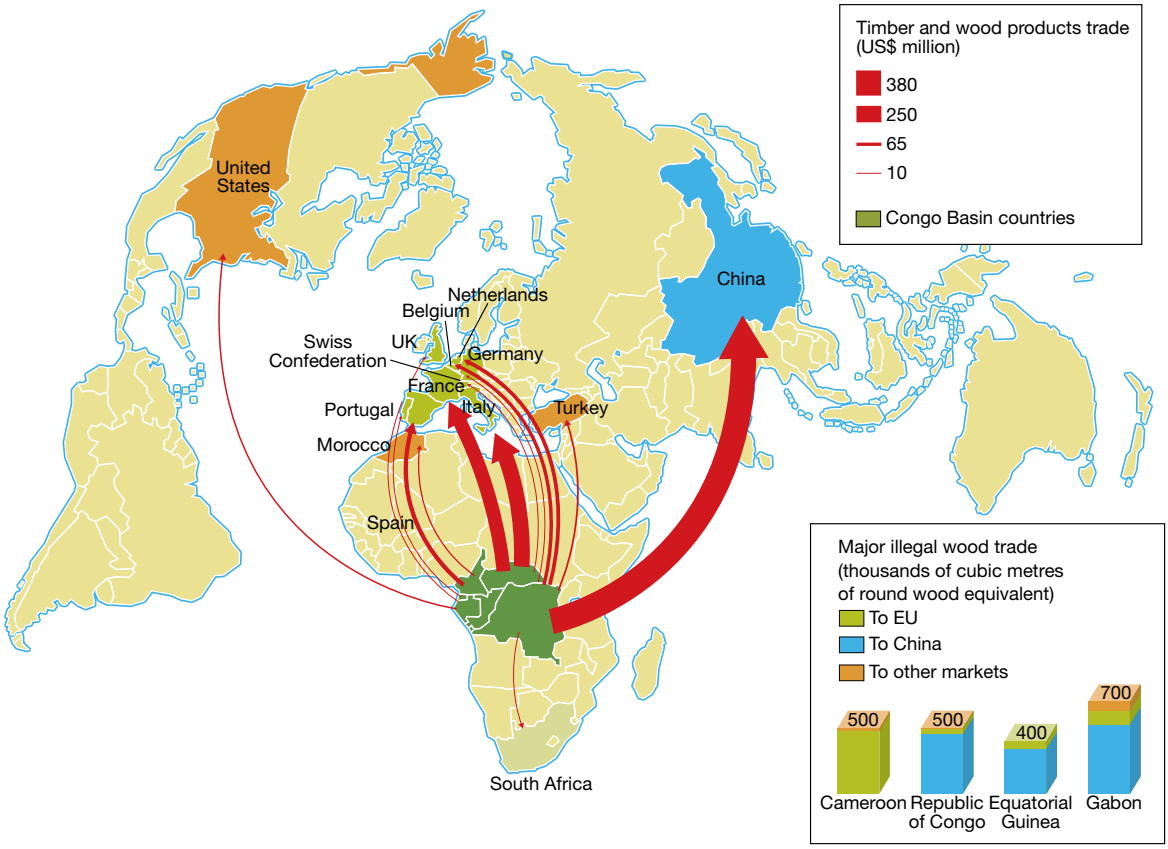
Trade imbalances

Most developing countries are still net importers of manufactured goods, which means that they import more than they produce. Manufactured goods that are imported are generally more expensive than the raw material exports that most developing countries are able to sell. As a result, many poor countries are dependent on the industrialised, wealthy countries for numerous high-cost imported goods. Meanwhile, these poor countries rely heavily on the exploitation of their natural resources (see Figure 8.4.3) and the production of agricultural products for their export earnings.

8.4.1 'The White Man's Burden (Apologies to Kipling)', *Judge Magazine*, 1899. 'The White Man's Burden' was originally a poem by Rudyard Kipling. The cartoon shows John Bull (the UK) and Uncle Sam (USA) carrying peoples from Africa and Asia in baskets. The people are drawn with racist stereotypes, and show a nineteenth century belief that without the aid of European and Western imperialism, peoples of Africa and Asia would not achieve civilisation.



8.4.2 This map shows the countries where land is being bought (in black) and the countries that are acquiring (buying) land (in red). The size of the dot relates to how much land is being purchased. Africa is one of the main targets for large-scale land acquisitions by foreign-owned corporations.



8.4.3 Illegal wood exports from the Congo Basin

8.4.4 Child workers on a cocoa farm, Sinikosson, Côte D'Ivoire

Developing countries have increased their share of global output, but they are usually at a disadvantage in world trade: the amount they pay for imports is often higher than the income earned from their exports. As a result, they are likely to be in debt rather than earn surplus income through trade.

In many poor countries, people have been encouraged to convert farmland from **subsistence production** to production of cash crops (such as tea, coffee and flowers), in order to earn export income. This can have devastating effects on poor local farmers, who stop more dependable subsistence farming systems so they can start cash cropping. Since they cannot feed themselves from their own farming, they become dependent on export income to buy food, which in turn, increases the demand for cash crops. One other effect of this change in production is that their country also becomes highly dependent on unreliable sources of export earnings.

Transnational corporations

Transnational corporations (TNCs) are large organisations that have operations in several countries. The parent company is usually based in a developed country. TNCs frequently operate subsidiary companies (owned by the

parent company) in developing countries. Developing countries are attractive to TNCs because of their abundant supply of cheap labour, often accompanied by less strict industrial relations laws regarding wages, hours of employment and working conditions. They also appeal because of the lower cost of inputs (such as land and services) and the availability of cheap raw materials.

Figure 8.4.4 shows child workers on a cocoa farm. There have been widespread reports of child slavery in the least developed countries that rely on exports.

The goods manufactured cheaply in poor countries are sold to consumers in wealthy countries (or the rich elite in poor countries). The people who manufacture these items can rarely afford to buy them.

Dependency on development assistance

Many poor countries are heavily dependent on development assistance (or overseas aid) supplied by wealthy countries.

There are three major types of aid.

- *Bilateral aid*: This is aid from one country to another. Development assistance provided by governments of wealthy countries to governments of developing countries.
- *Multilateral aid*: Multilateral aid is given by international institutions, such as the World Bank, the International Monetary Fund (IMF) and the Asian Development Bank. This aid is frequently provided in the form of loans.
- *Non-governmental aid*: This is distributed by non-governmental, non-profit organisations (NGOs), which receive most of their income from donations by the general public.

There is considerable debate about how aid should be distributed. Some donors are concerned about corruption. Others fear that aid money is being spent on projects that do little, if anything, to enhance human wellbeing. There is, however, a shift towards poverty-focused projects that directly involve poor people in the design of projects intended to assist them to improve their own lives.

Internal factors

Population growth

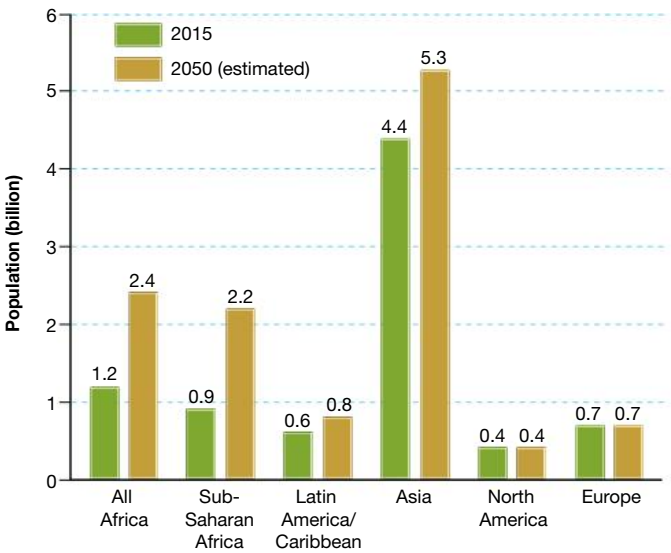
A country's ability to provide for the needs of its people is affected by the growth rate of its population. If the rate of population growth is higher than the rate of economic growth, there are more people sharing in the country's wealth, so each person has a smaller share of available resources. Similarly, a country's ability to provide medical and educational facilities, infrastructure and adequate food supplies is immediately affected by any rise in **fertility rates** because there are more people needing these resources and services.

Predicting population growth

With a projected growth of 1.3 billion between now and 2050, Africa will add more population than any world region. Virtually all of that growth will be in the fifty-one countries of Sub-Saharan Africa, the region's poorest countries. Even this projection assumes that birth rates will decline steadily in all countries of Sub-Saharan Africa because of an increased understanding of family planning. If birth rates do not decline steadily, future projections of population growth will have to be increased.

The world's population is projected to reach 9.6 billion by 2050. Most of this growth will take place in countries that are the least able to cope. While the total population of the developed world will remain at about 1.3 billion, the population of the world's least developed forty-nine countries is projected to double from about 950 million in 2015 to 1.8 billion by 2050, as is shown in Figure 8.4.5.

Much of this population growth will occur in Africa, which is expected to be home to 2.5 billion people—a quarter of the total world population—by 2050, up from its current population of about 1.1 billion. This growth is a consequence of the high fertility rate in Africa, which, at 4.8 children per woman now, is almost twice the global average of 2.5 children per woman. Nigeria, the most populous nation in Africa, is expected to have a population of 444 million by 2050.



8.4.5 Population growth by region, 2015 and 2050

Resource base

The differing levels of wellbeing that people experience is partly due to the natural resources available to communities or countries. Some countries have been able to generate considerable wealth from the exploitation of natural resources. The United Arab Emirates, for example, has been able to generate vast wealth by exploiting oil reserves. Other countries, however, have only limited opportunities to generate income from the exploitation of natural resources.

When a country's biophysical environment (that is, its climate, soils and landforms) is capable of supporting a range of agricultural activities, the country has the potential to become self-sufficient in food production. Surpluses can be traded internationally to generate capital for investment in other areas. If the environment is incapable of supporting large-scale food production, a country may be forced to rely on costly imports to meet the needs of its people.

A lack of natural resources need not be an obstacle to human wellbeing. Japan, for example, has few natural resources but has been able to achieve a high level of wellbeing by importing raw materials and exporting manufactured goods.

Political instability

Attempts to reduce poverty and improve human wellbeing can be obstructed by political instability, which can cause war and civil unrest, weak political institutions and corruption. Instead of funds being devoted to development-related activities and projects, or **social infrastructure**, which may improve levels of human wellbeing, they are often used to finance the activities of the military and police forces. Conflict can lead to damaged infrastructure, destruction of crops, displacement of people and disruption of the economy.

Many African nations suffer from severe political instability. Some of the political instability is due to internal conflicts. However, the origins of some conflicts can be found in the effects of European colonization. European colonial powers established artificial national boundaries and divided Africa into colonies without taking local interests into consideration. These decisions have left a legacy of conflict in Africa.

Debt burdens

Many developing countries accumulated debt in the early post-colonial era. As a result, they tried to increase export earnings by allowing the exploitation of natural resources such as native forests and mineral deposits. For the same reason, they encouraged the production of cash crops for sale to the consumers in developed countries. Many poor countries struggle to cope with the burden of debt repayments.

The debt burden of developed countries has been at the centre of a campaign by a range of NGOs. The global Make Poverty History campaign, for example, has campaigned for global debt relief.

Militarisation

Once colonies achieved independence from colonial powers, they were faced with concerns about their security. These concerns were reinforced by ruling elites (small groups of people who have a high level of wealth and political power). These elites developed strong military organisations to protect their position of privilege. Expenditure on weaponry and armaments added to the newly independent country's debt burden. Military spending diverted resources away from expenditure that would meet the basic needs of its people.

Environmental degradation

Environmental degradation in developing countries is both a symptom of poverty and a contributor to ongoing disadvantage. At the local level, people are often engaged in practices that can cause environmental degradation. This is frequently the result of the struggle for survival. Population growth and increased use of land for commercial agriculture can force people to move to new areas for subsistence agricultural activities. This results in more land being cleared for agricultural purposes or to access timber for fuel wood. Furthermore, the overuse of the land results in the loss of soil fertility. At the national level, the need to repay foreign debt means that governments have encouraged the extension of cash cropping, mining and forestry, frequently at the expense of the environment.

In some areas, such as the Sahel region of Africa, overuse of land and destruction of ground cover have led to rapid desertification. Because the boundaries of the desert are gradually being extended, arable (fertile) land is subject to increasing pressure through overuse. Subsistence farmers simply do not have the resources to reverse these processes or to be able to reduce their use of the land. Thus, the land is further degraded and becomes less fertile, and the poor become still poorer. Today there is growing concern about the impacts of climate change on the world's most vulnerable people.

Compounding issues

There are a number of issues that compound the difficulties faced by developing countries by making them even worse.

- Low levels of human wellbeing prevent development. It can be argued, for example, that poor health can reduce the productivity of people. Similarly, low levels of national income mean that some governments do not have the capacity to invest in healthcare services and education facilities.

- The priorities of governments may affect human wellbeing within countries. For example, one government may choose to spend the limited available capital on meeting the basic needs of the poor majority. Another government may direct it towards priorities such as the protection of the interests of wealthy elites or military expenditure.
- Rigid social systems and some cultural traditions can hinder improvements in wellbeing for some social groups or communities. For example, in some cultures attitudes towards the role of women reduces the opportunities for females. Educational opportunities and work outside the home is restricted for women, which impacts on the wellbeing of women.

Activities

Remembering and understanding

1. Describe the nature of the relationship between the colonial power and the colony prior to independence.
2. Outline how developing countries are often disadvantaged through their engagement in world trade. What impacts can the imbalance in trade have on developing countries?
3. Explain why developing countries offer an attractive base for TNC activities.
4. Outline the effects of the burden of debt on developing countries.
5. Distinguish between bilateral, multilateral and nongovernmental aid.
6. Explain the relationship between population growth rates and the prospects for increasing levels of human wellbeing.
7. Explain the link between a country's resource base and levels of human wellbeing. Are there any exceptions?
8. State how political instability affects efforts to enhance human wellbeing.
9. Explain how environmental degradation is both a symptom of poverty and a contributor to ongoing disadvantage.

Applying and analysing

10. Construct a mind map to illustrate the external and internal factors that have an impact on human wellbeing in a developing country.
11. Study Figure 8.4.1 and do the following tasks.
    a. Identify the goal being pursued and name the barriers encountered (words written on the stones).
    b. Identify the perspective from which the cartoon is drawn.
    c. The cartoon suggests the aim of colonialism was not economic. Do you agree with this suggestion? Why/why not?
    d. Would it be appropriate to draw such a cartoon today? Explain?
12. Study Figure 8.4.2 and do the following tasks.
    a. Identify the five largest investor countries.
    b. Identify the regions of the world targeted by those seeking to acquire land.
    c. Describe the overall pattern that emerges.
13. Study Figure 8.4.3. Identify the main markets for timber and wood products harvested from the tropical forests of the Congo Basin. Why has this fragile and ecologically significant natural resource been exploited?
14. Study Figure 8.4.5 and do the following tasks.
    a. Calculate the percentage increase in the projected population of Africa, Sub-Saharan Africa and Asia. Which region will show the greatest rate of increase?
    b. Compare the rate of increase in Sub-Saharan Africa with 'All Africa'.
    c. Which regions will have no net increase in population between 2015 and 2050?

Evaluating and creating

15. Investigate the use of fuel wood in developing countries. Include in your report the following information:
    a. what the fuel is used for
    b. how collection results in land degradation
    c. alternatives to fuel wood.

LS 8C

8.5 Human wellbeing: The issues

Barriers to improving human wellbeing

Poverty

Extreme poverty is most common in areas where poor health and lack of education deprive people of productive employment; where environmental resources have been depleted or spoiled; and where corruption, conflict and poor governance result in the waste of public resources.

The World Bank measures the number of world's poor by poverty lines. The International Poverty Line (IPL)is the level of income required by a person in a particular country to meet their daily needs. The World Bank has now introduced three levels of poverty lines to measure world poverty:

- Low income IPL: US$1.90 per day
- Lower middle-income IPL: US$3.20 per day
- Upper middle-income IPL: US$5.50 per day

In 2015, according to the World Bank, 700 million people lived below the Low income IPL. Data shows the number of people living in extreme poverty has decreased. In 1990, it was 1.95 billion people and in 1981, it was 1.99 billion people.

The reduction in the number of people living on US$3.20 per day has been slower. However, far too many people are still living in poverty. Sub-Saharan Africa and southern Asia account for about 40 per cent of the world's population living in extreme poverty.

Low per capita income

In general, developing countries tend to have low levels of per capita income compared to wealthier countries. By the end of the first decade of the twenty-first century, the richest 20 per cent of the population had three-quarters of the world's income, while the poorest 40 per cent had only 5 per cent of the world's income. The very poorest 20 per cent of the global population had only 1.5 per cent of the world's income.

Lack of adequate shelter

Approximately 33 per cent of the urban population in the developing world, or about 880 million people, lived in slums in 2015. The proportion of the urban population living in slums was highest in Sub-Saharan Africa (61.7 per cent) followed by South Asia (35 per cent). While these percentages are declining, absolute numbers are not, due to the fast pace of urbanisation, when more people move from rural areas to cities in search of work.

Lack of access to clean water and sanitation

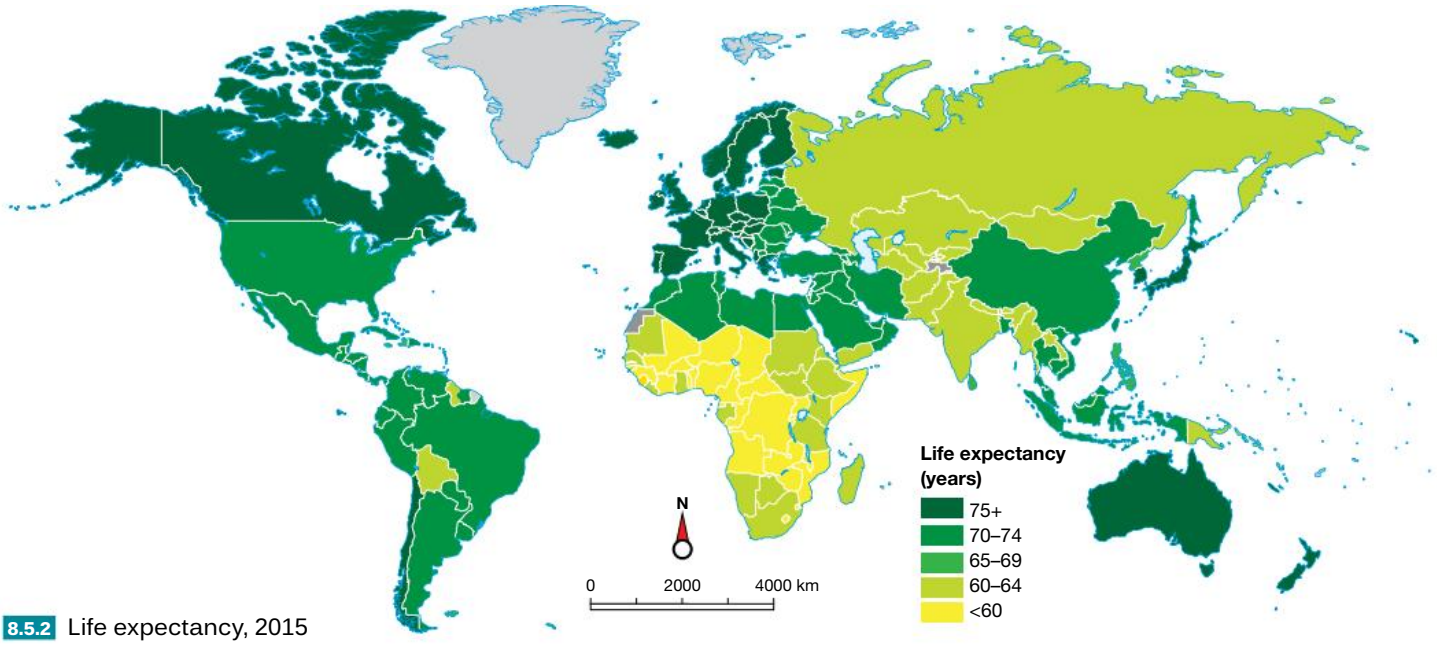
Globally, 663 million people still rely on water from unsafe sources. Eighty-three per cent of these people live in rural areas. Of those who have access to a source of safe drinking water, 38 per cent do not enjoy the convenience and health and economic benefits of piped drinking water at home. Instead, they spend considerable time and energy queuing up at public water points and carrying heavy loads of water.

The United Nations estimates that 2.4 billion people do not use an improved sanitation facility. In Sub-Saharan Africa, 44 per cent of the population uses either shared or unimproved facilities, while in southern Asia, the proportion of the population using shared or unimproved facilities has declined to 18 per cent, but open defecation remains the highest of any region (39 per cent). Between 1990 and 2015, 2.1 billion people gained access to a flush toilet or other improved sanitation facility.

8.5.1 Pneumonia, diarrhoea, malaria, measles, HIV/AIDS and malnutrition are the primary killers of children in developing countries. Many of these diseases are preventable through inoculations.

High rates of population growth

Worldwide, annual population growth is 2.5 per cent; in developed countries it is 1.5 per cent, in developing countries it is 2.6 per cent, and in the least developed countries it is 4.4 per cent. Growing populations in the world's poorer countries place added strain on already limited national resources. This creates additional demand for employment, schooling, infrastructure, health and other services.



8.5.2 Life expectancy, 2015

Low life expectancy

Diseases originating from contaminated water supplies, inadequate sanitation, poor nutrition, inadequate or inappropriate health care and poor hygiene affect the poor more than they affect the rich.

Many diseases in poor countries are preventable and treatable. Poverty often prevents people from accessing these treatments and medications. Gastroenteritis, which can readily be treated, results in about 1.8 million child deaths annually. A greater proportion of women and infants in less developed countries are likely to become very ill or die as a result of lack of medical care at childbirth.

The average life expectancy in the least developed countries was only 62 years in 2015, compared with 79 years in the more developed countries. Figure 8.5.2 illustrates the differences in life expectancy for people in wealthy and poor countries.

Relatively high levels of illiteracy

The adult literacy rate is generally 99 per cent in developed countries, compared with 76 per cent in developing countries. In the least developed countries, the adult literacy rate is just 54 per cent. Worldwide, 57 million children were not attending school in 2013. Thirty million of these were in Sub-Saharan Africa. While progress has been made in the number of children receiving a primary education, the rate of improvement is slowing.

Dietary deficiencies

Dietary deficiencies result from inadequate nutrition intake. The amount of food available may be inadequate or it may be of poor quality. In 2015, 25 per cent of the world's population (795 million) was classified as undernourished. Most undernourished people lived in developing countries. Women and children are the most vulnerable. India alone has 65 million undernourished children. Worldwide, 495 million women and children under 5 years of age are undernourished—150 million, or one in four, in Africa; 315 million, or one in seven, in Asia; and 30 million, or one in eleven, in Latin America and the Caribbean.

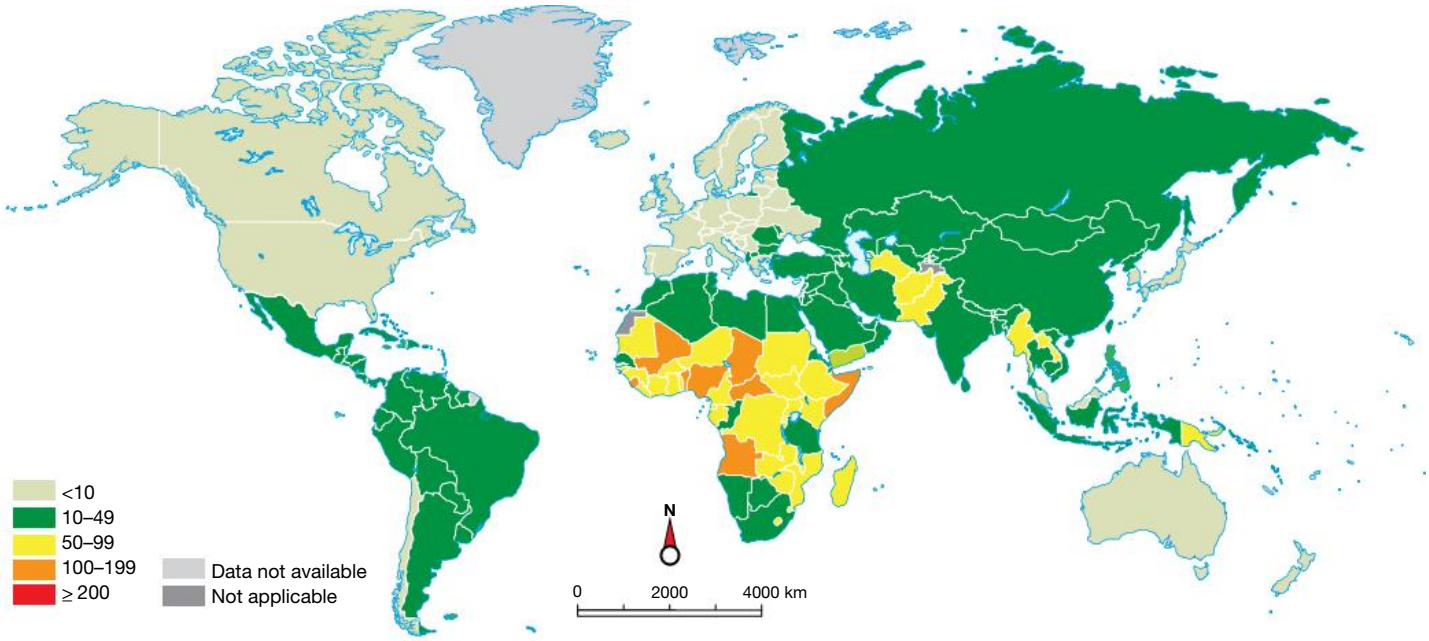
Low access to health services

The availability of health services is generally low in developing countries. In Africa, countries such as Niger, Malawi and Tanzania have just two physicians per 100 000 people, while Uganda and Angola have eight. In Australia, there are 374 physicians for every 100 000 people, while the equivalent measure in Belgium is 449 for every 100 000 people.

High maternal mortality rates

Maternal mortality is defined as the death of a woman while pregnant or in the days after giving birth or having a pregnancy terminated. High rates of maternal mortality occur in the same countries that have high rates of infant mortality. This reflects a lack of access to skilled medical care during childbirth and poor nutrition. Over 90 per cent of maternal deaths occur in developing countries.

Significantly, however, the global maternal mortality ratio has declined by 47 per cent over the last two decades, from 400 maternal deaths per 100 000 live births to 210 between 1990 and 2010. All regions have made progress, with the highest reductions in eastern Asia (69 per cent), northern Africa (66 per cent) and southern Asia (64 per cent).



8.5.3 Under-5 mortality rates (probability of dying by age 5 per 1000 live births), 2015

High infant mortality rates

In the less developed countries, infant mortality rates (deaths of babies) were 44 per 1000 live births in 2015, and 62 per 1000 in the least developed countries. This compares with just five deaths per 1000 in the more developed countries. The mortality rate of children under 5 years of age is particularly high in some of the poorest countries—more than 120 out of 1000 children under 5 in some countries. In Afghanistan, the rate was 129 per 1000 children under 5. Australia's rate was just 3.9 per 1000 children under 5. Globally, 6 million children under the age of 5 died in 2015. Figure 8.5.3 shows the distribution of these deaths.

Between 2000 and 2011, the number of children not attending school declined by almost half, from 102 million to 57 million, but between 2008 and 2011, the number of children of primary school age not attending school fell by only 3 million.

Children and adolescents from the poorest households are at least three times more likely to be not attending school than those from the richest households. Girls are more likely to be not attending school than boys in both primary and lower secondary age groups—even girls living in the richest households.

Child exploitation

Hundreds of millions of children are exploited world wide. Much of this occurs in developing countries. The worst types of exploitation are child labour and trafficking, child marriage and sexual exploitation.

Debt

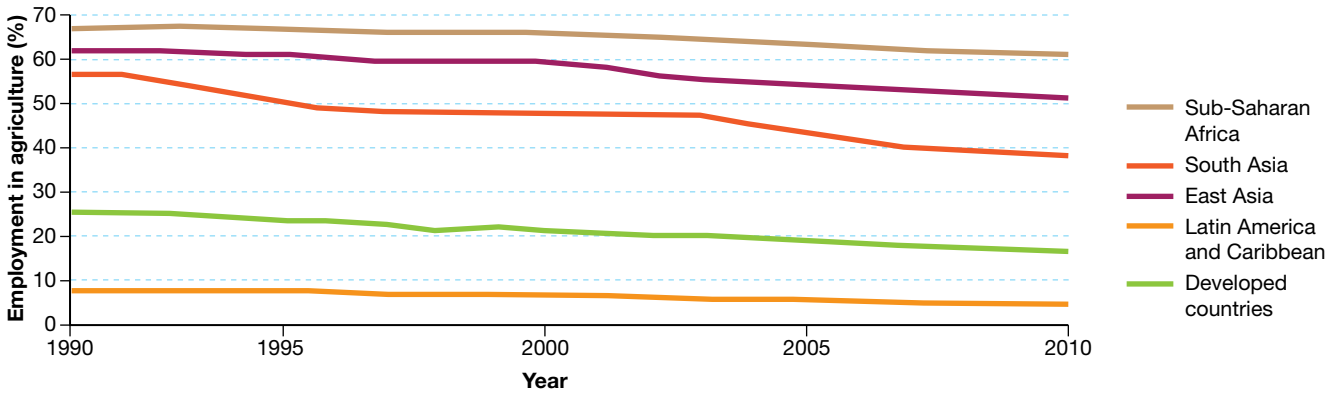
Developing countries tend to be heavily in debt to richer countries. On average, the total debt burden of developing countries represents 13 per cent of total exports of goods and services. The external debt of many developing countries drains public budgets, using the resources needed to support essential service provision and improve levels of human wellbeing. Since the 1990s, there have been initiatives to 'forgive' debt, which means to cancel the debt. This has reduced the debt burden of many countries. For debt reduction initiatives to be effective, the money saved needs to be used to boost social programs and reduce poverty.

Emphasis on primary production

Worldwide, one-third of the global workforce is engaged in agriculture, often subsistence production. Although the process of urbanisation has been accelerating in developing countries, the greater percentage of the labour force is still engaged in agricultural activities, as is outlined in Figure 8.5.4. Worldwide, about 60 per cent of all child labourers—129 million girls and boys—work in agriculture. More than two-thirds of them are unpaid family members. In contrast, the percentage of the population engaged in agriculture in the United States of America was less than 2 per cent in 2010.

Rural–urban inequality

There continues to be a significant gap between the wellbeing of those living in rural areas and people living in urban centres living in developing countries. In 2011, only 53 per cent of births in rural areas were attended by skilled health personnel compared with 84 per cent in urban areas. Eighty-three per cent of people without access to a source of improved drinking water live in villages.



8.5.4 Employment in agriculture is falling worldwide, but the sector still accounts for more than half of total employment in Sub-Saharan Africa and South Asia.

Low levels of technology

In developing countries there are comparatively low levels of technology and science-based applications in agriculture and industry. Labour-intensive methods of production still dominate in both agriculture and industry in the world's poorest countries, making agriculture and industry less productive and efficient.

Low levels of energy consumption

Low national incomes are often reflected in low levels of public infrastructure. In 2015, 1.2 billion of the world's people were living without electricity. Most of these people (493 million) lived in South Asia, followed by Africa (587 million) and East Asia (182 million).

In Afghanistan, for example, only 30 per cent of the population has access to electricity. Worldwide, 80.5 per cent of people have access to electricity. In developing countries, the figure is 74.7 per cent. Developed countries also use more electricity than people in developing countries. For example, in the United States of America, consumption of electricity was 87 217 kilowatt-hours of electricity per person in 2012, compared with India's 6280 kilowatt-hours. The worldwide average was 21 283 kilowatt-hours of electricity per person.

Lack of commitment to environmental sustainability

Developing countries are less likely to be committed to environmental sustainability because they have so many other problems. In the long term, this can prevent their country from improving the wellbeing and health of its people and ecosystems. The growth in global carbon dioxide emissions is accelerating; emissions are now more than 46 per cent higher than they were in 1990. Forests continue to be lost at an alarming rate. Overexploitation of marine fish stocks is resulting in diminished yields. Birds, mammals and other species are heading for extinction at an ever faster rate, with declines in both populations and distribution.

Activities

Remembering and understanding

1. Outline the extent of extreme poverty in the world.
2. State the extent to which lack of access to water and sanitation impacts negatively on human wellbeing.
3. How many people are estimated to be involved in primary production around the world?

Applying and analysing

4. Outline the extent to which hunger and diet deficiencies exist in the world today. What are the consequences of poor nutrition?
5. Outline the relationship between the provision of electricity infrastructure and electricity consumption per capita. What other factors may influence energy consumption?
6. Construct an annotated mind map to illustrate the characteristics of developing countries.
7. Draw up a list of improvements that have taken place in human wellbeing since 1990.
8. Study Figures 8.5.2 and 8.5.3, and look at the distribution of:
   - the lowest and highest life expectancy rates
   - the lowest and highest under-5 mortality rates.

   Is there a link between the two maps? Explain.
9. Study Figure 8.5.4. Using data from the graph, describe the trends in agricultural employment.

8.6 Access to water

Millennium Development Goals

The Millennium Development Goals were a list of international targets set by the United Nations in 2000. One of the targets of the Millennium Development Goals was to halve the number of people without access to safe drinking water and basic sanitation by 2015. Although this target was met in 2010, nearly 800 million people still rely on unimproved water sources (surface water from lakes, rivers, dams, or unprotected dug wells or springs) for their drinking, cooking and personal hygiene.

Sustainable Development Goals

The UN established Sustainable Development Goals in 2015. Goal 6 of the Sustainable Development Goals is 'Clean water and sanitation'. Along with the ongoing aim of supporting and strengthening the participation of local communities in improving water and sanitation management, the targets of this goal are as follows.

By 2020:

- protect and restore water-related ecosystems (mountains, forests, wetlands, rivers, aquifers and lakes).

By 2030:

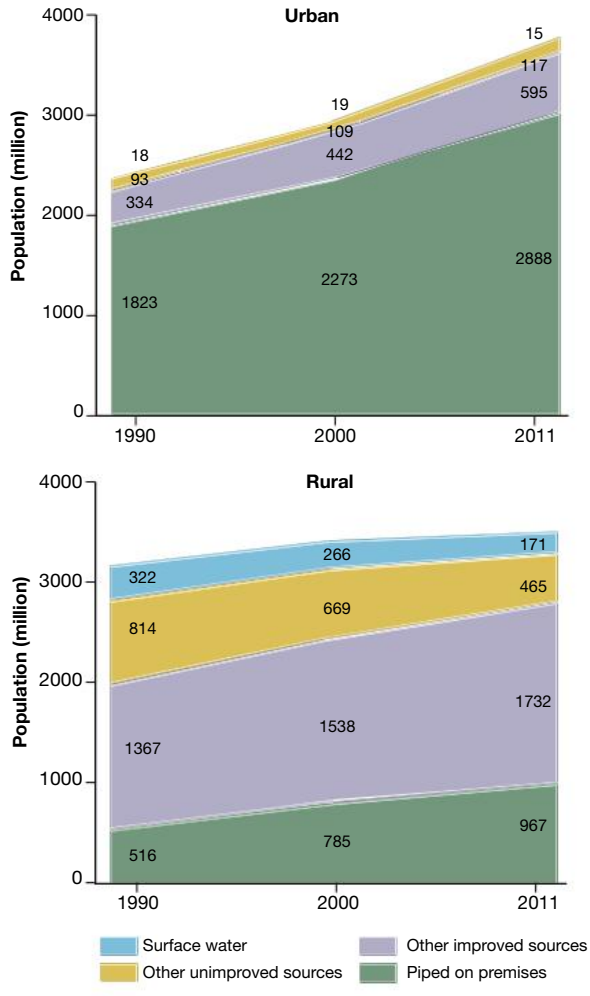
- achieve universal and equitable access to safe and affordable drinking water
- achieve access to adequate and equitable sanitation and hygiene; end the practice of defecating outside in the open; and pay special attention to the needs of women and girls and those in vulnerable situations
- improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe re-use globally
- substantially increase water-use efficiency across all sectors; ensure sustainable withdrawals and supply of freshwater; and substantially reduce the number of people suffering from water scarcity
- implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs.

Improved sources of water

Access to an 'improved water source' refers to the availability of a clean, safe and reliable source of drinking water. Improved sources include piped water on premises (a piped household water connection located inside the user's dwelling, plot or yard) and other improved sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs and rainwater collection).

Access

The proportion of the world's population with access to improved drinking water sources increased from 76 per cent to 91 per cent globally between 1990 and 2015. While the proportion of the population with access to water is above 90 per cent in Latin America and the Caribbean, northern Africa and large parts of Asia, it is only 63 per cent in Sub-Saharan Africa. There are also big gaps between urban and rural water access. While an estimated 96 per cent of the world's urban population had access to an improved water supply source, only 81 per cent of rural dwellers did (see Figure 8.6.1).



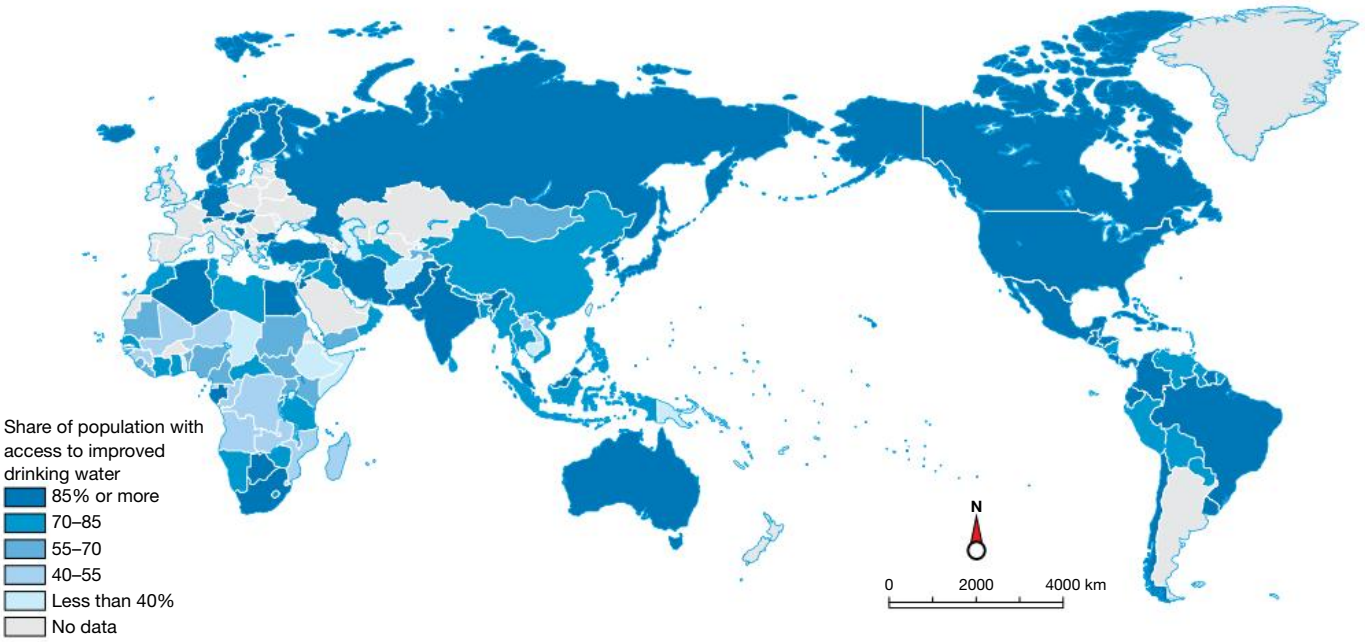
8.6.1 Population with access to drinking water, urban and rural areas, 1990, 2000 and 2011 (million)

Skills builder

Choropleth maps

Choropleth maps are a special type of thematic map. Areas on the map are shaded in proportion to the measurement of the data being displayed. A system of colour progression is used to depict the data. This typically takes the form of different shades of the one colour, with the darkest shade showing the distribution of the highest data category.

Figure 8.6.2 is an example of a choropleth map. The areas coloured the deepest shade of blue are those with the highest percentage of the population who have access to an improved water source.



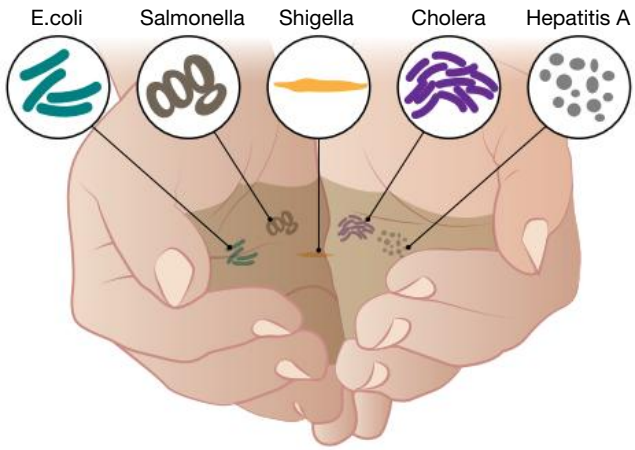
8.6.2 Access to an improved water source

Spotlight

Waterborne disease

Waterborne diseases occur when people drink contaminated drinking water. When contaminated water is used in the preparation of food, people can contract a range of food-borne diseases. Examples of diseases transmitted through contaminated water are diarrhoea, cholera, dysentery, typhoid and hepatitis A.

Diarrhoea is responsible for the deaths of 1.8 million people every year, most of whom are children living in developing countries. The main source of this disease is water contaminated by untreated human waste. Lack of proper sanitation is a serious health risk. It affects billions of people around the world, especially the poor and disadvantaged.



8.6.3 Contaminants found in water that cause waterborne diseases

8.6.4 Indian women living in the state of Telangana, 200 kilometres from Hyderabad, carrying water to their village

Water: A woman's burden

In many countries, women are responsible for fetching the water for their family, as shown in Figures 8.6.4 and 8.6.5. Water is required for drinking, cooking, washing clothes and personal hygiene. Women often walk many kilometres, carry heavy burdens, wait for hours and have to pay exorbitant prices. Often the water is contaminated, even deadly. In these instances, they face a terrible choice—certain death without water or possible death from waterborne disease. It has been estimated that women in developing countries spend a combined 200 million hours a day collecting water.

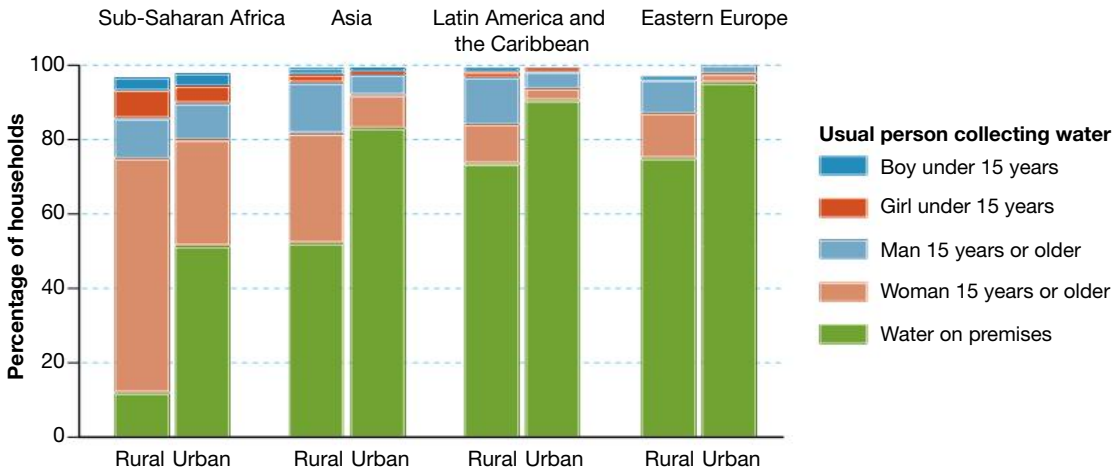
Once they are old enough, young girls join the effort. They too spend countless hours fetching this basic necessity of life. The work they do is often dangerous. The sides of a well can collapse, burying the women and girls. There is also the physical burden of the loads carried. Water-filled containers are often carried on the head. This creates physical demands on the body, especially the spine and neck.

The impacts, however, go beyond physical injury. The dual aspects of the water crisis—lack of water and of sanitation—lock women in a cycle of poverty. They cannot attend school; they cannot earn an income.

Many NGOs focus their efforts on providing a convenient, safe source of water for communities throughout the developing world. The benefits of installing a simple pump are many, but include:

- increased school attendance, level of education and literacy rates, as girls no longer need to miss school to secure water for their families
- improved health for women and girls
- reduced child and maternal mortality as a result of access to safe water and improved hygiene during childbirth
- reduced physical injury from lifting and carrying heavy loads of water
- reduced risk of rape and sexual assault, and increased safety in general, as women and girls do not have to walk long distances to fetch water
- new opportunities for women's employment as well as greater autonomy and independence.

8.6.5 Distribution of households by person responsible for water collection, by region and urban/rural areas



Activities

Remembering and understanding

1. Outline the extent to which access to improved water sources has increased since 1990.
2. Explain what constitutes an 'improved water source'.
3. Explain what a choropleth map is and state the technique that is used to show variations in data categories.
4. Outline the health implications of carrying large amounts of water over long distances.
5. Describe the benefits of providing villages with safe, convenient sources of clean water.

Applying and analysing

6. Study Figure 8.6.1. Using data from the graphs, write a series of paragraphs outlining the variations in access to drinking water experienced by those living in rural and urban areas.
7. Study Figure 8.6.2. With the aid of an atlas, describe the spatial distribution of countries in which less than 40 per cent of the population has access to an improved source of water.

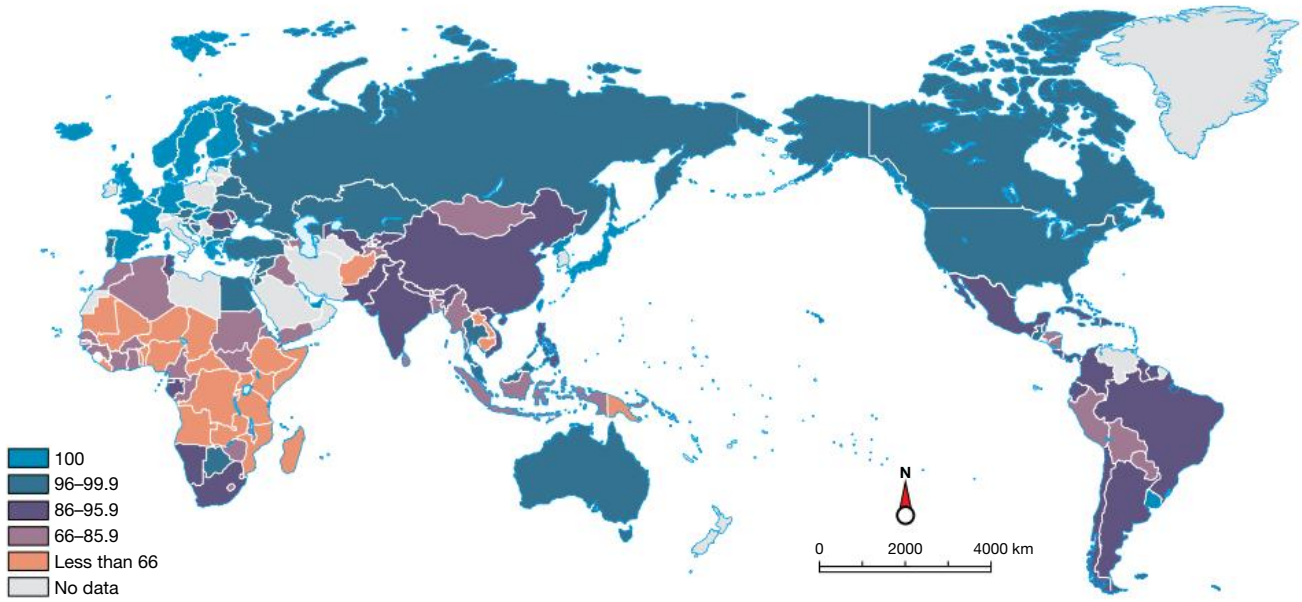
8.7 Access to sanitation

Sanitation

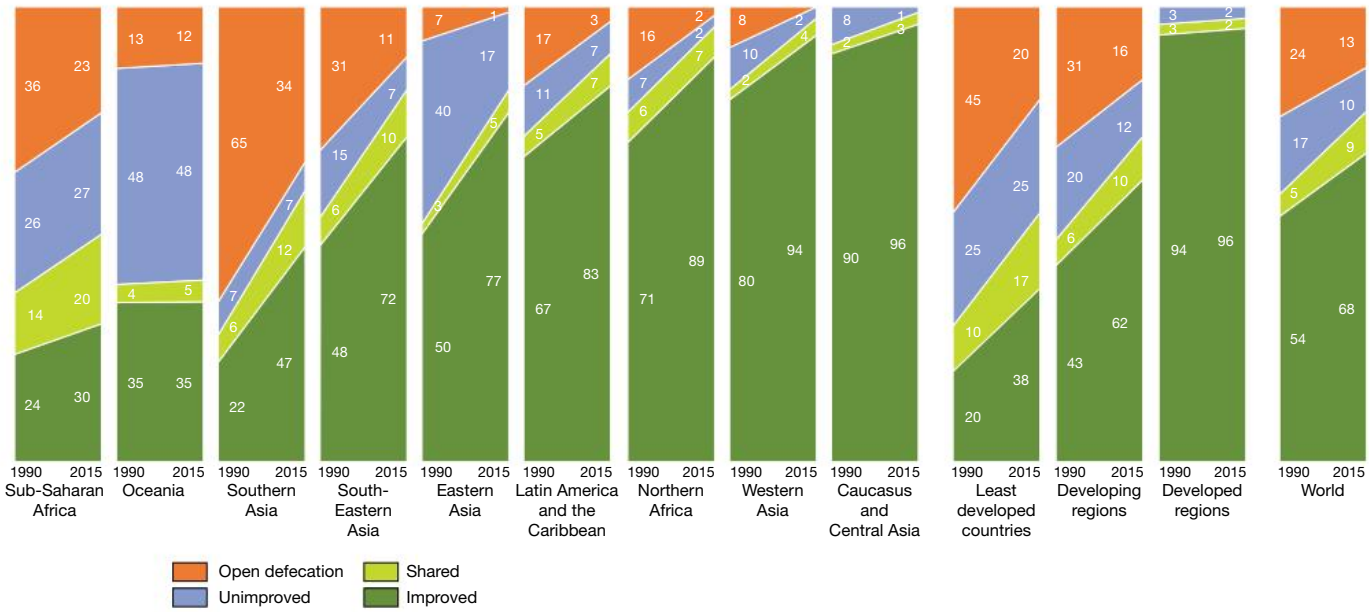
Sanitation is a basic need and provides a way of safeguarding people's physical wellbeing. The provision of adequate sanitation in communities prevents the spread of disease. Currently, around 1 billion of the world's population lack access to adequate sanitation.

Access to improved sanitation

Figure 8.7.1 illustrates worldwide access to adequate sanitation facilities. In 1990, just under half (49 per cent) of the global population had access to improved sanitation. By 2013, this had increased to 64 per cent. The MDG target for 2015 was 75 per cent. This target was not met. In 2015, 68 per cent of people had access to improved sanitation. From 1990 to 2015, 2.1 billion people gained access to a latrine, flush toilet or other improved sanitation facility (see Figure 8.7.2).



8.7.1 Percentage of population with access to adequate sanitation facilities



8.7.2 Proportion of population by sanitation practices, 1990 and 2015 (per cent)

Sanitation infrastructure

Lack of sanitation infrastructure forces people to defecate in the open, in rivers or near areas where children play or food is prepared. This increases the risk of disease transmission. The Ganges River in India has 1.1 million litres of raw sewage dumped into it every minute. This is frightening when you consider that just one gram of faeces in untreated water may contain 10 million viruses, 1 million bacteria, 1000 parasite cysts and 100 worm eggs. Improving sanitation infrastructure can have an immediate impact on public health. It can, for example, reduce diarrhoea death rates by up to a third. In Africa, 115 people die every hour from diseases linked to poor sanitation, poor hygiene and contaminated water.

In addition to improvements to people's health, the provision of sanitation has a number of important social benefits. The provision of sanitation in schools, for instance, encourages children, and girls in particular, to attend school. The livability of neighbourhoods improves as open defecation declines.

Addressing the issue

Open defecation remains a problem, even though the proportion of the global population that resort to open defecation declined from 24 per cent in 1990 to 13 per cent in 2015. In response, authorities now focus on stopping the practice of open defecation through community-level action and influencing social norms so that open defecation is no longer considered acceptable. In almost 100 countries around the world, new approaches to sanitation have taken root and the number of declared 'open-defecation-free villages' is rising.

This is only part of the challenge. Providing the necessary infrastructure (toilets, storage facilities, pumping stations, sewerage and water pipelines and treatment works) is a major undertaking. It is expensive and, with rapid rates of urbanisation, it is often difficult for urban authorities to keep pace with population growth. However, not all solutions need be expensive or high-tech. The construction of communal toilet facilities is a low-cost response to the lack of sewerage infrastructure.

Did you know?

A fatberg is a huge, congealed lump of non-biodegradable material found in sewers. It includes wet wipes, nappies, condoms, tampons and grease or cooking fat. Fatbergs are clogging up sewers around the world and causing sewers to become blocked. In 2017, the London sewer was blocked with a 120-tonne, 250-metre-wide fatberg.

The pour-flush toilet

The pour-flush toilet has a water seal that avoids the problems associated with odour and insects. Excreta deposited in the latrine is flushed by pouring 2–3 litres of water into the pan. The mixture is directed into a pit, where the biodegradation of organic wastes occurs. The water used in the flushing process percolates through the soil surrounding the pit. The potential for groundwater pollution is, therefore, very high. Pour-flush toilets are not a suitable solution to the sanitation needs of the urban poor when the groundwater table is close to the surface.

Sludge has to be regularly emptied from the pit. The use of two adjoining pits alternately enables the sludge in a full pit to undergo further decomposition while the other pit is being used. It also facilitates the manual emptying of sludge after further decomposition.

As with pit latrines and composting toilets, grey water (waste water from the kitchen, laundry and bathroom but not the toilet) has to be treated separately. This is often done by the construction of a seepage pit or trench.

Activities

Remembering and understanding

1. Outline the consequences of people not having access to adequate sanitation facilities.
2. Describe the impacts of untreated sewage on waterways such as the Ganges River.
3. Explain why the provision of sanitation is considered to be so important to people's wellbeing.
4. Outline the strategies being used to meet the sanitation needs of people. What are the benefits of these strategies?

Applying and analysing

5. Study Figure 8.7.1. With the aid of an atlas, identify the regions of the world that experience the lowest levels of access to sanitation.
6. Study Figure 8.7.2. Using data from the graph, write a paragraph outlining the advances made in the provision of sanitation between 1990 and 2015.

8.8 Child exploitation

Child labour

UNICEF estimates that 150 million children aged 5–14 years are engaged in child labour. Many are working in hazardous situations or conditions (see Figure 8.8.1). Some children work deep in underground mines, while others work in factories, handling toxic chemicals and pesticides or using dangerous machinery. They also work as domestic servants and plantation labour. Some are forced into child prostitution.

The problem is worst in Sub-Saharan Africa, where it is estimated that about one in three (or 70 million) children are engaged in child labour. In South Asia, another 44 million children are working. India has the highest number of child workers of any single country—an estimated 29 million children between the ages of 5 and 14.

Those living in the poorest households and in rural areas are most likely to be engaged as child labourers. Those burdened with household chores are overwhelmingly girls. Millions of girls who work as domestic servants are especially vulnerable to exploitation and abuse. Labour often interferes with children's education because children have no time to attend school.

Child trafficking

The trafficking of children involves the recruitment, abduction, transportation or receipt of children for the purpose of exploitation. Exploitation includes forcing children into prostitution, forced labour and begging, and using them for the harvesting of internal organs. It may also include illegal international adoption, trafficking for early marriage and the recruitment of child soldiers. Child trafficking is a crime under international law and under the national legislation of many countries.

Sexual exploitation

Prostitution of children under the age of 18 years, child exploitation material and the sale and trafficking of children are widely seen as crimes of violence against children. They are a form of economic exploitation, just like forced labour or slavery. The children exploited in this way often suffer damage to their physical and mental health. They are especially vulnerable to sexually transmitted diseases, including HIV/AIDS. Under Australian law, any Australian found guilty of involvement in child sex tourism faces up to 17 years in jail.

8.8.1 Children at work in a charcoal factory in the Philippines

8.8.2 A child soldier at the Cambodian refugee camp of Nong Samet on the Thai–Cambodian border

Child soldiers

Thousands of children serve as soldiers in armed conflicts around the world. Boys and girls, some as young as 8 years old, serve in government forces and armed opposition groups. They carry out a variety of roles. They may fight on the front lines, participate in suicide missions, and act as spies, messengers or lookouts. Once recruited, children undergo varying degrees of indoctrination. Often this process is very brutal. Girls may be forced into sexual slavery. Many are abducted or recruited by force, while others join out of desperation, believing that armed groups offer their best chance for survival.

Children are still involved in armed conflict in a number of countries. These include the Central African Republic, the Democratic Republic of the Congo, Mali, Pakistan, Somalia, Sudan, Syria and Yemen, among others.

Child marriage

Despite many countries restricting marriage to those above a minimum age of 16 to 18, traditional (under-age) marriages are still widespread. Poverty, tradition and conflict make child marriage relatively common in Sub-Saharan Africa, South Asia and the Middle East. In many tribal systems, a man must pay the girl's family in order to marry her. In many parts of Africa, this payment, which is made in cash, cattle, or other valuables, is less for older girls. Even before puberty it is common for a married girl to leave her parents to be with her husband.

Many early marriages are linked to poverty, as the girl's parents often need the money raised to feed, clothe, educate and provide shelter for the rest of the family. In parts of Ethiopia and Nigeria, over 50 per cent of girls are married before the age of 15 and some are married as young as the age of 7. In parts of Mali, 39 per cent of girls are married before the age of 15. In Niger, over 70 per cent of girls are married before the age of 18, as shown in Table 8.8.3.

8.8.3 The twenty countries in the world where child (under 18 years) marriage is most prevalent (percentage of all marriages)

Country	Child marriage prevalence %*
Niger	76%
Central African Republic	68%
Chad	67%
Bangladesh	59%
Burkina Faso	52%
Guinea	52%
Mali	52%
South Sudan	52%
Mozambique	48%
India	47%
Somalia	45%
Nigeria	43%
Malawi	42%
Eritrea	41%
Madagascar	41%
Nicaragua	41%
Ethiopia	40%
Uganda	40%
Sierra Leone	39%
Democratic Republic of the Congo	37%

*Child marriage prevalence is the percentage of women 20–24 years old who were first married or in union before they were 18 years old (UNICEF State of the World's Children, 2017).

Spotlight

Ending child marriage

Every year it is estimated that 14 million girls are married before they turn 18. Globally, about 400 million women aged between the ages of 20 and 49 were married before the age of 18.

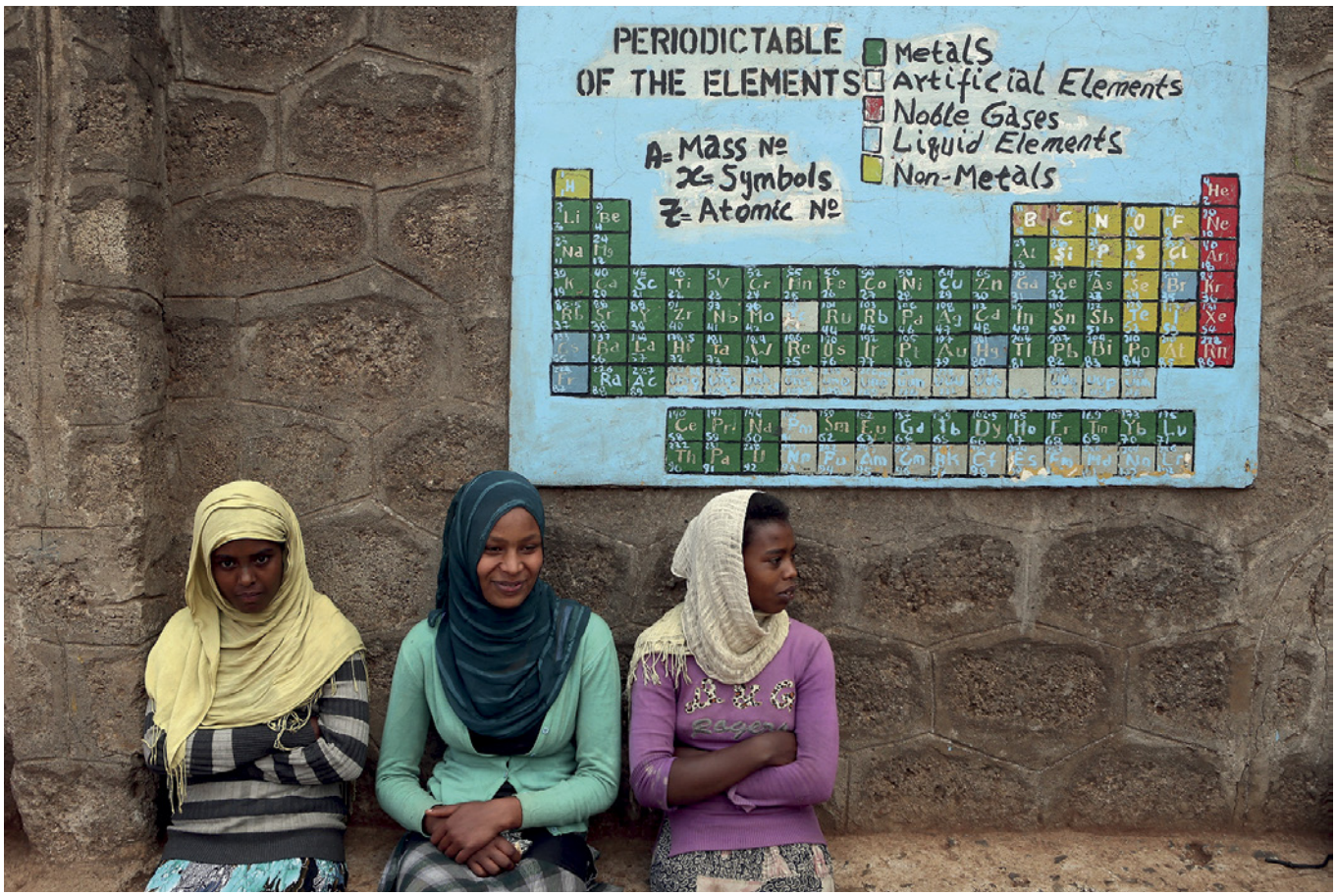
UNICEF and NGOs such as Girls Not Brides are working together to eliminate child marriage by:

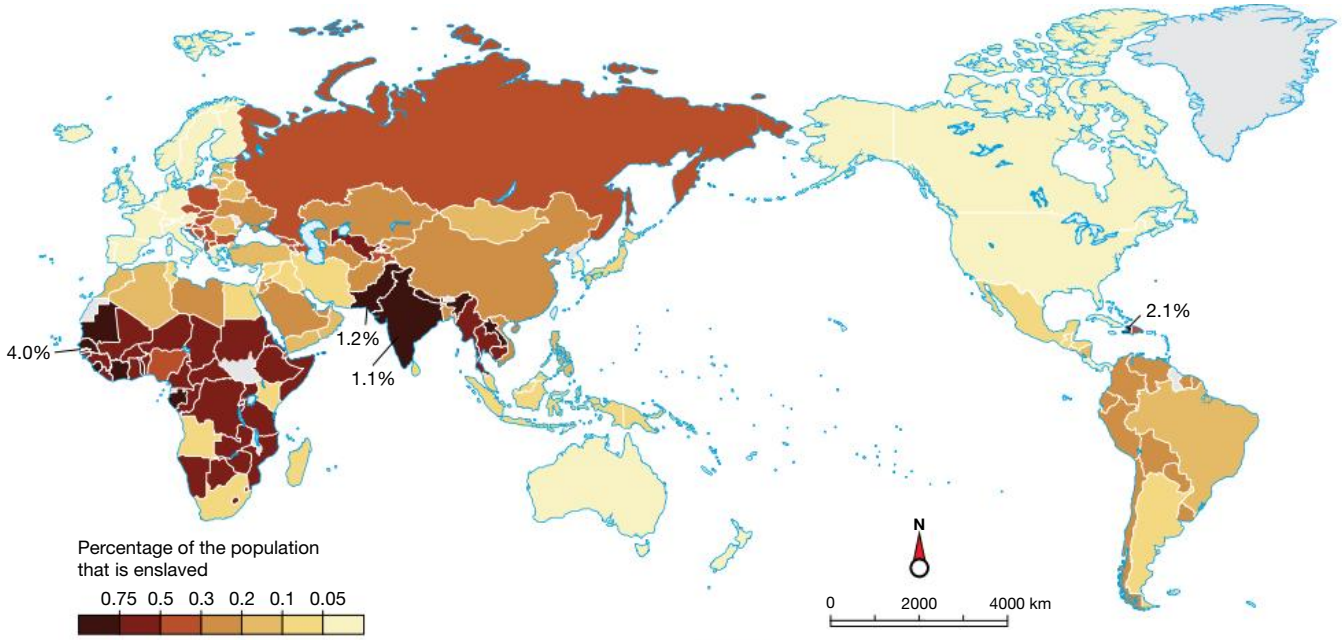
- providing information, skills and support networks for married girls or girls at risk of early marriage
- educating parents, religious and traditional leaders and community members
- improving the accessibility and quality of schooling for girls
- providing economic support and incentives for girls and their families
- fostering and enabling legal and policy frameworks.

Ban Ki-Moon, the former Secretary General of the United Nations, said that 'education for girls is one of the best strategies for protecting girls against child marriage'. Expanding access to primary and secondary education can delay, and even prevent, early marriage. According to a study conducted by the International Center for Research on Women, girls with 0–3 years of education were six times more likely to marry before adulthood than girls who had received a secondary education. Many child brides are forced to leave school early.

In Addis Adaba, Ethiopia, it is estimated that three-quarters of streetwalkers (prostitutes who walk the streets) are escapees from the countryside, fleeing early marriage. One local NGO, Godanaw Rehabilitation Integrated Project, is providing skills training and health care to thousands of female streetwalkers. At AGOHELMA, one of the oldest orphanages in Ethiopia, one of their main aims is to educate women and enhance their economic power.

8.8.4 Female secondary school students sit under a poster showing the periodic table of the elements in a courtyard at an AGO school (founded by Abebech Gobena in 2013) in Addis Ababa, Ethiopia.





8.8.5 Percentage of the world's population that is enslaved

Slavery

Worldwide, nearly 30 million people, many of them children, are enslaved. They are trafficked to work in the sex industry or as forced labour, and they are sometimes victims of **debt bondage** or even born into servitude. There is still evidence of hereditary slavery (when a child born to an enslaved mother inherits her slave status), particularly in parts of West Africa and South Asia. According to the Global Slavery Survey of 2013, slavery still exists in 162 countries and almost 21 million people are victims of forced labour (see Figure 8.8.5).

Slavery is the possession or control of people, to deny them freedom and exploit them for profit or sex, usually through violence, coercion or deception. The definition includes **indentured servitude**, forced marriage and the abduction of children to serve in wars (as child soldiers).

Ten countries account for three-quarters of the world's slaves. In India, where slavery ranges from bonded labour in quarries and kilns to commercial sex exploitation, 13.9 million people are enslaved. After India is China, with 2.9 million, followed by Pakistan (2.1 million), Nigeria (701 000), Ethiopia (651 000), Russia (516 000), Thailand (473 000), Democratic Republic of Congo (462 000), Myanmar (384 000) and Bangladesh (343 000). Often the victims of enforced labour are captured or kidnapped before being sold or kept for exploitation, whether through 'marriage', as unpaid labour on fishing boats, or as domestic workers. Others are tricked and lured into situations from which they cannot escape, with false promises of a good job or an education.

Activities

Remembering and understanding

1 Outline the consequences of child exploitation in developing countries.
2 State how extensive child labour is in developing countries. Where is it most commonly practised?
3 Explain what child trafficking is. List the reasons why children are traded.
4 Explain the link between poverty and child marriage.
5 Define 'slavery'.

Applying and analysing

6 As a class, discuss the issue of child exploitation. Summarise the key points raised in the discussion in the form of a mind map.
7 Debate the following topic. *For many people living in developing countries, putting their children to work is a necessity and should not be viewed as exploitation.*
8 Study Figure 8.8.5. With the aid of an atlas, identify the parts of the world with the highest percentage of the population enslaved.

Evaluating and creating

9 Use the internet to investigate the issue of child labour or child trafficking. Develop a short multimedia presentation to educate the public about the extent of the problem. Give at least one example of child labour and the steps that non-governmental organisations such as UNICEF are taking to address the problem.

8.9 Access to shelter

Shelter

Shelter is one of humanity's most basic needs, but due to poverty many people are forced to live in unacceptable conditions. The problem is worst in the world's developing countries where large cities are growing at a rapid rate, largely as a result of urbanisation.

Urbanisation

For the millions of poor in developing countries, the move to urban areas has long been seen as a means of improving their standard of living; that is, getting better jobs and earning higher incomes. This motivation, when combined with their experience of deteriorating conditions in rural areas, has generated a flow of migrants to cities, particularly in the last three decades.

Did you know?

- In 2018 over 50 per cent of the world's population lived in urban areas.
- By 2050, about 70 per cent of the world's population is expected to live in urban areas.
- Over 60 per cent of the land projected to become urban by 2030 has not yet been built on.
- Cities are growing bigger but still only cover approximately 1 per cent of the Earth's surface.

Big shift

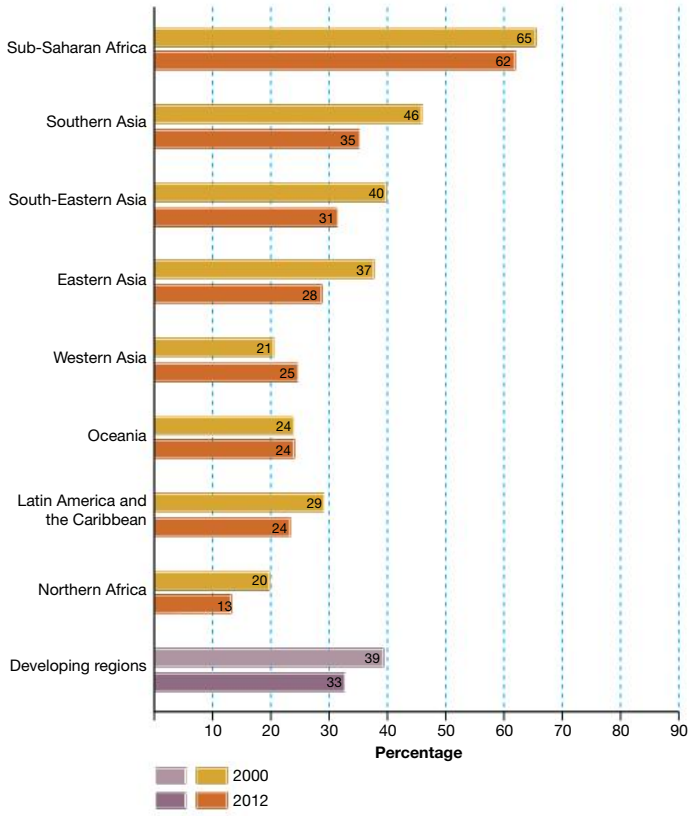
Throughout the developing world, the numbers of people moving from rural areas into large cities have overwhelmed authorities. They have found it impossible to meet the demand for housing and even the most basic urban infrastructure, such as water and power supplies, sanitation and public transport, not to mention medical services and schools. Many people moving to these urban areas are poor and unable to find accommodation. They are forced to find shelter in squatter settlements or slums. Squatter settlements are informal, often illegal, settlements, built by poor people using material scavenged from the streets. A slum is a run-down neighbourhood in which most people live in a state of poverty.

Worldwide, approximately one-third of the developing world's urban population, or about 940 million people, live in squatter settlements and slums. As is shown in Figure 8.9.1, the proportion of the urban population living in slums is greatest in Sub-Saharan Africa. Western Asia is the only region in which the proportion of the population living in slums has increased since 2000.

Squatter settlements

With few resources or skills, many of the new arrivals are unable to find space in the slums of the megacities. Their only option is to build their own simple housing on vacant land, using materials scavenged from the streets. Because of their 'non-legal' status, squatter settlements have few services and little infrastructure.

The plight of these people is often ignored by government agencies, many of which view the 'invasion' of urban areas by 'the masses' and the development of squatter settlements as a social evil to be eliminated. Bulldozing of these settlements is common.



8.9.1 Proportion of urban population living in slums, 2000 and 2012

Slums

Slums are areas of congested, substandard housing characterised by poverty, squalor, and urban and social decay. Typically, slum owners have title to the land on which the slums are located but squatters live on someone else's land.

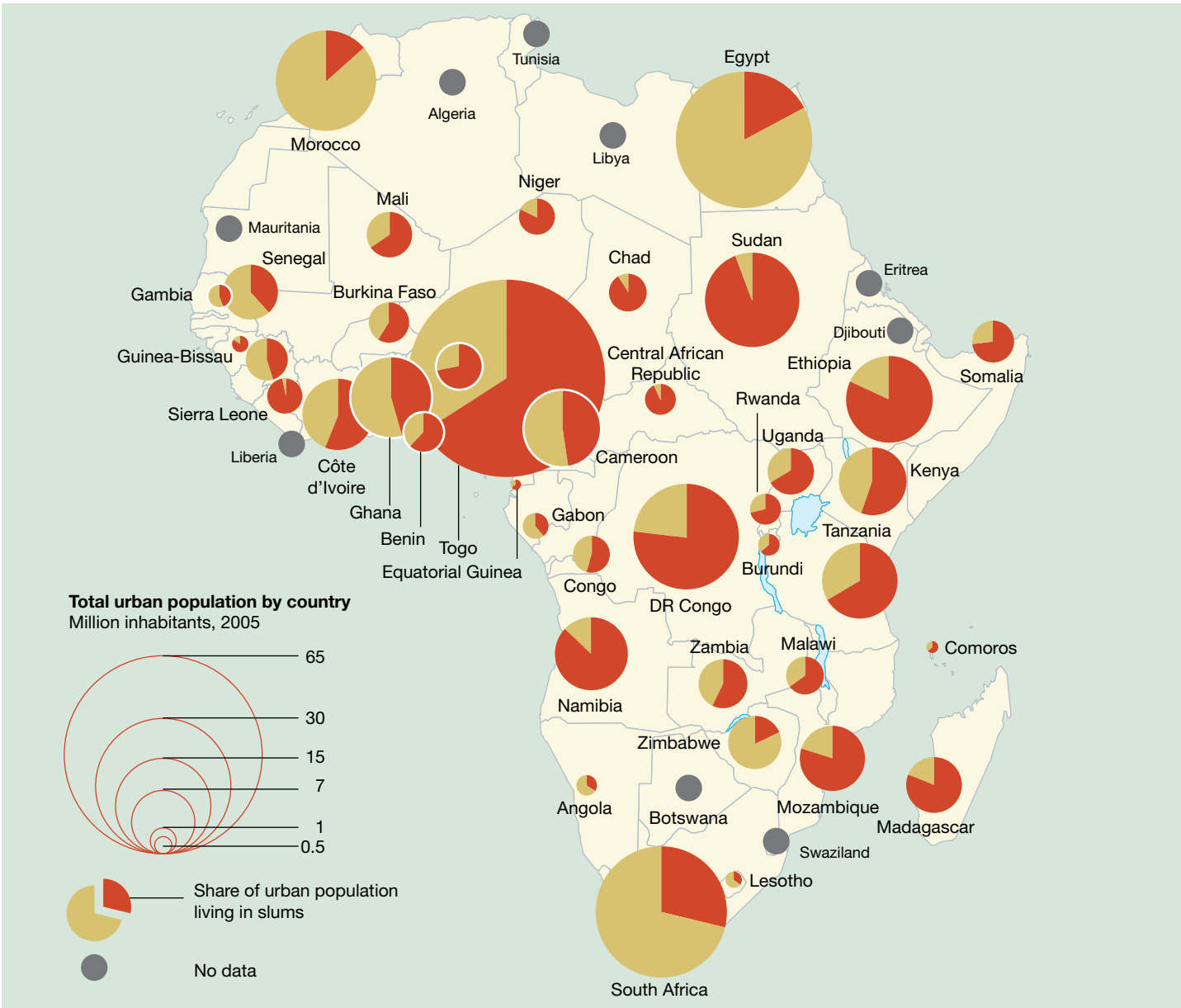
Slums develop for a variety of reasons. These include rapid rural–urban migration, economic stagnation and depression, high unemployment, poverty, poor planning, politics, natural disasters and social conflict. Generally, however, the poor concentrate in those areas of the city where rents are lowest, resulting in spatial concentrations of the poor and marginalised.

Africa's rapidly growing cities

Africa has joined India and China as the third region of the world to reach a population of 1 billion people—a number that is expected to double by 2050. By then, there will be three times as many people living in Africa's cities. The continent that had fewer than 500 000 urban dwellers in 1950 may have 1.3 billion, or 60 per cent of its population, 100 years later.

Lagos is Africa's most populous city, followed by Cairo, Egypt, and Kinshasa, Democratic Republic of the Congo. By 2020 Kinshasa is expected to overtake Cairo to be the continent's second largest city. Many of the new dwellers will crowd into slums. Others will simply build their own rough shelters on any unoccupied land (see Figure 8.9.2).

8.9.2 Africa's slum populations. *Note:* this map does not include separate data for Sudan and South Sudan, as the data was generated before the country was divided.



Spotlight

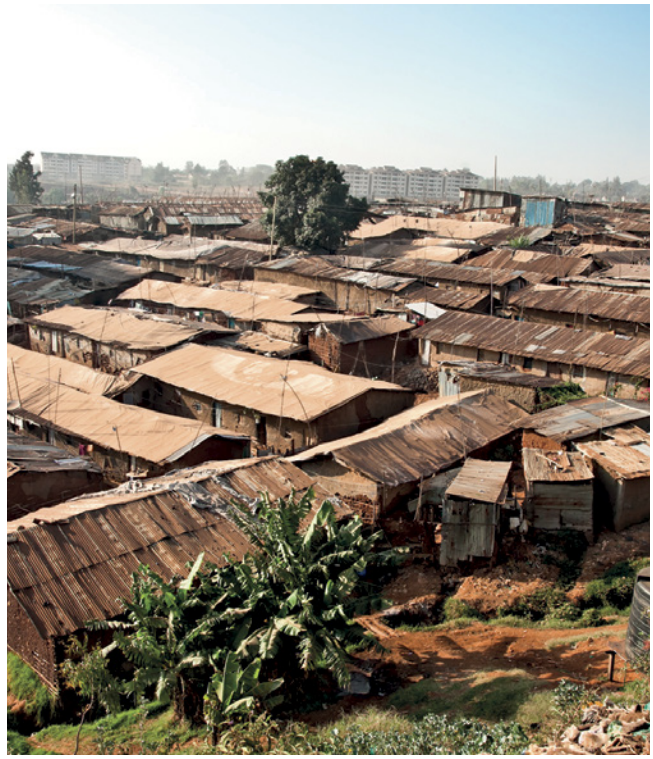
Mapping slums

Kibera and Mathare are the oldest and largest slums in Nairobi, Kenya. They comprise thirteen villages and are home to nearly 200 000 people. In 2012, a group of activist cartographers and local community members got together to map the area, using handheld Global Positioning System (GPS) devices. The slum has no addresses or street names, no open or communal spaces, and the sewers are open. The group mapped the location of buildings and narrow lanes, but they also mapped informal schools, storefront churches, day care centres, dark corners with no streetlights, illegal dumping grounds and broken manholes. With the aid of the map, the community was able to lobby local authorities to install street lights in the more dangerous areas.

The slum mapping movement began in India and has spread around the world. Maps enable slum communities to:

- bring the most urgent problems to the attention of the authorities
- present evidence when dealing with authorities
- record their habitation of an area
- show that a slum is not an empty space and is inhabited.

NGOs can also use the maps to raise awareness of the needs of communities.



8.9.3 Kibera slums

8.9.4 An informal community school in Kibera, similar to those mapped by the project

Addressing the problem

A range of strategies is used to address the issue of squatter settlements and the development of slums. These include a combination of slum removal, slum improvement initiatives, urban infrastructure upgrades and public housing construction.

In the case of squatter settlements, the most effective approaches involve giving people legal title to the land on which they have built their simple shelters. With the security this provides, people are more willing to invest whatever money they might have in improving their housing. Authorities can also improve the health and wellbeing of the squatters by proving basic infrastructure: clean water, communal sanitation facilities, electricity, schools and health clinics. NGOs play an important role in addressing the needs of these communities.

Homelessness

Homelessness, which exists in more, less and least developed countries, is an example of the inequalities in human wellbeing that exist within and between countries. Without access to shelter, homeless people are forced to 'sleep rough' on pavements, in parks and under bridges and freeway overpasses. There are many causes of homelessness. Some of the most common are poverty, lack of affordable housing, mental illness, substance abuse, domestic violence, natural disasters, evictions and foreclosures (when the bank takes back a home because the owner cannot afford to pay the mortgage). Worldwide, there are an estimated 100 million homeless people.

In Australia, one in every 200 people is homeless; that is, without safe, secure or affordable housing. In 2015, 105 237 Australians experienced homelessness. Fifty-six per cent were males, 44 per cent females. Twenty-five per cent were Aboriginal and Torres Strait Islander peoples. Twenty-three per cent of Australian's homeless were children and one in four homeless people was under 18 years of age. Fourteen per cent were over the age of 55 years.

Of those who are homeless, 44 per cent are staying temporarily with relatives and friends, 20 per cent are living in boarding houses, 18 per cent are sleeping rough on the streets and 18 per cent are staying in accommodation provided by the homeless support system.

Activities

Remembering and understanding

1. Outline the impacts of lack of shelter on the wellbeing of people.
2. Explain the process of urbanisation. Why does it lead to the growth of slum and squatter settlements?
3. Explain the difference between a slum and a squatter settlement.
4. Outline the response of authorities to the growth of squatter settlements.

Applying and analysing

5. Study Figure 8.9.3. As a class, brainstorm the conditions and problems facing people living in such conditions.
6. As a class, discuss why giving people legal title to the land on which they have built their homes often results in an improvement of their quality of life.
7. Drawing on your discussion in Activity 6, write an account of what it would be like to spend a week in a squatter settlement.
8. Study Figure 8.9.1. Identify the region that experienced the greatest reduction in the proportion of its urban population living in slums between 2000 and 2012. In which region did the proportion of the population living in slums increase?
9. Study Figure 8.9.2. Which country has the largest urban population? Which country has the highest proportion of its urban population living in slums? Estimate the size of South Africa's urban population.

Evaluating and creating

10. Access the Habitat for Humanity website. Outline the role of the NGO and give at least one example of how it seeks to improve the conditions in which people are forced to live in developing countries.
11. Use the internet to investigate the issue of access to shelter in a megacity. Present your findings to the class in a multimedia presentation. Include in your presentation the following:
    - a map of the slum area
    - population statistics—past, current and future—of the city and slum
    - information about where slum-dwellers come from
    - reasons for people's move to the city—identify the reason as a SHEEP (social, historical, economic, environmental or political) factor
    - discussion of the major issues in the slum.

    Select one of the major issues facing the slum-dwellers and investigate efforts to improve this issue.

LS 8D

8.10 NGOs: Making a difference

Non-governmental organisations

A non-governmental organisation (NGO) is any non-profit, voluntary citizens' group organised on a local, national or international scale. It is typically task-oriented and driven by people with a common interest. NGOs perform a variety of service and humanitarian functions. These include bringing citizens' concerns to governments, advocating and monitoring policies and encouraging political participation through provision of information. Some NGOs are organised to deal with specific issues, while others promote a range of causes. They provide analysis and expertise, and help monitor and implement international agreements. People join NGOs because they believe they can achieve more by working with others to influence the decision-making processes of governments and large corporations.

NGOs and development assistance

NGOs are active in addressing a range of challenges facing developing countries, such as:

- *water and sanitation*—Lifewater International, WaterAid, Safe Water Network, Water for People, WASH, Charity: Water
- *health care*—Médecins Sans Frontières (see Figure 8.10.1), CARE International, Red Cross
- *worker exploitation*—Global Exchange, Clean Clothes Campaign, RUGMARK
- *wellbeing of children*—Save the Children, The Smith Family
- *human rights*—Amnesty International, Human Rights Watch
- *development (range of issues)*—Oxfam, World Vision.

NGOs in the field

Many NGOs are able to reach the most marginalised and vulnerable people in developing countries. Because they do not take sides, they are able to work in areas that are difficult to access due to armed conflict or civil unrest. Many also have expertise in working in emergency situations where fast and flexible responses are essential. NGOs focused on development-related projects are also skilled in empowering local communities. Their initiatives are likely to have long-term benefits only when recipients of the assistance are involved in the planning, design, construction, operation and maintenance of projects. This creates a sense of ownership and responsibility for a project. NGOs are also skilled in getting the most out of even small investments of capital.

8.10.1 Médecins Sans Frontières mobile clinic in Central African Republic treating people with malaria

Spotlight

Amnesty International

Amnesty International is an independent NGO with over 3 million supporters in more than 150 countries and territories. The vision of Amnesty International is to enhance human wellbeing through the creation of a world in which every person enjoys all the human rights enshrined in the Universal Declaration of Human Rights and other international human rights statements. One way in which this NGO works to achieve its mission is to act on behalf of some of the most vulnerable members of society.

Amnesty International plays a very specific role in the international protection of human rights by focusing its activities on prisoners.

- It works to secure the release of prisoners of conscience. These are people detained for their beliefs, colour, gender, ethnic origin, language or religion, who have not used or encouraged violence.
- It works for the fair and prompt trials of all political prisoners. It also works on behalf of people who have been detained without charge or trial.
- It opposes the death penalty, torture and other cruel, inhumane or degrading treatment or punishment.

Amnesty International seeks to raise public awareness about human rights abuses and mobilise public opinion by having its supporters participate in letter-writing campaigns. Written appeals calling for the release of specific prisoners of conscience are sent to government leaders accused of suppressing prisoners' human rights.

Amnesty International protests are examples of active citizenship. This involves people taking seriously their responsibilities as citizens and becoming active participants in the political process.

8.10.2 Amnesty International protest in London, 2007, against inhumane treatment of prisoners at the US military prison at Guantanamo Bay, Cuba

Activities

Remembering and understanding

1 Explain what an NGO is. Why has the number of these organisations grown in recent years?
2 Outline the ways in which NGOs achieve their aims in the field.
3 Explain what Amnesty International is. What are the aims of this organisation?
4 Describe how Amnesty International acts to protect people's human rights.

Applying and analysing

5 As a class, discuss the ways in which NGOs act to increase public awareness of particular issues and influence decision makers.
6 Conduct a class brainstorm on the following question. *Why would I want to join an NGO?*

Evaluating and creating

7 Design a sticker that highlights the issues addressed in this unit. Use design or desktop publishing software for a professional finish.
8 Select one of the NGOs listed in this unit. Access the NGO's website. Prepare a short oral report outlining the origins of the organisation, its mission and the main issues it deals with.

Human wellbeing: Australia

9

Australians enjoy one of the highest levels of human wellbeing in the world. As a nation they also enjoy one of the highest life expectancies of any country, although this is not true for Aboriginal and Torres Strait Islander peoples. Life expectancy for Indigenous Australians is 10 to 17 years less than other Australians.

In this chapter, we investigate the reasons for, and consequences of, spatial variations in human wellbeing in Australia, with specific reference to the experience of Aboriginal and Torres Strait Islander peoples. We also examine initiatives designed to improve human wellbeing in Australia.

OVERVIEW QUESTIONS

9A What are the reasons for, and consequences of, spatial variations in human wellbeing in Australia?

9B To what extent does the wellbeing of Indigenous Australians vary from that enjoyed by non-Indigenous Australians?

9C To what extent have initiatives to improve human wellbeing in Australia been successful?

LS Before you begin

GLOSSARY

Country an Aboriginal person's land, sea, sky, rivers, sites, seasons, plants and animals; their place of heritage, belonging and spirituality

dispossession the act of taking away land or forcing people from their land, way of life and culture

equality of opportunity equal treatment of all people in a society, regardless of race, age, gender, religion, or mental or physical disability

locational disadvantage areas of concentrated poverty and disadvantage, where people cannot access work, education, health and other services

poverty line the estimated level of income needed to secure the necessities of life; this level of income differs between countries

quartile a statistical value representing 25 per cent of a population (a quarter)

quintile a statistical value representing 20 per cent of a population

social mobility the movement of individuals, families or households between the various levels of class in Australia, for example from middle class to upper middle-class

socio-economic status a level of economic and social wellbeing based on factors such as employment, income, education and social position relative to others

spatial inequality unequal amounts of qualities or resources and services depending on the geographical location; distinct geographical divisions between poor and affluent areas

9.0.1 An Aboriginal woman and child, Cairns, Queensland

9.1 Poverty in Australia

Poverty

In theory, no one in Australia should live in a state of absolute poverty. Australia's social welfare system means that everyone should have access to adequate food, clothing and shelter. But we have all seen homeless people living on the streets of our large cities and we know that some people go without meals. Australia enjoys one of the highest standards of living in the world. However, the wealth that underpins this high standard of living is not evenly distributed. Some people have a larger share than others.

Relative poverty occurs when people do not enjoy a minimum standard of living as determined by a government. In Australia, the minimum standard of living is defined by what is referred to as the **poverty line**. The poverty line is set at 50 per cent of median income. In Australia, for a single adult, the poverty line was $426.30 per week in late 2016; for a couple with two children it was $895.22.

Poverty in Australia: Key facts

- Poverty rate: An estimated 2.9 million people, or 13.3 per cent of the Australian population, live below the internationally accepted poverty line.
- Income support: 36.1 per cent of people on social security payments live below the poverty line.
- Unemployed: 63.2 per cent of people who are unemployed live below the poverty line.
- Working poor: 32.1 per cent of people living below the poverty line come from a household with wages as their main income.
- Location: 13.8 per cent of people in capital cities live in poverty compared with 14 per cent outside capital cities. Tasmania has the highest proportion of its population living below the poverty line (15.1 per cent). The ACT has the lowest (9.1 per cent).

Poverty in Australia: People at most risk

- Women are more likely to experience poverty than men (13.8 per cent compared to 12.8 per cent).
- Sole parents (most commonly women) are at a higher risk, with 33 per cent living in poverty in 2012. Nearly 37 per cent of all children in poverty were in sole-parent households.
- Children and older people face higher risks of poverty compared with other age groups (17.7 and 14.8 per cent respectively).
- Overseas-born residents are at greatest risk of poverty, especially when their main language is not English (18.8 per cent). Those born in English-speaking countries are also at risk.
- An estimated 19.3 per cent of Aboriginal and Torres Strait Islander people live in poverty.
- An estimated 27.4 per cent of people with a disability live in poverty.
- More than 60 per cent of people who are unemployed live below the poverty line, as do many who rely on part-time and casual employment.

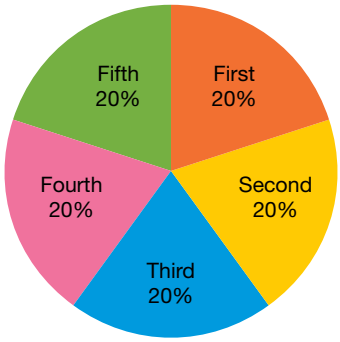
Inequality in Australia

In a country that has long prided itself on being the land of the 'fair go', there is a growing gap between people who have a lot and people who only have a little. The nature and extent of inequality is the responsibility of policy makers. Governments have the capacity to either reduce inequality or increase it. Tackling inequality can be seen as a political choice, not an economic problem.

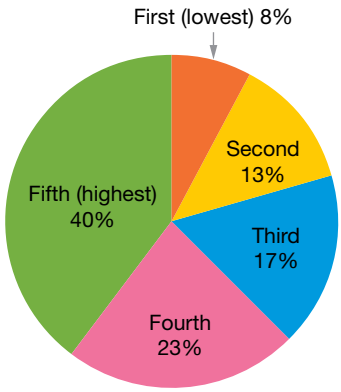
Inequality is bad for Australia. It undermines the fairness of our economic system and results in division within society. Countries with lower levels of inequality tend to have faster and more lasting economic growth. Countries with high levels of inequality often experience high levels of violence, suicide, mental illness and imprisonment, and lower life expectancy.

Inequality means that people in the lower income groups do not have the same access to opportunities as those in the higher groups. For example, those in the lowest groups find it more difficult to access higher education than someone in the highest group. Wealthier people can afford not to rely on services such as public schools and public hospitals. They use private schools and hospitals. When this happens, they have less interest in supporting public schools and hospitals, leading to a more divided society.

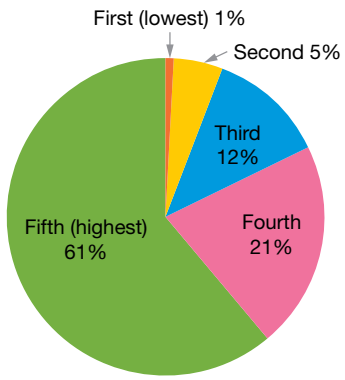
In the past, government policies have protected Australia from the worst forms of inequality. But Australia must be careful to avoid policies that increase inequality. When the government cuts income support to the needy, people who rely on such payments slide further down the inequality scale.



9.1.1 If the distribution of income and wealth by quintile were equal in Australia



9.1.2 The distribution of income in Australia is unequal.



9.1.3 The distribution of wealth in Australia is unequal.

Measuring inequality

Inequality can be measured in two ways:

1. by determining how much income a person or household receives; that is, income inequality
2. by determining how much wealth is held by a person or household; that is, wealth inequality.

Wealth inequality is higher in Australia than income inequality. If the distribution of income and wealth by **quintile** were equal it would look like the distribution in Figure 9.1.1. In Australia, though, the share of income is not equal.

Note: A quintile is a statistical value representing 20 per cent of the total population. The first quintile represents the lowest (poorest) fifth of the population (1–20 per cent); the second quintile represents the second fifth (21–40 per cent) and so on. The fifth quintile is the wealthiest 20 per cent of the population.

Figure 9.1.2 shows that, when looking at average income in Australia, a person in the highest income group has about five times the income of a person in the lowest income group. People most likely to be found in the lowest income group include:

- older people
- sole parents
- unemployed people
- people from culturally and linguistically diverse backgrounds.

The share of wealth in Australia is not equal, as is shown in Figure 9.1.3. When looking at average wealth, a person in the highest wealth group has about seventy times as much wealth as someone in the lowest wealth group. People in the highest wealth group are more likely to have their wealth in the form of property, shares and superannuation. Those in the lowest quintile are more likely to hold their wealth in in the form of low-value items such as cars and home contents.

Tables 9.1.4a and 9.1.4b show the income and wealth quintiles in Australia.

9.1.4a Income and households

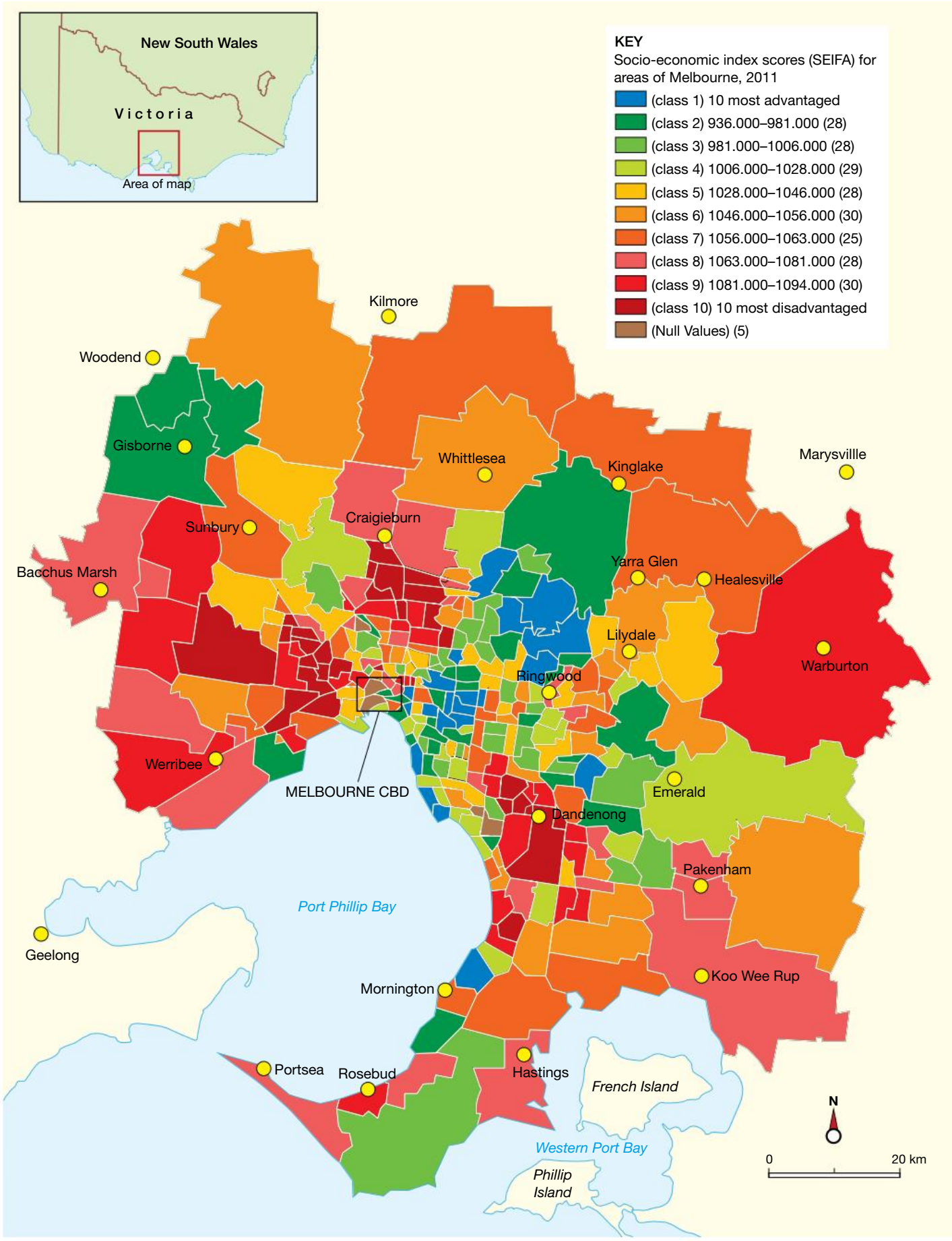
	First (lowest)	Second	Third	Fourth	Fifth (highest)
Average annual income before tax	$33 911	$67 113	$99 570	$134 127	$232 175

9.1.4b Wealth and households

	First (lowest)	Second	Third	Fourth	Fifth (highest)
Average total wealth	$31 100	$190 900	$437 700	$766 400	$2 212 200

Inequality is increasing

The gap between the poorest and wealthiest groups is increasing. The share of income and wealth going to the wealthiest 20 per cent of households has increased, while the share going to the poorest groups (and, in the case of wealth, also the middle groups) has decreased over the past two decades. Over the 25 years to 2010, real wages (purchasing power as opposed to actual money received) increased by 50 per cent on average, but real wages only increased by 14 per cent for those on lower incomes compared with 72 per cent for those on higher incomes. In terms of wealth, the wealth of the top 20 per cent of households increased by 28 per cent in the period 2004–2012; by comparison the wealth of the poorest households increased by just 3 per cent.



9.1.5 The majority of Melbourne's advantaged areas are located in the inner and eastern suburbs.

Barriers to equality of opportunity

Equality of opportunity is the concept that everyone can meet their full potential through education and employment, regardless of factors such as their socio-economic status, gender, ethnicity or age.

There are a number of barriers to **social mobility** in Australia:

- discrimination barriers (for example gender, ethnicity, age)
- welfare trap barriers (for example intergenerational welfare dependency, when generations of people get used to relying on welfare)
- employment barriers (for example shortage of low-skilled jobs)
- education barriers (for example lack of access to resources such as computers, text books)
- health barriers (for example chronic health conditions, disabilities)
- housing barriers (for example overcrowding, poorly maintained housing)
- spatial and transport barriers (for example being a long way away from services and employment opportunities).

These issues can be very difficult to solve. There are, however, some steps that can be taken to help ensure that all Australians enjoy an acceptable standard of living:

- providing incentives for the new knowledge-based industries to be located in the areas where people need employment, especially where they have lost work opportunities due to economic and technological change
- retraining those who have been marginalised and demoralised by the decline in manufacturing employment
- ensuring that young people are better educated and therefore better able to fill the jobs being created in the new information-based economy
- redistributing income (via the tax system) from high-paid to low-paid Australians
- increasing government spending on health care, education, housing and public transport.

Spatial pattern of wellbeing in Melbourne

Melbourne like all Australian cities has a level of **spatial inequality** and the difference in living standards between the most advantaged and the most disadvantaged parts of the city is becoming greater. Areas of poverty, unemployment, violence and social distress are now a feature of Melbourne. There are also areas characterised by great wealth and privilege. However, care must be taken when making generalisations such as these. Within all suburban areas there are people with different levels of income and wealth.

Figure 9.1.5 highlights the spatial pattern of wellbeing in Melbourne. Melbourne could be described as a 'divided' city with an affluent centre and inner-to-middle east and a less affluent outer ring of suburbs surrounding the whole city. Some of these suburbs have pockets of extreme poverty, while others have families who are slightly below the average means.

This pattern of advantage and disadvantage is closely related to a person's income and/or wealth. The greater the person's wealth and/or income, the greater the choice they have about where to live. This means that the most disadvantaged people tend to be concentrated in the least popular part of the city, often far from the services they need and employment opportunities. This results in **locational disadvantage**.

Activities

Remembering and understanding

1. State why no one in Australia should live in 'absolute poverty'.
2. Define 'relative poverty'.
3. Outline how the 'poverty line' is determined in Australia.
4. Outline the extent of poverty in Australia. Who is most at risk?
5. State how inequality in Australia is measured. What trends are apparent?
6. Outline the barriers to 'equality of opportunity'. How might these barriers be addressed?

Applying and analysing

7. Study Figures 9.1.2 and 9.1.3. Using data from the graphs, describe the distribution of income and wealth in Australia.
8. Study Figure 9.1.5. Describe the pattern of advantage and disadvantage in Melbourne. Account for this pattern.

Evaluating and creating

9. Create a mind map about the impacts of poverty in Australia.
10. You are preparing a debate about poverty in Australia and you are on the affirmative side. Outline your arguments supporting the following topic.
    All Australians have a right to an acceptable standard of living.

9.2 Spatial patterns of Indigenous advantage and disadvantage

Socio-economic status

A widely accepted indicator of disadvantage is a person's **socio-economic status**. It takes into account factors such as educational attainment, occupation, income and housing. The Australian Bureau of Statistics (ABS) defines relative socio-economic advantage and disadvantage in terms of people's access to material and social resources, and their ability to participate in society.

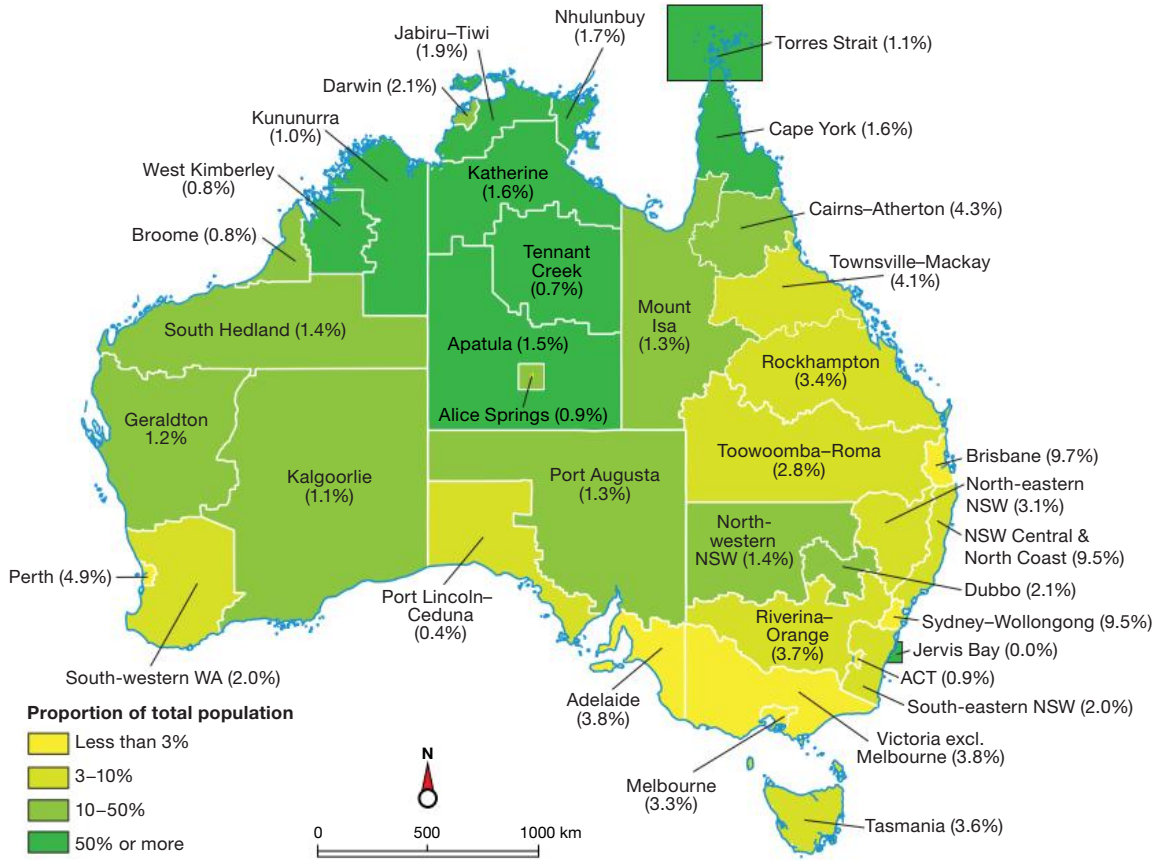
In every part of Australia, Aboriginal and Torres Strait Islander peoples are worse off, and do not enjoy the same level of wellbeing, as most other Australians. They consistently experience disproportionately higher levels of social disadvantage.

Housing

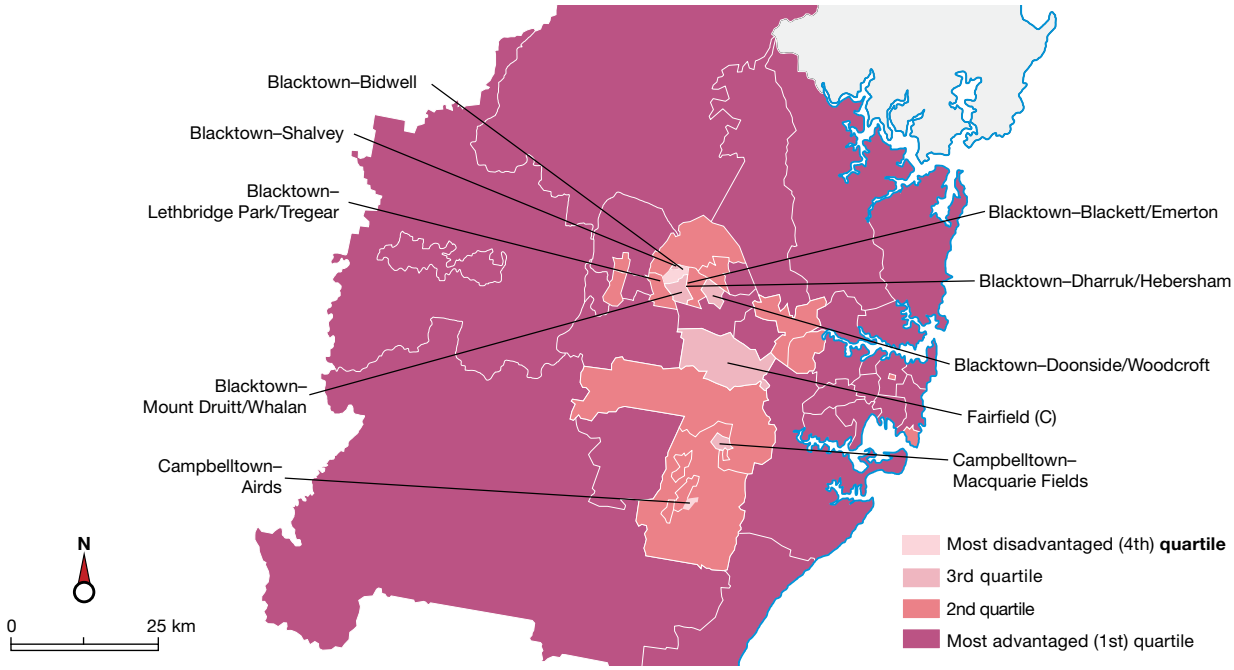
Aboriginal and Torres Strait Islander peoples are more likely to live in areas of relative disadvantage. More than a third of Indigenous Australians (36.6 per cent) live among the most disadvantaged 10 per cent of the Australian population and only 1.7 per cent live among the most advantaged top 10 per cent.

Where Indigenous Australians live

Figure 9.2.1 illustrates the percentage of the total population in regions across Australia who identified as being of Aboriginal and/or Torres Strait Islander origin in the 2011 Census. The percentage is highest in the relatively remote regions of north, central and western Australia. Yet the regions with the highest numbers of Indigenous Australians are in the south and east of the country and in cities. Brisbane, the central and northern coasts of New South Wales, and the Sydney–Wollongong region all have an Indigenous populations of 60 000 or more. The most remote regions have populations of about 10 000 or less.



9.2.1 Where Aboriginal and Torres Strait Islander peoples live



9.2.2 Patterns of Indigenous advantage and disadvantage in Sydney

Variations in the spatial patterns of disadvantage

The Australian Bureau of Statistics uses a variety of economic and social information about people and households within an area to create the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD). The ABS measures education levels, occupation and types of jobs, home ownership and size, car ownership, internet connection and the health and disability within an area.

- A low score indicates greater disadvantage and a lack of advantage. For example, there are many households with low incomes, or many people in unskilled occupations, and few households with high incomes, or few people in skilled occupations.
- A high score indicates a relative lack of disadvantage and greater advantage. For example, there are many households with high incomes, or many people in skilled occupations, and few households with low incomes, or few people in unskilled occupations.

Spatial patterns in Sydney

While the advantage and disadvantage differences between Indigenous and non-Indigenous populations are greatest in remote areas, even in remote areas some communities fare better than others. There are also wide variations in both regional and urban communities.

The Sydney metropolitan area has the greatest diversity in the socio-economic status of Indigenous Australians. In 2011, according to the IRSAD, six of the seven most advantaged Indigenous areas in Australia were found in Sydney. The smallest disadvantage gap between the two populations was in Sydney's lower north. Yet ten areas that were found to be especially disadvantaged were also in Sydney (see Figure 9.2.2).

Activities

LS 9A

Remembering and understanding

1 Identify those parts of Australia that have the highest percentage of Aboriginal and Torres Strait Islander peoples and those that have the greatest numbers.
2 Describe the ABS definition of socio-economic status.
3 Outline the measures used to determine socio-economic status.
4 Describe how advantage and disadvantage are measured.

Applying and analysing

5 Study Figure 9.2.1 and answer the following questions.
   a In which state/territory do Indigenous Australians make up the largest percentage of the population?
   b In which state/territory do Indigenous Australians make up the smallest percentage of the population?
   c What percentage of Australia's Indigenous population is found in New South Wales?
   d What percentage of Australia's Indigenous population is found in the Northern Territory?

9.3 Origins of disadvantage

Dispossession

Aboriginal and Torres Strait Islander peoples lived sustainably in Australia for up to 65 000 years, but they were quickly plunged into turmoil when the Europeans arrived in 1788. Many of the issues that trouble Indigenous Australians and disadvantage them today can be traced back to **dispossession**—when the Europeans took away the land and property of Aboriginal and Torres Strait Islander peoples and forced them to live away from their land and culture.

Aboriginal and Torres Strait Islander peoples believed in respect and responsibility for **Country**, their ancestors and each other. They believed in the collective responsibility for land. They did not see it as a privately owned commodity to be bought and sold.

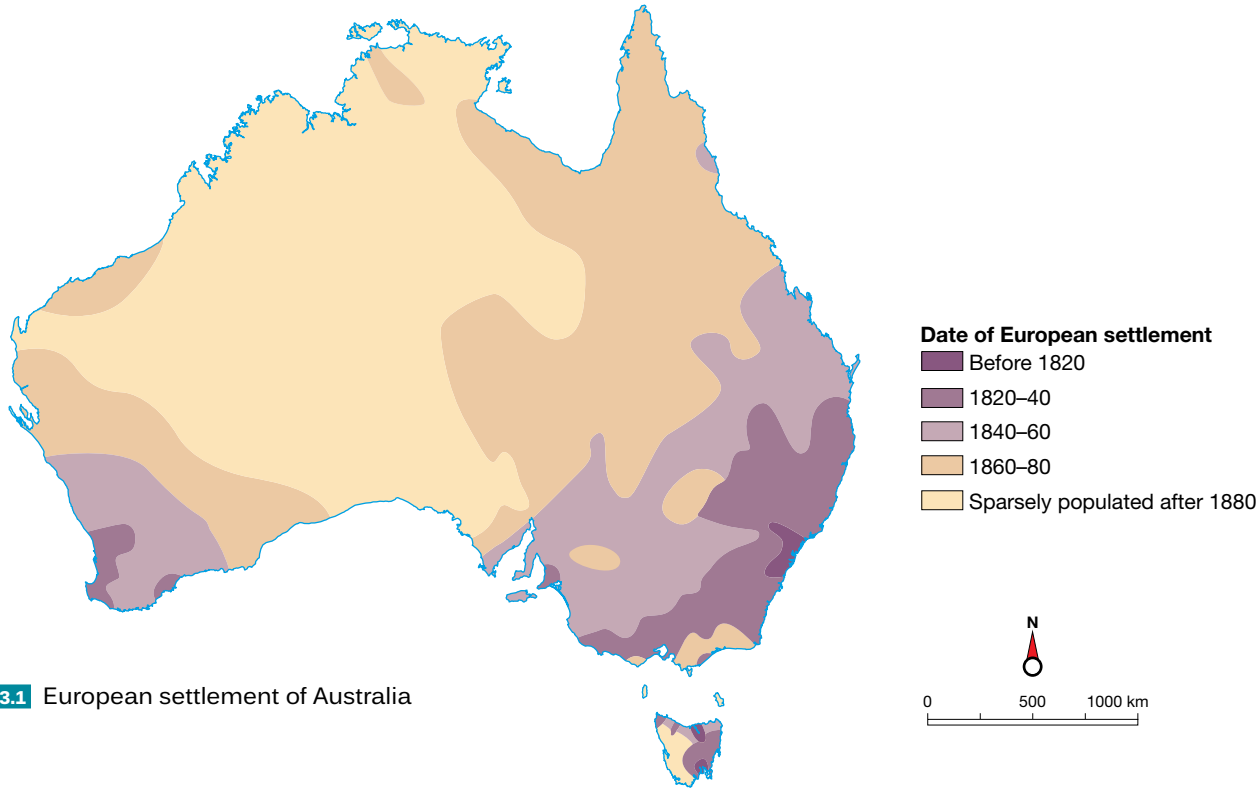
The colonial mindset

When the British arrived, they laid claim to the country, applying the notion of terra nullius—a land belonging to no one. They argued that since no one owned the land, they could colonise it. They justified this position by arguing that there were no permanent structures to indicate ownership. Thus, the occupancy rights of the original inhabitants were ignored and, from an Aboriginal perspective, the invasion of their lands by Europeans began.

Missions and reserves

The colonial frontier spread out from the British colony in New South Wales across the continent during the nineteenth century (see Figure 9.3.1). There were inevitable conflicts as Aboriginal people resisted having their food and water supplies taken away from them. They were excluded from their traditional lands. Some were offered refuge on mission settlements, but they were expected to adopt European ways (see Figure 9.3.2). The government also established reserves where they could protect and control Aboriginal communities, but the conditions were often very poor. Many drifted to the edges of towns, and lived in the worst of circumstances.

Aboriginal and Torres Strait Islander peoples were severely affected by the spread of European settlement. They had no immunity to introduced diseases such as influenza, tuberculosis and smallpox. Disease swept through communities even before they came in direct contact with any settlers. The Indigenous population dipped below 100 000 in the first half of the twentieth century.

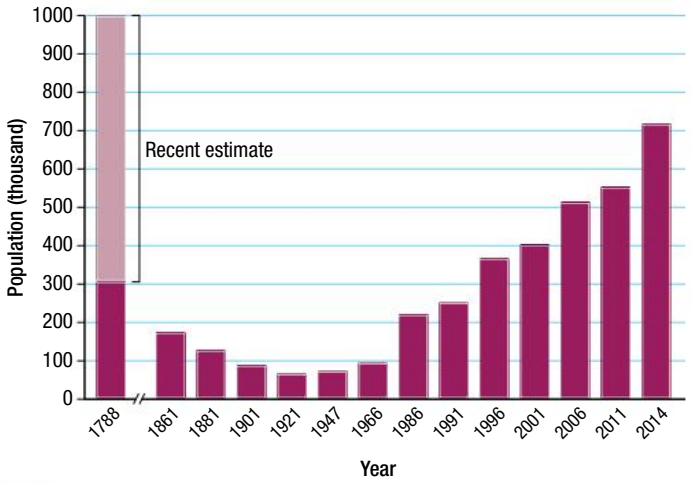


9.3.1 European settlement of Australia

9.3.2 An Aboriginal community outside the church of a mission at Lake Tyers in Victoria's Gippsland region in 1910

Consequences of dispossession

The forced relocation of Aboriginal and Torres Strait Islander peoples from their traditional lands to missions and settlements had a dramatic impact on Indigenous population levels, as shown in Figure 9.3.3, and on their health and wellbeing. The social consequences of dispossession and marginalisation made the problems even worse. They could no longer support themselves as they had done successfully for tens of thousands of years. This resulted in a dependence on government welfare payments. They were pushed into remote areas, far away from many of the services most Australians take for granted.



9.3.3 Changes in the Aboriginal and Torres Strait Islander population

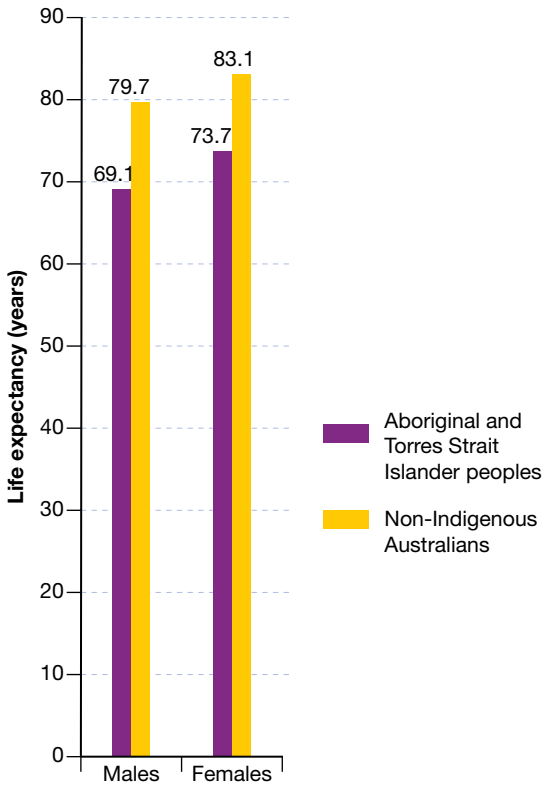
Health

Aboriginal and Torres Strait Islander peoples generally have poor health compared with other Australians, as indicated by a lower life expectancy (see Figure 9.3.4). Heart disease is a major cause of premature death, and diseases such as diabetes, liver and kidney disease, and cancers linked to smoking, are more common in Indigenous Australians. The health of Indigenous people prior to their contact with Europeans was much better then it generally is today.

Discrimination, depression, poverty and idleness affect quality of life. Drug and alcohol addiction and abuse have become embedded in many Indigenous communities, with serious consequences. Heavy drinking brings on health problems and can lead to violence, which often triggers assaults, self-harm and family breakdowns.

Did you know?

Indigenous people are twice as likely as non-Indigenous people to be smokers.



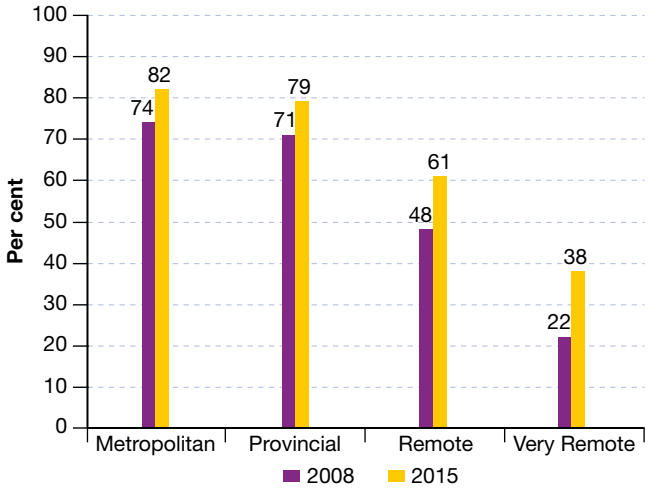
9.3.4 Life expectancy at birth, Indigenous and non-Indigenous Australians by sex, 2010–12

9.3.5 Cartoon by Nicholson, *The Australian*, 2005

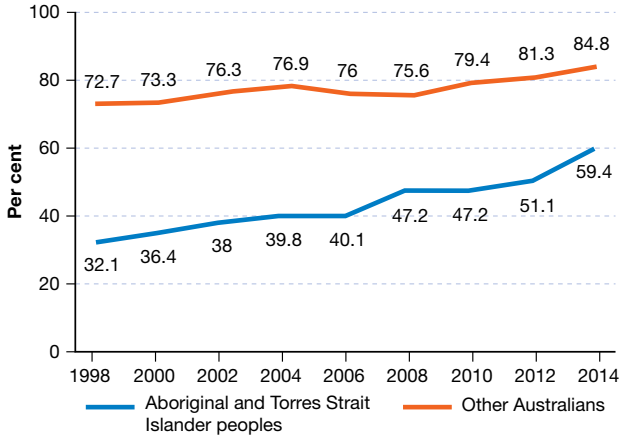
Education

Educational outcomes for Aboriginal and Torres Strait Islander peoples remain well below those achieved by the non-Indigenous population, as is shown in Figure 9.3.6a–c. Rates of participation (attending school) and continuing from the first year of secondary schooling to the next year level (retention rates) are low. Literacy rates also remain low compared with the non-indigenous population. Students in remote areas experience the greatest disadvantage.

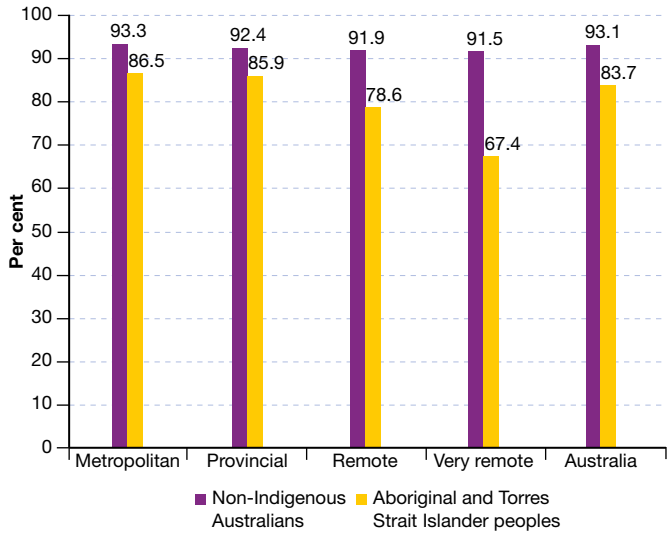
9.3.6 a–c Indigenous and non-Indigenous populations on selected measures of wellbeing



a Indigenous student attendance rates (per cent), Years 1 to 10 combined, by remoteness, Semester 1, 2015



b School retention rates for Year 7/8 to Year 12, 1998–2014



c Students reaching National Minimum Standards for Year 5 reading by remoteness, 2008 and 2015

Activities

Remembering and understanding

1. Explain how the British justified their claim on Australia.
2. Outline how the Aboriginal way of life was affected by the spread of settlement.
3. Describe how the health and wellbeing of Aboriginal and Torres Strait Islander peoples was affected.

Applying and analysing

4. Study Figure 9.3.3 and answer the following questions.
   - **a** What was the estimated percentage change in population from 1788 to 1921?
   - **b** For how many decades was the population estimated to be below 100 000?
5. Study Figure 9.3.5. As a class, discuss the point Nicholson is seeking to make in his cartoon. What is the link between work and social and economic disadvantage?
6. Study Figures 9.3.4 and 9.3.6a–c. Using data from the graphs, write a paragraph comparing Indigenous and non-Indigenous populations on the measures of wellbeing illustrated.

Evaluating and creating

7. Research the living conditions of Aboriginal and Torres Strait Islander peoples after they were displaced by European settlement. Prepare an annotated visual display contrasting this existence with their traditional way of life and demonstrate how it affected their health and wellbeing.

9.4 Wellbeing and remoteness

Measures of wellbeing

The levels of disadvantage of Australia's Indigenous and non-Indigenous populations are widely acknowledged and considered unacceptable. Aboriginal and Torres Strait Islander peoples are disadvantaged in many ways. Obtaining accurate measurements of such disadvantage is vital if we are to eliminate the gap.

Life expectancy

Aboriginal and Torres Strait Islander people have a lower life expectancy than non-Indigenous Australians. The differences are most apparent in the population pyramid in Figure 9.4.1. The shape for the Indigenous population resembles that of a developing country, with lower life expectancies and a younger population. Over one-third of the population is aged 15 years or less, compared to one-fifth of the non-Indigenous population.

Life expectancy is a broad indicator of a population's long-term health and wellbeing. In 2010–11, the life expectancy for Indigenous males was estimated to be 69.1 years, which is 10.6 years less than for non-Indigenous males. For Indigenous women it was 73.7 years, some 9.7 years below non-Indigenous women. In 2011, fewer than 4 per cent of Indigenous people were 65 years or over, compared to 14 per cent of non-Indigenous people. There has been a slight improvement in recent years, but the life expectancy of Aboriginal and Torres Strait Islander peoples is still unacceptably low compared with that of other Australians.

Health

A health survey of Aboriginal and Torres Strait Islander peoples in 2012–13 revealed that:

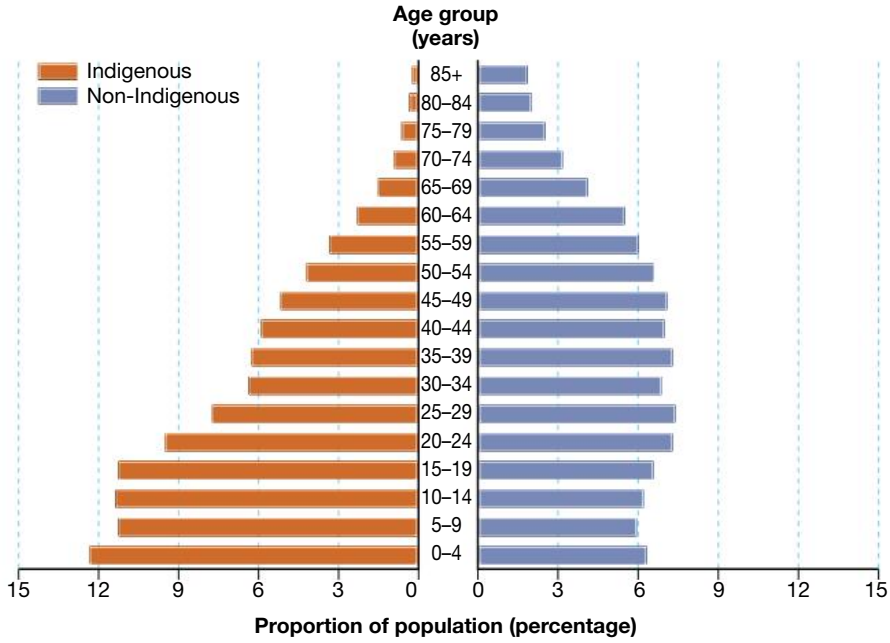
- one in six Aboriginal and Torres Strait Islander people had asthma (twice as high in remote areas)
- one in eight reported diseases of the ear and/or hearing problems
- one in eight had heart disease
- they were three times more likely than non-Indigenous Australians to have diabetes.

Education

There is a significant number of Indigenous students who are failing basic literacy and numeracy tests, and a large gap is evident between Indigenous and non-Indigenous educational outcomes, particularly at higher levels of attainment. Gaining an educational qualification provides broader life prospects for young people. In 2011, only 44 per cent of the Aboriginal and Torres Strait Islander population aged 15–64 had attained Year 12 or Certificate Level II or above, nearly 30 per cent less than the non-Indigenous rate of 73 per cent.

Impact of remoteness

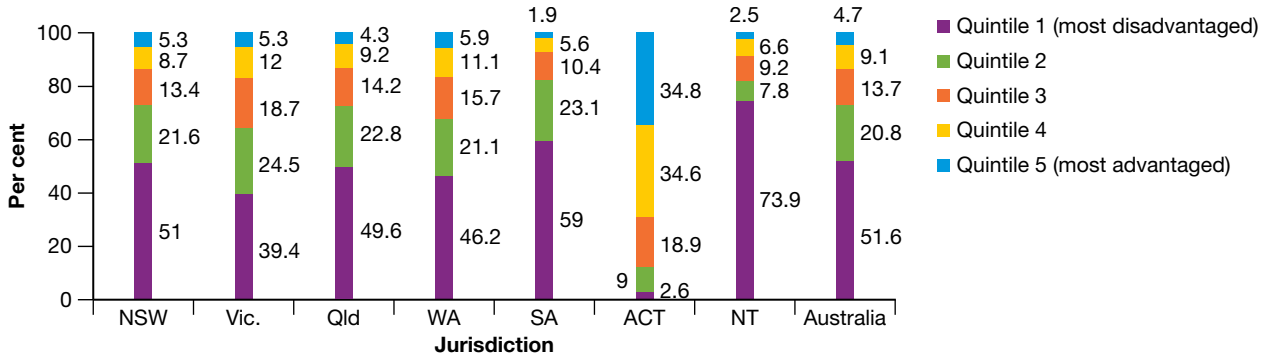
As Table 9.4.2 illustrates, disadvantages tend to increase in more remote areas. Indigenous people in all remote and very remote areas are comparatively disadvantaged across each of the measures of education, employment and income. A rate ratio compares the rates of disadvantage in two groups that differ by demographic characteristics or exposure history. Figure 9.4.3 shows the variations in the levels of wellbeing by state/territory. The spatial distribution of the most advantaged and disadvantaged regions in Australia is shown in Figure 9.4.4



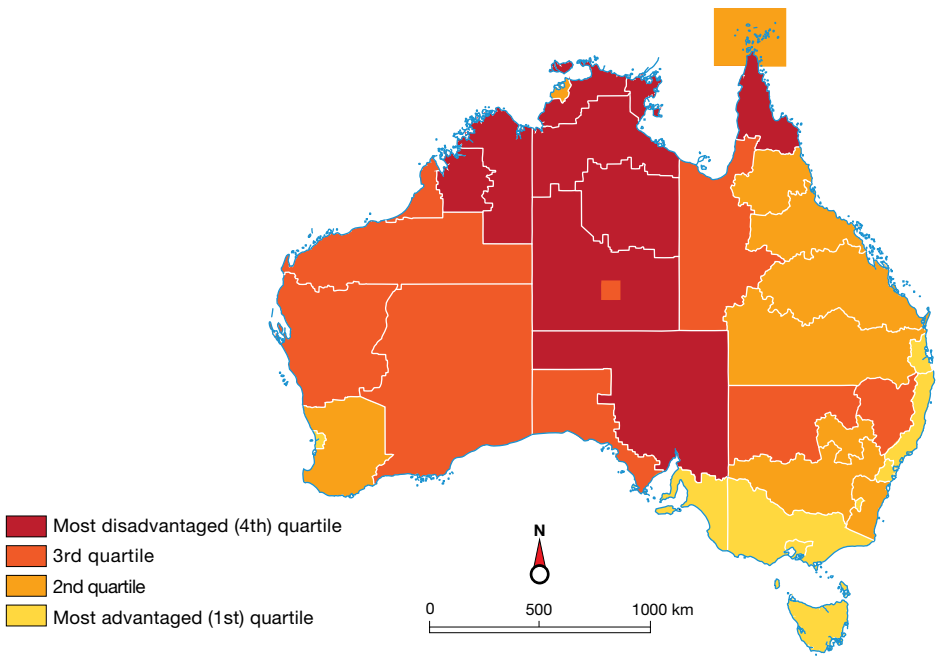
9.4.1 Population pyramid of Indigenous and non-Indigenous populations

9.4.2 Life expectancies at birth of Indigenous and non-Indigenous populations, by remoteness areas, 2010–12

	Aboriginal and Torres Strait Islander (years)	Non-Indigenous (years)	Total	Difference between non-Indigenous and Aboriginal and Torres Strait Islander life expectancy at birth (years)
Males				
Major cities and inner regional	68.0	79.9	79.7	11.9
Outer regional, remote and very remote	67.3	78.5	77.4	11.2
Females				
Major cities and inner regional	73.1	83.0	82.8	9.9
Outer regional, remote and very remote	72.3	82.5	81.5	10.2
Differences between males and females				
Major cities and inner regional	–5.1	–3.1	–3.1	
Outer regional, remote and very remote	–5.0	–3.9	–4.1	



9.4.3 Population distribution by advantage/disadvantage, Indigenous population by state/territory and total population



9.4.4 Disadvantage/advantage across Australia. The most disadvantaged parts of Australia are in remote areas.

9.4.5 Aboriginal children at a remote school

Recognising the disadvantage

The level of disadvantage experienced by Indigenous Australians increases with the degree of geographic remoteness. Overcoming such disadvantage is regarded as a national priority by the Australian government. The issues are often complex, however, and will require governments to work with Indigenous communities rather than simply impose what outsiders consider to be the most appropriate response.

Isolation compounds the multiple disadvantages suffered by remote communities. The people are often welfare-dependent and there are serious social issues associated with drug and alcohol abuse and gambling.

Educational outcomes

Indigenous schools—those with more than 75 per cent Indigenous enrolments—have the highest educational failure rates in Australia. Some 20 000 students are enrolled in such schools, which are located mainly in bush communities on Indigenous land where there is no private-sector economic activity and no real jobs. As a result, the inhabitants are totally dependent on welfare. These schools typically have failure rates of more than 90 per cent and many students do not attend school regularly. In the few schools where specific programs have been put in place to get students to school, and students make progress from day to day and from week to week, attendance booms.

Education in remote communities

Improving educational outcomes is the key to overcoming disadvantage. Acquiring literacy and numeracy skills improves employment prospects. Breaking away from welfare dependency and gaining meaningful work transforms lives and flows on to better health and living conditions. This can only be achieved if children are able to attend a school. Some live so far away from existing schools that it would not even be possible to get there in a day. Those living in the remotest areas suffer the greatest disadvantage and ways must be found to address the situation.

Getting students to attend schools regularly is difficult in communities where parents do not value education. It is of the utmost importance that school attendance is effectively promoted.

The success of a school is closely tied to the quality of the teachers. Good teachers must be provided with incentives such as public housing to remain in remote communities, where they are desperately needed.

Reconnecting with Country

Traditional lands are deeply significant to Indigenous Australians, and those who have lost their connection to it have suffered the most. The barriers that prevent Aboriginal and Torres Strait Islander peoples from living on their Country according to their culture need be removed.

Spotlight

Remote community of Yuendumu

With a population of 800 people, Yuendumu is one of the largest Aboriginal communities in central Australia. As it sits on the edge of the Tanami Desert and is some 300 kilometres north-west of Alice Springs, the community has faced all the problems associated with remoteness. Isolation, idleness and boredom have led to violence and alcohol and substance abuse, especially among young people.

The community faced a crisis in 1993 when half of the teenage population had taken to petrol sniffing and roaming the street in gangs at night. As a response to the crisis, these young people were taken from Yuendumu to a safe environment at Mount Theo, a remote outstation 160 kilometres away and over 50 kilometres from the closest road, so they could not run away. Here they were looked after by the Warlpiri tribal elders, while their bodies detoxified and recovered from petrol sniffing.

While at Mount Theo, the young people reconnected to their traditional Country and its culture with trips to significant sites. There was a mix of recreational and cultural activities, and they were taught how to hunt and track animals, cook traditional food, paint and make their own fires. It was a safe and supportive environment for them to discuss and deal with their problems. The program successfully stopped petrol sniffing in the community.

9.4.6 Founders of the Mount Theo program, Johnny Miller OAM (right) and Peggy Brown OAM (left), who set up an outstation as a place of respite for petrol sniffers in 1993

Activities

LS 9B

Remembering and understanding

1 Why is it important to measure disadvantage?
2 Compare the life expectancy of Indigenous and non-Indigenous populations.
3 Describe the health of Indigenous Australians.
4 Describe the effect of remoteness on the levels of disadvantage experienced by Indigenous Australians.
5 Explain why education is important.
6 With reference to the Mount Theo program, assess the importance of connection to Country in overcoming disadvantage.
7 Study Figure 9.4.1 and do the following tasks.
   a Compare the percentages of the Indigenous population in the 0–9 years cohort with the percentage of non-Indigenous Australians.
   b Compare the percentage of the Indigenous population above 65 years with the percentage of non-Indigenous Australians.
8 Study Figure 9.4.3 and answer the following questions.
   a Which state/territory has the lowest percentage of Indigenous Australians classified as 'most disadvantaged'? Suggest possible reasons for this.
   b Which state/territory has the highest proportion of the Indigenous population classified as 'most disadvantaged'?

Applying and analysing

9 Consider the distribution of the Indigenous population throughout Australia. Do you think that efforts to improve the quality of life of Indigenous Australians should be directed to remote areas? Justify your decision.
10 Study Figure 9.4.4 and do the following tasks.
   a List all state and territories from the most advantaged to the most disadvantaged.
   b What are the most advantaged areas in New South Wales, Queensland and Western Australia? Can you provide reasons for this distribution?

Evaluating and creating

11 Research how the young people of Yuendumu are currently being supported. Present your findings in an annotated visual display. Include a location map of Yuendumu.

9.5 Initiatives to close the gap

Challenges and targets

'Closing the gap' was an initiative and commitment to overcome the inequality in human wellbeing that exists between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians.

In 2008, all governments committed to six targets set by the Council of Australian Governments (COAG). These are listed in Figure 9.5.1. Over time, a strategic framework has been developed to tackle the underlying causes of Indigenous disadvantage. Comprehensive strategies and policies will need to be sustained for a long time given the enormity of the challenge. Each of the targets is measurable and closely monitored to determine if progress is being made. Results are published annually by the Australian government in the Closing the Gap reports.

Success

The progress of 'closing the gap' targets have been mixed—some have stagnated and some have gone backwards. One of the few targets currently on track was the goal to halve the gap in Year 12 graduation rates between Aboriginal and Torres Strait Islander and non-Indigenous students.

Indigenous efforts

Aboriginal and Torres Strait Islander peoples have called for a treaty between Indigenous and non-Indigenous people and official recognition of Indigenous people in the Australian Constitution. The recommendations were outlined in the Referendum Council Final Report, 2017. The belief is that constitutional recognition will be the first part of the process to overcome the inequality in human wellbeing that exists between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians.

The Uluru Statement was written by Indigenous people outlining a proposal for constitutional reform and was presented to Parliament and the Prime Minister. The statement proposes that a constitutionally enshrined First Nations representative body be established to advise Parliament on policies that affect Indigenous peoples. In addition, the statement wants Australia to commit to a process of truth-telling in regards to its colonial history.

The statement calling for constitutional reform would require a referendum to change the Australian constitution. Indigenous and non-Indigenous Australians are working together to ensure the plan is implemented.

9.5.1 Closing the Gap targets

Close the life expectancy gap within a generation (by 2031)

Halve the gap in mortality rates for Indigenous children under five within a decade (by 2018)

Ensure that all Indigenous 4-year-olds in remote communities have access to early childhood education within 5 years (by 2013)

Halve the gap for Indigenous children in reading, writing and numeracy within a decade (by 2018)

Halve the gap for Indigenous people aged 20–24 in Year 12 or equivalent attainment rates (by 2020)

Halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018)

Spotlight

Uluru Statement From the Heart

We, gathered at the 2017 National Constitutional Convention, coming from all points of the southern sky, make this statement from the heart:

Our Aboriginal and Torres Strait Islander tribes were the first sovereign Nations of the Australian continent and its adjacent islands, and possessed it under our own laws and customs. This our ancestors did, according to the reckoning of our culture, from the Creation, according to the common law from 'time immemorial', and according to science more than 60 000 years ago.

This sovereignty is a spiritual notion: the ancestral tie between the land, or 'mother nature', and the Aboriginal and Torres Strait Islander peoples who were born therefrom, remain attached thereto, and must one day return thither to be united with our ancestors. This link is the basis of the ownership of the soil, or better, of sovereignty.

It has never been ceded or extinguished, and co-exists with the sovereignty of the Crown.

How could it be otherwise? That peoples possessed a land for sixty millennia and this sacred link disappears from world history in merely the last two hundred years?

With substantive constitutional change and structural reform, we believe this ancient sovereignty can shine through as a fuller expression of Australia's nationhood.

Proportionally, we are the most incarcerated people on the planet. We are not an innately criminal people. Our children are aliened from their families at unprecedented rates. This cannot be because we have no love for them. And our youth languish in detention in obscene numbers. They should be our hope for the future.

These dimensions of our crisis tell plainly the structural nature of our problem. This is the torment of our powerlessness.

We seek constitutional reforms to empower our people and take a rightful place in our own country. When we have power over our destiny our children will flourish. They will walk in two worlds and their culture will be a gift to their country.

We call for the establishment of a First Nations Voice enshrined in the Constitution.

Makarrata is the culmination of our agenda: the coming together after a struggle. It captures our aspirations for a fair and truthful relationship with the people of Australia and a better future for our children based on justice and self-determination.

We seek a Makarrata Commission to supervise a process of agreement-making between governments and First Nations and truth-telling about our history.

In 1967 we were counted, in 2017 we seek to be heard. We leave base camp and start our trek across this vast country. We invite you to walk with us in a movement of the Australian people for a better future.

Activities

Remembering and understanding

1. Explain why the Closing the Gap program was initiated.
2. Account for the government choosing 'getting children to school' as its first priority.
3. Summarise the aims of the Uluru Statement From the Heart.

Evaluating and creating

4. Research the strategies used by the Australian government to improve the school attendance of Indigenous students. Present your findings in a newspaper report.
5. Research the Referendum Council report and prepare a short report. In your report include the following information:
   - **a** outline the main aims
   - **b** update the status of Indigenous recognition in the constitution and a treaty.

9.6 Role of NGOs

Non-government organisations

While governments have an important leadership role in addressing disadvantage, non-governmental organisations (NGOs) are also very active in helping to build better lives for disadvantaged Australians. In many instances, they work closely with people to build on and strengthen the network of relationships and the resources of local communities.

NGOs are able to raise funds from donations or subscriptions, and this money is put to use in supporting initiatives to enhance the wellbeing of Australians. There are many Australian NGOs that are very committed to working with disadvantaged Australians.

Smith Family

The Smith Family is an NGO that focuses on improving the wellbeing of children in Australia. The Smith Family now focuses on education, believing that the best way to break the cycle of disadvantage is via education. They aim for Australian children to get the most out of their education, so they can create better futures for themselves, and for future generations.

NGOs and Aboriginal and Torres Strait Islander peoples

NGOs have a significant role to play so that the life opportunities of Indigenous Australians are comparable to those of non-Indigenous Australians. By their very nature, people who work or volunteer in NGOs display a genuine desire to make a difference in the lives of others.

Global NGOs often become involved in widely publicised issues. The situation of the Aboriginal and Torres Strait Islander peoples has drawn international attention. Amnesty International has been vocal in campaigning to protect the human rights of Indigenous Australians, especially the maintenance of their connection with their traditional, ancestral lands.

Many Australian NGOs are very committed to working with Aboriginal and Torres Strait Islander peoples.

Anglicare NT

Anglicare NT is one of the largest providers of welfare, social justice and community-development programs in the Northern Territory. Over 400 staff and 250 volunteers implement around 80 different programs in urban, rural, regional and remote Northern Territory communities.

Intensive Youth Support Service

The Intensive Youth Support Service (IYSS) is a responsive and flexible service that provides support for vulnerable, high-risk young people and their families in Alice Springs, Katherine and Darwin. The intensive supports aim to improve the opportunities and outcomes for young people, and ensure they have limited or no further involvement with the child protection system.

Youth Housing Options and Pathways Program

The Youth Housing Options and Pathways Program (YHOPP) provides accommodation and case management to 15–19 year olds who are homeless or at risk of homelessness.

Youth Diversion Program

The Youth Diversion Program supports young people in Gunbalanya and Jabiru through the diversion process using restorative justice principles, including diversionary activities, reintegration support, victim/offender meetings and opportunities for remediation. Young people, families, local elders and community organisations work together to develop diversionary plans that engage young people with meaningful activities and contribute constructively to the local community.

ReConnect

ReConnect is an early intervention youth homelessness program offered in Darwin, Palmerston and rural areas as well as East Arnhem. It supports young people to build positive relationships with family and community.

Pandanus Childbirth Education and Perinatal Support Program

The Pandanus Program is a free and confidential service for young pregnant women and young parents under 25 years wanting pre- and post-natal support and education. The program aims to increase awareness of healthy relationships and enable young people to build support networks.

PANDANUS

Anglicare NT
RESPECT • FAIRNESS • COMMUNITY

9.6.1 Pandanus Childbirth Education and Perinatal Support Program, an Anglicare NT service

9.6.2 An ophthalmologist screens a man for diabetic retinopathy

The Fred Hollows Foundation

The Fred Hollows Foundation is inspired by the work of the late Professor Fred Hollows (1929–93). When he became aware of the high incidence of eye disease among Aboriginal and Torres Strait Islander children and adults, Professor Hollows organised the provision of medical services to treat people in remote areas.

Fred Hollows inspired many doctors and other health professionals to volunteer their time for the National Trachoma and Eye Health Program. From 1976 to 1978, his teams visited 465 communities and screened 100 000 people, of whom 62 000 were Indigenous Australians. They found that nearly half Australia's Indigenous population had trachoma, an infectious disease that causes blindness. In some regions in the Northern Territory and Western Australia, the trachoma rate was 80 per cent. Approximately 27 000 people were treated for trachoma, more than 1000 operations were performed and more than 7000 pairs of glasses were dispensed.

The Foundation was established in 1992. It continues to work to achieve Professor Hollows's vision of a world in which no one is needlessly blind and Indigenous Australians exercise their right to good health.

Aboriginal and Torres Strait Islander adults are six times more likely to go blind, but 94 per cent of vision loss is preventable or treatable. The Foundation's program in Australia focuses on education, screening and treatment to put an end to these alarming figures.

The Foundation supports increased investment in, and access to, culturally appropriate eye care services for remote and under-serviced Aboriginal and Torres Strait Islander communities.

Since 2013, the Foundation has been working with governments and partners to screen more than 26 000 Indigenous Australians and support 3175 eye operations and treatments, including sight-restoring cataract surgery and treatment for diabetic retinopathy (see Figure 9.6.2). The Foundation has also supported the training of 452 doctors, nurses, and community health workers and leaders.

Activities

LS 9C

Remembering and understanding

1. Describe how NGOs are active in addressing Indigenous disadvantage.
2. Outline the services provided by Anglicare NT.
3. Assess the work of the Fred Hollows Foundation.

Evaluating and creating

4. Select an NGO that works with Indigenous people. Research this NGO and create a pamphlet to promote the NGO and encourage people to donate to it.

Human wellbeing: India G4

India is a land of great contrasts. Spread across its 3.3 million square kilometres is a range of biophysical environments. These include deserts (in the west), high mountain ranges (to the north), golden beaches (in the south) and dense rainforests (in the north-east).

While India is an emerging economic and political power with an expanding middle class, it remains burdened by high levels of poverty.

In this chapter, we focus on the spatial patterns of human wellbeing in India, the factors contributing to these patterns and the strategies being pursued to reduce the variations in the quality of life experienced by people.

OVERVIEW QUESTIONS

G4A What are the main challenges facing India?

G4B What is the spatial pattern of human wellbeing in India, and what are the factors contributing to this pattern?

G4C How have NGOs, transnational bodies and governments sought to enhance the wellbeing of India's poor?

LS Before you begin

G4.0.1 Boys painted to celebrate Holi festival, an ancient Hindu religious festival also known as the festival of colours or the festival of love, India, 2010

GLOSSARY

capitalism an economic system in which the means of production, distribution and exchange are controlled by private individuals or corporations rather than the state

communal violence violence as a result of tensions between different ethnic or religious groups

feudalism a social/political system under which a small group of rich, powerful people own land while peasants farm it, often in exchange for protection and a share of the crops and/or livestock produced

free market an economic system in which prices are determined by unrestricted competition between privately owned businesses

import substitution an economic policy that involves replacing foreign imports with domestic production

misogyny a hatred or dislike of women

mixed economy an economic system in which both the private sector and the state play a role in the economy, reflecting characteristics of both market-based economies (capitalism) and planned economies (under government control)

monsoon a seasonal wind in the South and South-East Asian region, which blows from the south-west between May and September, bringing rain (the wet monsoon), and blows from the north-east between October and April (the dry monsoon)

patriarchal attitude the belief that society and government should be controlled by men

protectionism a policy that protects a country's domestic industries from foreign competition by taxing imports

purchasing power parity (PPP) how much a similar product costs in different countries, after accounting for the exchange rate; a technique used to determine the relative values of different currencies

socialism the political and economic theory of social organisation that holds that the means of production, distribution and exchange should be owned or regulated by the community as a whole

socio-economic relating to or concerned with the interaction of social and economic factors

G4.1 India: An emerging economic giant

The economy

In the period from independence (1947) to 1991, India embraced a **mixed economy** model of economic development that combined features of both **capitalism** and **socialism**. State-owned enterprises, **protectionism** and **import substitution** were features of the country's development policy and practice. In 1991, India embraced a more liberal, **free-market** model of economic development, with the government investing heavily in the infrastructure needed to promote economic growth. Economic growth rates increased, as did per capita income.

Economic growth rates

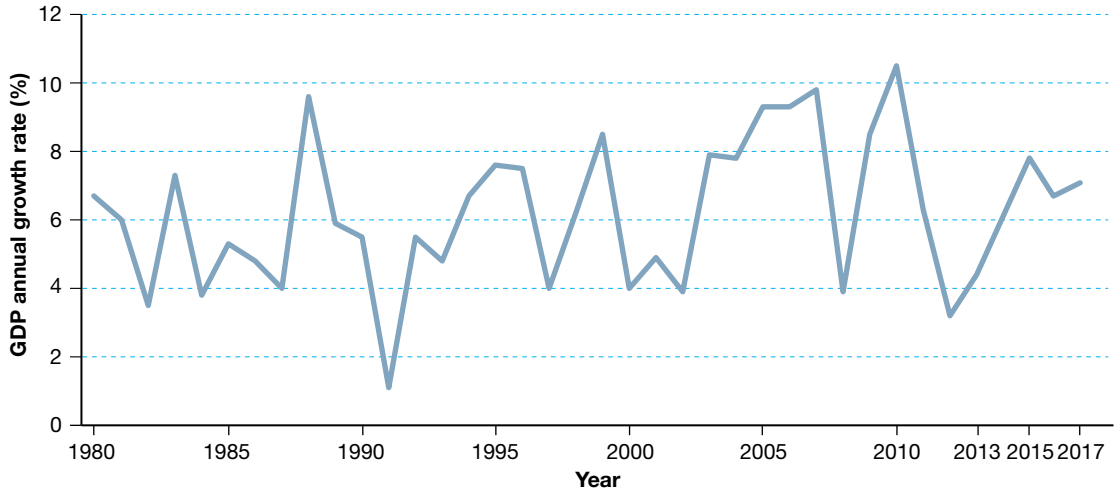
India's annual GDP growth rate peaked in 2010 at 10.5 per cent before declining sharply to 6.3 per cent in 2011, 3.2 per cent in 2012 and 4.4 in 2013, and then increasing to 7.18 in 2017. Figure G4.1.1 outlines India's annual growth in GDP since 1970. GDP per capita grew from US$114.40 in 1970 to US$455.44 in 2000 and US$1581.15 in 2015, as shown in Figure G4.1.2. India's engagement in international trade has also increased. In 2011–12, foreign trade grew by 30.6 per cent.

Today, India's economy is the world's sixth largest by GDP (nominal). Ranked on a GDP per capita basis (nominal), however, it is 141st. With a population growth rate of 1.2 per cent, improving GDP per capita is a significant challenge. Unemployment is relatively high at 8 per cent (2016), and India's central government debt stood at 69.5 per cent of GDP in 2016, which is the highest among emerging economies such as China, Brazil and Russia.

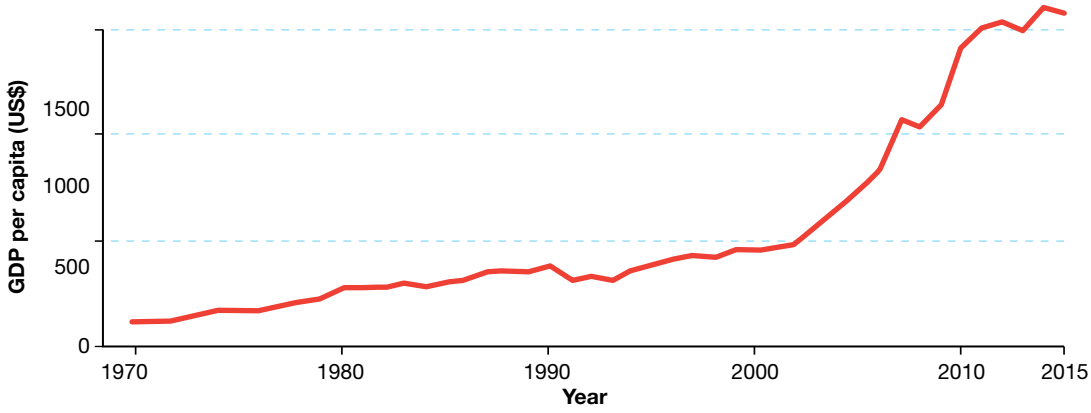
Changing composition of economic activity

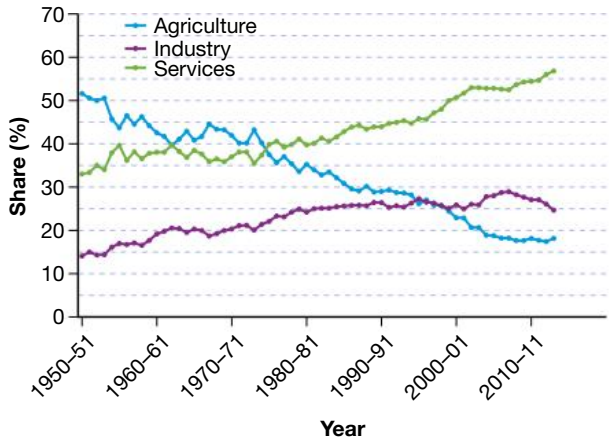
Figure G4.1.3 outlines the major structural changes in the Indian economy, which means the contribution made by the different sectors of economic activity to the country's GDP. Agriculture has declined as a share of economic activity, while industry and services have grown. The greatest growth has been in the provision of services, which now account for more than 50 per cent of all economic activity.

G4.1.1 India's growth in GDP in US dollars, 1970–2017



G4.1.2 India's growth in GDP per capita, 1970–2015





G4.1.3 Structural composition of GDP in India, 1950–2014 (i.e. how different sectors of the economy contribute to GDP)

Quantitative indicators

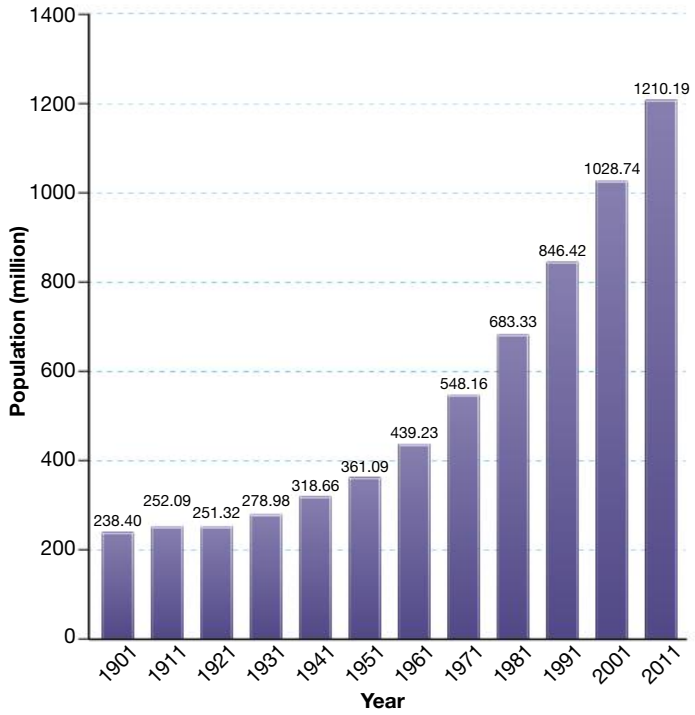
Qualitative indicators reveal India's development challenge.

- Life expectancy is 66.2 years.
- Mean length of schooling is 5.1 years.
- Gender Inequality Index score is 0.563, rank 130.
- Human Development Index (HDI) score is 0.609, rank 130.
- Inequality-adjusted Human Development Index (IHDI) value is 0.435, rank 99.

The extent to which the IHDI falls below the HDI is an indicator of the inequality still evident in Indian society. Other indicators also highlight the challenge India faces. For example, a 2011 survey conducted by India's Central Pollution Control Board showed that just 160 out of nearly 8000 towns had sewerage systems and sewage treatment plants. Over 600 million Indians lack even primitive toilet facilities.

The population

Figure G4.1.4 shows the decade-by-decade increase in India's population since 1901. Despite the increase, the fertility rate has decreased, from over 6 children per woman in 1960 to 2.3 in 2015. The decline in fertility has been attributed to increased female education participation rates, urbanisation and rising standards of living.



G4.1.4 Decadal growth in India's population, 1901–2011

Activities

LS G3A

Remembering and understanding

1. Outline the changes in the approach to economic development in India since independence.
2. Outline the evidence that India has a relatively high level of inequality.
3. List the reasons given for the decline in fertility rates.
4. Explain why the proportion of the population under the age of 15 years is important in terms of future population growth.

Applying and analysing

5. Study Figure G4.1.1. Using data from the graph, describe the trends apparent in India's GDP since 1980.
6. Study Figure G4.1.2. Estimate India's per capita GDP in 1980, 1990, 2000 and 2015. Describe the changes that took place in the rate of growth over this 35-year period.
7. Study Figure G4.1.3. Using data from the graph, describe the changes in the relative contribution of each sector of economic activity to India's GDP in the period 1950–2010.
8. Study Figure G4.1.4. Using data from the graph, describe the trends in India's decadal population growth.

Evaluating and creating

9. Using the internet, find the most recent Indian GDP and GDP per capita data available. Update Figures G4.1.1, G4.1.2 and G4.1.3. Investigate the reasons for the trends identified.

G4.2 Patterns of human wellbeing

Variations in human wellbeing

There are great variations in the wellbeing experienced by people across India. These differences have both spatial and social dimensions. In other words, how Indians live depends on where they live and their social circumstances.

Spatial variations in human wellbeing

Economic growth and development have been most rapid in India's southern, western and north-western states, while the north-central, central and eastern states have experienced deteriorating **socio-economic** standards. This economic and social difference is a legacy of India's socio-economic, political and cultural complexity.

Historical influences

Historically, some states were more prosperous than others, resulting in variations in socio-economic development across the various regions of India. The south and the west of India have traditionally been much more affluent than the north and the east. Also, in the past, various invasions experienced by the north (including invasions by the Greeks and Mongols) held back the developmental prospects of the region for centuries. The north was also the part of the country that suffered the most exploitation during British colonialism. For these reasons, the southern and western regions achieve advances in human wellbeing, while the north and east still struggle to deliver improvements in people's quality of life. The south largely escaped the disruptive impacts of invasion and colonialism, and has less poverty.

Economic policy after 1991

The economic and development policies pursued by the Indian government after 1991 have tended to reinforce existing patterns of spatial inequality. This is because the economic growth that resulted from the policy change has been focused in particular regions. While western states such as Maharashtra and Gujurat, and southern states such as Andhra Pradesh and Kerala, are making progress in reducing poverty and raising living standards, India's northern states, especially Uttar Pradesh, and eastern states, including Bihar and Odisha (formally Orissa), are among the country's poorest.

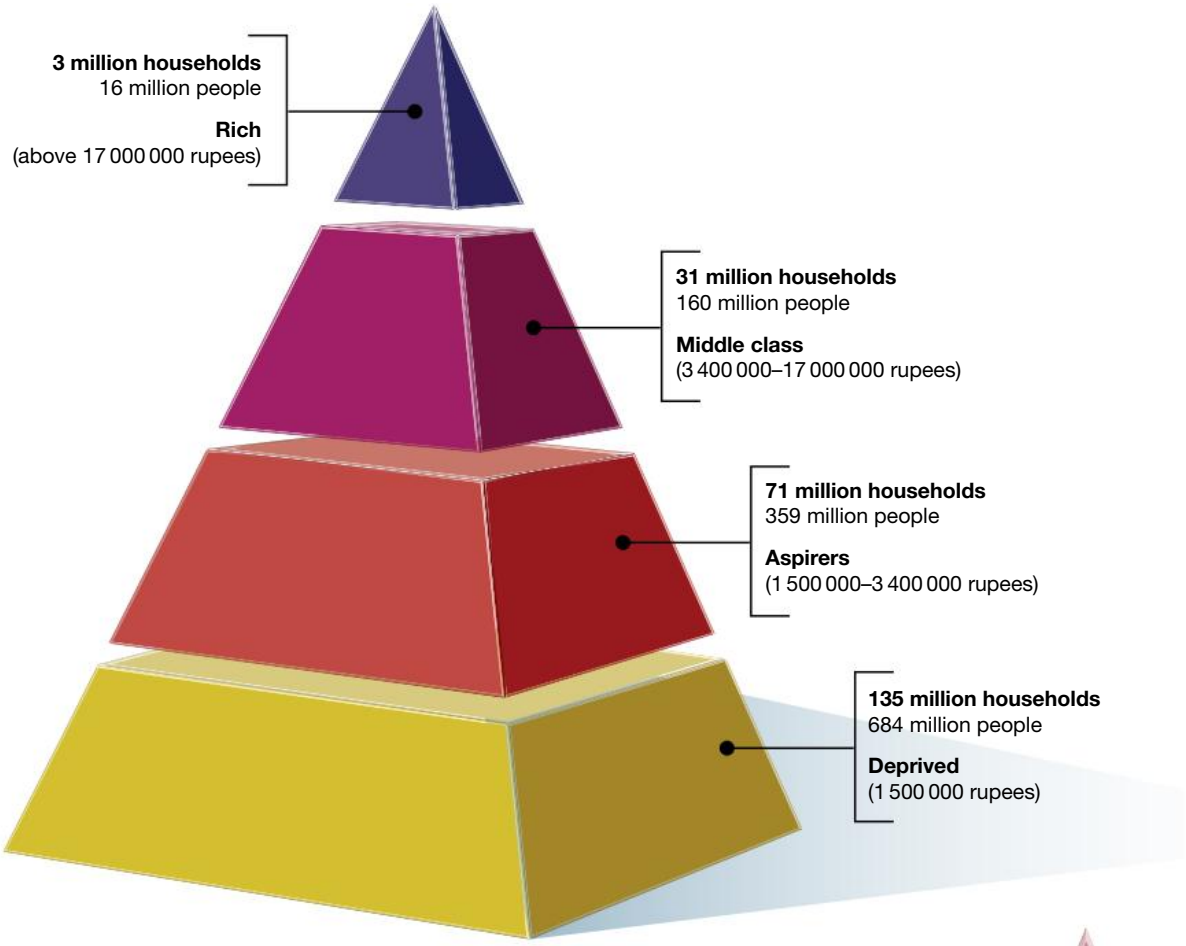
Andhra Pradesh is an example of a state that has benefited from the shift in economic policy. It is one of India's most developed states, with a booming information technology industry based in its capital city, Hyderabad. There has also been an effort to develop the state's rural areas. As a result, it has been able to lower its poverty rate to 9 per cent, well below the India-wide average of 22 per cent. By way of contrast, in Odisha, a state in which corruption is widespread, the poverty rate is 33 per cent. This can, at least in part, be explained by the entrenched culture of **feudalism** found in rural areas.

While India has experienced relatively high rates of economic growth over the past decade or so, many minorities (and regions) appear to have been marginalised by the policies.

Social patterns in human wellbeing

Since 1991, India has focused on the promotion of corporate services such as telephony and ICT rather than on developing the country's manufacturing base. As a result, large segments of the Indian population have been excluded from the development process. In opening its markets to global competition, India's small-scale self-employed population (a large percentage of whom are Muslims) has been especially disadvantaged. As a result, one-third of the 200 million Muslims living in India continue to live below the poverty line. More generally, the top 5 per cent of Indian households own 38 per cent of total assets, while the bottom 60 per cent own just 13 per cent (see Figure G4.2.1).

India's caste system, a class structure that determines social status, still casts a shadow over the lives of many Indians, especially those of the Dalit caste (the untouchables). Dalits are at the bottom of the Hindu caste system (see Figure G4.2.2). Despite laws to protect them, they still face widespread discrimination in India. India's constitution bans discrimination against untouchables; however, many members of India's higher castes will not touch anything that has come in physical contact with the Dalits, the lowest caste. Examples of discrimination include the local barber refusing to cut the hair of a Dalit man, a group of children being forced to eat lunch separately from their classmates, and a woman who is required to walk for hours to fetch water because she is not allowed to use the public tap in her village.

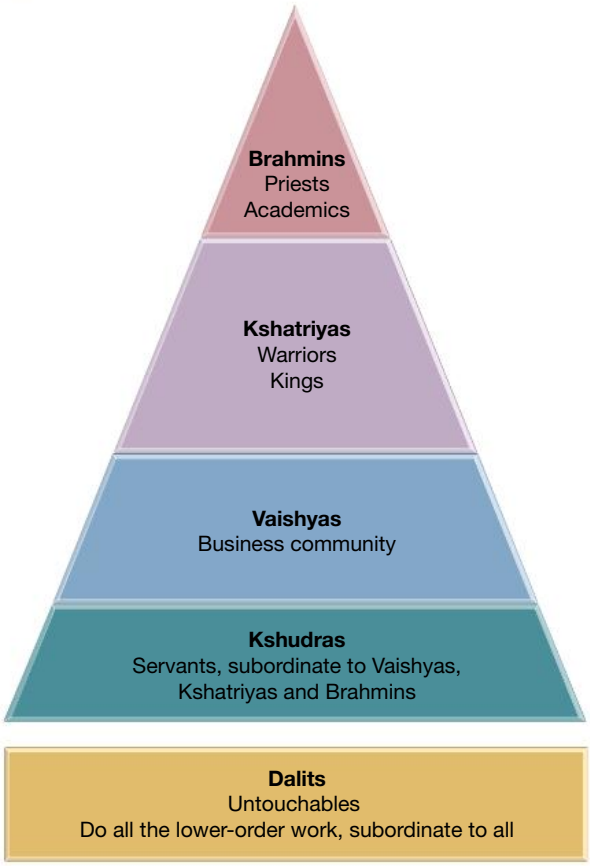


G4.2.1 Household income pyramid, 2012

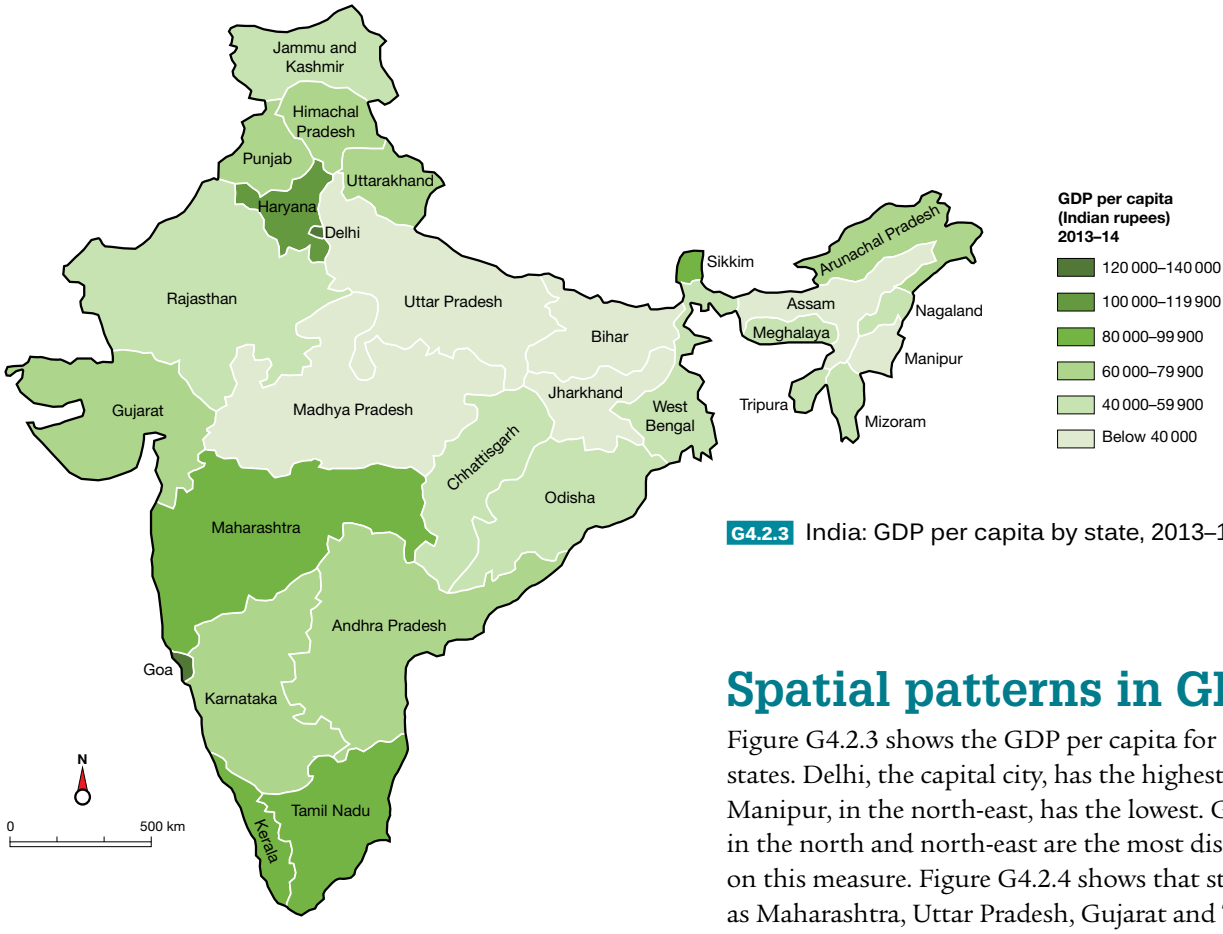
Social mobility

Very few people manage to break out of the cycle of poverty and caste that they are born into. Untouchability locks Dalits, who traditionally do the dirtiest manual jobs, in their occupations.

Caste still shapes the way India is run. The Indian government and bureaucracy are dominated by the upper castes and the caste system helps to explain why 15 per cent of the population is kept on the very margins of society by the circumstances of their birth.



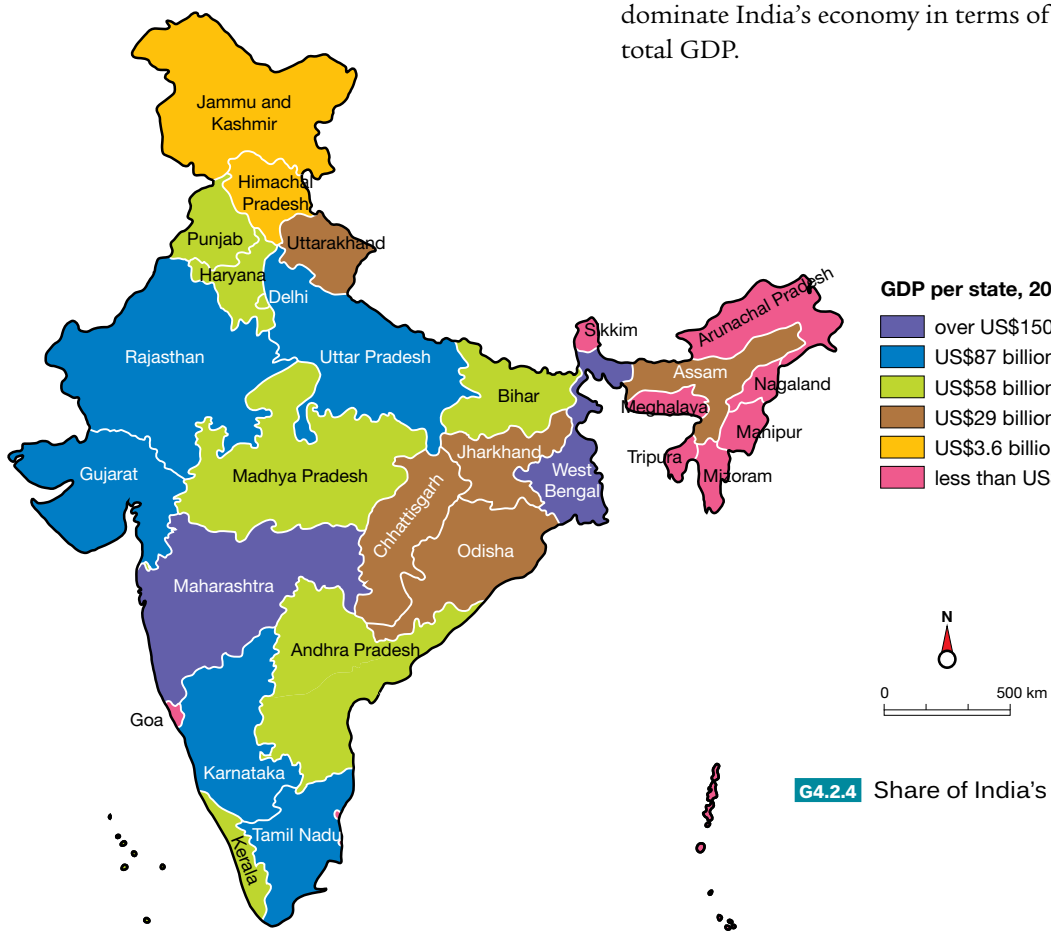
G4.2.2 Indian caste system



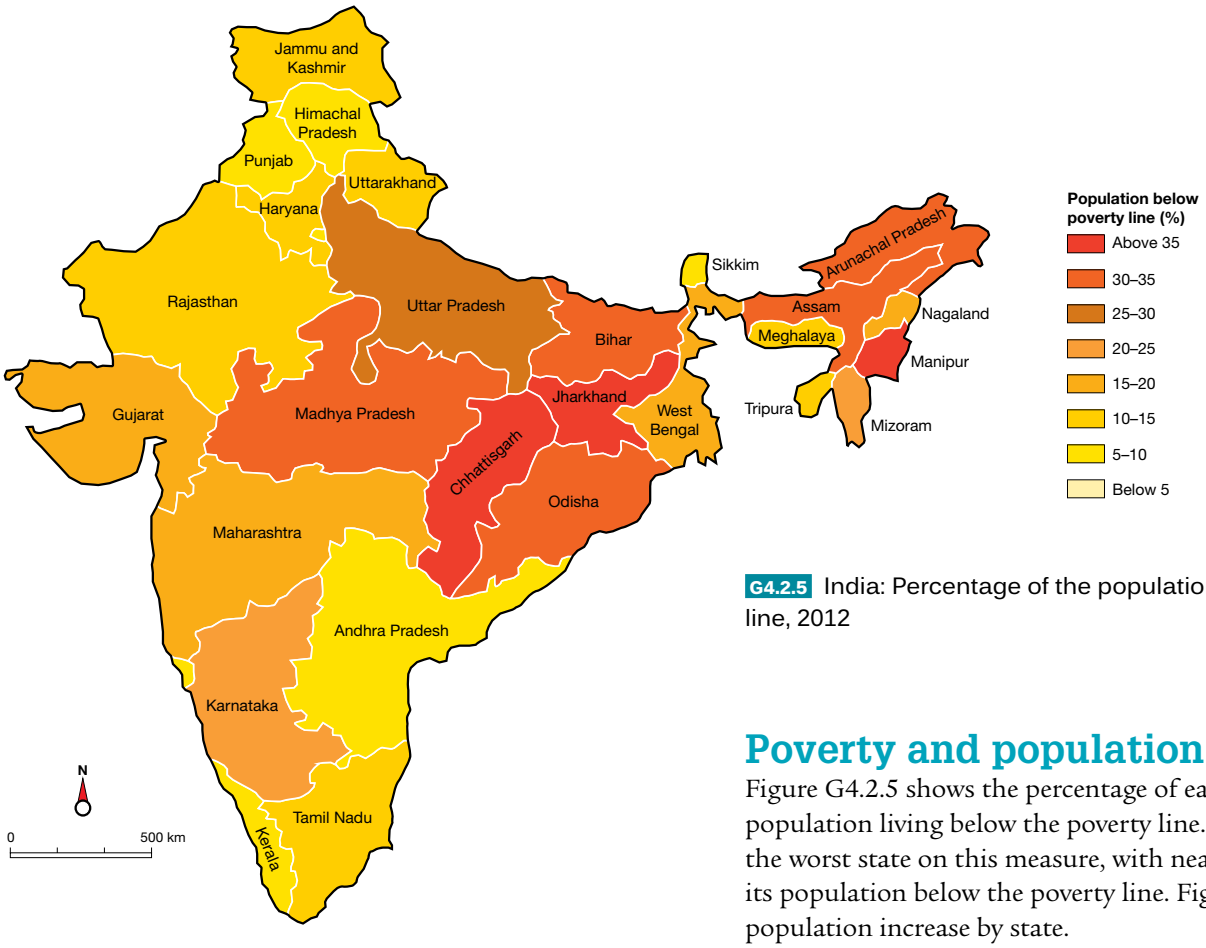
G4.2.3 India: GDP per capita by state, 2013–14

Spatial patterns in GDP

Figure G4.2.3 shows the GDP per capita for each of India's states. Delhi, the capital city, has the highest GDP per capita. Manipur, in the north-east, has the lowest. Generally, states in the north and north-east are the most disadvantaged on this measure. Figure G4.2.4 shows that states such as Maharashtra, Uttar Pradesh, Gujarat and Tamil Nadu dominate India's economy in terms of their share of total GDP.



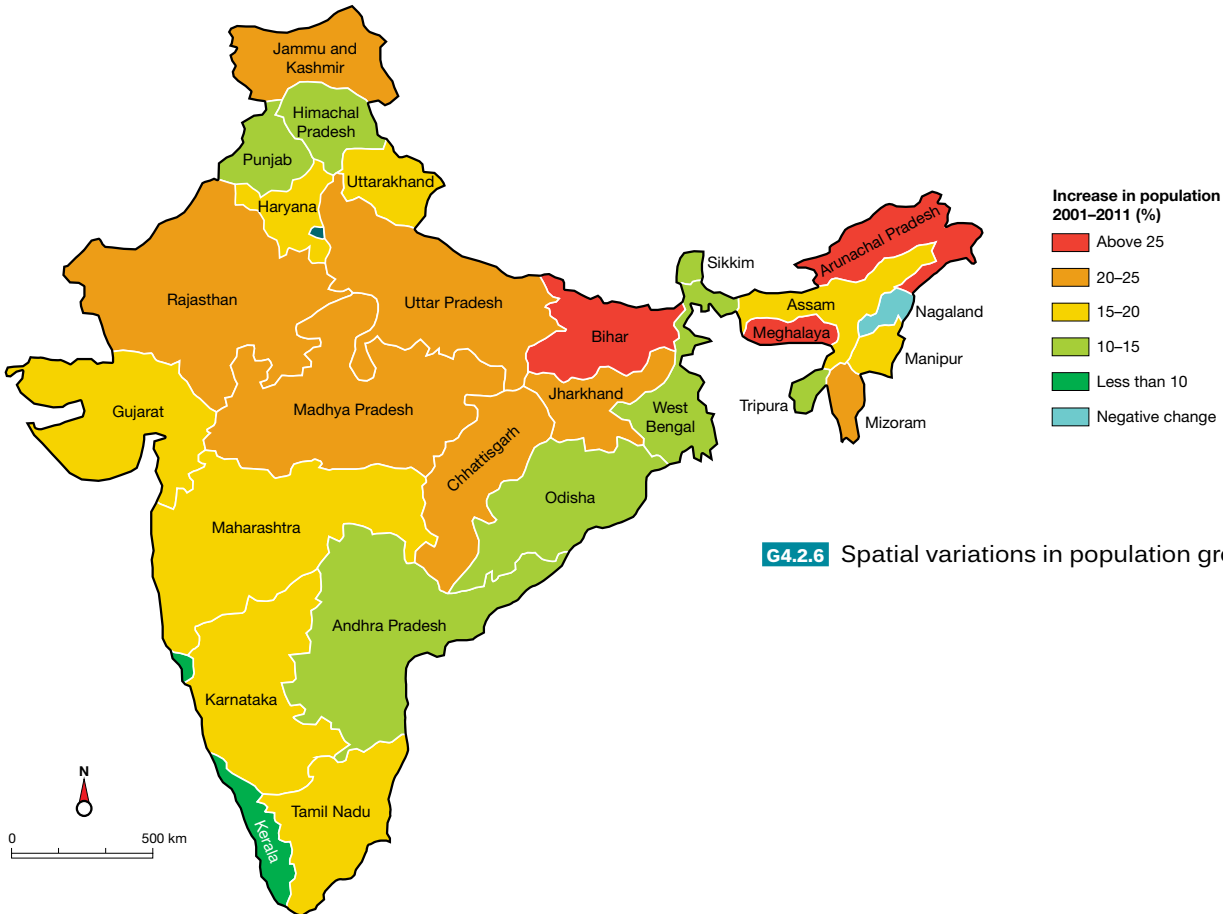
G4.2.4 Share of India's GDP by state, 2013–14



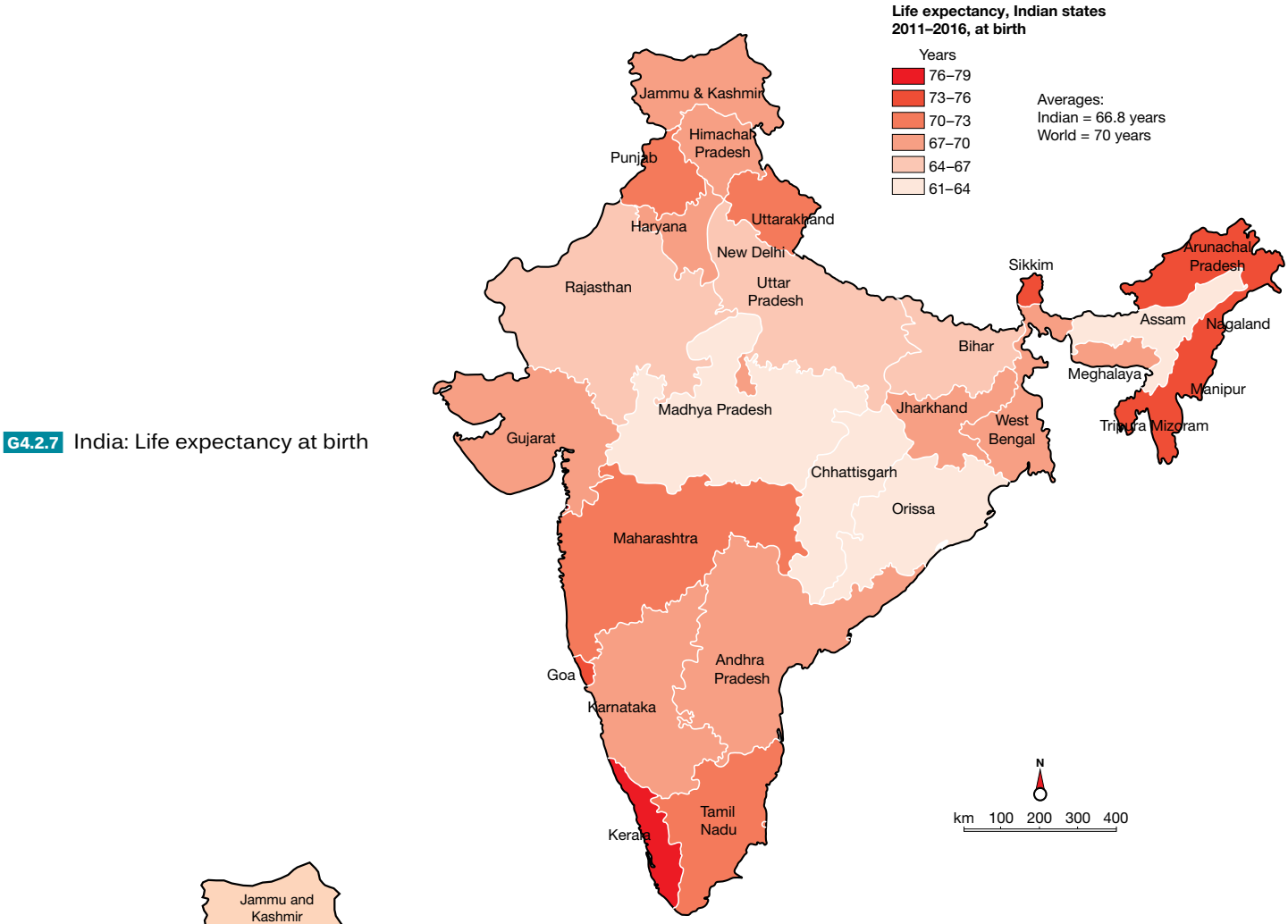
G4.2.5 India: Percentage of the population below the poverty line, 2012

Poverty and population increase

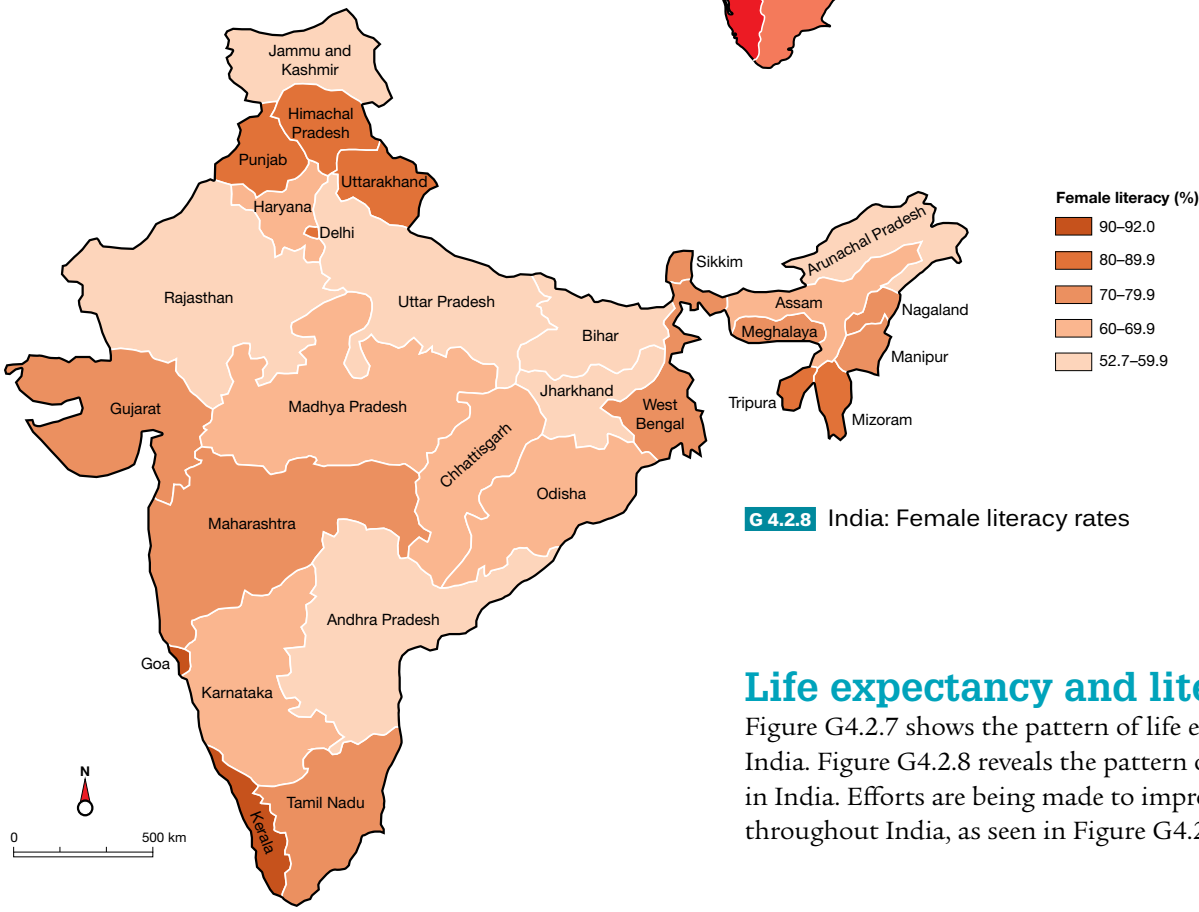
Figure G4.2.5 shows the percentage of each state's population living below the poverty line. Chhattisgarh is the worst state on this measure, with nearly 40 per cent of its population below the poverty line. Figure G4.2.6 shows population increase by state.



G4.2.6 Spatial variations in population growth, 2001–11



G4.2.7 India: Life expectancy at birth



G 4.2.8 India: Female literacy rates

Life expectancy and literacy

Figure G4.2.7 shows the pattern of life expectancy in India. Figure G4.2.8 reveals the pattern of female literacy in India. Efforts are being made to improve female literacy throughout India, as seen in Figure G4.2.9.

G4.2.9 Students in a government-run school in a slum area on the outskirts of Jammu

Activities

LS G3B

Remembering and understanding

1 Describe the general spatial pattern of economic growth and development in India.
2 Identify the historical influences on the pattern of wellbeing in India.
3 Outline the consequences of the economic and development policies pursued by the Indian government after 1991.
4 State the impact of India's approach to economic development on the small-scale, self-employed population.
5 Outline how the caste system continues to cast a shadow over the lives of many Indians.

Applying and analysing

6 Study Figure G4.2.1. Using the data shown in the income pyramid, describe the distribution of household income in India.
7 Study Figure G4.2.3.
   a Identify the Indian states with GDP per capita of 60 000 rupees and above.
   b Describe the distribution of these states.
8 Study Figure G4.2.4.
   a Identify the Indian states that each account for more than 8 per cent of India's GDP.
   b Which state has the greatest share?
9 Study Figure G4.2.5.
   a Identify the states with more than 20 per cent of their population below the poverty line.
   b To what extent does the pattern reflect the spatial pattern shown in Figure G4.2.4?
10 Study Figure G4.2.6.
   a Identify the regions of India that show the greatest rates of population increase in the decade 2001–11.
   b Which regions experienced the lowest rates of increase?
11 Study Figure G4.2.7.
   a Describe the general pattern of life expectancy.
   b To what extent does the pattern of life expectancy reflect the spatial pattern shown in Figure G4.2.5?
12 Study Figure G4.2.8.
   a Name the states in which female literacy rates are the lowest.
   b How do these compare with the pattern of disadvantage shown in Figure G4.2.5?
   c Explain the relationship between the two indicators of human wellbeing.

G4.3 Contrasts in human wellbeing

Barriers to development

There is a range of barriers to development in India. Some of the most significant barriers are climate-related natural hazards, terrorism, corruption, communal unrest and the status of women.

Climate-related natural hazards

Natural disasters in India, many of them climate-related, interfere with efforts to combat poverty and enhance human wellbeing. Droughts, flash floods, cyclones and landslides brought on by torrential rains pose the greatest threat.

Flooding is the most common natural disaster in India (see Figure G4.3.1). The heavy south-west monsoonal rains cause the Brahmaputra and other rivers to overflow their banks, flooding surrounding areas. The floods can kill thousands and displace millions. The **monsoon** rains, especially when excessive or early, may ruin crops.

Most of India receives a high level of rainfall. As a result, almost all of India is flood-prone, and flash floods and torrential rains have become increasingly common in central India in recent decades, along with with the rising temperatures linked to global warming.

India's geographical position also means that it is affected by tropical cyclones. These disrupt the lives of millions of Indians living in coastal areas. Tropical cyclones are particularly common in the northern areas of the Indian Ocean in and around the Bay of Bengal. Cyclones bring heavy rains, storm surges and winds, which often isolate affected areas. In the North Indian Ocean Basin, the cyclone season runs from April to December, with peak activity between May and November.

G4.3.1 India's monsoons often bring widespread and destructive flooding.

Terrorism

Development is hindered in places affected by internal and external social and political instability. From time to time, tensions arise with both China and Pakistan. India is also facing a growing number of home-grown threats, which are potentially more serious than cross-border disputes.

Terrorism in India can be categorised as either external or internal. External terrorism emerges from neighbouring countries; internal terrorism is caused by religious or **communal violence** and political and/or economic factions (groups with different political, economic and religious views).

Since partition (the separation of India and Pakistan in 1947), there has been conflict over the state of Kashmir. Jammu and Kashmir is the only Indian state with a Muslim majority population. According to the 2011 census, Islam is practiced by about 68.3% of the state population, while 28.4% follow Hinduism. Extremist terrorist groups, especially the Kashmiri separatist forces operating from bases in Pakistan, have often targeted Mumbai. For example, in 2008 Mumbai was attacked and 164 people were killed over a period of four days at twelve locations.

The cost of maintaining the security force needed to safeguard against such attacks is a major drain on Indian finances and diverts resources from development-based initiatives.

Corruption

Corruption involves a lack of integrity or honesty, and usually takes the form of bribery. Corruption, like terrorism, eats away the country from the inside. Corruption has been deeply entrenched in India's bureaucratic and political system for decades. Some politicians and bureaucrats have amassed a great deal of private wealth, much of it 'black money' (illegally obtained and not declared for tax purposes), which has been deposited in overseas accounts. This form of corruption results in a significant loss of governmental revenue. Estimates put the loss of taxable income at US$420 billion over the past decade. Levels of corruption vary across India.

Communal unrest

Tensions can arise between India's cultural and ethnic groups. Hundreds of people are killed each year in religious-based violence between Muslims and Hindus. Figure G4.3.2 shows police arresting rioters in Hyderabad during communal violence between Hindu and Muslim mobs.

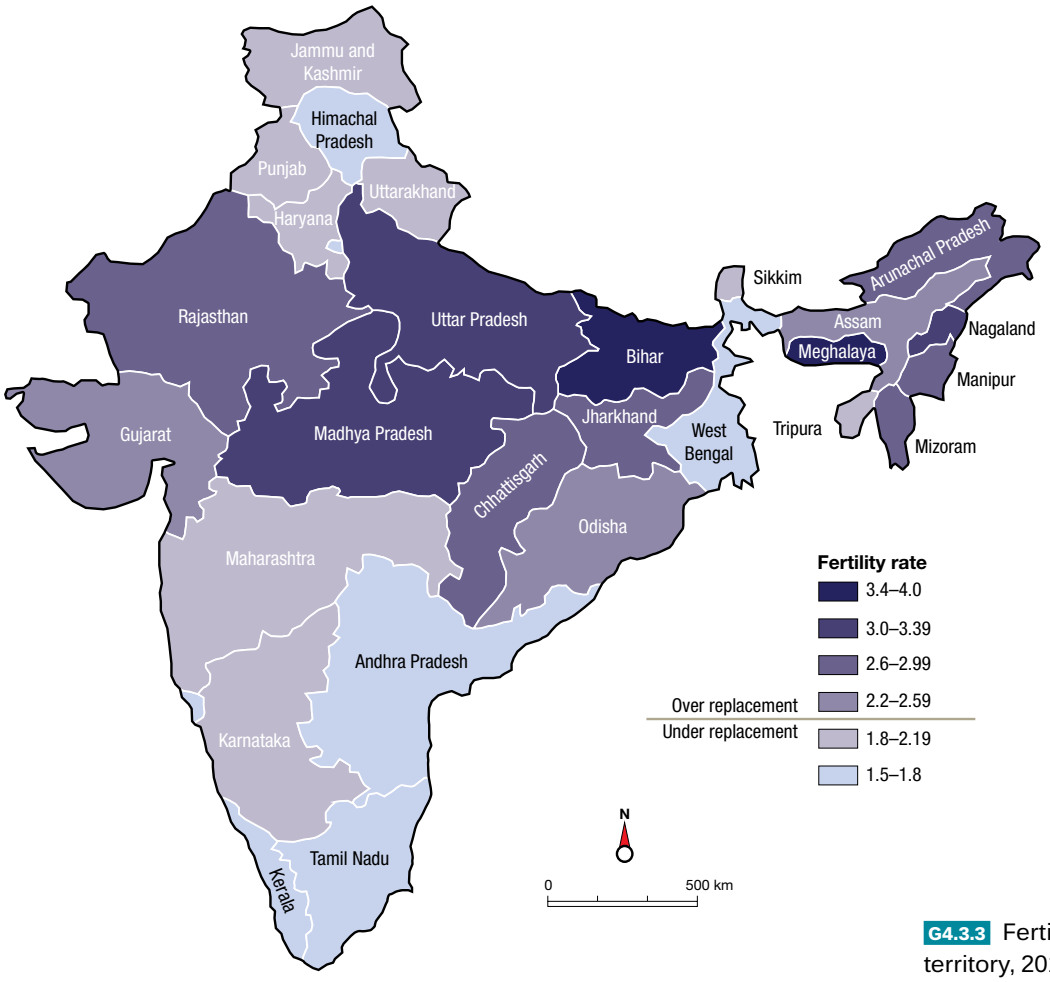
G4.3.2 Riot police arrest, Hyderabad

Status of women

Indira Gandhi became India's first female prime minister in 1966, and today a number of women hold high office in politics and business. Many sport and business leaders are women, and a generation of newly empowered young women are going out to work in large numbers. However, many women in India still face prejudice, violence and neglect. India has a gender-based imbalance in the population due to female foetuses being aborted and baby girls killed after birth. It is estimated that about 12 per cent of females disappear at birth, 25 per cent die in childhood, 18 per cent die during the reproductive years, and 45 per cent die at older ages.

Another means to examine the status of women is by fertility rates. Figure G4.3.3 shows that the rate of fertility differs throughout the country; consequently, the status of women also varies. Fertility rates are still relatively high in India's Hindi-speaking heartland, but fertility rates are below replacement level in the south, which means that babies are being born at a rate slower than that of people dying.

Patriarchal attitudes and widespread **misogyny** in many parts of the country need to be addressed to raise the status of women.



G4.3.3 Fertility rates in India, by state and territory, 2012

Human wellbeing in India's states

Odisha

Odisha (formerly Orissa) is located on India's east coast on the Bay of Bengal. While some economic progress is evident, the state remains one of the country's poorest.

Nearly a third of the state's population lives below the poverty line and the infant and maternal mortality rates are some of the highest in the country. Forty per cent of all children under 3 years of age are underweight. Orissa also has India's second highest proportion of scheduled caste and tribal people. Tribal communities constitute almost half of the state's poor. The literacy rate in these communities is one of the lowest in the country.

Agriculture and agriculture-related industries are Odisha's main form of economic activity and employ about 76 per cent of the total working population. Raising the living standards of those in rural areas is a major challenge.

The state's developing industries are largely based on its mineral reserves. Odisha accounts for a fifth of India's coal, a quarter of its iron ore and a third of its bauxite. Also important is the development of the information technology sector. Strategies to promote industrialisation include the upgrading of transport infrastructure: road networks, an international airport at Bhubaneswar, major ports and a rail network connecting the state to the rest of India.

Floods and cyclones are the main obstacles to Odisha's development, as many of the most populated areas are situated near the Bay of Bengal.

Bihar

Bihar is located in north-eastern India. It is one of the country's poorest states, lagging behind others in terms of social and economic development. Corruption is widespread and presents a major hurdle for improvements in human wellbeing. Rapid population growth also makes it difficult to raise living standards. Bihar, with a population of 103 million people, is the state with the third highest population after Uttar Pradesh and Maharashtra. In the decade to 2011, the state experienced a 25 per cent growth in its population, which is among the highest in India; and with a fertility rate of 3.7, it is going to increase further. Nearly 90 per cent of the population lives in the rural areas.

There are substantial variations in development across the state, with north Bihar lagging behind due to low agricultural productivity, poor irrigation facilities and high vulnerability to floods.

About a third of Bihar's population lives below the poverty line, which is much higher than the national average of 22 per cent. However, if factors beyond income are considered (for example in the Multidimensional Poverty Index, which takes health, education and living standards into account), about 79.3 per cent of the state's population lives below the poverty line. Poverty in Bihar results from low per capita landholding (as people do not own the land they live or work on), a very small industrial base and limited opportunities in the service sector. Poor infrastructure and low resourcing of social, health and education sectors compound the problems. Due to limited opportunities in the state, there is large-scale seasonal migration of farm workers to other parts of the country.

Bihar's performance on other human development indicators, such as health, education and sanitation, is also below the national average. For example, Bihar has the country's lowest literacy rates at 63.82 per cent. Adult illiteracy affects skill attainment and income potential. The percentage of underweight children is 55.9 per cent. Tube wells are iron pipes that are driven into the earth until water is reached and pumped to the surface. They are the most important source of drinking water in the state, with nearly 91 per cent of the population dependent on them.

Terrorism is a major issue in Bihar. Various terrorist groups frequently attack local police and politicians. Poor governance and an ineffective law and order system in the state have helped increase the disruption caused by such groups. Bihar has witnessed many massacres by terrorist groups.

Maharashtra

Maharashtra is India's wealthiest state and its second most populous after Uttar Pradesh. Maharashtra accounts for 18 per cent of the country's industrial output and 13.4 per cent of its GDP. The state's GDP per capita is more than 83 400 rupees per person per year, more than three times higher than Bihar and 40 per cent greater than the all-India average. Only 17 per cent of its people live below the poverty line, compared with the all-India figure of 22 per cent. Mumbai, the state's capital, is India's largest city and its financial capital. The city houses the headquarters of India's major corporate and financial institutions.

Most of the state's industrial enterprises are clustered around Mumbai. The main industries are chemicals, processed foods, refined petroleum, machinery and equipment, textiles, basic metals, pharmaceuticals and motor vehicles. The service sector also makes an important and expanding contribution to the state's economy. About two-thirds of the population is rural and lives in villages. Fifty-five per cent of people are dependent on agriculture for their income.

The government of Maharashtra actively seeks industrial investments from domestic as well as foreign institutions. It has invested heavily in the infrastructure required to support economic growth.

Maharashtra, or more specifically Mumbai, is one of India's major cultural centres. Mumbai is the largest film production centre in India (often referred to as Bollywood), and one of the largest in the world.

Andhra Pradesh

Andhra Pradesh is India's fifth most populous state and one of its wealthiest. Agriculture is the backbone of Andhra Pradesh's economy. The state is known as India's 'rice bowl' because it farms most of the rice produced in the country, and it is also the leading producer of cash crops such as tobacco, groundnut, chillies, turmeric, oilseeds, cotton, sugar and jute (a natural fibre for making hessian sacks and string).

While Andhra Pradesh is one of the country's most industrialised states, manufacturing accounts for a small percentage of the state's income. Industries such as shipbuilding, aeronautics and the manufacture of electrical equipment, machine tools and drugs have clustered around Hyderabad and Vishakhapatnam.

The service sector of the state accounts for 43 per cent of the state's GDP and employs 20 per cent of the workforce. In recent years, Hyderabad has emerged as a major information technology centre. The city is now home to 1300 information technology firms, including Microsoft®, Google®, IBM®, Yahoo®, Dell® and Facebook®.

Activities

Remembering and understanding

1 Outline the climate-related hazards that affect development in India.
2 Describe the nature of terrorism in India and outline its impacts.
3 Explain how corruption detracts from the development potential of Indian states.
4 State how violence in India affects the country.
5 Explain how the status of Indian women hinders development.

Applying and analysing

6 Study Figure G4.3.3. Identify the states with the highest and lowest fertility rates. Outline the overall spatial pattern of fertility.
7 a List the barriers to development identified in this unit and rank the impact these barriers have from the greatest to the least. Justify your ranking.
b Would you add any more barriers to the list? Explain.

Evaluating and creating

8 Select two Indian states, one relatively wealthy and the other poor.
a Undertake research to complete the table below for the selected states. Include details for the four states discussed in this unit.
b Investigate the developmental indicators and the factors either promoting or hindering development and efforts to promote human wellbeing.
c Present your findings as a multimedia presentation.

	Odisha	Bihar	Selected poor state	Maharashtra	Andhra Pradesh	Selected relatively wealthy state
GDP per capita						
HDI score						
Inequality-adjusted HDI						
Fertility rate						
Life expectancy						
Child mortality rate						
Literacy rate						

G4.4 Enhancing human wellbeing

Government-based initiatives

Governments set the policy framework that governs the ways economies operate and develop. The policies can either promote or hinder development. In recent decades, India's government has:

- created a large, well-educated workforce able to meet the needs of corporations investing in India (for example, the call-centre industry depends on speakers of English) and to provide valuable expertise in the area of research and development
- maintained relatively low wages that attract foreign and local investment into an economy that is now less centrally controlled
- exploited a wealth of industrial and agricultural resources, which can provide raw materials for industries
- invested in transport infrastructure, including road, rail, ports and airports
- promoted a growing middle class, with disposable income to purchase locally made goods and services, such as computers and motor vehicles.

Five-Year Plans (FYPs) are centralised and integrated national economic programs in India. The government created a Planning Commission which developed, executed, and monitored these Five Year Plans. The twelfth and last five year plan (2012–2017) completed its term in March 2017. The plan aimed at achieving an average growth rate of 8 per cent. Other areas of main thrust include infrastructure, health and education. It also aimed at bringing down the poverty ratio by 10 per cent (currently 30 per cent of the population is in poverty).

While the plan increased the national income, productivity in industries and agriculture and enhanced communication and transport facilities in India, not all people have experienced the benefits of economic growth.

Bringing electricity to India's rural poor

In 2015, India produced nearly 1106 billion kilowatt-hours of electricity, 65 per cent of which came from coal. However, almost 200 billion kilowatt-hours of power were lost due

G4.4.1 Solar power can make a big difference to people's quality of life.

to the country's old and inefficient electricity grid. In other words, one-fifth of the electricity produced never reached the customer. Not only was the electricity wasted, so too were the billions of cubic metres of water used to generate the lost electricity, and hundreds of millions of tonnes of carbon were needlessly emitted. While this energy is wasted, four hundred million Indians, or one-third of the population, still live without electricity, according to the Indian government.

Rather than going to the expense of constructing expensive Western-style electricity production and distribution infrastructure, small, locally based energy projects are seen by many as the most effective response. India's last Five-Year Plan promoted the idea of a decentralised power grid. This involved connecting homes and villages to local solar-powered installations (see Figure G4.4.1). Progress has, however, been slow. As of 31 January 2017, the installed capacity of solar power was 9 GW meeting 1% of the utility electricity generation. In the year 2015–16, wind power accounted for 8.5% of India's total installed power capacity.

Transnational institutions aiding development

The World Bank and the United Nations Development Programme (UNDP) are two transnational institutions that work with people at all levels of society to drive and sustain the kind of development that enhances people's wellbeing. In 2014, the UNDP had forty-two projects across India, the main purposes of which were environment and sustainable development (38 per cent of funding), democratic governance (28 per cent) and poverty reduction (34 per cent). The World Bank currently funds seventy-eight development-related projects worth US$23.6 billion.

World Bank

Water and sanitation projects

In early 2014, the World Bank entered into a US$500 million agreement to improve rural water supply and sanitation services in four of India's poorest states—Assam, Bihar, Jharkhand and Uttar Pradesh. Support for the initiative dates from 1991. Since that time, the bank has contributed more than US$1.4 billion, benefiting 24 million rural households in more than 15 000 villages. Such initiatives meet a real need. Only a third of India's households have access to tap water and domestic toilets.

Did you know?

India's mobile phone subscribers totalled 980 million in 2015, with around 350 million of those users having a smart phone. Yet only around half of the population had access to proper sanitation.

Other projects

Other projects focus on the development of transport infrastructure, for example Mumbai's massive rail and road infrastructure development and state highway projects in Gujarat and Rajasthan. The bank also invests in education, with a US$500 million project to increase access to good-quality secondary education. Watershed initiatives, coastal disaster risk management, AIDS control initiatives and low-income housing initiatives are also among the projects funded by the World Bank.

International NGOs

Given the extent of the challenges faced by India, it is not surprising that the world's best known NGOs can be found operating throughout the country.

CARE International focuses on the most marginalised people through its large-scale projects in education, health and HIV/AIDS and emergency response. In particular, CARE focuses on empowering women and girls to improve their situations and to be leaders in the communities. CARE works with the poorest of the poor in more than 100 districts, in a total of eleven states across India.

Among the many initiatives of the Save the Children organisation is a network of 150 *balwadis* in northern Mumbai. These provide pre-primary education for children between the ages of 3 and 5 years, which helps build a strong foundation for the formal years of schooling. The children who attend the *balwadis* typically come from the slum communities. They have very limited access to clean water and sanitation facilities. Most of these children are first-generation learners from families on very low incomes.

Indian-based NGOs

India has thousands of NGOs, ranging from those that work right across India to those that work at local levels. For the most part, these bodies are effective in reaching the most marginalised and vulnerable people in Indian society. Programs include working with other organisations to build canals (see Figure G4.4.2). The Bharatiya Agro Industries Foundation (BAIF) is one such NGO. Founded in 1967, the foundation seeks to promote sustainable living in rural India.

G4.4.2 Sandipani Muni School for needy girls run by Food for Life Vrindavan

NGOs and women

There are many NGOs in India aiming to improve the wellbeing of women. These projects can include food distribution to women and children, providing school meals to girls and educational opportunities (see Figure G4.4.2).

Enhancing the wellbeing of Khondla's farmers

While Indian authorities are slow to recognise it, enhancing human wellbeing begins in villages such as Khondla, in the state of Chhattisgarh. In the village, some 336 kilometres to the north of Raipur, the state's capital, the BAIF is working with rice farmers to design and develop a low-cost irrigation and water conservation project. The Indian-based NGO's environmental objective is to recharge the area's groundwater reservoirs, which local farmers say have been declining in recent years. The project includes all the village's farmlands and all 300 farming families.

The NGO's social objective is to raise people's standard of living. The success of the initiative is being measured in terms of larger harvests and increased crop yields. Small dams, channels and gravity are used to capture the rainfall that pours off the surrounding ridge and distribute it to the village's rice paddies (see Figure G4.4.3). Farm incomes have grown as output and yields have increased.

The initiative highlights one of the key development issues in India—the struggle between local projects that are seen to make a difference to the lives of people living in the country's 600 000 villages, such as Khondla, and the very costly and complex industrial modernisation promoted by the national government.

The total cost of the BAIF project is just US$160 000. It is an environmentally safe and relatively low-cost way of addressing the challenges of food production and water security.

Persistent inequalities

While some progress has been made in reducing poverty in India, significant inequalities still exist.

- According to the World Bank, India's poverty rate declined from 37.2 per cent of the population in 2005 to 21.9 per cent in 2011.
- If the percentage of the population living on US$1.25 a day (**purchasing power parity—PPP**) is used as a poverty line, the decline has been from 41.6 to 32.7 per cent.
- If the percentage of the population living on US$5.00 per day (PPP) is used, the reduction in poverty is a marginal decline from 97.3 per cent in 2005 to 96.3 per cent in 2010.

- In absolute terms, 268.1 million Indians lived in poverty in 2011, down from 469.3 million in 2005.
- The richest 20 per cent of Indians account for 52.81 per cent of income, while the poorest 20 per cent of people make do with just 8.54 per cent of income.
- In rural India, about 34 per cent of people live on less than US$1.25 a day, down from 44 per cent in 2005.
- In urban India, 29 per cent of the population lived on less than US$1.25 in 2010, down from 36 per cent in 2005, according to the World Bank.
- On a state-by-state basis, GDP per capita ranges from 192 652 rupees in the state of Goa and 175 812 in Delhi to just 24 681 in Bihar.

G4.4.3 Increased rice production has helped raise the standard of living for the people of Khondla, Chhattisgarh.

Activities

Remembering and understanding

1 Outline the government-based initiatives designed to promote development in India.

2 State the objectives of the Indian government's last and ambitious Five-Year Plan (2012–17).

Applying and analysing

3 Copy and complete the following table, assessing each NGO program on how it will benefit in the following areas.

Criteria	World Bank: Bringing electricity	Indian-based NGOs: Khondla's farmers	International NGOs: Water and sanitation
Environmental			
Economic			
Social			

Evaluating and creating

4 Using the internet, investigate the range of development-related initiatives funded by the World Bank in India. Select one of these to investigate in detail. Prepare a short written report, outlining the nature of the initiative and its impact on people's wellbeing.

G4.5 Access to water in India

Water use

The demand for water in India is growing rapidly, driven by population growth and rising standards of living, at least for some. This demand, combined with the pollution of surface water, has resulted in increased groundwater extraction. As a result, water tables (the uppermost level of underground water) are dropping quickly and the situation is not sustainable. The link between water and food security and health in India means that urgent solutions are required.

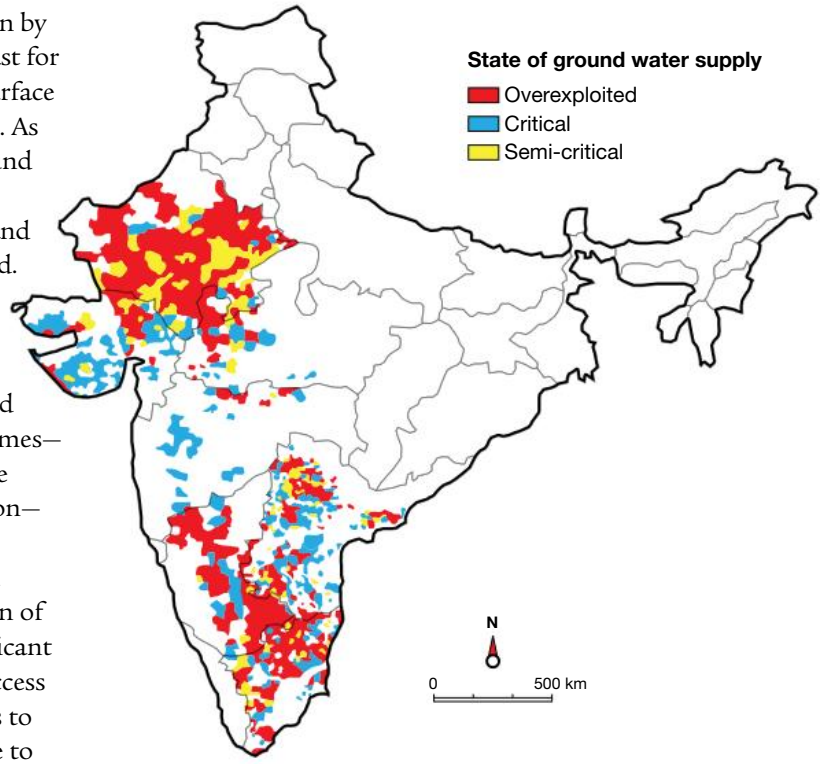
Access to an improved water source

While 92 per cent of Indians have access to an improved water source, only 25 per cent have it piped to their homes—the remainder obtain it from communal sources. These figures are better than the figures on access to sanitation—only 35 per cent of Indians have access to sanitation. The difference in access to improved water sources and sanitation reflects the priority given to the construction of water-related infrastructure in the past. This is a significant improvement since 1990, when only 72 per cent had access to an improved source, and only 18 per cent had access to sanitation. In rural areas, where most Indians continue to live, 84 per cent have access to an improved water source, while only 21 per cent have access to sanitation.

Groundwater

Groundwater is a critical resource in India, accounting for over 65 per cent of irrigation water and 85 per cent of drinking water supplies. While the nation's average annual rainfall is high by world standards, much of it (up to 80 per cent) falls during the summer monsoon (that is, from early June to September) and is highly variable. The combination of these climatic conditions and a range of human-related pressures has driven India's households, farmers and industry to depend increasingly on groundwater rather than surface water.

A large proportion of India's surface water supplies are unsafe for drinking or farming—more than 70 per cent of India's surface water resources are polluted by human waste or toxic chemicals. Groundwater is widely seen as a safe alternative. This dependence on groundwater is leading to a rapid deterioration in the nation's groundwater resources, as is shown in Figure G4.5.1. It is estimated that 60 per cent of the country's groundwater stores will be in a critical state of degradation within 20 years. Wells are having to be dug deeper and deeper as the water table is dropping by up to 33 centimetres a year in some places.



G4.5.1 Groundwater supplies under threat in India

The decline in India's groundwater resources is due to a number of factors. Groundwater enables irrigated agriculture in areas located far from rivers. In urban areas, the water supply infrastructure is often poor and unreliable. As a result, well drilling and bores are typically regarded as the most cost-effective way of obtaining household water. In Delhi, an estimated 40 per cent of the water transported through the mains system (pipe infrastructure) is lost through leakage. For many residents, the only alternative to bores is expensive supplies purchased from water trucks.

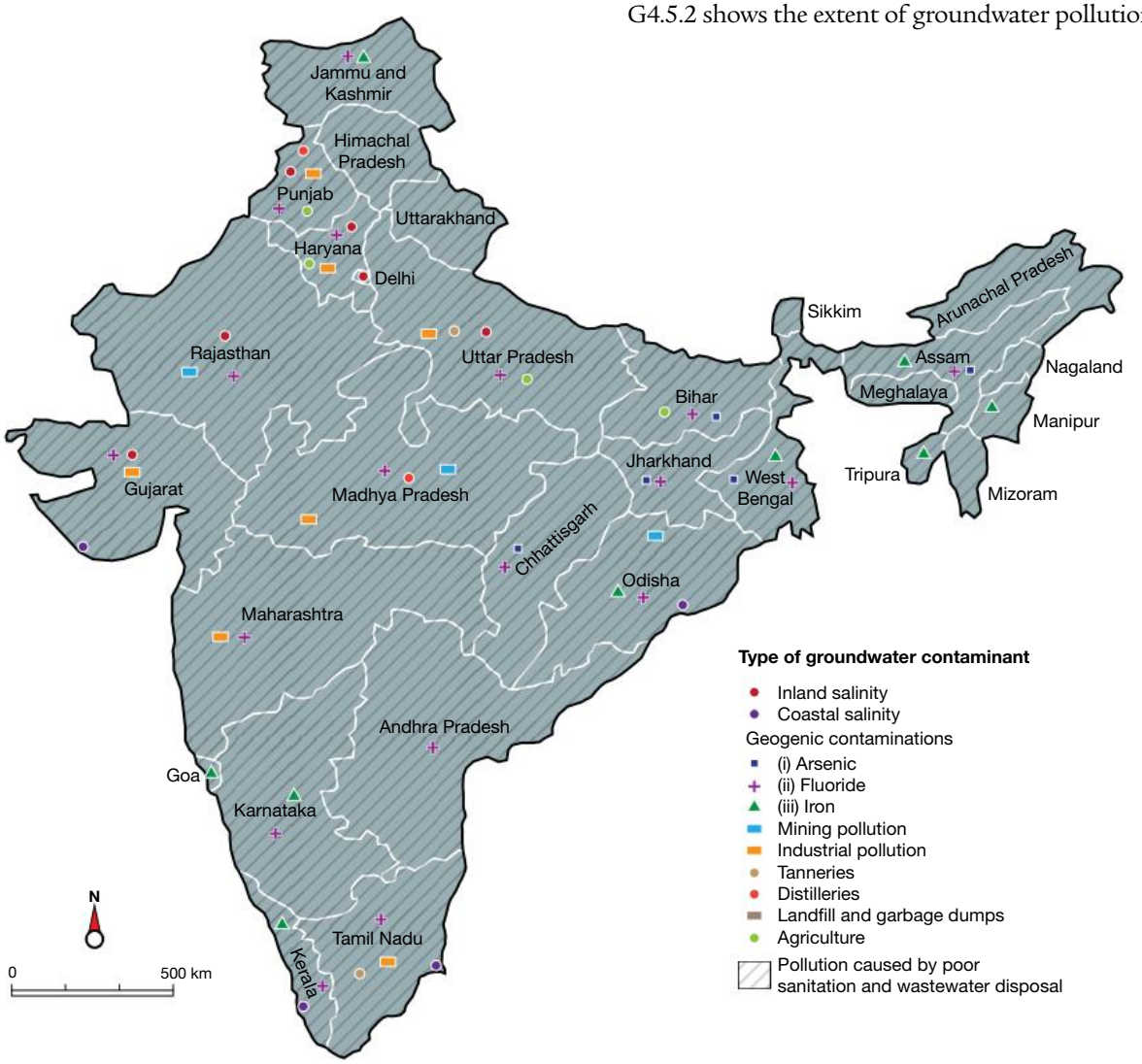
In rural areas, subsidised electricity makes it cheap for farmers to pump groundwater from wells. The low cost of the water encourages excessive water withdrawal and inefficient irrigation practices. In order to feed a growing and more affluent population, it is anticipated that agricultural water demand will double between 2014 and 2030.

Water contamination

As wells are drilled ever deeper, the water that is extracted often contains elevated levels of arsenic, fluoride and other harmful chemicals. Arsenic poisoning is now widespread in the lower Ganges River Valley. The health impacts include headaches, confusion, severe diarrhoea and drowsiness. As the poisoning develops, convulsions occur.

When the poisoning becomes acute, diarrhoea, vomiting, blood in the urine, cramping muscles, hair loss and stomach pain may occur. Arsenic poisoning can ultimately result in a victim lapsing into a coma and dying.

Falling water tables can also result in contaminants entering the water table from external sources such as surface water polluted by sewage, agricultural fertilisers and industrial waste. Saltwater penetration is a problem in coastal areas. Figure G4.5.2 shows the extent of groundwater pollution in India.



G4.5.2 Groundwater pollution

Activities

Remembering and understanding

1. State why it is important that the issue of India's dwindling groundwater supplies is addressed.
2. Outline the level of access to improved water sources in India. How does this compare with access to sanitation? Why is there a difference?
3. Explain why India's groundwater stores are declining.
4. State why groundwater can be used as a substitute for surface water.
5. List the contaminants of groundwater and outline the health impacts of arsenic poisoning.

Applying and analysing

6. Discuss the challenge of providing access to improved sources of water for India's urban population. Is the provision of communal sources of water acceptable? Explain your answer.
7. Study Figure G4.5.1. Describe the spatial distribution of groundwater supplies under threat.
8. Study Figure G4.5.2. Describe the spatial distribution of groundwater pollution.

G4.6 Access to sanitation, Mumbai

Mumbai's slums

A project funded by the World Bank, the Mumbai Municipality Slum Sanitation Program, is bringing an improved quality of life to people living in slums of Mumbai. The city is home to 6.9 million slum-dwellers, who live in approximately 2000 slum areas spread throughout the metropolitan area. Fifty-four per cent of the city's population lives in such conditions.

Lack of sanitation infrastructure

During the development of Mumbai, the construction of sewerage infrastructure was given a lower priority than solid waste disposal, stormwater drainage and water supply. As a result, only a small area of the city has a sewerage collection and treatment system. Most of the city's slums are not serviced by sewer lines. In these areas, wastewater drains into septic tanks.

As a consequence, Mumbai's slums are inadequately serviced by public or communal toilets. These facilities, constructed by Maharashtra Housing and Area Development Authority or the city's water supply and sewerage department, typically do not have water or electricity connections, and are now mostly in poor condition due to the lack of maintenance.

As a result of their poor condition (see Figure G4.6.1), together with long queues, especially in the morning, many slum-dwellers defecate in the open. Women often prefer to defecate in the open instead of using the dirty toilets. Furthermore, men and women's toilets are often not separated. This reduces privacy and can lead to the harassment of women.

The 'pay and go' toilets provided by the city in places such as railway stations and bus stops are difficult for the poor to access because they charge a fee (typically 2 rupees per person). The unsatisfactory processes involved in the collection and treatment of sewerage within the slums results in the spread of disease and the degradation of the natural environment.

G4.6.1 A men's public toilet in a slum in Mumbai, India

Mumbai Municipality Slum Sanitation Program

The aim of the Mumbai Municipality Slum Sanitation Program (MMSSP) is to improve the inadequate sanitary conditions in Mumbai's slum areas through the provision of communal toilet blocks.

The success of the initiative is based on community engagement. The participatory approach was a condition of the World Bank funding. The community has been involved in the planning, design, construction, operation and maintenance of the toilet blocks. Giving the slum-dwellers a sense of ownership and responsibility for the facilities is expected to improve the operation and maintenance of the toilet blocks.

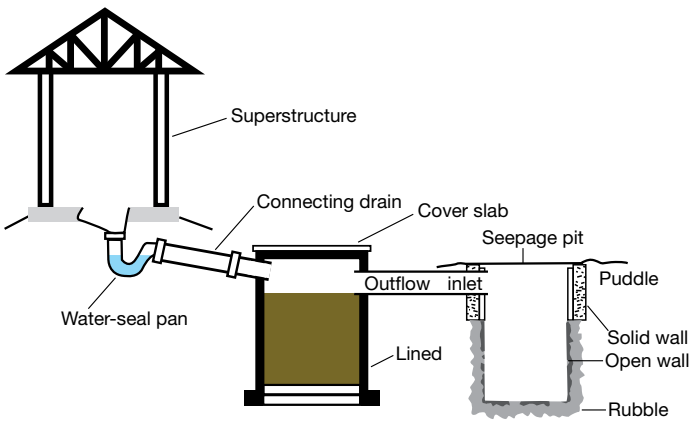
The first phase of the project (completed in December 2005) involved the construction of 328 toilet blocks with more than 5100 separate compartments. These toilets were planned to serve the needs of 250 000 people, or 50 people per toilet cubicle. The second phase of the project aimed to add an additional 35 000 toilets. The community blocks are for the benefit of a specific community, not for public use.

Ninety per cent of the World Bank funding was directed towards the improvement of the centralised sewerage system (for example with additional treatment plants and extended sewer lines), while 10 per cent of the funding was used to build the communal toilet blocks, which averaged US$1400 per block.

Communal toilets

Each block consists of a two-level structure built of reinforced concrete. It houses an average of ten to twenty pour-flush toilets that require half a bucket of water for flushing (see Figure G4.6.2). Most of the waste is directed to septic tanks when it is not possible to connect with a sewer line. Each has an overhead water tank and electricity. The blocks are open 24 hours a day. The sludge that is produced in the septic tanks is removed and carted away to dumping grounds by tankers. The liquids are taken out and disposed of into stormwater drains. Many of the blocks are not accessible by tankers due to the density of building and lack of open space for constructing access roads. In these areas, people have to take out the sludge manually.

To use the facilities, residents must either pay a monthly fee for a family pass or pay on a per-use basis. The money collected pays for cleaning and maintenance.



G4.6.2 Pour-flush toilets are a relatively cheap response to the needs of people in unplanned urban settlements.

Project outcomes

The outcomes of the program include improved public health as a result of the improved sanitation facilities and the empowerment of slum-dwellers, who have been given a voice in the decision-making process. There is also an increased awareness of the importance of sanitation and personal hygiene. The human wellbeing of the city's slum-dwellers has been enhanced.

Activities

Remembering and understanding

1. Outline the nature of the sanitation issue in Mumbai.
2. Explain why Mumbai lacks the required infrastructure.
3. State the consequence of slum-dwellers not having access to communal toilets or being unable to afford to use 'pay-as-you-go' facilities.
4. Outline the approach to sanitation provision adopted by the MMSSP and funded by the World Bank.
5. Identify the social and environmental impacts associated with the MMSSP.

Applying and analysing

6. As a class, discuss the social and environmental advantages and disadvantages of communal toilet facilities such as those built under the MMSSP. Use this information to construct a mind map.
7. As a class, brainstorm why the construction of sewerage infrastructure, like that found in Australian cities, would be an impractical response to the sanitation needs of people living in Mumbai's slums.

G4.7 Child exploitation in India

Forms of exploitation

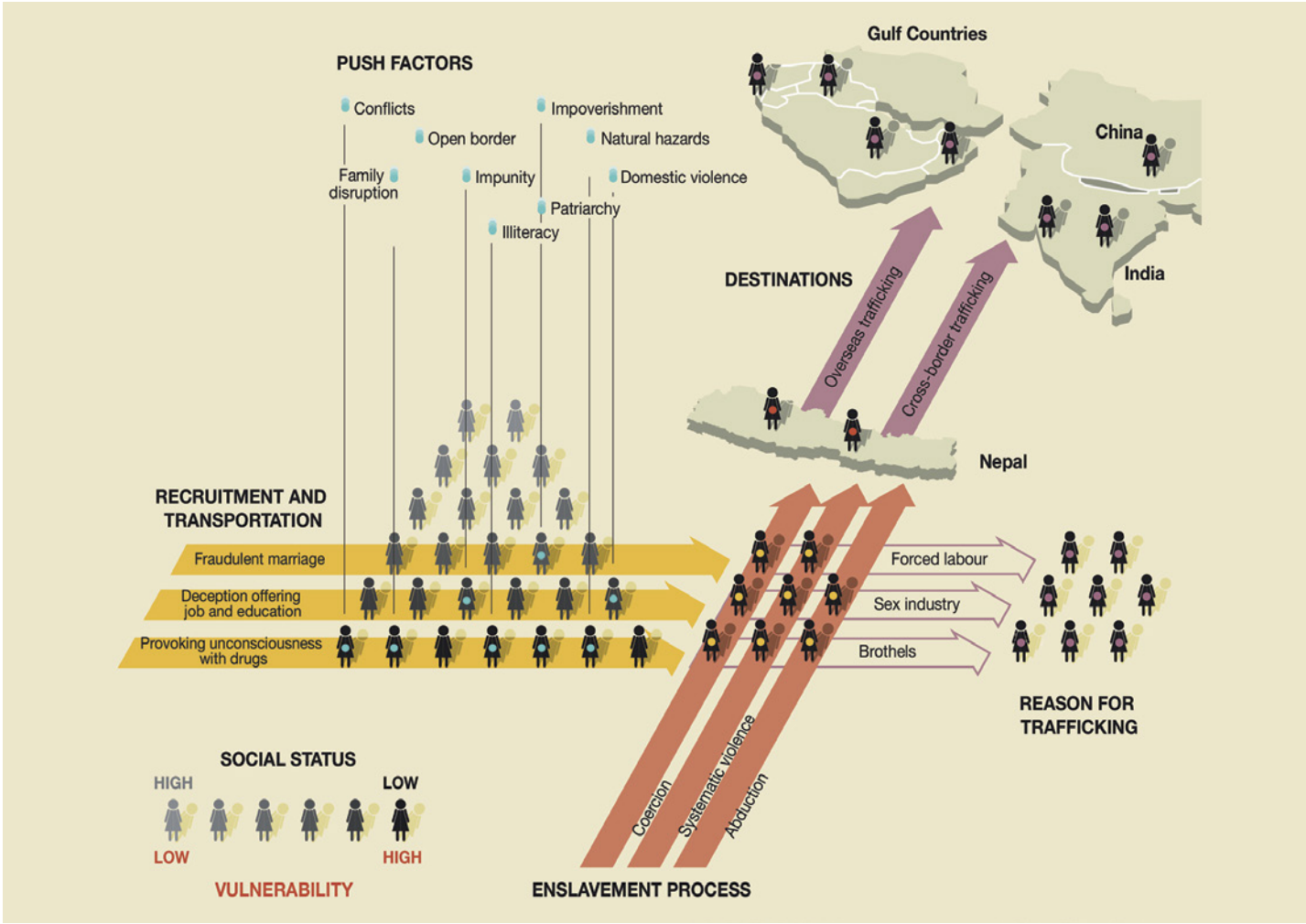
India faces many challenges, but the exploitation of children is one of the more serious. All forms of modern slavery and exploitation are found in India, from severe forms of inter-generational bonded labour to the worst types of child labour, commercial sexual exploitation and forced marriage. Millions of Indian citizens are engaged in forced labour as a result of debt bondage (when people work to pay off a debt), and people trafficking is widespread.

Cross-border migration

Cross-border migration occurs on a massive scale. Low-skilled migrant workers, many of them children, are at particular risk of exploitation. Large numbers of Nepali and Bhutanese migrants, who are exempt from Indian migration visa regulations, fall victim to recruiters and exploiters who take advantage of their vulnerability. Figure G4.7.1 outlines the human trafficking patterns between Nepal, India and other countries, and the push factors involved.

People trafficking

Ninety per cent of trafficking in India is internal, rather than international. Some internal migrants are lured from poor rural communities to relatively wealthy cities by brokers on the false promise of employment. Trafficked men, women and children make up significant shares of the workforce in industries such as construction, textiles, brick making, mines, fish and prawn processing and hospitality. However, many of India's enslaved people have not moved from one place to another—they are enslaved in their own villages. Many are trapped in debt bondage to a local landowner or born into slavery because of caste, customs, social or hereditary obligations.



G4.7.1 Patterns of human trafficking in Nepal

People enslaved in their own area do not have protection due to corruption, land grabs and asset domination by high-caste groups. Government benefits such as the National Employment Guarantee, food rations, primary health care and pensions simply cannot be accessed because of the lack of effective public administration. Some enslaved people do not officially exist—they have no birth registration or identification documents—which makes it difficult for them to access entitlements.

Sexual exploitation

The sexual exploitation of Indian children is widespread. Commercial sexual exploitation has traditionally taken place in specific areas, but is now more widely dispersed and is increasingly found in rural areas and at transport hubs, roadside restaurants and houses in suburban areas. Commercial sexual exploitation is increasingly arranged through the use of mobile phones, making it harder for authorities to find and prosecute offenders.

Forced labour

Forced labour takes place in factories and on farms. It is especially common in brick making, leather tanneries, mining and quarrying, the textiles and garments industries, domestic work and forced begging. Bonded labour, when someone works to pay off a debt, is widespread in quarrying, brick making, construction and mining.

Other forms of exploitation

Non-labour-based forms of modern slavery, such as forced marriage, illegal adoptions and organ trafficking, all occur in India. Forced marriage is partly a result of the gender imbalance in some parts of the country. Marriage brokers in states with the greatest shortage of women import young girls from poorer states. The girls are forced into marriages arranged by the broker in return for a fee. The low status of women and widespread domestic violence in Indian society put victims at risk of modern slavery. Commercial surrogacy is when a woman receives payment for being pregnant and giving up the baby when it is born. This practice is legal in India but it is open to potential exploitation.

Causes of exploitation

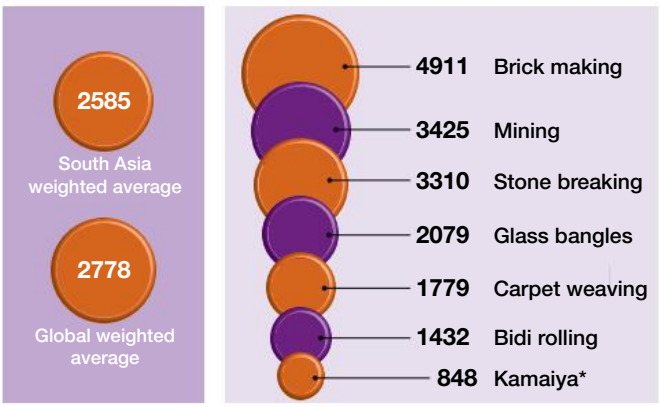
Poverty and caste system

Poverty and India's caste system are the main causes of child exploitation in India. The World Bank estimates that almost 30 per cent of Indians live below the international poverty line of less than US$1.25 per day. Indians most likely to be forced into slavery are those from the 'lower' castes (Dalits), and the indigenous communities (Adivasis), especially women and children.

Labour laws

It is difficult to collect data about the informal economy in India. Figure G4.7.2 outlines the estimated value of worker exploitation in South Asia, mainly India.

India has rigid labour laws. However, these laws are very complex—they make work protections difficult to monitor and they prevent work from being more productive and higher paying.



*A system of bonded farm labour that was once common in Nepal and was banned in 2000

G4.7.2 Estimated value of exploitation by industry in South Asia, 2011, US$ (million)

Spotlight

Debt bondage (or bonded labour)

Debt bondage is a person's pledge of their labour or services (or that of their children) as repayment for a loan or other debt. The labour or service required to repay the debt may not be specified, and the duration of the bond may be undefined. Debt bondage can be passed on from generation to generation. Debt bondage was legally abolished in India in 1976, but remains widespread in practice.

It is estimated that there are 18 to 20.5 million bonded labourers in the world. The majority live in four countries: Bangladesh, Nepal, Pakistan and India. Proposals to abolish bonded labour include:

- enforcing existing anti-forced-labour laws
- raising minimum wages
- enacting reforms that enable low-caste peasants to own land
- expanding financial credit to the poor
- opening new markets to labourers
- mounting public awareness campaigns.

G4.7.3 Children who were rescued from working as bonded labour stage a protest against slavery in New Delhi, India.

The unintended effect of India's complex labour laws has been the growth of the informal sector which is unregulated and operates outside government control. After the agricultural sector, which employs 60 per cent of child labour, the informal manufacturing and retail sectors are the largest employers of child labour. The dominance of family-operated enterprises in the informal sector also encourages the exploitation of child labour.

Addressing exploitation

While India has signed a number of key international conventions relevant to child exploitation, enforcement has been inconsistent. Bonded labour has been criminalised in India, under the Bonded Labour System (Abolition) Act since 1976, but enforcement has been weak. Amendments to the Penal Code in April 2013 criminalised all forms of human trafficking in accordance with the definition in the UN Trafficking Protocol. The amended Penal Code is broad enough to include most forms of forced labour, bonded labour and forced marriage. It remains to be seen whether the Penal Code will be used in this way.

Other recent actions give some hope that exploitation can be addressed. In October 2012, the Supreme Court issued a judgment requiring all states to carry out surveys to identify and release those in bonded labour. Other important Supreme Court interventions include mandating rural and urban local bodies to report cases of bonded labour to the District Magistrates, who are able to implement laws protecting the rights of the exploited. The enactment of the Protection of Children from Sexual Offences Act in 2012 and the recent increase in activity of the National Commission for the Protection of Children's Rights are important measures that demonstrate the government's renewed commitment to fight the exploitation of children. There has also been a focus on brothel raids and the rescue of victims.

NGOs have also been active in supporting exploited people, and have campaigned for more effective government intervention (see Figure G4.7.3). Unfortunately, there have been reports of human rights defenders being targeted for their anti-slavery work. Attacks on activists, as well as victims, commonly occur when workers are assisted to leave the workplace where they have been enslaved. NGOs also complain about the interference of government officials who want to avoid upsetting powerful slaveholders and traffickers. Some accept bribes to turn a blind eye to exploitation. The justice system is very slow generally, so victims have no confidence in its capacity to deliver a result. Penalties are small, especially compared with the profits being made.

Spotlight

Bonded child labourers, India

Ferozabad is the centre of the glass industry in India. Estimates of the number of children working in glass factories range from 8000 to 50 000, although exact numbers are difficult to obtain. Anti-Slavery International estimates that 70 to 80 per cent of the children working in glass factories are bonded by debt incurred by their parents, usually on advances of loans. Most of the children belong to the landless agricultural sector, and are expected to continue working until their parents' loans are paid off.

The children, some as young as 8 years old, have to live at the factories and look after themselves.

Conditions in the factories are horrendous and workers do not have access to protective equipment—no gloves, shoes or eyewear. The heat from the furnace can reach temperatures of 1400 to 1600 degrees Celsius and there is little ventilation. Injuries are commonplace, with cuts from broken glass and burns from the furnaces and molten glass. Long-term health is also affected; soot and dust cause respiratory diseases such as asthma and bronchitis, and eye problems.

G4.7.4 Children working in a glass factory

Activities

Remembering and understanding

1 List the types of child exploitation found in India.
2 Identify the areas of employment in which illegally trafficked people are found working.
3 Outline the difficulties that internally trafficked and locally enslaved people experience.
4 Explain the term 'debt bondage'.
5 Outline the recent developments in the distribution of sexual exploitation.
6 Explain why forced marriage is a major problem.
7 Outline the causes of exploitation. Why is the growth of the informal sector especially significant?
8 Outline the actions being taken to address the exploitation. What impediments are there?

Applying and analysing

9 Discuss the following statement.
For many people living in developing countries putting their children to work is a necessity and should not be viewed as exploitation.
10 Develop a poster campaign highlighting the evils of child exploitation.

Evaluating and creating

11 Investigate one NGO working to end child exploitation in India. Present your findings as an illustrated report.

G4.8 India's squatter settlements and slums

G4.8.1 The squalid living conditions of an Indian squatter settlement

India's urban poor

Despite the economic gains and poverty reduction achieved in recent years, India still has 260 million people living below the poverty line. This makes the country home to 22 per cent of the world's poor. While most of these people live in rural areas, increasing numbers are to be found in the country's large cities. About one in six of India's city dwellers are homeless, or crowd into the city's squatter settlements, or live in urban slums.

India's low-income urban housing settlements fall into two categories: officially recognised settlements located within the city, called *bastis*; and unrecognised or illegal settlements located in marginal land (squatter settlements). The *bastis* are spread throughout the city, often occupying valuable land. People who are too poor to rent or buy homes in the *bastis* usually find shelter in the squatter settlements. These typically occupy vacant private land or unused public spaces—land adjacent to railway lines, canals and highways, and under bridges.

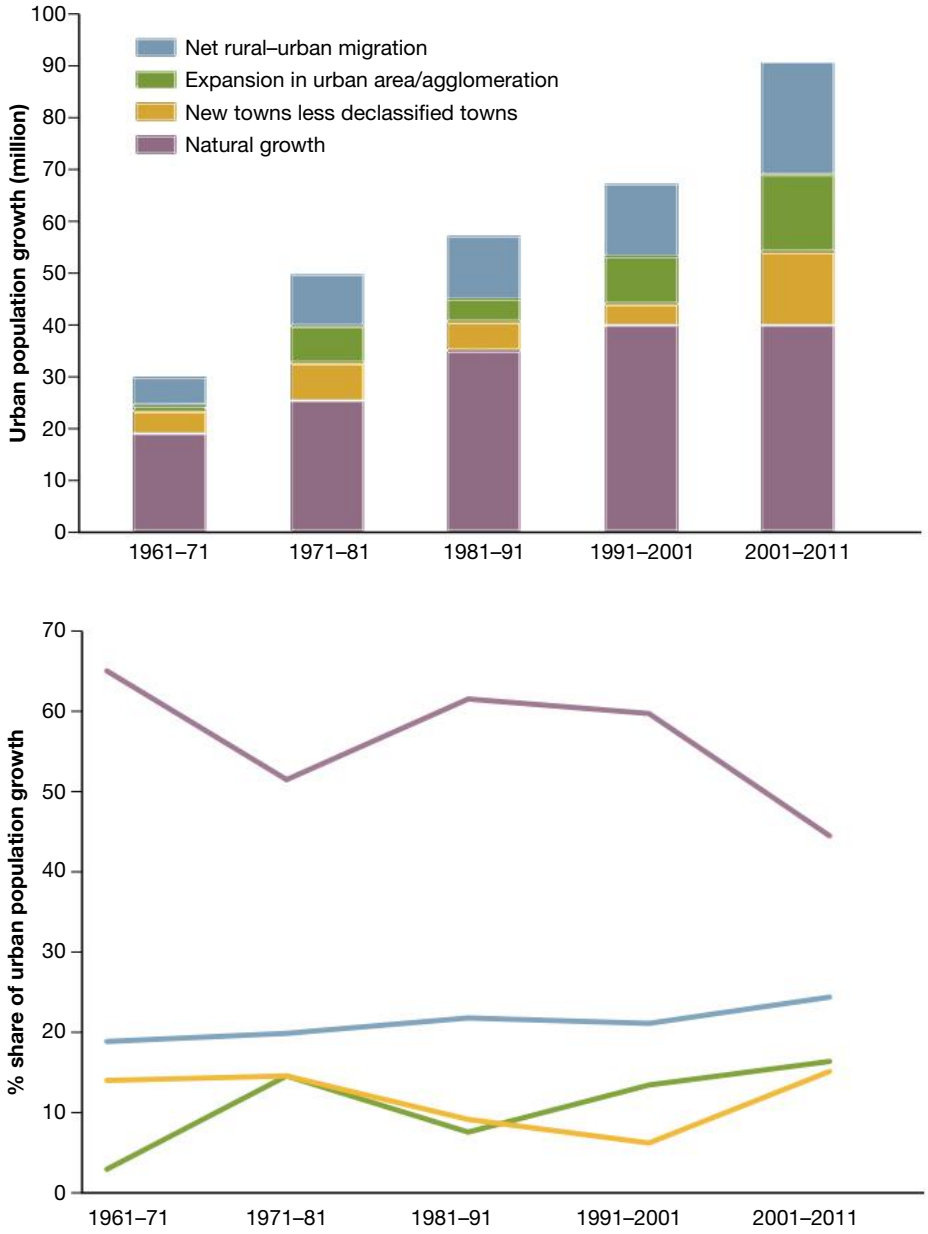
Living conditions

The living conditions in India's slums and squatter settlements are dirty and unpleasant by Western standards (see Figure G4.8.1). In squatter settlements, the constant fear of demolition discourages people from upgrading their simple dwellings. Squatter settlements are overcrowded and lack basic utilities, such as water, electricity and sanitation.

Indian census

In 2011, Indian authorities completed a census (see Figure G4.8.2) that included India's vast slum population for the first time. A slum was defined as a residential area in which the dwellings were unfit for human habitation because of dilapidation (being run down), overcrowding and lack of ventilation (fresh air), light or sanitation.

The census revealed that 13.8 million households or about 64 million people lived in urban slums and squatter settlements nationwide—that is 17.4 per cent of all urban



G4.8.2 Components of India's urban population growth, 1961–2011

households. More than one-third of slum homes surveyed had no indoor toilets and 64 per cent were not connected to a sewerage system. About half of the households lived in only one room or shared with another family.

Despite this hardship, 70 per cent had televisions and 64 per cent had mobile phones. Most overcame the lack of government infrastructure by rigging up elaborate, mostly illegal, connections to the electricity grid.

Indian urbanisation

India's urbanisation levels are relatively low by developing world standards. The bulk of urban migration is projected to take place over the next 20 to 25 years, resulting in an additional 300 million urban dwellers. Many of these new arrivals will crowd into the large urban slum districts and squatter settlements.

While only about a quarter of India's population is urban, this fraction represents 309 million people. At least twenty-three Indian cities have more than a million residents. The largest of these is Mumbai (12.4 million) followed by Delhi (11 million), Bangalore (8.4 million) and Hyderabad (6.8 million).

Kolkata

The city of Kolkata (Calcutta) has a population of over 4 million people. Adding the population of the surrounding metropolitan area takes the total to over 14 million people. About 4 million people live in Kolkata's slums, and another 1 million live in squatter settlements. Just 20 000 units are added to the city's housing stock each year, a number well short of the 50 000 units needed.

Most of Kolkata's *bastis* have fallen into a state of urban decay since the 1980s, principally because municipal governments lack the funds needed to maintain basic services. *Bastis* frequently have inadequate access to water, sanitation, sewerage, drainage and waste disposal. They are also overcrowded and crime is a growing problem. While the *bastis* offer legally recognised tenure (land ownership), which provides stability to residents, tenure also increases the price of housing. This excludes many of the urban poor.

Those too poor to live in the *bastis* find shelter in the squatter settlements that occupy vacant public and private land outside the city centre. Occupants of such settlements are denied land tenure rights and receive no services. The threat of eviction is ever present.

The Indian government has initiated several programs to improve housing conditions for the poor. Among the many schemes, the Valmiki Ambedkar Awas Yojana (VAMBAY) was a centrally sponsored scheme which undertook construction of dwelling units for slum dwellers. With the launch of the Jawaharlal Nehru National Urban Renewal Mission (JnRUM) which aimed at augmenting infrastructure facilities in cities along with the provision of providing basic civic services to slum dwellers/urban poor, the VAMBAY scheme was linked to JnRUM. Another initiative—the National Slum Development Program (NSDP)—uses a combination of physical infrastructure and social services to upgrade slums, provide clean water, upgrade drainage and sewers and construct community bathrooms and shared toilets.

Other initiatives include simplifying legal processes, giving people land title or tenure on the land they are living on, and increasing access to housing finance for low-income people.

Dharavi

Dharavi, in Mumbai, is the third largest slum in the world. (see Figure G4.8.3). It was established in the 1880s, during the British colonial era, to house the rural poor migrating to the city and the workers of polluting factories relocated from the peninsula on which Mumbai (then called Bombay) was located.

Today, Dharavi is a multi-religious, multi-ethnic district with over 700 000 people packed into just 210 hectares. About 60 per cent of the population is Hindu, while 30 per cent is Muslim. The rest are mainly Christian or Buddhist. Among the Hindus, about 20 per cent are Dalits—members of the lowest caste—who work in animal skin production, tanneries (where leather is made) and leather goods factories.

G4.8.3 Oblique aerial photograph of Dharavi. The density of housing is clearly evident in this image.

Over the years, the slum-dwellers of the district have suffered from numerous epidemics, including typhoid, cholera, leprosy and polio, and other disasters. Often the spread of these diseases is linked to poor sanitation. Authorities estimate that there is just one toilet for every 1440 residents. As a result, residents use local waterways as toilets. This leads to the spread of contagious diseases.

Like many other slum districts and squatter settlements, Dharavi has an active informal economy in which numerous household-based enterprises employ many of the slum residents. The annual turnover of business is estimated to be more than US$650 million a year. Industries include leather tanning, textile production and pottery.

Few of those living in Dharavi own the land on which they live. Seventy per cent belongs to the government, which is unwilling to give it to the slum-dwellers for free. Instead, the residents are treated as squatters.

Redevelopment

The Maharashtra state government has plans to redevelop Dharavi and transform it into a modern township (see Figure G4.8.4), complete with proper housing and shopping complexes, hospitals and schools. It is estimated that the project will cost US$2.1 billion. There has been significant local opposition to the plans, largely because existing residents are due to receive only a small allocation of land (about 25 square metres each). Also, only those who lived in the area before the year 2000 are to be resettled.

The city of Mumbai has embarked on an ambitious program to house the city's poor. With the financial support of the World Bank, authorities have built 60 000 low-cost housing units for slum-dwellers. They have also invested US$8 billion in the construction of new roads and a metro rail system. The task, however, is enormous. The city needs to build 1 000 000 new housing units if it is to adequately house the city's poorest residents.

G4.8.4 Artist's impression of a redeveloped Dharavi

Activities

Remembering and understanding

1. Outline the scale of the housing crisis in India.
2. Differentiate between *bastis* and 'squatter settlements'.
3. Describe the living conditions of the slums and squatter settlements.
4. Define the term 'slum' in your own words.
5. Outline the nature and extent of the shelter crisis in Kolkata. What has been the government's response?
6. Outline the role that Dharavi plays in the economic life of Mumbai.

Applying and analysing

7. Study Figure G4.8.2 then answer the following questions.
   - **a** What was the largest contributor to urban growth in the period 1961–71?
   - **b** What contribution did net rural–urban migration make to urban population growth in 2001–11?
8. Study Figures G4.8.3 and G4.8.4. Describe the nature of the community depicted and what it might be like after the area is redeveloped.
   Do you think that those currently living in Dharavi will benefit from such a proposal?

Evaluating and creating

9. Using the internet, locate descriptions of the lived experience of people who live in India's *bastis* or squatter settlements. Share your stories with others in your class. What do these depictions have in common?

LS G3C


WE STAND
WITH EVERY
LAST CHILD
Save the Children

Civics and citizenship toolkit 10

In studying **civics** and **citizenship**, you will come to understand your role and responsibility in Australia's **democracy**. You will also investigate the role that the political and legal system play in protecting our rights and shaping our society. Once you turn 18, you'll have the chance to vote. This means having your say in electing representatives and members of **parliament**. **Citizens** of Australia can vote in local, state and federal elections. It's therefore important that you understand Australia's democratic processes and how the system works at each of these three levels. You will also need to analyse the way voters are influenced by political parties and their campaigns, and evaluate the strengths and weaknesses of our democracy. This chapter will help develop the skills you need to compare and contrast our political system with those used by our neighbours. It will also help you identify the tools you need to critically analyse local, national and international real-world issues, and evaluate Australia's domestic and international obligations.

10.0.1 Advertisement for non-governmental organisation Save the Children. As a prosperous and developed nation, Australia has both domestic and international obligations. Australia plays an important global role in maintaining international peace and security, fostering positive relationships with neighbouring countries, and funding humanitarian organisations that support people in need around the world, especially in developing countries.

OVERVIEW QUESTIONS

10A How are citizens and their political choices shaped and influenced?

10B What skills are important for well-informed citizens of Australia and of the world?

GLOSSARY

bias unfairly favouring one opinion or point of view

citizen a person who legally belongs to a country and has the rights and protection of that country

citizenship the position or status of being a citizen of a country

civics the study of the rights, responsibilities and duties of citizens and how the government works

democracy a form of government in which people choose leaders by voting, and in which everyone is treated equally and has equal rights

dissent to publicly disagree with an official opinion, decision or set of beliefs

mediate negotiate in a dispute in order to bring about an agreement or reconciliation

open-ended question a question that encourages a full, meaningful answer; it can't be answered by a single word or simple facts

parliament the elected group of people who control and make decisions and laws for a country or state

perspective a particular attitude or way of thinking; a point of view

reliability the trustworthiness and accuracy of a source

source someone or something that provides information and evidence

stakeholder a person or group that is involved in an issue

10.1 Posing questions and conducting research

Developing open-ended questions

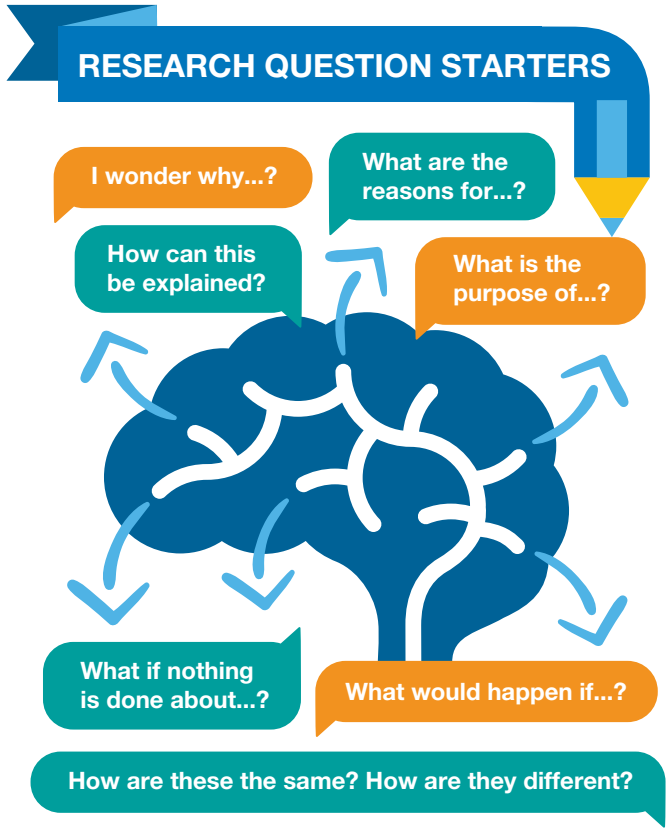
One of the most important practices for a student of civics and citizenship is to ask a range of questions and search for answers. As active citizens, it is important that we formulate questions about the society in which we live, rather than simply accepting things or taking them for granted. Developing and evaluating a set of questions provides a comprehensive framework for research of any issue we may encounter. The questions students of civics and citizenship ask should be **open-ended questions** because they encourage us to look at an issue more comprehensively. In contrast, close-ended questions only give short or single-word answers, which limit inquiries.

An example of a good inquiry question is: 'How does the government support citizens' rights and freedoms?' This is a good question because it is open-ended—it leads to other questions such as:

- Who is a citizen?
- What rights and freedoms do citizens have?
- What's the difference between a right and a freedom?
- How does a government support citizens?

An example of a poor inquiry question is: 'What system of government does Australia have?' This is not a good question because there is only one answer possible (democracy), and it leaves no room for further thought or discussion.

As you come up with more question starters, add them to the list in Figure 10.1.1. Then you will have a bank of questions to help you begin your inquiry into each civics and citizenship issue.



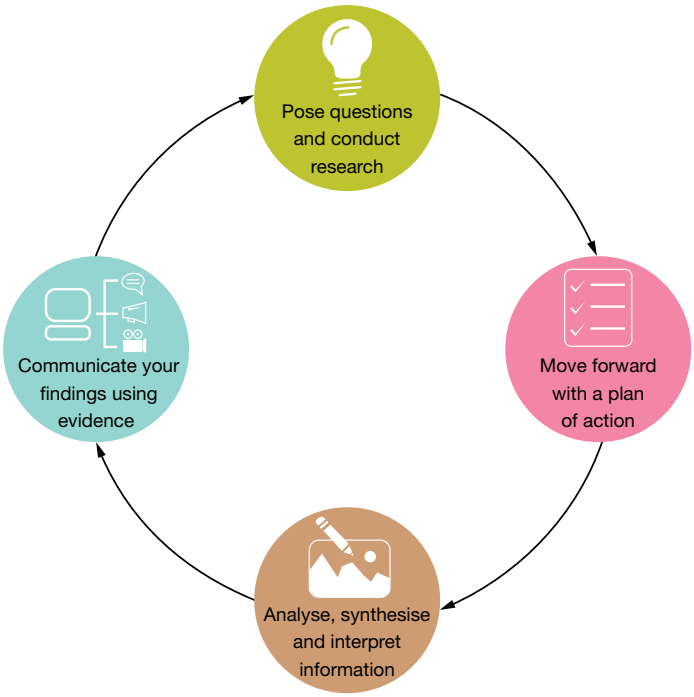
10.1.1 These question starters will help you develop more detailed research.

10.1.2 Taking notes as you research is an important way to record detailed answers to your inquiry questions.

Conducting research using a range of sources

Once you've formulated a set of open-ended questions, you should identify a range of **sources** that will help you investigate your issue. It is important that you don't base your research and your opinion on one source only. Not all sources are reliable and many contain **bias**. Students of civics and citizenship are faced with a range of opinions and sources. It is important that we do not just accept them as true or accurate, without first examining them (or being critical about the views expressed). We should develop the key skill of sorting through a range of arguments to identify which we think are valid, which are reliable and which are biased. This process helps us develop well-informed opinions.

Remember to keep a bibliography (a reference list of sources used) as you conduct your research. This means you should write down the title, author and publication details of each source. You need to follow this process for all forms of sources, not just printed material. You may want to reference books, websites, newspaper articles, pamphlets or other sources. Your teacher or the librarians at your school will be able to show you how to reference different source types. Keeping a bibliography ensures you are acknowledging the work and ideas of other people.



10.1.3 Practise these skills to be an active citizen.

Activities

Remembering and understanding

1. In your own words, define what an open-ended question is.
2. Explain the difference between an open and a closed question, including why open-ended questions are more useful for research.

Applying and analysing

3. Discuss why is it important to use a range of sources in your research.

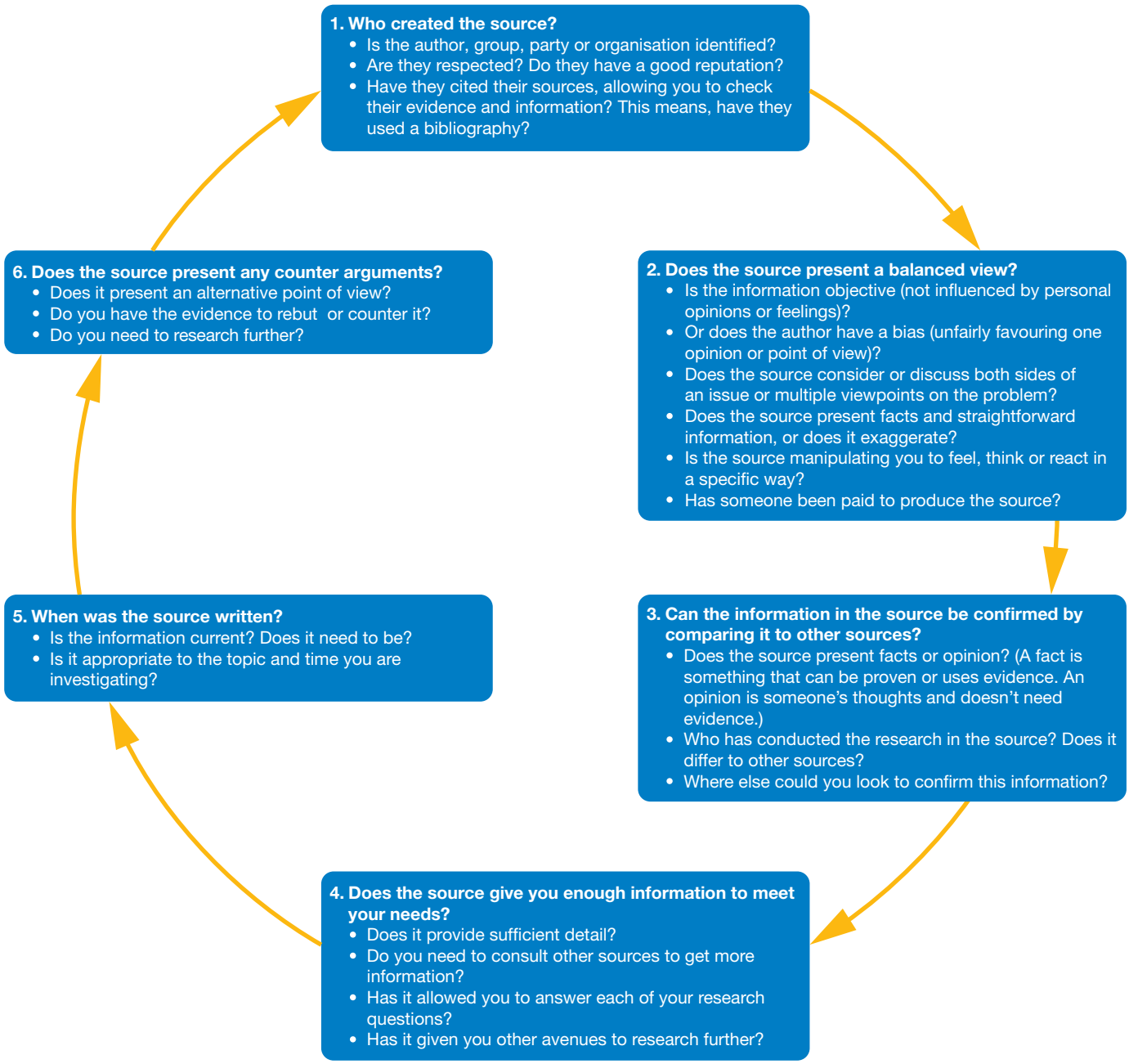
Evaluating and creating

4. Using Figure 10.1.1 as a starting point, create a question-stem page that will help you with a civics and citizenship inquiry.
5. Imagine that you have an assignment to research. Your focus topic is: *Is Australia's democracy fair for all?* Develop three open-ended questions that would help you break down this topic if you were to research it.

10.2 Analysing, synthesising and interpreting sources

Reliability

In civics and citizenship, you need to critically engage with your sources. This means asking a range of questions of a source and checking that it is reliable and suitable for your purposes. **Reliability** refers to whether a source is trustworthy and accurate. A reliable source is one that is published by a reputable person or group. A suitable source is also reliable. Additionally, it gives you up-to-date, specific data that is relevant to your investigation. In order to evaluate the strength of a source, students of civics and citizenship should develop criteria that will help them critically analyse it. These criteria involve asking questions such as those in Figure 10.2.1.



10.2.1 Following these steps will help you establish whether your sources are reliable and suitable.

Investigation: Critically analysing published material

Our world today is interconnected. As such, we have become a global community. Like all communities we interact with each other, sharing ideas, culture and resources. While there are many positives to this interconnection, there are also obligations. Australia has a role to play in this international community and a commitment to help its neighbours. Australia's government has a foreign aid budget that it can allocate to countries in need. Non-Government Organisations (NGOs) also provide ongoing support to specific sectors or groups in the international community. Because NGOs are charities, they rely on donations and private funding. In order to obtain this funding they often run media campaigns including advertisements on TV, billboards, pamphlets and social media.

10.2.2 Sources like this 'Save the Children' poster are designed to position viewers to feel, react or think in a particular way.

Studying sources using the DES method

In printed material, NGOs use a range of strategies to gain sympathy for their cause, which will prompt a donation from the viewer. As with any source, we can critically analyse these materials using the criteria in 10.2.1. Another way of breaking down a source, is by using the DES method (Describe, Explain, Suggest).

Describe—What does it show?

- Write down everything you literally see in the image. Describe the position, size, colour, facial expressions, captions and any other features.

Explain—What is it for?

- Explain the purpose of the image. Why might it have been produced? Who has produced it?

Suggest—What is its aim?

- Suggest how the creators might want their audience to respond when they see it. How does it make them feel and what does it make them think?

Activities

Remembering and understanding

1. What makes a source reliable?
2. What makes a source suitable?
3. Why is it important to use sources that are both reliable and suitable?

Applying and analysing

4. a. Complete a DES analysis of Figure 10.2.2.
   b. Find another print media image. This could be an NGO poster, an election campaign or something else you choose.
   c. Compare and contrast the way Figure 10.2.2 and your chosen image position their viewer to feel or act. You might use a VENN diagram to capture the similarities and differences.

Evaluating and creating

5. Evaluate the following statement: *A source from a government website is always reliable*. To what extent is this statement true?

10.3 Solving problems and making decisions

How can we resolve issues?

One of the skills you will need to develop is the ability to recognise, understand and value different **perspectives**. This is an essential skill when so many civics and citizenship topics are contentious (likely to cause arguments). This means that they may involve **dissent**, uncertainty or be open to interpretation and debate. Unlike in many other countries, in Australia we have the freedom to voice our disagreement with the government. This is because the right to protest and the right of freedom of speech are protected under Australia's democracy.

With so many different points of view, it is important that we use democratic processes to reach agreements and make plans on an agreed course of action. Negotiation is a strategy to help **mediate** difference and find respectful and considerate solutions to problems. As a member of your local and school community, you may encounter issues that need to be resolved through negotiation. Such issues in your school could include disputes around wearing a school uniform or completing homework. To resolve these disputes, communities need to consider everyone's point of view, develop a plan of action and negotiate a solution. One approach to resolve an issue is to follow the three steps below.

Step 1: Identify stakeholders and differences of opinion

In an issue, there are always different **stakeholders**; that's what makes it contentious. Stakeholders are the people, groups or countries affected or involved in the issue. They will each have a different opinion and may want a different solution. The solution reached needs to take into account the wants and needs of each stakeholder.

Step 2: Consider challenges, opportunities, risks and strategies

When posing solutions, you must consider the challenges, opportunities, risks and strategies that each plan presents.

Challenges could be:

- disputing or disagreeing about the best way to proceed
- differing interests amongst stakeholders
- lacking sufficient resources to meet the needs of all stakeholders.

Opportunities could be:

- creating new connections between stakeholders
- developing new resources to cater to the needs of many stakeholders
- improving the circumstances of those involved in the problem.

Risks could be:

- harming or damaging the relationship between stakeholders
- acting on a plan that is not fully conceived and will be more likely to fail
- enacting a plan that will create financial loss.

Strategies could be:

- the particular steps you put in place to carry out a specific plan
- the way in which you negotiate the plan with the various stakeholders (do you convene a meeting, take a survey, hold a forum, have a vote or use another strategy?).

10.3.1 A template like this might help you brainstorm the strengths and weaknesses of each plan.

10.3.2 United States President Barack Obama speaks at the General Debate of the 71st Session of the General Assembly of the United Nations. The United Nations meets to discuss and find peaceful solutions to international problems.

Step 3: Decide on a plan of action

The final step in this approach is to use democratic processes to reach a solution. Regardless of whether the stakeholders are individuals, groups or whole nations, the solution should consider everyone's point of view.

A solution cannot always make everyone happy, but it should aim to satisfy the majority of people. Negotiating then conducting a vote is an inclusive approach that allows everyone to participate.

Activities

Remembering and understanding

1 Define the following terms in your own words, then highlight or underline the most important (key) words in your definitions.
   - **a** dissent
   - **b** contentious
   - **c** solution

2 List the considerations you need to make in finding a solution to an issue.

Applying and analysing

3 The Australian community is debating whether or not to change the date of Australia Day. It is a highly contentious issue as there are many stakeholders that are invested in the outcome.
   - **a** Identify the stakeholders in this issue and the opinions they may have.
   - **b** Suggest why the stakeholders may have different perspectives.
   - **c** Propose a plan to resolve the issue.
   - **d** Identify one challenge, one opportunity, one risk and one strategy of the plan.

Evaluating and creating

4 Consider Steps 1–3 in resolving issues for the following scenario: Your school wants to introduce the compulsory wearing of blazers, but many students and parents object. What limitations can you find in the democratic process?

5 Evaluate the following statement: *A solution can always be found to meet the needs of every stakeholder*. Discuss to what extent this statement is true in the following scenario, giving reasons for your answers: Your school wants every student to have their own laptop. This has caused concerns for some teachers, parents and students.

10.4 Communicating and reflecting

Presenting your argument clearly and convincingly

10.4.1 Everyone has the right to their own perspectives and the opportunity to express them. Anti-racism protesters rally against a Reclaim Australia group in Melbourne in 2015.

When it comes to presenting your findings and voicing your opinion, the language you use is very important. Like in all areas of study, you should use subject-specific terminology. Doing so will help you make arguments that are clear and convincing. One way to extend your civics and citizenship vocabulary is to work with a glossary. A sample glossary is provided for you at the beginning of this toolkit.

It is important when you come across new and complex vocabulary that you understand the meaning of each word. Adding the word to your glossary and using it in sentences is a good practice. That way, you will be confident to use it in your own arguments.

Reflecting on your role in an interconnected world

While Australia is geographically isolated, we are very closely connected to our neighbours and countries around the world in many ways. We have strong business, trade and cultural relationships that bind us. This means that as citizens of Australia we are not only influenced by what happens in our country, but also around the globe. Additionally, we as individuals can influence what happens here and around the world.

Increasingly, Australia is also making positive contributions to the international community through its membership of the United Nations. As a nation, we play various roles in the following areas:

- the UN Security Council
- the UN Human Rights Council
- peacekeeping
- foreign aid.

10.4.2 Flags of the world outside the Palace of United Nations in Geneva, Switzerland

10.4.3 Malala Yousafzai continues to work closely with the United Nations. Here, she is accompanied by four other young women at a press conference at the UN in New York, United States, in 2015.

The United Nations provides the opportunity for countries, organisations and individuals to raise concerns and ask for help to negotiate conflict in an international arena. Countries work together to find diplomatic and peaceful solutions to problems. One of the strengths of the United Nations is that it endeavours to hear a diverse range of voices. Through their efforts to allow everyone their say, the UN hears from 193 countries, politicians and advocates from around the world, people from ethnic minorities, and even teenagers. Most famously, Malala Yousafzai addressed the United Nations in 2013 when she was 16 years old. She asked for help in achieving equal education opportunities for girls in Pakistan and around the world.

As active citizens of Australia, it is our responsibility to reflect on contemporary issues and stay informed. In our media-saturated world, accessing information has never been easier. It's our responsibility to make sure we use the technology available to inform ourselves about issues and current affairs. Apart from watching the news and reading newspapers, the following organisations will help keep you informed about Australia's involvement in international affairs:

- UNICEF
- Amnesty International
- World Vision
- United Nations.

It is also important that we reflect on our own values and think about our opinions. We know it's important to question and analyse other people's views. Reflecting means questioning and analysing our own. Doing this helps us make meaningful contributions to our community, whether it be the local, national or international community.

Activities

Remembering and understanding

1 Define the following terms in your own words, and then add three of your own words with definitions to the glossary.
   - **a** informed citizen
   - **b** international community
   - **c** interconnected

2 What qualities or characteristics does a citizen need in order to participate successfully in a democracy?

Applying and analysing

3 A resilient democracy is one that can cope with, and benefit from, criticism and dissent. Research one social movement that has had a positive impact in Australia or globally (for example, marriage equality, female suffrage, refugee activism, environmental campaigns, or the #MeToo movement).
   - **a** Explain what the movement was criticising or seeking to change.
   - **b** Explain what tactics the movement used to criticise or push for change in society.

Evaluating and creating

4 Discuss the implications of living in an interconnected world and what this could mean for active and informed citizenship.

5 Identify a civics and citizenship issue that has recently been in the media.
   - **a** Identify the stakeholders and their perspectives.
   - **b** Create a plan of action to resolve the issue. Consider the different points of view of all parties.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Australia's democracy

11

Australia is a socially stable and prosperous nation. This is partly due to the government of the country and its structure. This structure, while similar to many other democratic countries around the world, has many unique features. This chapter will explore the fundamentals of Australia's government system, as well as other systems throughout Asia. It will also examine the ways in which voters are informed and influenced when using their democratic voices, and how we as a nation contribute to regional and global development.

OVERVIEW QUESTIONS

11A How are governments formed and how do they operate in Australia?

11B How does Australia's system of government compare to others around the world?

11C How are citizens and their political choices shaped and influenced?

GLOSSARY

bicameral structure of parliament that features two chambers, such as Australia's two houses of parliament (House of Representatives and Senate)

cabinet a group or committee of senior ministers in government who are usually responsible for the most important areas of government, including policy

constitution a set of principles and laws used as the basis for governing a nation

constitutional monarchy a form of government where a monarch (e.g. Queen Elizabeth II) is the head of state, but their powers are limited by the Constitution or Parliament

executive power power to administer and enact the law

governor general person who acts as a representative of the monarchy in countries within the Commonwealth, including Australia

House of Representatives lower house of Australian Federal Parliament

hung parliament situation where no one party wins the required number of seats to form government in the House of Representatives

interest groups collectives of people who share a particular concern with an issue and aim to influence government policy in these areas

judicial power power to make judgements and interpret the law

legislative power power to make or change the law

liberal democracy government system whereby a range of freedoms exist for individuals, including the freedom to elect representatives, the powers to control or rule the nation are separated so one group or person cannot hold all the power

policy plans for activities to be conducted by political parties; political parties will often have a series of policies under broad headings or portfolios e.g. health, education

Prime Minister the head of the government

royal assent the process where a country's monarch (or representative) gives formal approval of a proposed law, turning it into an Act of Parliament

Senate upper house of Australian Federal Parliament

unicameral structure of parliament or government that features one chamber

writs a formal order or command given by a body such as a court or parliament

11.0.1 Volunteers for different political parties and candidates hand out voting flyers to voters outside a polling place in Australia.

LS Before you begin

11.1 Australia's liberal democracy

What is a 'liberal democracy'?

The term democracy comes from the Greek language and refers to systems where individuals have the power to choose their leaders or representatives. The word liberal means there is freedom for individuals within the system to make these types of choices. Therefore, a **liberal democracy** (also known as a representative democracy) is a system that has freedom for individuals to be able to select their representatives. This system is used by many countries around the world, particularly Western countries such as the United Kingdom and the United States.

As well as its overall belief that a range of freedoms (including freedom to elect representatives) should exist for individuals, liberal democracies separate the power to make, and implement laws. In Australia, there are three different groups that each have distinct powers. These are:

- *legislative*—power to make or change the law; for example, Australia has a parliament that has responsibility for changing Australian law
- *executive*—power to administer and enact the law; in Australia, this includes the **governor general, prime minister** and ministers in the **Cabinet**
- *judicial*—power to make judgements and interpret the law; this is done by the courts in Australia, such as the High Court of Australia.

One of the most important features of a liberal democracy is the election of representatives, or people who are selected to act on behalf of others. These representatives may come from a range of political parties, in essence allowing individuals to be able to choose who they wish to represent them within government. Free and open elections are crucial to a thriving democracy. Voting in Australia is compulsory for citizens aged 18 and over. Votes are cast by secret ballot and Australians vote in federal, state and local elections. Voting for representatives helps ensure that the government, and indeed the entire parliament, best represents the people of Australia as a whole.

Australia as a constitutional monarchy

Australia is considered a **constitutional monarchy**, meaning it has a head of state in the form of the British monarchy and Queen Elizabeth II. This is due to Australia being part of the British Commonwealth. As the head of state, Queen Elizabeth II has certain powers over the nation. However, the power of the head of state is limited by the Australian **Constitution**. This provides the basis for Australian democracy and was enacted on 1 January 1901. It established the three arms of government in Australia (federal, state and local) as well as the processes and procedures of the Australian system of government, including the principles and laws that govern Australia.

11.1.1 A statue of Australia's first governor general, the Marquis of Linlithgow (formerly Lord Hopetoun) can be found in Melbourne on the corner of St Kilda Road and Linlithgow Avenue near the Shrine of Remembrance.

11.1.2 His Excellency General the Honourable Sir Peter Cosgrove AK Mc (Retd) is Australia's current Governor General. Prior to being Governor General, he was Chief of the Australian Defence Force.

While Queen Elizabeth II serves as our head of state, she is not often directly involved in the running of the nation. Instead, an individual is appointed as the Queen's representative, known as the governor general. This position holds great power and importance, although this power is not often exercised. The governor general both represents the monarchy and its connection to Australia and acts on the advice of the elected Australian parliament. Two important powers of the governor general are:

- giving **royal assent** to legislation (approving proposed laws and turning them into an Act of Parliament)
- issuing the **writs** (ordering the holding of elections).

Did you know?

On 11 November 1975, the Governor General of Australia Sir John Kerr used what are called 'reserve powers', which are powers to make decisions without approval of the government. These have only ever been used four times by governor generals of Australia since the job first came to being in 1900. Sir John Kerr used these powers to dismiss then Prime Minister Gough Whitlam!

Australia's contemporary party system

Members of both the **Senate** and **House of Representatives** are elected by the voting population of Australia and come from a range of political parties. A political party is a group of people who have the same values, culture and ideas for ways to improve the governing of Australia. Historically, people have banded together based around their common views and have developed these into a series of principles and aims; these are called a party platform.

The primary role of political parties is to represent the interests of the Australian people. Australian politics are dominated by two large parties: the Liberal Party of Australia and the Australian Labor Party. The Australian Labor Party is the oldest, with its origins dating back to the 1890s. The Liberal Party of Australia was formed in 1944. This dominance from the major political parties means that Australia is known as a two-party system of government.

The role of minor parties and independents

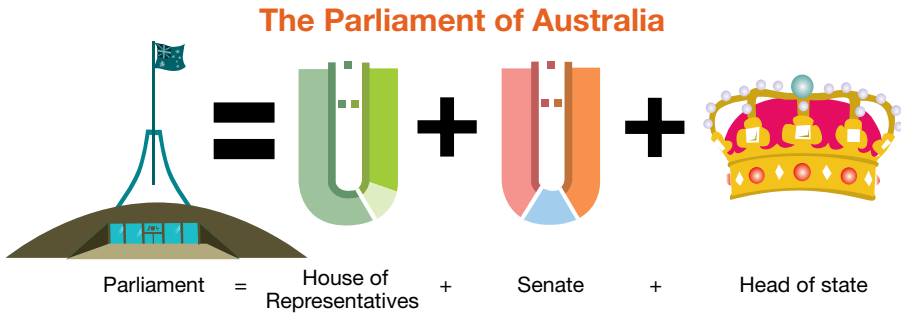
There are also a number of smaller political parties (called minor parties), as well as individuals (known as Independents) who make up the diverse range of views in the Australian Parliament. Minor parties include The Nationals, The Australian Greens, Pauline Hanson's One Nation, The Pirate Party and Family First. Having a range of political parties and representatives can enhance the quality of decision-making in parliament, as it provides a more diverse range of opinions. It can also ensure there is a better representation of the Australian public and its diverse values and beliefs.

Often, these groups will only hold a few seats in both the House of Representatives and Senate. However, they have the potential to wield high levels of power. This is particularly the case when the number of votes on a bill is close. Having the support of independents or smaller political parties holding seats in parliament can help ensure bills are passed or rejected. Larger political parties will often negotiate with smaller parties and independents in order to gather their support and help ensure bills they put forward receive their support.

11.1.3 Logos of just a few of Australia's current political parties

11.1.4 Voting using the Senate ballot papers

11.1.5 Parliament incorporates a wide variety of people and parties, each with their own distinct roles and powers.



Voting as a member of a political party

Typically, members of the same political party will vote the same way in parliament in order to support the party's standpoint. However, there may be times where representatives choose not to vote the same way as their political party. This is most often due to the representative's vote being based on the views and beliefs of the people that they represent, rather than the view of the party. This is known as 'crossing the floor' and is done in full view of members of parliament, the media and those watching from the galleries or on television. This most often occurs when there is an issue being debated in parliament that is considered sensitive or controversial. An independent candidate does not need to consider the views of a political party, but rather can vote as an individual.

Parties forming coalitions

In order to gain more power, political parties may choose to join together and form a coalition. This usually occurs when political parties share similar principles and aims, so will often vote in the same way. The longest-running coalition in federal parliament is between the Liberal Party of Australia and the Nationals, first being formed in 1949. Benefits of forming a coalition including the ability to wield more power in parliament by having a larger number of representatives voting the same way. This can lead to a higher level of control and increased chance of having bills passed or rejected given the larger number of votes. However, disadvantages of forming coalitions can be challenges in reaching consensus between the various groups due to differences of values and beliefs of different parties. This can result in higher chances of disagreement on key decisions or issues being voted on.

Activities

Remembering and understanding

1 Define the following terms in your own words:
   - **a** liberal democracy
   - **b** party platform.

   Highlight or underline the most important (key) words in your definitions.

2 Describe the role of the governor general of Australia.

Applying and analysing

3 Explain why Australia has a governor general as well as elected members of parliament.

4 Discuss why political parties may choose to form a coalition, considering both the positives and negatives of this decision.

Evaluating and creating

5 Evaluate the following statement: *Australia's political system is stronger because of the rise of smaller political parties and Independents.* You may need to conduct additional research on the benefits and challenges of having only a few large political parties. Additionally, further investigation of the benefits and challenges of having an increasing number of smaller political parties may also assist you in evaluating the statement fully.

11.2 How Australian governments are formed

The first stage of forming government is to be voted in by the people. Members of the Australian public often use information from different sources to make their decision about who they will vote for. Most importantly, winners of an election are seen as being given a political mandate (or order from the people) to carry out election promises. Therefore, it is important that once a government is formed, it aims to meet the promises outlined in their party platform.

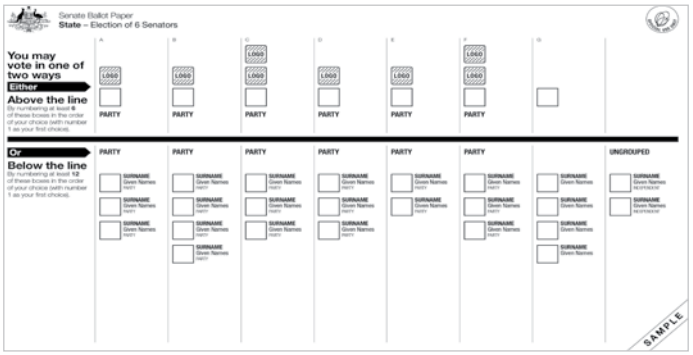
Election to the House of Representatives

The House of Representatives has 150 members. The states are broken up into constituencies of roughly equal population, with one person representing one electorate. Members are voted in for a 3-year term through a preferential voting system. This is where voters rank the candidates on the ballot paper by preference of who they wish to be elected. Candidates who achieved the majority of votes are elected.

Election to the Senate

The Senate has seventy-six members. Each state has twelve representatives and each territory has two. The Senate uses a proportional voting system. This system aims to reduce the chances of any one party holding a majority in the Senate, while increasing the chances of minor parties gaining seats. It does this by mathematically allocating a quota, or set number of votes, that a candidate must achieve in order to win a seat.

Senators are elected for 6 years, with half of the senators facing re-election every 3 years. Senators for the Northern Territory and Australian Capital Territory face re-election every 3 years.



11.2.2 Example of a ballot paper for the Australian Senate

11.2.1 Australia's federal government works out of Parliament House located in Canberra.

Skills builder

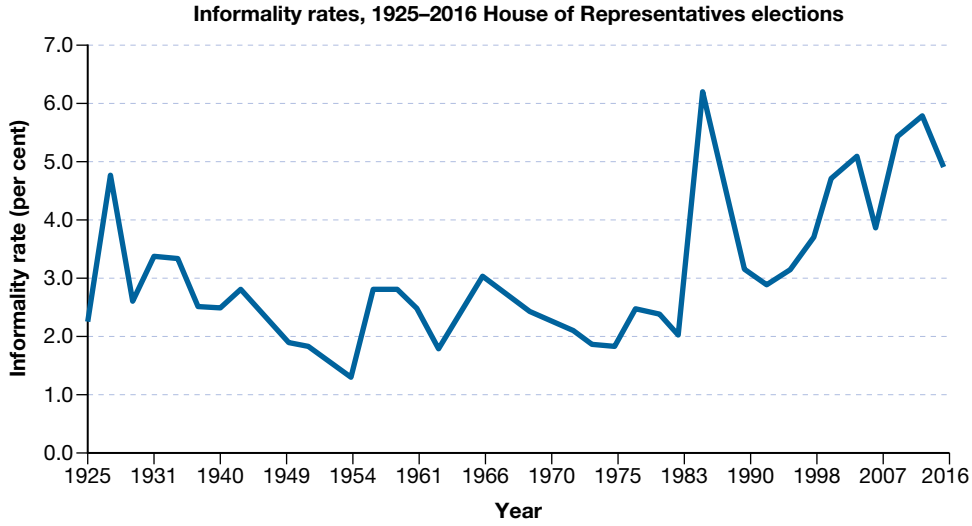
Using government data and statistics to understand civic concepts

Analysing data and statistics from sources such as the Australian Bureau of Statistics (ABS) or the Australian Electoral Commission (AEC) is an important skill to develop. As this data is provided by the government, it can be considered more reliable than data from unverified sources such as other websites or blog posts.

When analysing data such as graphs and statistics, you can use the DES method (Describe, Explain, Suggest) to help unpack it in detail.

1 Use the DES method to unpack Figure 11.2.3.

- **a** *Describe the data:* Identify what the data is measuring and describe the pattern(s) in the data. Is the data improving or worsening? Are there any exceptions or anomalies (unusual results) in the data?
- **b** *Explain the data:* Provide possible reasons for the data. Why may the data be this way?
- **c** *Suggest:* Make a series of suggestions or recommendations as to how the data could be changed or improved. For example, how can the Australian government lower the rate of informal votes by the Australian public?



11.2.3 Graph from the Australian Electoral Commission measuring the percentage of informal votes as a proportion of all votes cast for House of Representatives elections in Australia

Note: The Australian Electoral Commission defines a vote as informal if it has not been completed correctly. This may include blank ballot papers or ballot papers with incomplete information.

11.2.4 The House of Representatives, where the government and opposition debate, in session

Process for establishing an Australian government

The party that has the most elected representatives in the House of Representatives will form the Australian Government. As there are 150 members elected to the House of Representatives, this means that one political party (or coalition of parties must win seventy-six seats in order to form a majority government.

Hung parliament

There are times when no one party wins the required number of seats. This is known as a **hung parliament**. If this occurs, the role of the minor parties and independents becomes critical, as the choices they make in aligning with a particular political party can result in a minority government being formed. The last time this occurred in Australia was in 2010.

Having a hung parliament has both advantages and disadvantages. Advantages of a hung parliament include an increased level of challenge in getting bills passed by the House of Representatives and moved onto the Senate. This is because no one party holds the majority of seats, and must therefore convince other representatives to support their bills. This can be considered beneficial as it allows for more rigorous debate and can make the contents of the proposed laws better meet the needs and wants of the Australian people. The disadvantages of having a hung parliament include the need for intense negotiations with minority parties, as well as the power to control the passing of bills being held by a relatively small number of people.

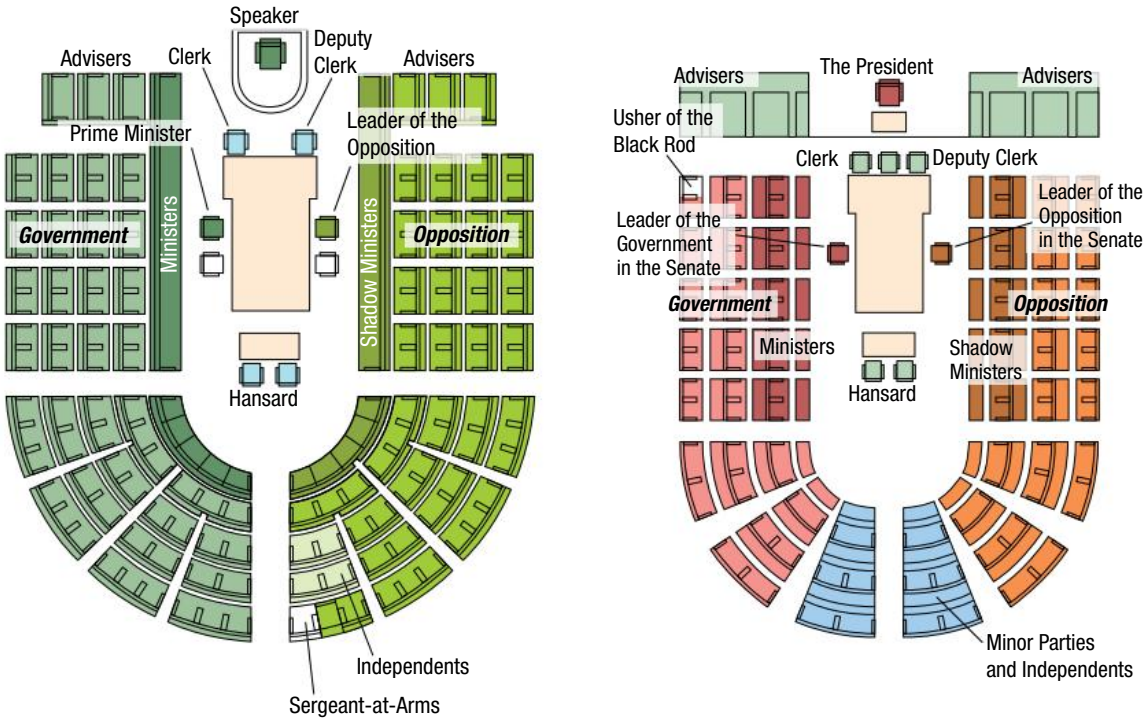
It is important to note that political parties do not need to have majority in both the House of Representatives and Senate in order to form government—majority is required only in the House of Representatives.

Did you know?

It is rare for an election to result in a hung parliament. Prior to 2010, the last hung parliament in Australia was all the way back in 1940.

Opposition to government

The opposition is the largest party (or coalition of parties) that does not have the support of the majority. At times, they may only have a few seats less than the government. The role of the opposition is to carefully examine government proposals, offer alternative proposals and debate bills.



11.2.5 House of Representatives seating plan (on left); Senate seating plan (on the right)

Activities

Remembering and understanding

1 State the requirements to form a majority government in Australia.

2 Identify three possible sources of information members of the Australian public can use to gather information and help make their decision of who to vote for in an election.

Applying and analysing

3 Compare the process for being elected into the House of Representatives and the Senate.

4 Discuss the advantages and disadvantages of having a hung parliament.

Evaluating and creating

5 Create a one-page summary of the process of forming governments in the House of Representatives. Your summary should aim to explain the process to a group of primary school students. Your summary should include the formation of both a majority government and a minority government and clearly outline the requirements such as number of seats needed, and key terms such as 'hung parliament'. Use visuals as well as words in your summary.

6 Investigate the ways in which elections are conducted in another country, such as the United States of America. Compare this to the processes for elections to the House of Representatives and Senate in Australia. For the purposes of your research, consider how often elections occur, how many people are elected as representatives and how long their terms are.

LS 11A

11.3 Roles in law and policy-making

Role and responsibilities

Prime Minister

The Prime Minister leads the party (or coalition) that achieve the majority of seats in the House of Representatives. Unlike other countries such as the United States, there is not a limit on the length of time a person can serve as Australian Prime Minister. The Prime Minister is chosen by members of the government through a vote.

The Prime Minister's key roles and responsibilities includes, but is not limited to:

- acting as a spokesperson for the Australian government domestically and overseas
- leading the government in developing and enacting policies
- selecting ministers to form the Cabinet.

11.3.1 Former Australian Prime Minister Malcolm Turnbull debating in parliament

11.3.2 Members of the Cabinet meet to discuss issues of national importance in the highly secure Cabinet room in Parliament House, Canberra.

The Cabinet

The Cabinet's key responsibility is to take care of the core business of running the government. The Prime Minister selects the Cabinet (up to thirty ministers) and together they decide major **policy** and legislative proposals.

In order to be fully informed of policies and proposals from the various government departments, Cabinet meetings are regularly held. During these, members of the Cabinet will examine the bills to determine if they align with the party principles and values, and budgetary constraints, or need alteration before presentation in parliament.

Members of Cabinet need to ensure that each policy is accompanied by an implementation plan. This includes plans for how the policy will be delivered, who will lead the development and how potential risks related to the policy will be reduced or mitigated.

Australia's Cabinet answers to parliament. This is known as 'responsible government'. This normally occurs during Question Time in parliament or through parliamentary committees.

Some of the high-profile positions in the Cabinet include:

- Minister for Education and Training
- Minister for the Environment and Energy
- Minister for Finance.

In order to be selected as a Minister in the Cabinet, politicians often need to have many years of experience. It is common for there to also be 'reshuffles' of Cabinet, meaning ministers can switch or change their portfolio. This means that some ministers may have experience leading a wide range of portfolios over time.

Members of the opposition will also have similar positions in ministry. They are known as Shadow Ministers and have the important responsibility of closely monitoring and examining the policies of the government in their particular areas. They can also suggest or develop counter arguments or policies that they believe better meet the needs of Australians.

Parliament

Australian Parliament consists of the Queen (represented by the governor general), and a **bicameral parliament**. Parliament's main responsibility is legislation—it is the basis for **legislative power** in Australia.

When parliament sits, its purpose is to make or change Australian laws. This involves extensive debating of proposed laws (bills), considering the views of both the party and the people which they represent. Bills are put forward for debate by various people in parliament, but it is usually ministers who determine when changes to laws and policies are needed from within their own portfolios.

For bills to be passed they must be supported by both houses. Bills are normally introduced in the House of Representatives. They can be introduced in the Senate, but this is rare. Committees in both houses analyse proposed laws and report back on their findings. Once passed by the House of Representatives, the Senate considers the bill. It is often easier to pass legislation through the lower house, as there is usually one political party that holds the majority of seats. This means that as long as representatives vote with their party, the bill will pass and move into the Senate. Once both houses have passed a bill, the governor general gives it royal assent on behalf of the Queen, then it is published and enacted into law.

Laws can also be introduced and changed at a State Government level. The process used is almost identical, with bills being introduced, debated and voted on. In the case of giving royal assent, this is done by the governor of the state as opposed to the governor general.

Spotlight

Victoria's Assisted Dying Act

In 2017, Victoria became the first state in Australia to legalise assisted dying for people with an incurable illness. This was the result of lengthy, passionate and at times, confronting debate in Victorian Parliament—some sessions lasting more than 24 hours.

The bill was introduced to State Parliament by Minister for Health, the Honourable Jill Hennessy MP. Given the highly sensitive topic of assisted dying, State Members of Parliaments from both the Labor and Coalition parties were allowed a conscience vote on the bill. This meant they were permitted to vote according to their personal values and beliefs, rather than an official party standpoint on the issue.

The bill itself establish a series of conditions and safeguards for accessing assisted dying in the state, including age, decision-making and coercion. It also featured the amendments to a range of existing Acts, including the *Births, Deaths and Marriages Registrations Act 1996, Coroners Act 2008* and *Drugs, Poisons and Controlled Substances Act 1981*.

Both houses of State Parliament approved the bill in 2017, with the upper house voting 22–18 in favour of the bill and the lower house voting 47–37 in favour of the bill. The bill received royal assent from the Governor of Victoria, the Honourable Linda Dessau AC on 5 December 2017, bringing it into Victorian law.

11.3.3 State MP Jill Hennessey debating the Assisted Dying Bill in Victorian Parliament

Did you know?

The Native Title Amendment Bill 1997 and Native Title Amendment Bill 1997 [No.2] claims the record for the longest debate in the Australian Senate. This bill, which outlined changes to the existing laws surrounding the rights of Indigenous people to their land, was debated in the Senate for a total of 105 hours and 56 minutes.

Separation of powers

The Prime Minister, Cabinet and Parliament all serve an important function as Australia's legislative and **executive powers**.

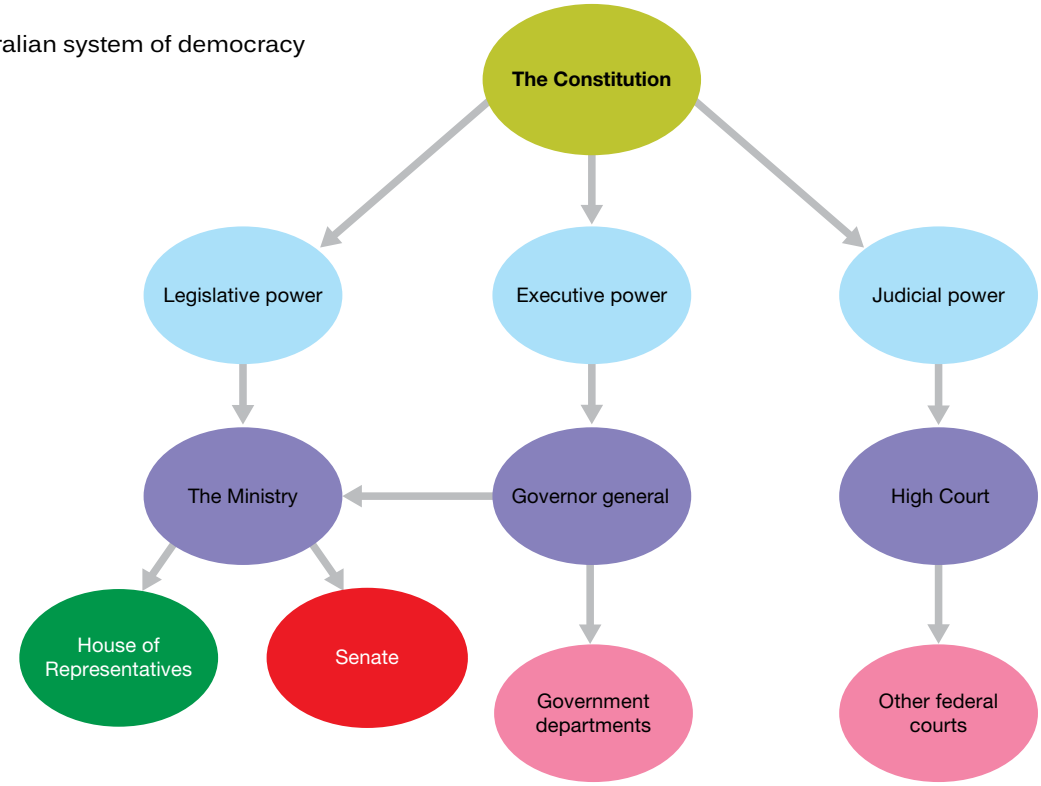
However, it is the separation of powers that is a key feature of the Australian democratic system. The system was designed to provide checks and balances for those in positions of power. Power is divided between the executive (Prime Minister and Cabinet) that administers the law, the legislature (Parliament) that makes the laws and the judiciary that is responsible for the court system. The court system's purpose is to interpret and apply the law. This separation of powers means that no one is above the law, including the government.

Judicial power

The primary role of the federal court system is to ensure the laws of Australia are obeyed. The rule of law, or concept that all people and institutions are accountable to the law and should obey it, is a key feature of the Australian democratic system. This includes even the highest levels of government. If the government is found to have acted unconstitutionally it can be prosecuted.

There are levels within the court system. The High Court was established by the Constitution as Australia's highest court. Federal courts are set up by parliament. They can

11.3.4 The Australian system of democracy



deal with any manner of the law, including criminal, family and civil matters. Judges (who interpret the law) are appointed by the governor general on the advice of the Prime Minister and Cabinet. This means there is not entire separation of power between the executive and the judiciary.

To maintain independence, the government cannot remove judges from their positions. Judges can only be dismissed by the governor general on the request of both houses of parliament.

Each state and territory will also have its own court system that is used to ensure the laws of the state and country are obeyed. In Victoria, this includes the three major courts of the Supreme Court, County Court and Magistrates' Court, as well as more specialised courts and tribunals.

Activities

Remembering and understanding

1. Describe the role and responsibilities of the Cabinet with reference to developing policies and laws for Australia.
2. Describe the way(s) in which a complete separation of powers (legislative, executive, judicial) does not exist within Australia's democracy. *Note:* use Figure 11.3.4 to assist you here, and consider the ways in which the three different powers overlap.
3. Explain how Australia's system of democracy ensures our government is held accountable.

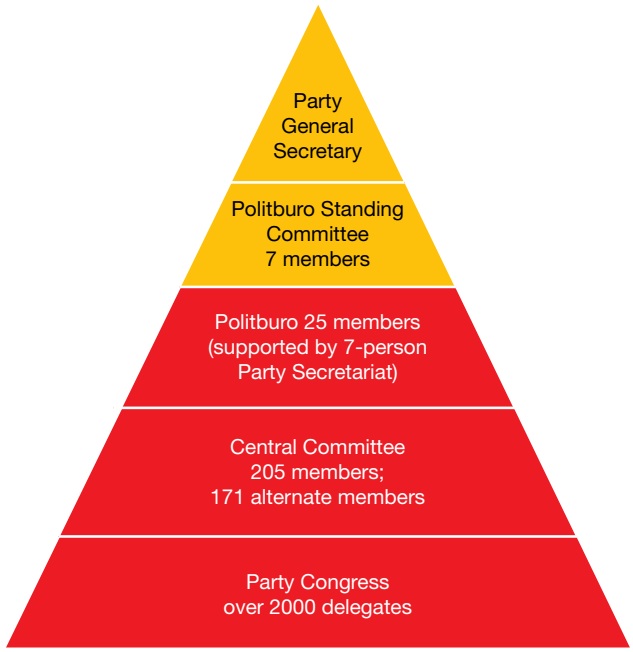
Applying and analysing

4. There were days of intense debate and deliberation before *Victoria's Assisted Dying Act 2017* (Spotlight on p. 274) was voted in favour by both houses of State Parliament. Analyse the various arguments for and against the introduction of assisted dying into Victoria. Use online research to assist you in developing your arguments.

Evaluating and creating

5. Conduct a debate with your fellow students on the topic, *The governor general plays a significant role in Australia's democracy*. Select students to represent the affirmative and negative teams and work together to develop arguments.
6. Create a guide to the separation of powers that could be given to new Australian citizens. In your guide outline the role of the executive, legislature and judiciary and explain the advantages of Australia's separation of powers.

11.4 Key features of China's government system



11.4.1 The structure of the Communist Party

China is known as a one-party state, meaning it is ruled by a single political party, the Chinese Communist Party (CCP), and other political parties either do not exist or do not have the permission or means to gain ruling power. It is governed under the 1982 Constitution, the fifth constitution since the Communist Party came to power in China in 1949. The CCP has over 89 million members as at 2016. This represents about 6 per cent of China's population of approximately 1.38 billion people.

The Chinese Government broadly operates under two key areas: the Party and the State. The two systems frequently overlap. The Party apparatus, or structure, is a complex web of connected committees and councils that wholly support the values, beliefs and principles of the CCP. Meanwhile, the State apparatus is the system of government under which the country operates.

The Party apparatus

The Chinese Communist Party (CCP) and Constitution

Under the Chinese Constitution the CCP is the leading political party. The CCP controls society at all levels. The Constitution rejects the notion of the separation of powers. Instead, the Chinese Parliament is a **unicameral** legislature, meaning it is the only law-making body. In theory this power lies with the parliament, called the National People's Congress (NPC). This body meets every 5 years. The CCP Constitution is separate to the State Constitution and proclaims 'the realisation of communism to be its highest ideal and ultimate goal'.

National Party Congress (NPC)

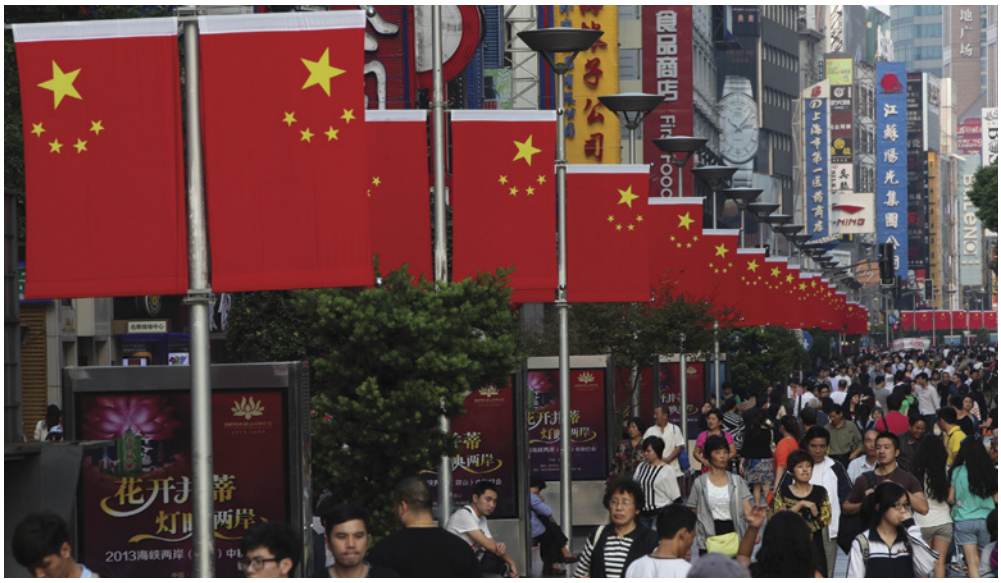
At the 5-yearly National Party Congress the following things occur:

- a new Central Committee is elected
- Central Committee then elects the twenty-five members of the Politburo
- seven members of the Politburo Standing Committee are elected
- a General Secretary is chosen from the Politburo Standing Committee; this is the leader of the CCP and therefore the leader of China.

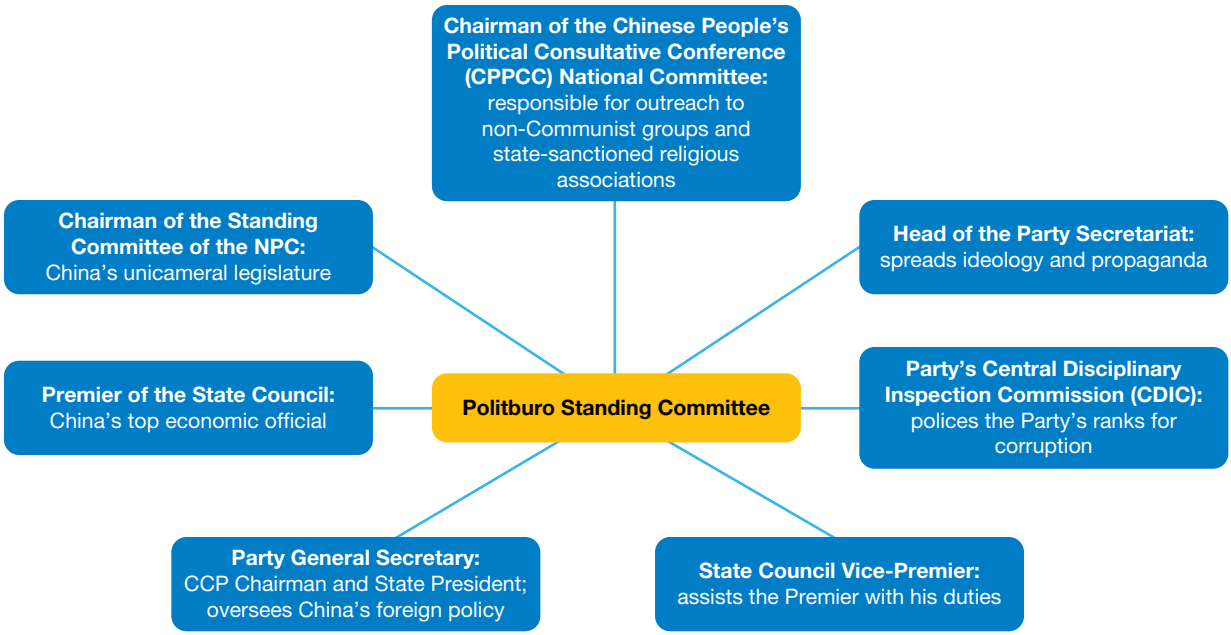
In a similar fashion to Australian politicians having multiple roles and portfolios, some members of the Politburo serve more than one role within the Party structure.

Membership of the CCP

To apply for membership of the CCP, citizens must be over the age of 18 and committed to the Party's policies and programs. In 2011, 21.6 million people applied for membership with less than 15 per cent accepted. Less than a quarter of members are women. Members of the CCP are organised into a branch, cell or unit to participate in Party activities. Party units exist in all institutions and organisations, including private business. This means that the CCP wields significant power and control over a range of institutions and members of society.



11.4.2 Chinese national flags are hung along a street in Shanghai to commemorate Chinese National Day, which is celebrated annually on 1 October. This marks the date the People's Republic of China was founded in 1949.



11.4.3 The seven members of the PSC and their key roles and responsibilities

Party leadership bodies

The Politburo Standing Committee (PSC)

Politburo is an abbreviation of the term political bureau and is a common structure in Communist governments. The PSC is the most senior decision-making body in China. There are seven members, each ranked and assigned a specific portfolio.

The Politburo

Politburo members who represent Party interests are given more senior responsibilities than those who represent State interests.

Three portfolios are considered the most crucial to the maintenance of Party rule:

- *Head of the Organisation Department:* recruits, trains and develops new Party members
- *Head of the Propaganda Department:* controls all media and sets the official message of the Party
- *Head of the Central Commission of Politics and Law:* the internal security apparatus including the Supreme People's Court, the State Minister for Justice and Minister of State Security, under the control of the Politburo.

These positions are extremely important to the maintenance of Party rule as they each ensure sustained membership, clear and consistent communication of party messages and ensures law supports the work of the CCP.

The State apparatus

The State apparatus in China is not as powerful as the Party apparatus. Party members fill many of the committees and the roles within the State. This ensures that the Party controls all areas of public life, including media outlets and law enforcement such as the police. Details of the structure of the State apparatus can be found in Figure 11.4.4.

The State President

The State President is China's head of state. Since 1993, the State President is also the General Secretary, the most senior position in the CCP. The Party nominates the candidates for President and Vice-President. They are elected by the NPC. Under the State Constitution the President is accountable to the NPC. In reality, the President is the General Secretary of the CCP, which outranks the authority of the NPC, making the powers of the NPC in this respect void.

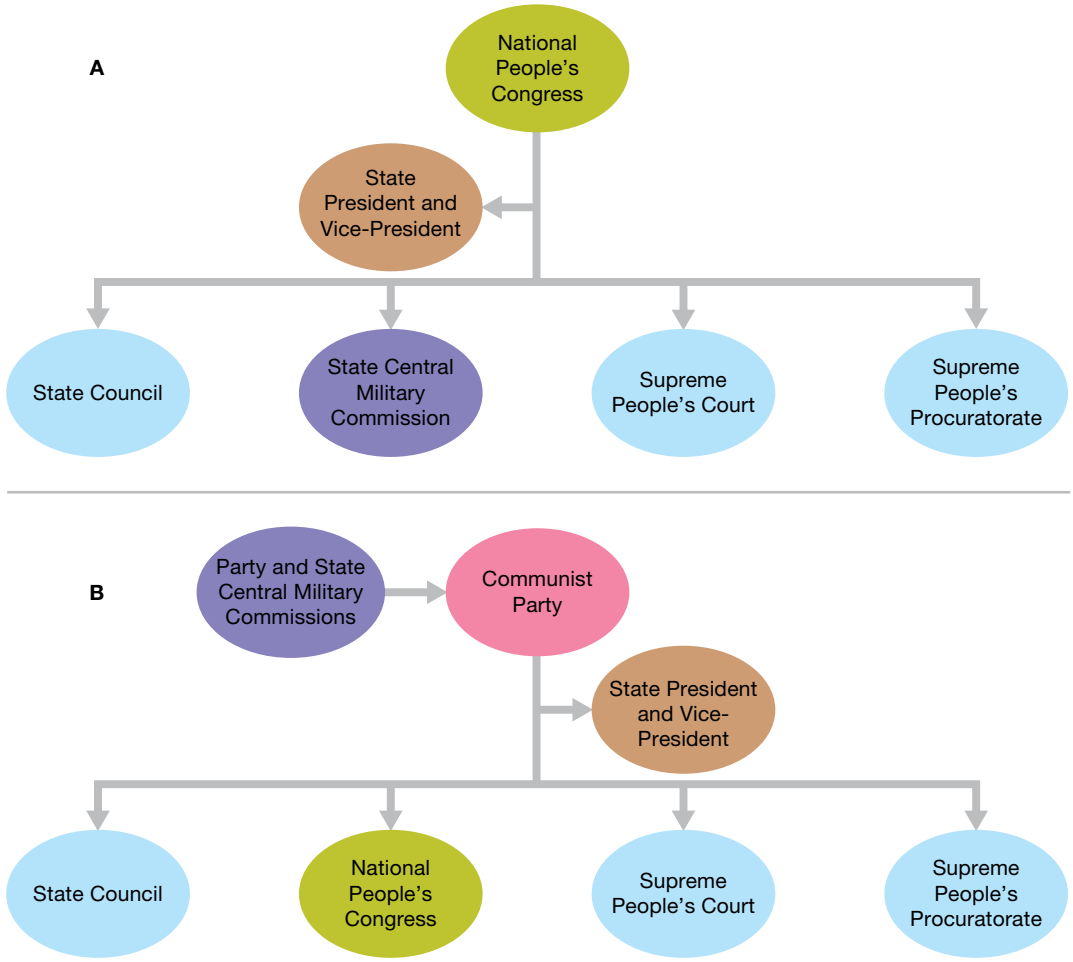
The President announces law, appoints and dismisses key government positions, receives foreign dignitaries and diplomats, and signs foreign treaties. It is the role of the President to announce a state of emergency, issue an order of mobilisation or a declaration of war.

The State Council

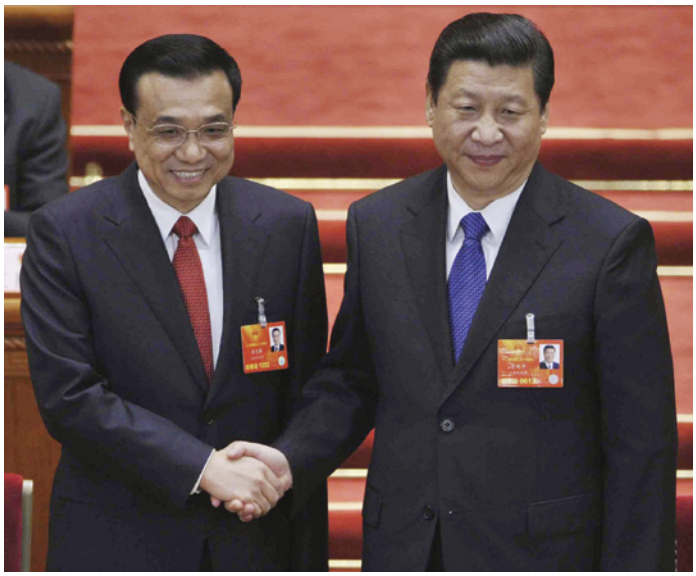
The State Council is also known as the Central People's Government. Under the State Constitution it is 'the highest organ of state administration'. Officially, it implements the policies of the CCP and enacts laws passed by the NPC. In reality, the State Council manages the day-to-day administration of the economy.

The Premier leads the State Council, and is second in command of the PSC. The President appoints the Premier. Therefore, the two most senior positions in both the Party and State systems are in fact the same two people.

When in full session, the State Council is similar to a Cabinet. It has a vast array of organisations under its supervision.



11.4.4 An analysis of the power structure in China. Figure A shows how the national-level political power structure should work as described in Chapter 3 of the 1982 State Constitution. Figure B demonstrates the political structure as it works in practice.



11.4.5 State President and General Secretary of the CCP Xi Jinping (right) and Premier of the State Council Li Keqiang are currently the two most powerful people in both the CCP and State system of China.

The National People's Congress

According to the State Constitution, the NPC is 'the highest organ of state power'. It has the power to:

- enact and revise laws
- propose amendments to the Constitution
- formulate, revise and supervise implementation of the Constitution
- ratify (declare as valid) and annul (declare as invalid) treaties
- approve the State Budget and plans for economic and social development
- elect and dismiss top officials of the state and judiciary
- supervise the work of state officials.

In practice, it is the CCP that fulfils these roles. The NPC acts as a body to approve the Party decisions.

Approximately 3000 delegates in the NPC each serve 5-year terms. The NPC only meet once every 5 years, with the meeting lasting just 10 days typically. Due to the brief sitting of the Congress, there is a Standing Committee that fulfils much of the NPC's work, with 161 members meeting every 2 months.

The Chinese People's Political Consultative Conference

The CPPCC is a body that allows other political parties and social organisations to take part in the running of the state. They engage in political consultation with the Party. The CCP asserts that the CPPCC is a core part of China's 'socialist democracy'.

In theory, the CPPCC gives non-communists a voice, but carries no weight in the Chinese political system.

The minor political parties

There are eight minor political parties in China. They must accept the permanent leadership of the Chinese Communist Party and cannot act as opposition parties. Parties include the China Democratic League and the Chinese Peasants and Workers Democratic Party.

The parties are allowed to exist to show that China is a multiparty cooperative system. The total membership of the minor parties is less than 1 million people. The heads of the parties can serve in the position of vice-chairperson of the National People's Congress.

Deliberating on bills in the National People's Congress

Sponsors of bills submit their explanations to the NPC to be investigated by special committees. Once a committee writes a report, it is submitted to the NPC for voting by show of hands or ballot. If the majority is in favour, the bill is passed. Amendments to the Constitution can only be proposed by the NPC Standing Committee or more than one-fifth of the deputies to the NPC. If there are at least two-thirds in favour the amendment will be adopted.

The judiciary

The Chinese judicial system is not independent of the government.

The Supreme People's Court is the highest court. It reports its work to the NPC and the Standing Committee. Its functions include:

- hearing appeals from lower courts
- approving the death sentence
- supervising the trials in other courts
- discovering mistakes made in local courts and forcing a rehearing of the case.

Weak rule of law

The Party supports rule by law, not the rule of law. This means that the Party is not subject to the confines of the law. Party commissions oversee police, prosecutors and the courts. They can intervene in matters to ensure that the Party's interests are met.

Elections in China

All citizens of China who are 18 years or older have the right to vote. Given the size of China's population, staging elections is a huge task.

The Party has begun experimenting with more direct forms of voting at a village and local level. This allows people to vote for people to represent them, as well as a system where elected officials then vote in other positions within the government.

Elections for China's highest positions start at local and village elections. There are two opportunities for people to vote.

11.4.6 Officials count votes after rain-soaked elections in the village of Wukan on 31 March 2014

Local elections

These are a series of elections where people directly vote for nominated candidates. Local election committees carry out the elections. Due to the high population density in urban areas, the local elections are divided into residential areas. The elected candidates are primarily responsible for their local communities.

Election to the People's Provincial Congresses

The People's Provincial Congresses represent twenty-three provinces, five autonomous regions, four municipalities, special administrative regions and the armed forces. Once the congresses have been decided by the voting population, they then elect 3000 members to the NPC.

The NPC elects the President, Premier, Vice-President and the individuals for other important positions within the Chinese Government.

Activities

Remembering and understanding

1 Outline how the Chinese Constitution rejects the idea of a separation of powers.

2 China is often described as a one-party state. Describe what the concept of a one-party state means, and how China meets the definition of this term.

Applying and analysing

3 Explain possible reasons why you think the Chinese Communist Party rejects so many applications for membership to the Party.

4 Compare the role of the State President of China and Australia's Prime Minister. You may choose to do this in a table of similarities and differences, or using a Venn diagram.

5 Use a Venn diagram to compare China's highest court, the Supreme People's Court, to Australia's High Court. Your Venn diagram should include both similarities and differences.

Evaluating and creating

6 When comparing Australia and China, evaluate which system of government you feel is most representative of its people. In your response, consider the following criteria:

- election process
- election of representatives to positions of power within government
- state powers e.g. separation
- policy and law making.

Be sure to consider the relative strengths and weaknesses of both systems of government in your response.

7 Create a series of 4–5 questions you would ask a citizen of China to learn more about the Chinese system of government. In order to gather more detailed information, be sure to include a range of question starts that will provide you with more open-ended responses. These include:

- Why ...?
- How ...?
- What would happen if ...?
- What are the reasons for ...?
- What is the purpose of ...?

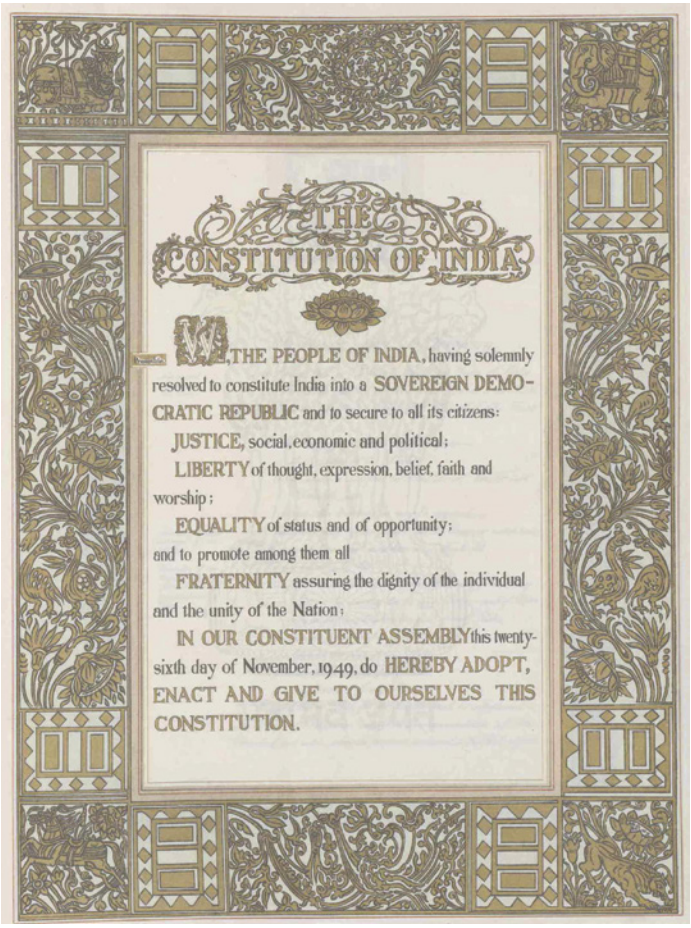
11.5 Key features of India's government system

India is one of the world's largest democracies with twenty-eight states, seven territories, and a population of over 1.3 billion people. India was under the rule of the British Empire until they successfully gained their independence in 1947. The Indian Constitution defines the nation as a sovereign democratic, socialist and secular republic.

The Indian Constitution

The Indian Constitution is the longest constitution in the world. It contains 444 articles, twelve schedules and ninety-eight amendments, with almost 120 000 words in its English language version.

Written during the fight for independence from Britain, it supports the ideals of liberty, equality and justice for all of its citizens. It came into effect on 26 January 1950.


THE CONSTITUTION OF INDIA

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN DEMOCRATIC REPUBLIC and to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity;

and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

11.5.1 The original text of the preamble before the 42nd Amendment to the Constitution of India

Unlike other democracies that are very hesitant to change their constitutions, India has changed its constitution approximately 100 times. Such changes have included amendments to recognise various states, rights of the people of India, even changes in taxation. These Constitutional changes are enacted through the parliament.

Influences on the Indian Constitution

Several factors influenced the writing of the Indian Constitution:

- the aspirations that came out of the fight for independence from Britain
- the impact of British rule over time
- the ideas and example of Mahatma Gandhi
- other democracies from around the world.

A federal system

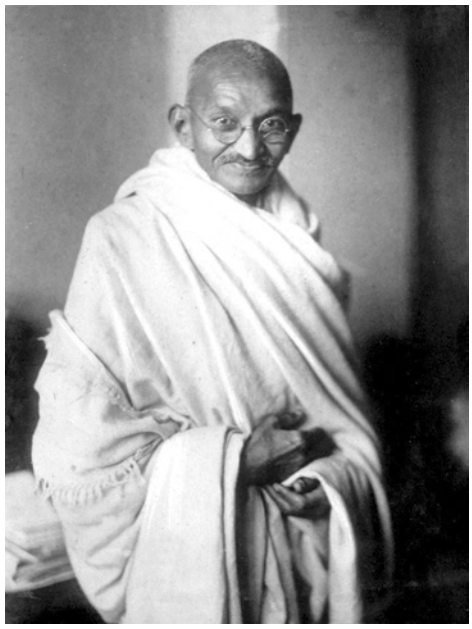
India is a federal system, meaning that the central or federal government is separate to the state governments. The federal government is referred to as the Union.

A federal system has the following features:

- two separate levels of government: national and state
- a written constitution
- division of power between federal and state governments
- a federal judiciary with the power to interpret the Constitution and the law.

Characteristics of Indian Federalism

The Indian Union is a very strong national government, due to the circumstances of the formation of Indian democracy. After achieving independence, it was faced with the challenge of maintaining unity amongst the various states and territories, as well as creating a sense of stability. To achieve such goals, great political change was needed. The new leaders had the task of integrating the old British provinces and over 500 princely states into the new India. Significant social and economic problems also needed immediate attention. So the Constitution concentrated powers within the central government, rather than the states; it lists 97 areas where the Indian Union has sole power. This is not a common characteristic of federalism, where power is usually more distributed between national and state governments.



11.5.2 Mahatma Gandhi was a prolific campaigner against British rule of India. His pacifist methods of protest made him famous in India and around the world.

Did you know?

The National Flag of India is an important symbol of the country's independence. It was first used in 1947, just months before India achieved independence. The saffron (orange) colour represents the strength and courage of the country, the white represents peace and truth and the green represents fertility and growth. The symbol in the centre is known as the Ashoka Chakra.

The Indian Parliament

Parliament has responsibility in the following areas:

- *legislative:* the basic function of parliament is to make laws
- *forming Cabinet:* the Prime Minister selects the Cabinet on behalf of the parliament and the Cabinet performs the day-to-day administrative work of running the country
- *controlling Cabinet:* every day, parliament begins with an hour of question time. It is the most important part of the day. Ministers are scrutinised over proposed bills and policy initiatives on behalf of the Indian public. The Cabinet can only remain if they retain favour with the government
- *finance:* the Union parliament has complete financial control. Only the lower house in the Indian Parliament can introduce finance bills
- *judicial:* parliament can sack all judges and the President
- amending the Constitution
- *electoral:* they elect the President and Vice-President.

The parliament is meant to be the mirror of society.

Separation of powers

The Constitution provides a separation of powers between the executive, legislative and judicial branches of government.

The executive

The executive is comprised of the President, Vice-President, Prime Minister and Council of Ministers (equivalent to the Cabinet). It is completely responsible to the legislative branch. The Council of Ministers is subject to intense scrutiny from the Lok Sabha (the lower house). The Council of Ministers is also reliant upon the legislature to pass the budget. It is completely reliant upon the support from the lower house for the success of its term in office.

The President

The President is the head of state. This is primarily a ceremonial role, modelled on the British monarch to 'advise, encourage and warn'. The role serves as a symbol of unity among the Indian people. An electoral college of about 4500 members elects the President for a 5-year term. The President is eligible for re-election. The Prime Minister advises the President. The President is not a member of either house of parliament. According to the Constitution, the President represents the nation but does not rule it.

In times of crisis the President can extend the life of the Lok Sabha by a year.

The Prime Minister

The Prime Minister is the official head of government, selected by the lower house. The President makes the official appointment. The role of Prime Minister is the most powerful in the Indian Government. The role includes:

- formulating the Council of Ministers. This body is responsible for the policy and legislation of India. The Prime Minister allocates portfolios to ministers
- presiding over Cabinet meetings
- serving as the only link between the President and the ministers

11.5.3 Parliament House in New Delhi, India, where the Constitution of India was drafted

- sacking ministers
- advising the President
- deciding on all matters of foreign policy.

When the Prime Minister resigns, the entire Cabinet is dissolved.

The legislature

The legislature is responsible for all policy direction and legislation in India. India is a bicameral parliament, with the following houses:

- Lok Sabha, 'the House of the People' (the lower house)
- Rajya Sabha, 'the Council of States' (the upper house)

11.5.4 Indian President Ram Nath Kovind (left) and Prime Minister Narendra Modi (right)

At the state level, citizens are represented in legislative assemblies or Vidhan Sabha. India is broken up into twenty-eight states and seven territories. Most states are unicameral, but seven are bicameral.

The House of The People (Lok Sabha)

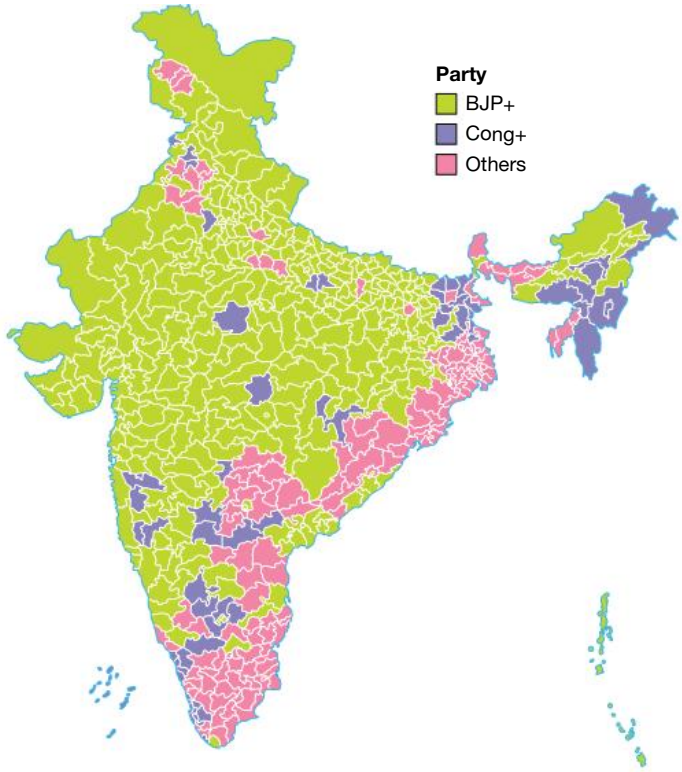
Lok Sabha, the lower house of the Indian Parliament, represents the people. There are 545 members who serve a 5-year term.

To be elected to the Lok Sabha, citizens must be at least 25 years old and a registered voter. Candidates are elected by a direct vote. India is divided into electorates of roughly the same size. Each electorate has one representative. The candidate who receives majority of the vote wins.

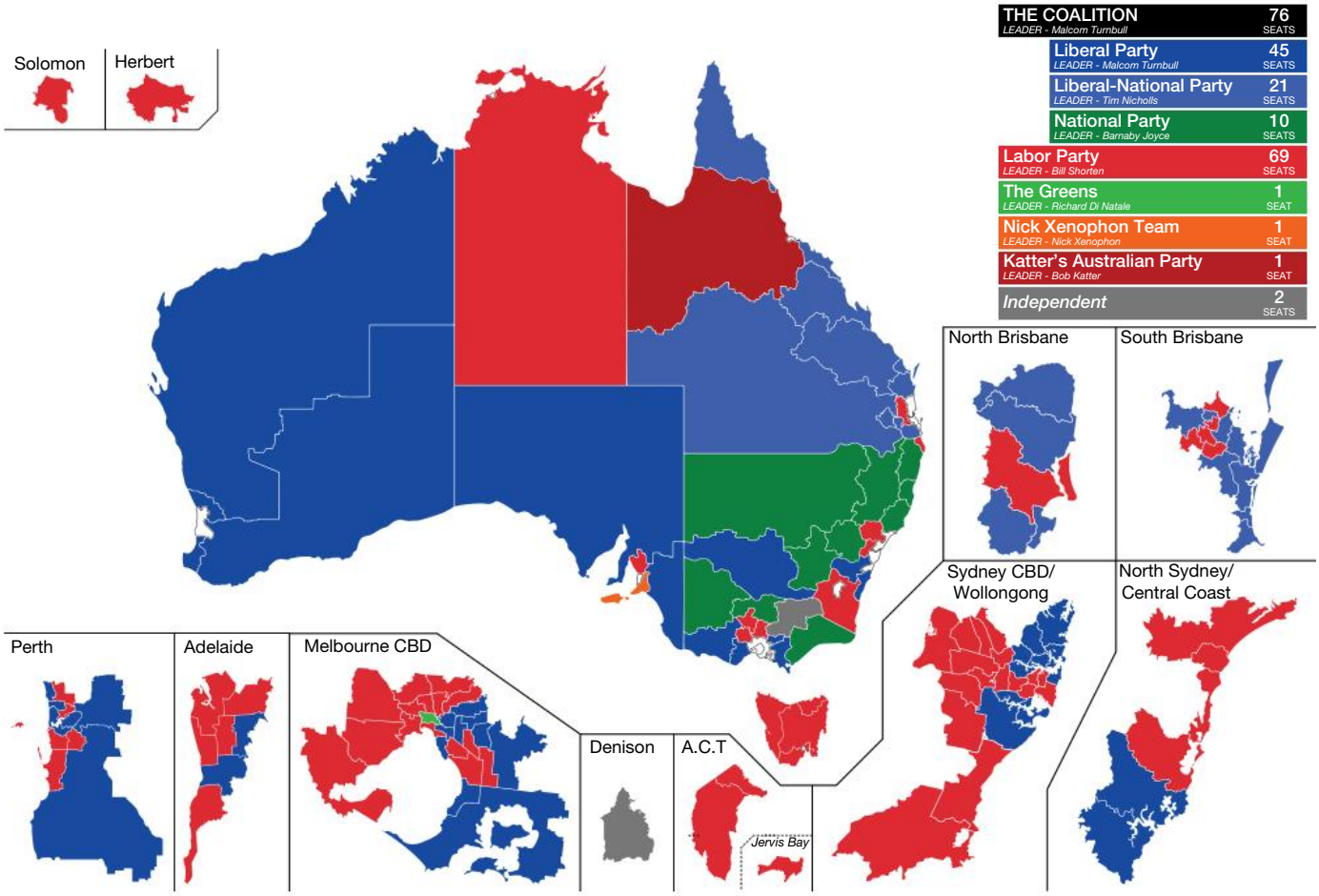
The Council of States (Rajya Sabha)

The Rajya Sabha is the upper house of the Indian Parliament and represents the states. It has 250 members who serve a 6-year term. Every 2 years, one-third of the members retire. The President nominates twelve members of the chamber. They are selected because they have skills and expertise in areas that are useful in the analysis of proposed legislation. They are knowledgeable in the arts, science and literature.

The remaining 238 members are indirectly elected by state assemblies and union territories. Representation is not equal in the upper house. Every state has representation depending on its population; the greater the population, the greater the number of seats allocated. Voters order their choice of candidates from most preferred to least preferred candidate. To win the election candidates must win a certain percentage of the vote. Indian citizens wishing to stand for election must be at least 30 years old and a registered voter.



11.5.5 Map of India showing the results of the 2014 Lok Sahba elections; during this election, the Bharatiya Janata Party (BJP) gained an astounding 198 more seats than the previous election held in 2009.



11.5.6 Results of the 2016 Australia House of Representatives election show a similar mapping technique to highlight seats won by each political party.

11.5.7 Voters in Kashmir queuing to vote in the 2014 elections. The military presence is due to a history of violence during elections in the region.

Did you know?

The Indian Constitution recognises twenty-two languages. Fifteen languages are spoken in the Indian Parliament. They are interpreted into both Hindi and English.

Skills builder

Reading political maps

The ability to gather information from colour-coded maps such as those in Figures 11.5.5 and 11.5.6 are in important skill in Humanities.

View both of the figures and discuss the following prompts with a partner or as a class:

1. What patterns do you see in the two maps presented?
2. What are some of the possible reasons or causes for the results presented in the figures? *Note:* You may wish to conduct further research to help you here.
3. Why are maps such as these important sources for people studying or reading about politics?
4. How can we use these maps to better understand the government systems of different nations?

The judiciary

India has a single integrated judicial system. The Supreme Court is the highest court in India with the High Courts operating at the state level. Below the High Courts are sessions and district courts. There are twenty-one High Courts for twenty-eight states.

The Supreme Court

The Supreme Court can override decisions made by a High Court. It deals with matters of conflict arising between the Federal Union and the states, or conflicts between two or more states. The Supreme Court also deals with matters of constitutional interpretation and the constitutional rights of citizens.

Judges from the Supreme Court are selected from the High Court and appointed by the President on the advice of the Prime Minister. They are able to work until the age of 65.

Electoral system

The Electoral Commission of India is a constitutionally recognised, autonomous authority, responsible for running free and fair elections.

The sheer size of the Indian population makes elections very difficult. In the general election of 2014, there were 814 million people eligible to vote. Under the Indian Constitution people should not have to travel more than 2 kilometres to get to a polling station, so 930 000 polling booths were required.

Voting took place over six weeks and the votes were all counted in one day. It took almost 4 million staff to run the election. Voter turnout for the 2014 election was higher than normal at 66 per cent. The average turnout is 55 per cent.

Due to the high proportion of illiteracy in India many parties use symbols in order to increase their appeal and convey their overall message to voters.

Political parties

India has a multiparty system, but historically elections have been dominated by the Indian National Congress (INC). The INC held power from 1947–89, 1991–96 and again from 2004–14.

After increased growth in their support base, the Bharatiya Janata Party (BJP) won the 2014 national general election with a clear majority and the party's Narendra Modi was sworn in as Prime Minister. The BJP presented itself as a party that embodies the socio-religious and cultural values of the Hindu majority. BJP also supports a strong national defence and conservative social policies.

11.5.8 An Indian woman shows off her ink. Voters in many countries, including India, are marked with an indelible ink to record that they have voted. The ink is designed to last up to two weeks.

Activities

Remembering and understanding

1. Describe the difficulties of holding an election with such a large population like the nation of India.
2. Describe the concept of Indian federalism as a unique form of federalism.
3. Outline the role of the Supreme Court in India.

Applying and analysing

4. Explain two ways in which Britain's colonisation of India has impacted their system of government. *Hint:* The Australian system of government is also heavily influenced by the British Westminster system so will share many similarities with the two systems.
5. Compare the roles of Prime Minister and President in India by describing the similarities and differences between the two roles.
6. Compare Australia's parliament with the parliamentary system of India. Be sure to include both similarities and differences in your response.

Evaluating and creating

7. Many of India's voting population are illiterate, meaning they are unable to read or write. Propose a series of three to four recommendations for the Electoral Commission of India advising them how to further assist illiterate voters to be able to understand the voting process and paperwork associated with voting.
8. India is a nation of over 1.3 billion people. To what extent does the Indian system of government meet the needs of its people? Based on your reading, as well as further online research, evaluate the strengths and weaknesses of India's system of government before making a final judgement as to its ability to meet the needs of its people.

LS 11B

11.6 Informing and shaping voters' political choices

Forming government in Australia relies on gaining the majority of seats in the House of Representatives. Almost immediately after an election is called, a range of strategies designed to both inform and influence voters become more prominent in the media and society.

Even outside of election time, voters are exposed to a wide range of tools and messages designed to keep them up to date with political party policies. These messages also often aim to discredit rival political parties and their political mandates, as well as reinforce the strengths of the current government.

Public debate

Debate is a primary method of influence in the political world. These pre-arranged meetings of political leaders provide the opportunity for leaders to present their political party mandates and discuss issues of national and global significance. During the 2016 Federal Election, debate topics included a wide range of areas such as asylum seekers, the economy, taxation, healthcare and the environment.

Public debates provide the opportunity for participants to convince voters as to why the views and policies of their political party are the ones that should be voted on. This is often done through not only presenting information about the specific details of their own policies, but also discrediting the policies of the opposition, highlighting how and why they would be ineffectual. Many participants also take public debates as an opportunity to present themselves in a positive light to the voting public, sharing personal stories and anecdotes. The aim of this is to humanise them as candidates, often aiming to help form a stronger relationship between candidate and voter.

During the Australian elections, a series of debates are arranged in both metropolitan and regional areas. Audiences in these debates are often swing voters who are as yet undecided about who they will vote for.

Public debates are chaired by a moderator who leads the proceedings. They introduce the topics for debate, invite participants to speak, ensure each participant has adequate time and provision to speak and keeps the debate moving through its various stages. There are times when moderators will be responsible for bringing politicians back to the topic of focus or even reinforcing the rules of a respectful debate.

11.6.1 Former Leader of the Liberal Party, Malcolm Turnbull, and Leader of the Labor Party, Bill Shorten, meet to debate as part of the federal election campaign in 2016.

Gauging winners of debates

There are many ways to determine the 'winner' of a public debate. This is often done by political commentators or journalists who will summarise the key moments of the debate before passing judgement on which candidate performed more strongly. There are also methods whereby the public can be used to determine the winner. These days, people watching televised debates will often take to social media and use specifically established hashtags to share their thoughts and views on the candidates and whether they won the debate. Political parties often consider the number of mentions on social media as a tool to gauge their success. Furthermore, television networks also publish comments from social media during the debate. This is a new trend in the public debate forum.

Previously, an electronic market research tool nicknamed 'the worm' was used to gauge public debates. During televised debates, a small sample of undecided voters (usually 100) in the audience were provided with small electronic devices they could use to register their preferences for political parties. As they watched the debate, participants were invited to indicate how they felt about the issues and policies being discussed. This data was regularly gathered (multiple times per second) and published on screen as a fluctuating line, hence the nickname 'the worm'. The movement of the line indicated the preference of the participants for a particular party or candidate and who the public deemed to be the winner.

For people watching public debates, they serve two important functions. These are to:

- inform them of the details of policies and mandates for the major political parties
- persuade them to vote for a particular political party based on their policies, and strength of their leaders.

Media

The role of the media is crucial in a democratic society. Their role is to gather and report in a way that is truthful and informative. In a political sense, the media is responsible for ensuring that the public is informed of government actions, policies of political parties and candidates, and the progress governments have made on their election promises over the course of their respective times in government. A strong, independent media is a key feature of many democracies around the world.

The press gallery, housed in Parliament House in Canberra, is a group of over 250 accredited media representatives for television, radio and newspapers. It includes journalists, camera operators and editors to name a few. Their role is to gather and report information from Parliament, publishing it in the various media outlets. This includes writing articles summarising the actions from within Parliament, conducting interviews with Members of Parliament and

11.6.2 Members of the press observing, writing and gathering information during a political briefing

reporting the general activities and actions. In both the House of Representatives and Senate, there are special sections for the media to sit so they can observe and gather information.

The media can have very high levels of influence over voters, as people often use these sources to help them formulate their opinions on candidates, political parties, and issues of importance.

However, media can also have levels of bias within the information it reports. Often media companies can have political and economic ties to particular groups and people of influence. This can lead to criticism of the media and their reporting, which can sometimes be viewed as selective, or more sympathetic to particular political parties and candidates.

Opinion polls

An opinion poll is a survey of a representative sample of the population about a range of social issues. This sample data is then used to provide a predicted general opinion of the whole population.

In the political sphere, opinion polls are regularly conducted to determine the public opinion on political parties and leaders. In Australia, Newspoll is the most prominent opinion poll for Australian government standings. Newspoll is conducted by Galaxy Research, a large Australian market research company.

Newspoll data is regularly presented in national newspapers for the voting public to read and consider. It provides predictions based on sample data on the following measures:

- House of Representatives seat predictions
- state-based seat predictions
- two-party preferred predictions (results after voting preferences have been redistributed)
- primary vote predictions (which party would you vote for?)
- preferred Prime Minister
- leader satisfaction.

On average a Newspoll is conducted and published approximately every two to three weeks and are usually more frequent in an election year.

These opinion polls are important due to their potential power to influence voters. Being published nationally, these results are often further reported through other media sources, including television. This can then have the potential to influence voters by showing them who the 'majority' of voters in their area would vote for.

This is particularly important in marginal or 'swing seats' where the number of votes separating the candidates can be just a few votes. From a national perspective, results related to the Prime Minister and their leadership can also influence voters to select the person (and their related political party) who the Australian public believe would be the better leader.

Did you know?

Collins Dictionary's 'Word of the Year' for 2017 was 'fake news'. It was chosen due to its increase in use (up 365% in 2017) and its ability to capture the year that was 2017.

11.6.3 President of the United States Donald Trump was a key person in using the term 'fake news', leading to its rise in popularity.

11.6.4 Opinion polls are one method of predicting the ways in which the public will vote at a given point in time. Results of these can be influenced by recent political announcements, including the news of an election.

Over the years, there have been accusations that political parties often make significant announcements regarding policies close to the conducting of opinion polls with the hope of influencing the results and showing a more favourable position for the party.

Interest groups

Interest groups are groups of people who share a particular interest or concern and aim to influence government policy on these interests and issues. These groups can wield significant power and influence over voters by raising awareness of government policies, as well as highlight any deficiencies and inadequacies within these. Their use of strong persuasive advertising campaigns and lobbying activities (which can include letter writing campaigns and protests to name a few) aim to inform members of the public about government actions, and persuade them to take action showing support for their particular cause.

Examples of interest groups that over the years have influenced government policy or been heavily present during election times include:

- *Australian Council of Trade Unions (ACTU)*—campaign for industrial relations issues, including a large campaign against the WorkChoices legislation of the Liberal Government under Prime Minister John Howard
- *GetUp!*—campaigning for social justice, environmental sustainability and fairness in the economy, including campaigning for gender equality
- *Australian Marine Conservation Society*—campaigned to save the Great Barrier Reef during Queensland elections.

Advertising

Advertising to influence voters is a key mechanism for political parties. They use a series of methods to conduct advertising, spending millions of dollars in the process. Advertising can be conducted both within and outside an election period. However, the frequency of advertising increases significantly during election times.

Political advertising is governed by two central bodies:

- *Australian Electoral Commission (AEC)*—responsible for authorising advertising
- *Australian Communications and Media Authority (ACMA)*—responsible for broadcasting regulations.

Furthermore, the Advertising Standards Bureau (ASB) is responsible for managing complaints regarding political advertising, including complaints surrounding truthfulness and offensive materials.

Part of the regulation surrounding political advertising during an election includes blackout periods. This is time where political advertising cannot be broadcast on television or radio.

Blackout period for election advertising

... the Broadcasting Services Act requires that a broadcaster must not broadcast an election advertisement from the end of the Wednesday before polling day until the close of the poll on polling day ...

The election advertising blackout applies to broadcasters, including:

- commercial television broadcasting licensees
- commercial radio broadcasting licensees
- community broadcasting licensees
- subscription television broadcasting licensees
- providers of broadcasting services under class licences.

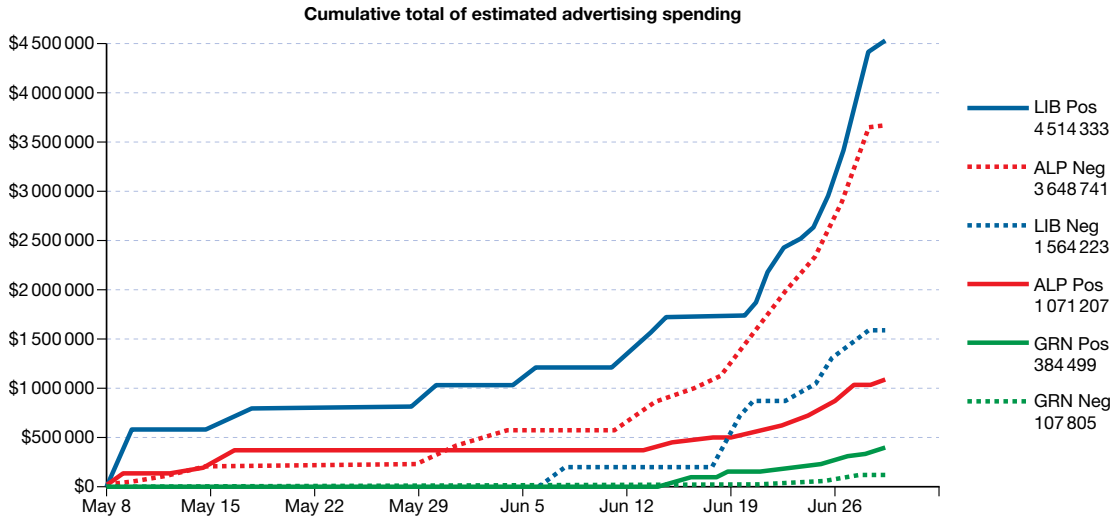
The election advertising blackout only applies to broadcasters. It does not include online services and print media.

11.6.5 Extract from the 'Election and political matters guidelines' published on the ACMA website, which explains the blackout period for political advertising during election time.

It is important to note that this blackout period does not cover all forms of media or advertising, particularly online advertising via social media.

Television and radio

A longstanding traditional method of advertising, television and radio provide political parties with the ability to reach large numbers of people multiple times. The majority of spending occurs at the beginning of an election campaign or at the end, with these forms of media targeting older audiences predominantly. This is with the aim of gathering voters early in the campaign, as well as making last minute efforts to increase voter number right before they go to the polls to cast their votes. Political parties spend millions of dollars over the course of a campaign on television and radio advertising.



11.6.6 Data showing the spending of major political parties, including spending on positive and negative-themed advertising campaigns

The advertising will aim to do two things: inform and persuade. Being so short in length (often only 30 seconds), they will aim to focus on one topic. During this time, they will aim to provide information about their own party's policies, discredit the policies of the opposition and its people, and persuade the public to vote in their favour. Given the short time frame, this means that a series of advertisements, each featuring a different topic of focus, are developed.

Advertising can be either positively or negatively skewed. It is common to see political parties use both positive advertisements—to promote the achievements of their own political party—and negative advertisements—to criticise the work and policies of their competition. Using both encourages people to look carefully at the policies of the various political parties. By providing information about not what only their own party is doing, but also the work of others, it is more likely to lead viewers and listeners to research the policies of both to help make their voting decision.

Activities

Remembering and understanding

1. Define the concept of an opinion poll and outline their use in Australian politics.
2. Describe the role of interest groups in influencing voters.

Applying and analysing

3. Explain one reason why the media is important in a democratic system of government.
4. Using the graph presented in Figure 11.6.6 as evidence, explain the reasons why political parties use both positively and negatively skewed advertisements in their political campaigns.
5. Discuss the various ways in which the winner of a public debate can be determined.

Evaluating and creating

6. Imagine you are a member of the Opposition's media team. The Australian Government has just announced their proposal that the Goods and Services Tax (GST) should increase from 10% to 15% on July 1 2020—a policy the Opposition disagrees with. You have been given the brief of creating an advertisement that aims to both inform the Australian public of this issue, as well as persuade them to vote for your political party in the upcoming 2019 election. Create a script for a 30-second television or radio advertisement that meets this brief.

11.7 Modern technologies and influencing voters

Changes to the ways in which we as humans gather and communicate information has led to many changes in the ways in which political parties aim to persuade voters. The availability and use of new technologies, including automation, mobile phones, internet, email and social media has vastly increased the potential for communication, with messages now being able to reach people in more places at more times.

Direct campaigning—telephone, mobile phone and email

Direct campaigning or advertising is the process of targeting communication towards a particular person or group. Its use has been increasing in politics as its power to target particular demographic groups becomes more evident. During election periods, candidates campaigning for election are permitted to make calls providing information about policies, seeking information for research purposes, and seeking support through donations. These are permitted even to numbers that are registered on Australia's Do Not Call Register—a database on which people can register their phone numbers to prevent receiving unwanted telemarketing calls.

Recent years have also seen the rise in the use of automated telephone calls, also called 'robo-calls'. These have been used to specifically targets groups, providing information on policies such as healthcare and the pension.

Mobile phone technology has also created a new avenue for influence through the use of political text messages. These have been used to generally promote political parties and their mandates. They have also been used extensively in marginal seats as a way to directly target residents and convince them to vote for a particular party and candidate.

Many members of the public have also started receive emails from political parties or their local candidates during election periods, providing information regarding general party policy, information regarding previous achievements, as well as specific election promises for the electorate. This form of advertising can provide more tailored information to voting members of the public to create a more informed voter.

11.7.1 The increased use of mobile and online technologies by political parties for campaigning has seen an increase in the level of complaints regarding breaches of privacy. Many people have not directly provided their numbers or email address—they are sourced from third parties.

These newer forms of advertising have been met with controversy as many members of the public who receive these calls have not provided their personal communication details to political parties, with this information being sourced by third party providers.

Social media

The rise in popularity of social has seen it become an important tool in political campaigning to persuade voters. This form of advertising and promotion is relatively low cost, and can reach a high number of people relatively quickly given its ability to share content and create viral messages.

The 2016 federal election saw social media become a key platform for public debates, with one of the debates being streamed live via Facebook. This allowed the public to watch, comment and react live, and provided insight into the political views of those who watched. This live stream attracted over 13 000 viewers at its peak, with many more watching after the event.

Users of social media platforms including Facebook and Twitter® also have the ability to share their thoughts and opinions during elections. Many posts are accompanied by the #auspol and #ausvotes hashtags. These hashtags

are also used frequently by political parties when making announcements, by politicians on their professional profiles, and members of the public when posting about topics of local, state and national interest. During election times, these hashtags frequently trend. Within one week of the 2016 federal election being announced, the social media world of Twitter began tracking and publishing data on the use of hashtags and mentions of key parties and politicians, such as 'most mentioned major party on Twitter since election announced'.

The use of social media has also been used by politicians to actively campaign. This includes building their network of followers as a sign of support and strength, as well as releasing statements via their social media platforms. It provides a way to connect with voters and update them on their values on key government initiatives.

Actively using social media also provides a further communication touchpoint for politicians to respond to everyday Australians. Politicians employ teams of communications experts to run and manage their social media platforms, including teams of advisors who can respond to comments and questions raised by members of the public when politicians are tagged. All of this aims to both inform and persuade members of the public that not only do representatives actively seek feedback from their voters, but also are connected to voters. This is particularly relevant to younger voters who engage more heavily with social media. Some politicians in Australia are following overseas trends by expanding their social media presence to now include campaigning via Instagram®, and even Snapchat®.

Activities

Remembering and understanding

1 Define the concept of direct advertising and outline how it is used for political advertising.

2 Explain one reason why political parties are adopting new technologies to campaign for votes.

Applying and analysing

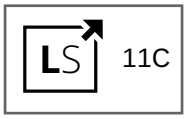
3 Analyse the differences between the target audiences of traditional (e.g. television/ radio advertising) and modern methods (e.g. email, text message, social media) of political advertising.

4 Discuss the advantages and disadvantages of using social media platforms such as Instagram and Snapchat to campaign for votes.

Evaluating and creating

5 *The use of unsolicited phone calls, emails and text messages by politicians wanting votes are an invasion of one's privacy.* Evaluate the statement by considering the following:

- **a** reasons you may agree with this statement
- **b** reasons you may disagree with this statement
- **c** your overall opinion or judgement based on your presented evidence.

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Australia's global role and responsibilities 12

Australia has an important role to play in the global community. Political stability and economic prosperity ensure that Australia is in the fortunate position of being able to help the developing world lift itself out of poverty. Australia provides foreign aid primarily to its neighbours, Papua New Guinea and Indonesia, but has been a successful partner in UN Peacekeeping missions throughout the world for over 60 years. Australia has **ratified** important international treaties that support ongoing protection of human rights. Despite this, there is mounting pressure on the Australian Government to apply the terms of those treaties more accurately in Australia, particularly with regard to **asylum seekers**, **refugees** and Aboriginal and Torres Strait Islander peoples.

OVERVIEW QUESTIONS

- **12A** What contributions does Australia make to the international community?
- **12B** Which international agreements has Australia signed?
- **12C** How do international agreements affect Australian law and government policy?
- **12D** How are the rights of Indigenous peoples protected in Australia?

GLOSSARY

asylum seeker a person who has fled their home country due to persecution on the grounds of race, religion or political status, and who seeks to live safely (that is, in asylum) elsewhere

ceasefire the suspension of fighting in a war

convention an international agreement on a particular subject

detention a place where people are held with restricted movement and freedom

global citizen an individual, institution or government that understands the rights and responsibilities of humans at a global level, transcending (meaning to go beyond and not be limited by) geographical and political borders

governance the process and rules by which decisions are made and implemented within different bodies, such as state/national governments and corporations

gross national product (GNP) the total final value of all goods and services produced in a country in a period of time, usually 1 year

international treaty an agreement under international law, entered into willingly by two or more countries

offshore detention the practice of sending asylum seekers to locations outside Australia while they have their claim for asylum processed by the Australian Government

peacebuilding long-term strategies aimed at preventing nations from falling back into conflict

racial vilification behaviour that incites (causes) hatred, serious contempt or serious ridicule of an individual or a group because of their race

ratified adopted or approved; for example, once a law is ratified it takes effect

refugee a person for whom it is unsafe to return to their home country due to persecution

resolution a formal expression of an opinion or a decision

12.0.1 The Australian Defence Force supported Australia's Whole of Government response to help Vanuatu after the devastation of Cyclone Pam, in 2015.

LS Before you begin

12.1 Australia's global roles and responsibilities

Australia as a global citizen

War, poverty and human rights abuses cannot be solved by one country alone. Global cooperation is necessary to achieve these goals. As a politically and economically stable country, Australia assists with global peacekeeping and aid. A country can play a role as a '**global citizen**' when it looks outside its own borders to help less fortunate countries. This is often referred to as 'working towards the greater good'. Helping others is considered to be a moral obligation, which means it is thought to be the right thing to do. In some circumstances, providing assistance to others is a legal obligation.

Peacebuilding

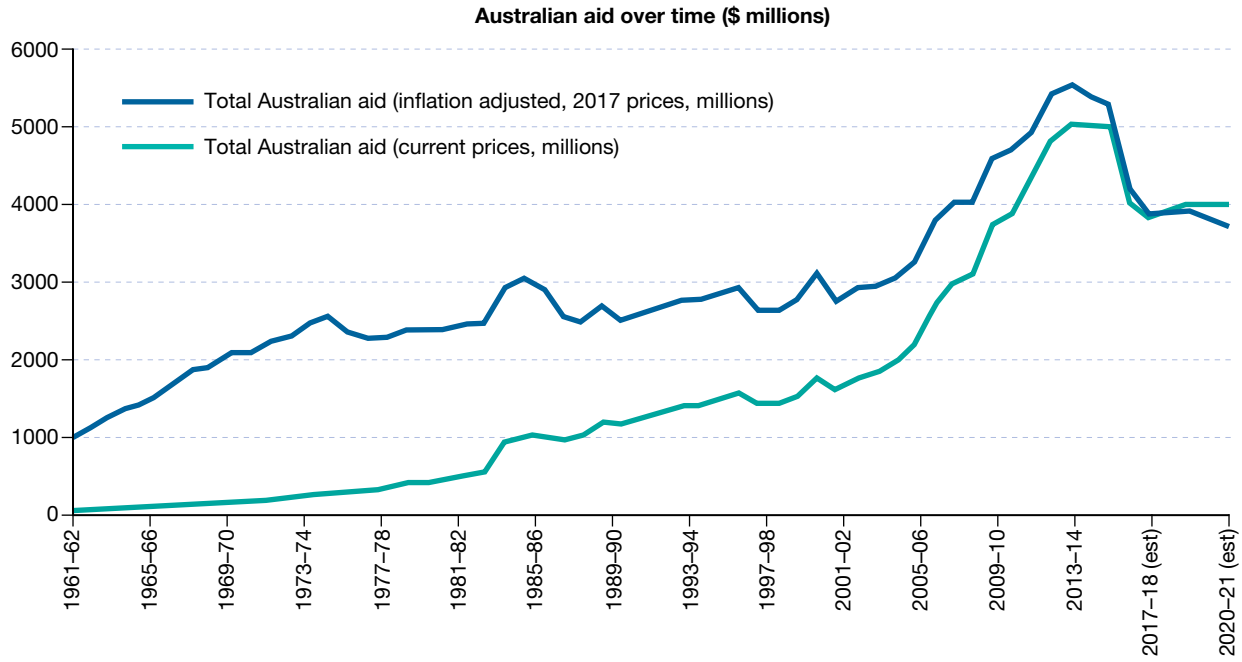
Nations need to constantly reassess their approach to maintaining peace and stability. Recently, the focus has changed from peacekeeping to **peacebuilding**. Peacebuilding means implementing long-term strategies that prevent nations from falling back into conflict. Australia has helped promote human rights, provided increased security, strengthened the rule of law and promoted sustainable economic development.

Provision of foreign aid

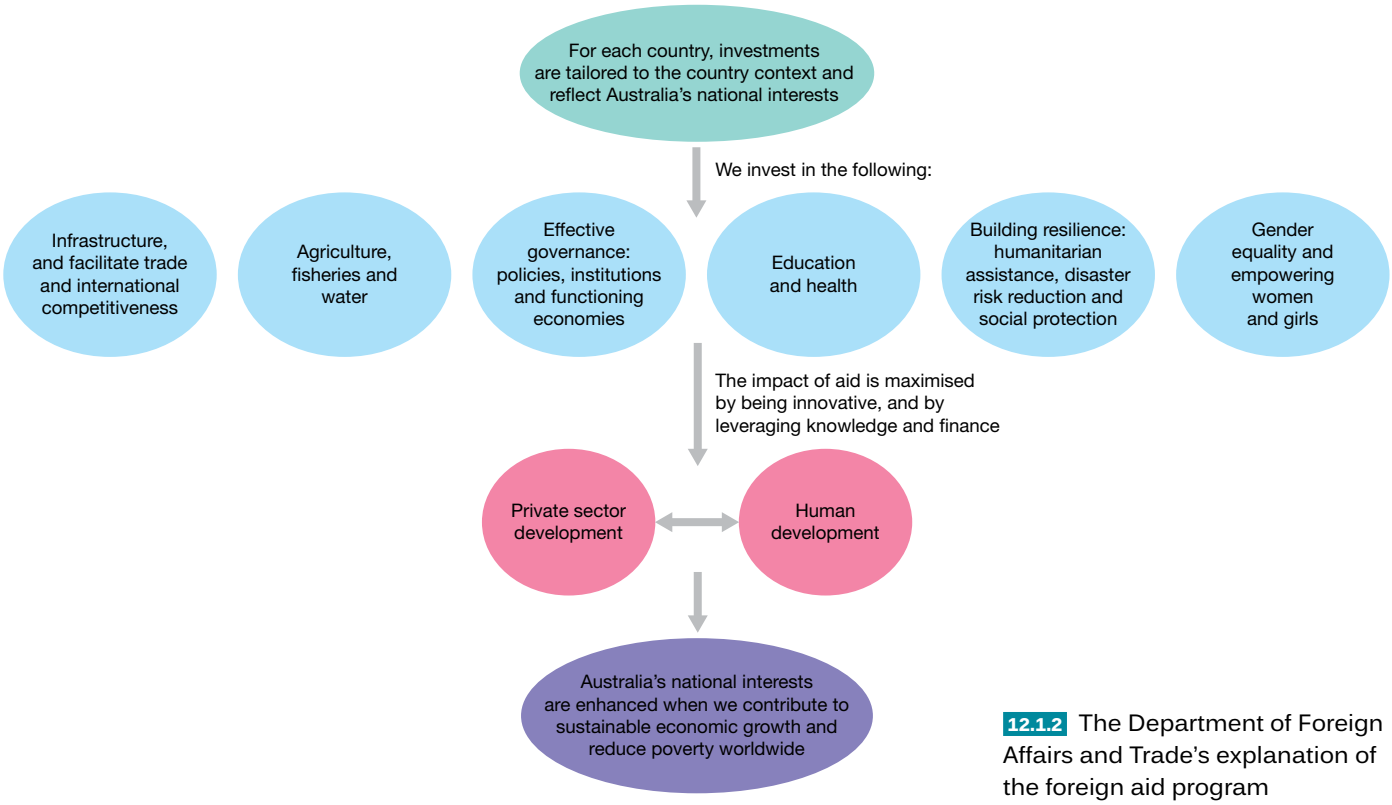
Foreign aid refers to giving money and material support to other countries. The provision of foreign aid is an essential component of Australia's global responsibilities. The UN Millennium Project, developed in 2002, set a target that would see developing countries give 0.7 per cent of their **gross national product (GNP)** in foreign aid. In the 2016, the Australian Government allocated 0.23 per cent of the Federal Budget to foreign aid. Australia's contribution to foreign aid over time is shown in Figure 12.1.1.

The primary goal of foreign aid is to generate economic growth in the developing world and to bring it out of poverty. Currently, there are approximately 800 million disadvantaged people in the Indo–Pacific region. Most of Australia's foreign aid goes to supporting countries in this region. Papua New Guinea (PNG) and Indonesia are major beneficiaries.

There are positive effects for Australia, too. By providing aid, particularly to its neighbours, Australia is able to develop good relations, maintain regional security and model good **governance**.



12.1.1 Australia's foreign aid between 1961–62 and 2020–21. The figures for 2017–18 and 2020–21 are budget estimates and projections from the 2017–18 budget. The green line shows Australia's Official Development Assistance in current prices for each year. The blue line adjusts for inflation, using 2017–18 prices.



12.1.2 The Department of Foreign Affairs and Trade's explanation of the foreign aid program

The Australian foreign aid program and private sector partnerships

Recently, the Australian Government has shifted its approach to focus more on investment in the private sector. The rationale (or idea behind this approach) is that increased employment opportunities in the affected areas creates confidence in the region. This means that it promotes a positive view of the future for the region and its people. Coupled with improved standards of education, health and gender equality, it is believed that this type of investment can lift people out of poverty.

Recipients of aid: Papua New Guinea

The majority of Australian foreign aid goes to PNG. Australia has supported PNG for over 40 years, but the nation and its people still face many challenges. The country has a poor system of law and order, and lacks infrastructure. Over 40 per cent of the Papuan population lives in poverty. The standard of education is one of the lowest in the Asia–Pacific region, with one in five children not enrolled in school. Nearly half of the country's population is under 20 and it has some of the world's highest rates of domestic violence.

Further, because of its geographical location in relation to the earth's tectonic plate boundaries, PNG faces the constant threat of natural disasters from volcanoes, tsunamis and earthquakes.

Australia's aid to PNG targets four areas: improving infrastructure for health, transport and education, and developing an efficient legal and judicial system. Australia is also trying to find ways to engage in the private sector. The aim is to see Papua New Guinea reach upper middle-income country status by 2050.

12.1.3 Foreign aid helps Papuan children to access books.

Despite the challenges Australia is making a difference:

- testing for HIV/AIDS has increased threefold
- immunisation has increased by 4 per cent
- women have greater representation in the judiciary: there are now 900 female village magistrates
- antenatal (before birth) and postnatal (after birth) support has almost halved maternal deaths
- 390 classrooms were built between 2011 and 2015
- over 2000 kilometres of road has been maintained
- in 2014–15, 34 800 people received financial literacy training, of which almost half were women
- voter awareness was raised in local elections.

Spotlight

Disaster relief for Vanuatu

The island nation of Vanuatu is a collection of small islands located approximately 1750 km east of Australia. In March 2015, Severe Tropical Cyclone Pam tore through Vanuatu, with winds of over 250 km/h recorded at its peak.

The devastation of Vanuatu was quickly evident, with critical services such as electricity, telephone and water cut off or severely damaged. Furthermore, Vanuatu's key exports of tourism and agriculture were severely affected due to the extensive damage to farms, crops and tourist facilities.

Australian response teams were in Vanuatu within 36 hours of the disaster. The government also announced immediate financial support for key disaster relief needs such as food, water, medical supplies and materials for urgent repairs to infrastructure. In addition to this, the Australian Government committed to spending a total of 50 million dollars over 3 years to support Vanuatu.

12.1.4 Scenes such as this were common in Vanuatu in the aftermath of Cyclone Pam.

Disaster and crisis management

The Australian Government allocates a large portion of its foreign aid budget to supporting nations experiencing times of crisis. This includes spending on initiatives including the:

- provision of basic needs for survival, including food, clean water, shelter and medicine to people displaced by war
- restoration of key services in war-torn areas, including health and education services
- provision of relief after significant natural disasters.

Activities

Remembering and understanding

1. Define the term global citizen.
2. List examples of the need for foreign aid.
3. Why has Australia decided to focus on investing in the private sector in developing countries?

Applying and analysing

4. Differentiate between peacekeeping and peacebuilding.
5. Provide three pieces of evidence to demonstrate the impact of Australian foreign aid in Papua New Guinea.
6. Explain one way in which Australia supports other nations during times of crisis and provide an example to demonstrate your understanding.

Evaluating and creating

7. Create a concept map or collage that demonstrates some of the ways that Australia has fulfilled its role as a global citizen.
8. Evaluate the description of Australia as 'a politically and economically stable country'. Do you agree? Give reasons for your answer.

LS 12A

12.2 Australia's involvement with the UN

The United Nations

The United Nations (UN) was formed on 24 October 1945, to take action on issues of humanity. According to the Charter of the UN, its four purposes are:

- to maintain international peace and security
- to develop friendly relations among nations
- to cooperate in solving international problems and in promoting respect for human rights
- and to be a centre for harmonising the actions of nations.

The UN has 193 member states. This refers to the number of nations that have officially joined the organisation (some nations have chosen not to join, some nations may be expelled and others have joined and left later). Due to its size, the UN is the largest and most effective international agency that Australia belongs to. In 2016, Australia was the 12th largest contributor to the UN budget.

Australia and the United Nations

Through its membership of the UN, Australia pursues its international interests and fulfils its responsibilities as a global citizen. It collaborates, or works together with other nations, on:

- *human rights:* Australia was one of eight countries that drafted the Universal Declaration of Human Rights, 1948
- *health:* with a focus on the Asia–Pacific region, where Australia is located, Australia contributes to a global fund to fight HIV/AIDS, tuberculosis and malaria; and is helping to increase the rate of vaccination
- *humanitarian issues:* this refers to issues that affect people. Australia responds to humanitarian crises, global disease threats, and helps people displaced by global conflict
- *migration:* Australia promotes the safe, lawful and orderly movement of refugees and asylum seekers
- *the environment:* Australia is committed to finding a global solution to climate change (see Figure 12.2.1). In addition, Australia has an interest in sustainable development, particularly with respect to oceans and mining. Other areas of focus include Indigenous land and sea management, food security and disaster risk reduction.

12.2.1 Australian Foreign Affairs Minister Julie Bishop delivering a national statement during the United Nations Climate Change Conference in Paris, France, 2015

Australia and the United Nations Security Council

The United Nations Security Council (UNSC) is one of five principal organs (main parts) of the UN. It is responsible for international peace and security, accepting new members and making any changes to the UN Charter. It has five permanent members: China, France, Russia, the United Kingdom and the United States. These nations emerged as the most powerful countries at the end of the Second World War. There are also ten elected members, who each hold their place for 2-year terms.

From 2013 to 2014, Australia held an elected seat on the UNSC for the fifth time. During this time, Australia increased its international standing by taking a lead role in the following areas:

- Australia immediately condemned the shooting down of Malaysian Airlines Flight MH17 on 17 July 2014, and demanded a thorough investigation
- with Luxembourg and Jordan, Australia called for **resolutions** recognising the impact of the Syrian War on civilians, especially women and children. The resolution called for better access to and protection of those directly impacted by the war

12.2.2 Australia's Permanent Representative to the United Nations and President of the Security Council (during the month of September 2013), Mr Gary Quinlan. This photograph was taken on 27 September 2013 when the UNSC adopted Resolution 2118 to approve the eradication of chemical weapons from Syria.

- Australia highlighted human rights abuses in the Democratic People's Republic of Korea to the UN for the first time
- Australia was able to author and lead negotiations on Resolution 2117 restricting the international flow of small arms and weapons, the first resolution of its kind
- Australia was acting in the role of President of the UNSC when Resolution 2118 was adopted, allowing for the eradication of Syria's chemical weapons
- Australia highlighted the important role women play in conflict prevention, peace negotiations and peacebuilding
- Australia's contributions as a Security Council member allowed the Indo–Pacific perspective to be conveyed to an international audience.

UNSC Working Group on Children and Armed Conflict (2013–14)

As part of its work on the UNSC, Australia contributed finding a solution to the issue of children affected by global conflict. It is estimated that over 1 billion children are impacted by war. Of these, 300 million are under the age of 5.

The UNSC Working Group on Children and Armed Conflict focuses on several things:

- making children's rights abusers more accountable for their actions
- ending child recruitment for armed combat (child soldiers) and intelligence (data gathering)
- protecting children from harm and exploitation during armed conflict; for example, children can become the innocent victims of landmines.

12.2.3 A UNICEF child protection specialist addresses children during a ceremony formalising their release from the South Sudan Democratic Army (SSDA) Cobra Faction armed group, in the remote village of Lekuangole, in Jonglei State, 21 March 2015.

Australia is currently a partner with the United Nations International Children's Emergency Fund (UNICEF), working to reintegrate former child soldiers into society (meaning to restore them to their former position/place in the world). This is taking place in Myanmar, the Philippines and South Sudan. Despite all attempts to wipe out child recruitment (the goal was the end of 2016), children continue to suffer as a result of conflict and war.

Maintaining global peace and security

In the last 60 years over 65 000 Australian military personnel have assisted with peacekeeping and security throughout the world. Peacekeeping missions are designed to support the implementation of a **ceasefire** or peace agreement: in other words, to maintain the peace long enough for the peace agreement to work Since 1947, Australia has participated in over fifty UN operations. This includes continuous participation in the Middle East and Cyprus, and deployments (the sending of military personnel) to Afghanistan and South Sudan.

In the Asia–Pacific region, Australia has led peacekeeping missions to the Solomon Islands (2000–13), Timor-Leste (1999–present) and Papua New Guinea (1994 and 1997–2003). Australia was also instrumental in the Cambodian Peace Settlement (1991) and contributed to Commonwealth missions in Zimbabwe (1979–80) and Uganda (1982–84).

Australia has been a reliable contributor to global peacekeeping. Australia's role is further demonstrated in its commitment to Responsibility to Protect (R2P). This is an expression of collective commitment by all UN member states to prevent genocide (deliberate killing of large numbers of people based on their ethnicity) and other war crimes from reoccurring.

12.2.4 On the United Nations Transitional Administration in East Timor (UNTAET) to Timor-Leste, an Australian soldier talks with a local girl. The mission provided civil administration and peacekeeping while Timor-Leste established independence, after it broke away from Indonesia.

Activities

Remembering and understanding

1 On what date was the United Nations founded?
2 State three examples of ways that Australia has assisted the work of the United Nations.
3 Using a world map, identify areas where the Australian military has been involved in peacekeeping operations.

Applying and analysing

4 Classify the four aims of the United Nations in order of importance (from highest to lowest) according to your worldview. Write a paragraph that justifies your classification.
5 Use a PMI chart (plus, minus, interesting) to analyse Australia's involvement with the international community during its time as a member of the United Nations Security Council.

Evaluating and creating

6 Imagine you are a soldier on the UN mission UNTAET to Timor-Leste. Write a letter back home describing some of your daily tasks and responsibilities as a peacekeeper.
7 Appraise the positive contributions that Australia has made to the international community through its membership of the United Nations. Refer to the examples provided in this chapter and take notes on the various roles that Australia has played in the following areas:
   - the UN Security Council
   - the UN Human Rights Council
   - peacekeeping
   - foreign aid
   - asylum seekers and refugees.
8 Use your findings to develop a storyboard that could be used as the basis for a government advertisement. Imagine that the purpose of this advertisement is to demonstrate and promote the positive ways that Australia fulfils its responsibilities as a global citizen.

12.3 International agreements

International treaties

An **international treaty** is a written agreement between nation states. Governed by international law, treaties contain mutual understandings and intentions that help guide how nations relate to each other.

The importance of international treaties for Australia

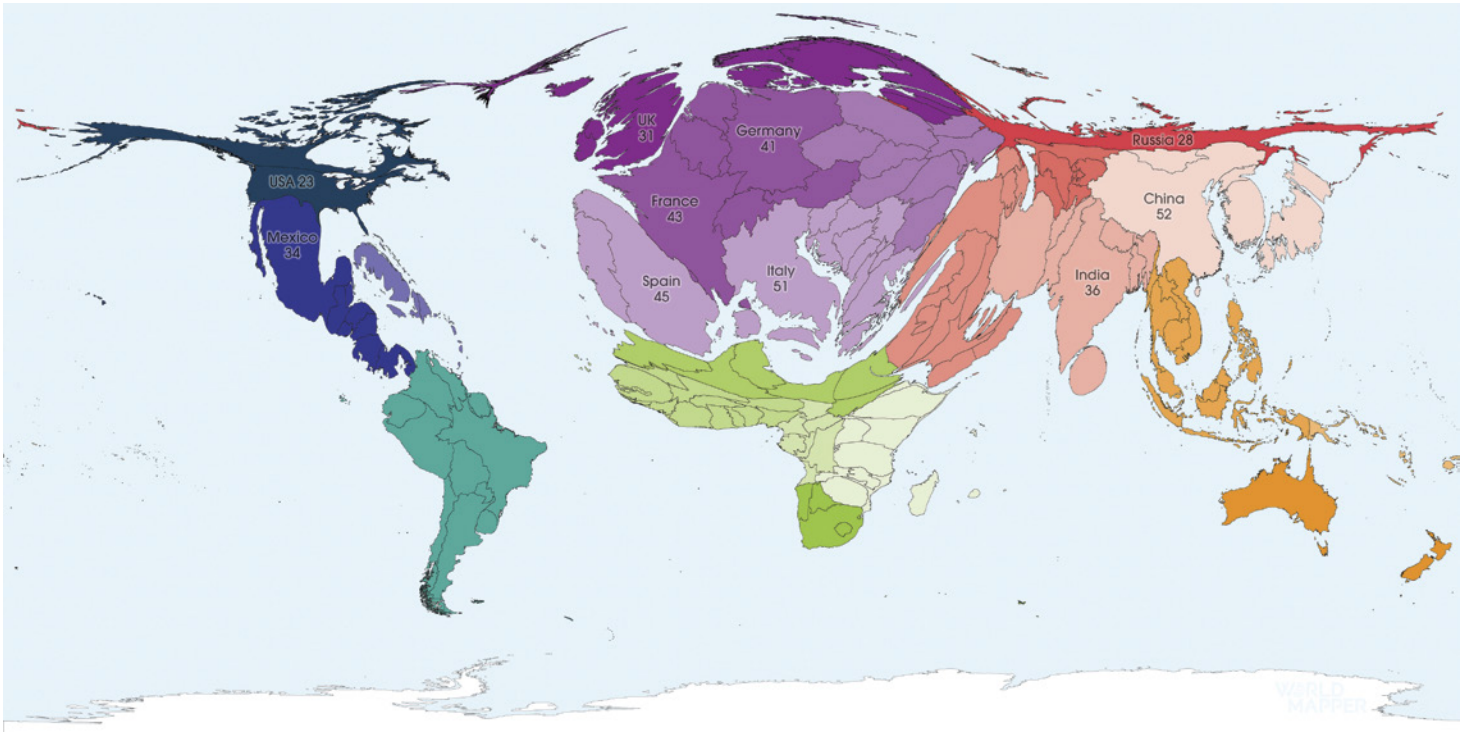
With increased globalisation (that is, improved interconnection between nations), international treaties are becoming more important, particularly for a country such as Australia. Australia is considered to be a 'middle power'—it does not carry the weight of larger countries like the United States or China. Australia is also geographically isolated and has a relatively small population. Negotiating international treaties allows Australia to have a global voice and prevent economic or strategic isolation. Australia does have advantages when relating to other nations: it has historical and cultural links to Europe (due to colonisation of Australia in the eighteenth century); it enjoys a close military alliance with the United States of America; and geographically, its position in the Asia–Pacific region provides unique cultural, economic and political insights.

The impact of treaties upon Australia

When a nation signs an international **convention** or treaty, it is an expression of its political sovereignty (this refers to its ability to make its own decisions). However, the act of signing a treaty does not make it legally binding. The terms of a treaty become binding only if the signatory nation's laws change to reflect the conditions of the treaty. There is an expectation, however, that in signing an international treaty a government will try to honour the conditions as closely as possible. Without such a commitment, the treaty has no real authority or meaning. Due to this, international treaties can be difficult to enforce.

Major international treaties signed by Australia

Nations are not always able to deal with problems in isolation. Issues such as drug trafficking, war, people smuggling and environmental degradation cross international borders. To resolve these issues, countries must cooperate with each other. Examples of the major international treaties agreed to by the Australian Government are discussed below.



12.3.1 The World Heritage Convention has highlighted the importance of significant sites across the globe. This map shows the relative proportion of World Heritage sites by country. Of the 1073 sites in total, 832 are cultural, 206 are natural and 35 are mixed. The top ten countries have been labeled.

The World Heritage Convention

The World Heritage Convention (WHC) was adopted in Paris, 16 November 1972. Australia became one of the first countries to ratify the Convention in August 1974. An initiative of the United Nations Educational, Scientific, Cultural Organization (UNESCO), the convention seeks to preserve sites of outstanding universal value. This means that the sites chosen for preservation have global significance. They are important to everyone, not just the people who live in the country where the site is located.

Under the WHC, the World Heritage List includes sites in two categories: natural and cultural. Natural heritage refers to a natural feature or site that harbours rare species of animal and plant life, or geological and physiological formations that are rare and distinctive in beauty. Sites of cultural value include monuments, buildings or archaeological sites. Certain sites may have a mix of natural and cultural significance.

The World Heritage List

As of July 2017, there are 1073 sites on the World Heritage List (see Figure 12.3.1). Australia has nineteen sites including the Sydney Opera House, Kakadu National Park, the Blue Mountains, the Great Barrier Reef and the Tasmanian Wilderness. Having a listed site elevates (raises or promotes) a country's international profile. It brings increased tourism and employment opportunities that create income for local communities.

The World Heritage Committee

The World Heritage Committee administers the World Heritage Convention. It selects new sites for listing, decides who qualifies for international assistance for their heritage sites, and manages the World Heritage Fund. It also identifies heritage sites that are in danger. Australia has served a number of terms on the committee, and these can last between 4 and 6 years.

Responsibilities under the treaty

Countries have a responsibility to preserve and protect their heritage sites. This includes planning programs to ensure protection of a site in the long term and investing in the use of technology to monitor the site. If a nation cannot pay for the upkeep or maintenance of the site, the UNESCO World Heritage Fund can assist with financial costs. Australia's obligations under the WHC are enacted (or made into Australian law) under the *Environment Protection and Biodiversity Conservation Act 1999*. This is evidence of Australia's commitment to the principles of the WHC.

12.3.3 Dawn at Purnalulu National Park, one of Western Australia's World Heritage sites

12.3.2 Australia's World Heritage Sites, categorised by the reasons for their inscription on the World Heritage List. The dates in brackets shown the year each site was inscribed on the World Heritage List.

Australia's World Heritage sites		
Cultural (3)	**Natural (12)**	**Mixed (4)**
• Australian Convict Sites (2010) • Royal Exhibition Building and Carlton Gardens (2004) • Sydney Opera House (2007)	• Australian Fossil Mammal Sites (Riversleigh / Naracoorte) (1994) • Fraser Island (1992) • Gondwana Rainforests of Australia (1986, 1994) • Great Barrier Reef (1981) • Greater Blue Mountains Area (2000) • Heard and McDonald Islands (1997) • Lord Howe Island Group (1982) • Macquarie Island (1997) • Ningaloo Coast (2011) • Purnululu National Park (2003) • Shark Bay, Western Australia (1991) • Wet Tropics of Queensland (1988)	• Kakadu National Park (1981, 1987, 1992) • Tasmanian Wilderness (1982, 1989) • Uluru–Kata Tjuta National Park (1987, 1994) • Willandra Lakes Region (1981)

Concerns for the Great Barrier Reef

Queensland's Great Barrier Reef could be placed on the WHC danger list. The danger list is normally reserved for sites in war zones or under threat from natural disaster. Experts believe the state and federal governments are not acting quickly enough to stop the destruction of the reef or to address issues such as coral bleaching. Mining in Queensland is also having a negative impact along with the effects of climate change.

12.3.4 Greenpeace campaigns to raise awareness of the degradation of the Great Barrier Reef.

International Convention on the Elimination of All Forms of Racial Discrimination

The International Convention on the Elimination of All Forms of Racial Discrimination (CERD) came into effect on 4 January 1969. It was the second human rights treaty authored by the UN, after the 1948 Universal Declaration of Human Rights. Australia ratified the treaty on 30 September 1975.

Obligations under the CERD treaty

When a country signs CERD they agree:

- not to engage in or endorse any type of racial discrimination
- to alter policies and change laws which enforce or create racial discrimination
- to prohibit organisations that promote racial discrimination, racial hatred and violence
- to ensure that victims of discrimination are protected
- to recognise that creating laws does not erase racism alone; it needs to be supported through education and a change in political culture.

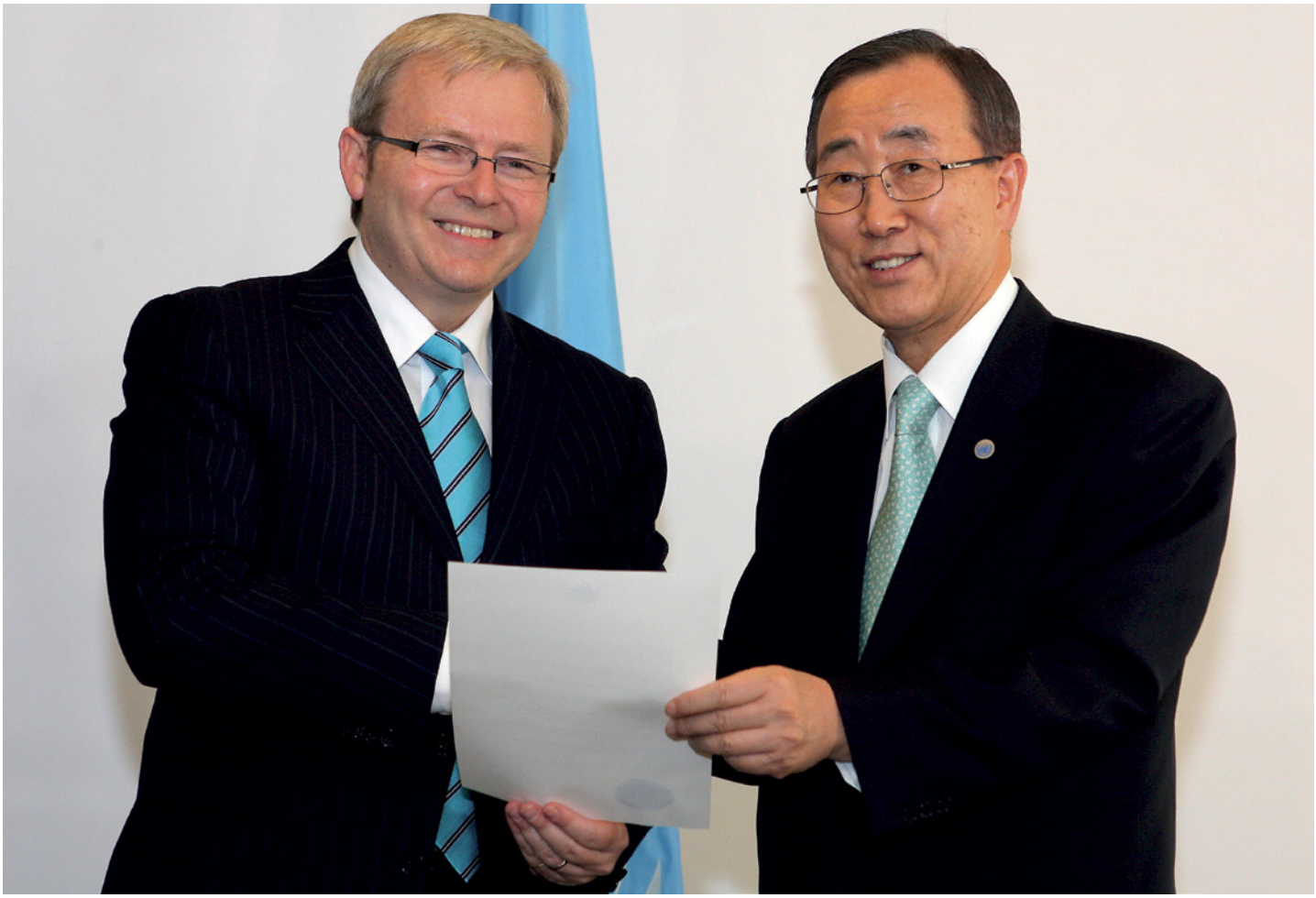
The Convention on the Rights of the Child (CRC)

The Convention on the Rights of the Child (CRC) was signed in November 1989. The treaty was the first to highlight that children are entitled to human rights in the same way as adults. It features fifty-four articles that outline basic rights of children around the world, including the rights to:

- live full, healthy lives
- be protected from activities that harm their development
- be protected from work that is dangerous or harmful to their health or education
- have access to an education
- be protected from sexual abuse.

Australia ratified the Convention on the Rights of the Child in December 1990, meaning Australia and its government were obliged to meet the various rights for all children in Australia. Furthermore, they should be able to enjoy these freedoms without discrimination of any kind.

12.3.5 The aims of The Convention on the Rights of the Child



12.3.6 Prime Minister Kevin Rudd ratified the Kyoto protocol in December 2007.

Criticisms of Australia's implementation of the CRC treaty

Australia has been criticised by both international and domestic bodies for its reluctance to implement measures that would align it more closely with the CRC.

Major concerns include the gap between Aboriginal and Torres Strait Islander children and non-Indigenous children in health and education. Indigenous children are over-represented in the juvenile justice and child protective systems. Furthermore, children who are asylum seekers are kept in mandatory **detention**. Bullying in schools and online is increasing, along with levels of homelessness. Other extreme issues such as the practice of female genital mutilation need legal attention.

In 2013, a National Children's Commissioner was appointed to the Australian Human Rights Commission. It is hoped that this will be a positive step in improving the protection of children in Australia.

The Kyoto Protocol

One of the most well-known international treaties is the Kyoto Protocol. This came from the United Nations Framework Convention on Climate Change and aimed to reduce the global risks and effects of climate change through the establishment of binding emissions targets for members who signed and ratified. Negotiations on the protocol concluded in December 1997 in Kyoto, Japan, which provided the protocol with its name.

While Australia signed the Kyoto Protocol in April 1998, it did not ratify it until December 2007 (see Figure 12.3.6) at which time Australia and its government became legally bound to the targets. Australia's target was to limit emissions so by 2012, they would not exceed 108 per cent of 1990 levels.

Since the end of the Kyoto Protocol, the UN has continued to lead countries including Australia in the fight to reduce greenhouse gas emissions. In December 2012, an amendment to the Kyoto Protocol known as the Doha Amendment was adopted, with new targets established for members who sign and ratify to work towards by the end of 2020. Australia ratified this on 10 November 2016.

The Declaration on the Rights of Indigenous Peoples

There are an estimated 370 million Indigenous peoples in the world. The UN Declaration on the Rights of Indigenous Peoples (UNDRIP) was ratified on 13 September 2007. Initially the Australian Government refused to sign the treaty, but it declared its support under the Rudd Government in 2009.

Major themes of the UNDRIP treaty

The declaration lays out the minimum standards for the 'survival, dignity and well-being of Indigenous Peoples'. It states four main rights for Indigenous peoples:

- *the right to self-determination:* the ability to decide what is best for them and their community
- *the right to be recognised as distinct peoples:* they are equal before the law but have the right to be different
- *the right to free, prior and informed consent:* they have the right to be consulted about proposed changes before they happen
- *the right to be free of discrimination*.

Unit 12.5 investigates the rights of Australia's Indigenous peoples in more detail.

12.3.7 Australia's Indigenous peoples, the Aboriginal and Torres Strait Islander peoples, are given the right to self-determination as well as protection from discrimination through the Declaration on the Rights of Indigenous Peoples.

Activities

Remembering and understanding

1. Explain what is meant by Australia being a 'middle power'.
2. List three examples of major international treaties that have been signed by Australia.
3. Distinguish between signing and ratifying a treaty, such as the Kyoto Protocol.
4. Identify some of the ways that Australia has not shown a commitment to the Convention on the Rights of the Child treaty it signed in 1990.

Applying and analysing

5. Rank the international agreements presented in this unit in terms of their importance to Australia, from your perspective. Justify your response to a partner.
6. Use a mind map to compile a list of as many global issues that you can think of that require countries to work together to resolve.
7. Choose one of Australia's World Heritage Sites listed and explain its natural and/or cultural significance to the global community.
8. Use the information presented in this unit to explain how signing international agreements increases Australia's standing in the global community.

Evaluating and creating

9. Choose a natural or cultural site that exists in Australia that is not currently on the World Heritage List. Write a letter to the World Heritage Convention to try to persuade them to include your chosen site on the list.

LS 12B

12.4 Australia's treatment of asylum seekers

Asylum seekers and refugees

Asylum seekers are people who have fled their home countries and seek to live safely elsewhere, due to persecution on the grounds of race, religion or political status. A person is given refugee status when it is found that it would be genuinely unsafe for them to return to their home country.

Australia's obligations to asylum seekers and refugees

Australia is signatory to seven separate human rights treaties, all of which include provisions (agreed principles and parts) for the treatment of refugees and asylum seekers. The most notable of these are the International Covenant on Civil and Political Rights (ICCPR) (1966) and the Convention on the Rights of the Child (CRC) (1990).

While asylum seekers are in Australian territory the government must protect their human rights. According to the 1951 UN Convention on the Rights of Refugees, countries are not allowed to return individuals to countries where their life or freedom is threatened.

The treaties, however, are only a guideline; Australia does not have to abide by them by law. As a consequence, the Australian Government's approach to managing asylum seekers has, at times, been quite controversial.

Criticism of Australia's asylum seeker policies

Australia has strict policies regarding asylum seekers. Under the *Migration Act 1958* anyone who arrives in Australia without a valid visa must be held in detention. This can be for any length of time, until a visa is arranged or the person is deported.

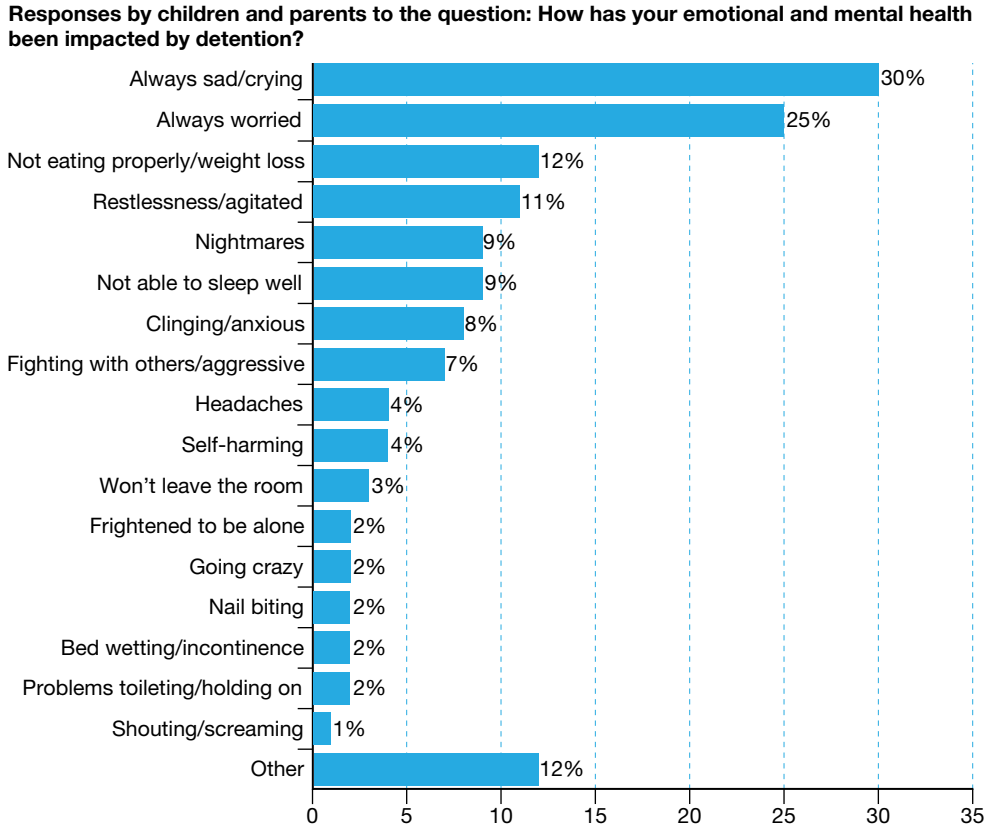
From 1992 to 2017, asylum seekers arriving by sea were processed outside Australia. Australia had offshore processing facilities in Nauru and Manus Island. In these facilities asylum seekers were processed according to the laws of those countries, not Australian law. While this process was not prohibited by international law, the same human rights regulations still applied.

12.4.1 The Department of Immigration and Border Protection has strict policies regarding asylum seekers.

The United Nations Human Rights Committee has repeatedly found Australia to be in breach of its international obligations under Article 9.1 of the ICCPR. The major concerns are as follows:

- the length of detention for asylum seekers was unlimited. As of November 2015 the average time spent in detention was 446 days and some asylum seekers had spent 2 years in detention
- asylum seeker cases were not dealt with on an individual basis
- there was no legal assistance provided for asylum seekers if they believed that their human rights were being abused
- the detention facilities were not appropriate for long stays
- asylum seekers lived in tents, with little privacy, under harsh conditions
- children were detained and had limited access to education or recreational space
- both adults and children detained for long periods had an increased risk of self-harm and mental illness
- reports of rape and ill-treatment had been made by detainees on Manus Island.

12.4.2 Asylum seekers held at the Manus Island Detention Centre cross their hands in protest against their treatment.



12.4.3 Some effects of detention on children, from the Australian Human Rights Commission 2014 report, *The Forgotten Children*

Australia had been encouraged to seek community-based alternatives rather than mandatory detention. This refers to housing asylum seekers within the Australian community instead of detention centres. The Human Rights Commission of Australia regularly conducted inspections and issues reports in an attempt to raise awareness of international standards. In April 2015, the federal government introduced fast tracking to speed up the visa-issuing process.

In February 2016, the High Court of Australia ruled that **offshore detention** in Australia is lawful. However, in April 2016 the Papuan High Court ruled that detention on Manus Island (which is part of Papua New Guinea) is illegal. The Manus Island detention centre officially closed in October 2017 and the detainees relocated to accommodation at Lorengau, the major town on Manus Island.

Activities

Remembering and understanding

1 Define the term asylum seeker.
2 Differentiate between the terms asylum seeker and refugee.
3 Identify the international agreements that include provisions for the treatment of asylum seekers and refugees.

Applying and analysing

4 Explain how Australia's offshore detention centres conflict with its role as signatory to seven different human rights treaties.
5 Analyse the criticisms that have been directed at the Australian Government by the United Nations Human Rights Commission in relation to its treatment of asylum seekers.
6 The Refugee Council is an advocacy group operating in this space. Visit their website and investigate their arguments. Do you support their perspective on the issue of asylum seekers and refugees? Explain why or why not in a one page written response.

Evaluating and creating

7 Formulate a new international agreement that you feel Australia should champion at the United Nations. It may relate to asylum seekers and their treatment or it may concern another topic. Brainstorm the most pressing economic, environmental and socio–political aspects of your chosen issue. Decide on three or four guiding principles that should underpin global action on this issue. Write these down in simple, straightforward language. Be prepared to present your ideas to the class.

LS 12C

12.5 Australia's international obligations to its Indigenous peoples

Stamping out racial discrimination

The International Convention on the Elimination of All Forms of Racial Discrimination (CERD) states that racial discrimination occurs when a person is given unequal or different treatment because of their race, colour, descent, ethnic origin or nationality. This unfair treatment is a violation of human rights and freedoms.

The implementation of CERD in Australia

When the CERD charter was initially signed in 1969, human rights in Australia had little protection constitutionally or legally. In signing the charter, however, there was an understanding that Australia wanted to uphold its key principles and would endeavour to make the necessary domestic changes. In Australia's case, this meant that it was necessary to pass new laws designed to enforce the aims of the convention (see Figure 12.5.1).

The *Racial Discrimination Act 1975*

The Racial Discrimination Bill was introduced to Federal Parliament in June 1975. It took four attempts before the bill was passed in both houses. The crucial element in its eventual victory was the argument that Australia should uphold its international obligations under CERD. Advocates for the bill also argued that common law (the body of law developed over time, based on the decisions of courts) was no longer a sufficient protection of human rights.

Amendments to the Racial Discrimination Act

In 1995, **racial vilification** provisions were added to the Racial Discrimination Act. Vilification refers to speech or writing that indicates that someone is of little worth. Under Section 18C it is now unlawful to commit a public act that is reasonably likely to offend, humiliate, insult or intimidate an individual due to their race, colour, ethnicity or nationality. Section 18D outlined free speech exceptions. In 2014, there were proposals to change these provisions, but they were unsuccessful. In 2017, the government also attempted to change the wording of section 18C of the Racial Discrimination Act, but the move was defeated in the Senate.

12.5.1 Australian university students protesting in support of racial equality during the 1970s

12.5.2 Attendees at the Close the Gap, 10th Anniversary Parliamentary Breakfast at Parliament House in Canberra on 10 February, 2016.

Recognising the rights of Indigenous peoples

In 2008 former Prime Minister Kevin Rudd apologised to the Indigenous community for past government policies that inflicted loss and suffering, including the forced removal of children from their homes.

In 2009, after lengthy debate, the Australian Government declared its support for the Declaration on the Rights of Indigenous Peoples. Supporting this agreement meant that the Australian Government committed to meeting standards for the survival, dignity, security and wellbeing of Indigenous peoples.

12.5.3 Thousands watch a giant television screen at Melbourne's Federation Square on 13 February 2008 to listen to then-Prime Minister Kevin Rudd deliver a historic apology in parliament to formally acknowledge the suffering caused by decades of mistreatment of Indigenous Australians. The apology speech was viewed as a turning point in Australia's history, with major television networks airing it live and crowds and communities gathering across the nation to witness the event.

Other important advancements in relation to the rights of Australia's Indigenous peoples include:

- the continuing development of Native Title law
- 'Close the Gap', which began as the National Indigenous Health Equality Campaign in 2006, is an initiative to improve Indigenous life expectancy. The aim is to improve quality of and access to healthcare and to ensure that life expectancy is equal for everyone by 2030
- establishment of the National Congress of Australia's First Peoples in 2010: the Congress is company structured to ensure equal representation of men and women on the national executive and the ethics council
- 'Recognise': a campaign to acknowledge Indigenous Australians in the Constitution. In 2010, Prime Minister Julia Gillard set up an expert panel to lead a national conversation as to how this can be achieved. The 'Recognise' campaign has now ended (the federal government ceased funding the campaign in September 2017) and 'Recognise Australia' is now working to promote reconciliation in Australia.

Closing the gap

Despite the positive steps there is a vast amount of work to be done for Indigenous Australians' human rights. Currently, Aboriginal and Torres Strait Islander peoples make up 27 per cent of all sentenced prisoners, and 29 per cent of unsentenced prisoners, despite comprising only 3 per cent of the population. Racism is prevalent in society and living conditions are well below the standards of non-Indigenous Australians. The Close the Gap campaign is an ongoing initiative to close the gap in life expectancy between Indigenous and non-Indigenous Australians.

Did you know?

The Victorian Aboriginal Heritage Council (VAHC) was established in 2006 and is comprised of up to eleven Traditional Owners who are appointed to their positions by the Victorian Minister for Aboriginal Affairs. The role of the VAHC is to ensure that Traditional Owners in Victoria are involved in decision making processes about the protection and management of Aboriginal heritage. As well as promoting understanding and awareness of Aboriginal heritage and culture through its work, the VAHC also coordinates matters relating to Ancestral Remains, which involves strengthening protection for burial places and helping Traditional Owners return the remains of their Ancestors to Country.

International scrutiny of Australia's fulfilment of CERD

Signatories to the International Convention on the Elimination of All Forms of Racial Discrimination should provide a report to the CERD Committee every 2 years on how they are implementing the Convention. Australia submitted its most recent report in 2016, and at the time of publication CERD's response had not yet been released. In its 2010 response to Australia's second last report the committee declared that, both legally and politically, Australia's implementation of the convention had been only partial and inadequate. The committee did respond positively to the Apology to the Stolen Generations (2008), the endorsement of the UN Declaration on the Rights of Indigenous Peoples (2009) and the introduction of the Close the Gap policy (2006).

Most of the concerns the CERD Committee had in 2010 about Australia's implementation of the charter were regarding treatment of Indigenous Australians and its asylum seeker policies. Some of the recommendations included:

- an update of the Australian multicultural policy
- more entrenched (guaranteed) protection against racial discrimination in Australian law
- greater contact and consultation with Indigenous communities
- preservation of Indigenous languages and increased funding for Indigenous legal aid
- finding an alternative to mandatory detention and devising more equitable strategies for processing asylum seeker applications.

Australia continues to try to address CERD's concerns. In 2013, Australia established the position of Racial Discrimination Commissioner to address racism and racial discrimination. The Commissioner is responsible for implementing the national anti-racism strategy and coordinating national anti-racism campaigns.

Skills builder

Making judgements and forming conclusions

Being able to make judgements and form conclusions is an essential part of Civics and Citizenship. Often, by focusing on a contemporary issue (something that is currently happening in society) we can develop our skills in this area. Contemporary issues provide excellent examples of the ways that various individuals and groups participate in, question and attempt to improve the democratic system that we have in Australia.

Examine

Examine the criticism that exists within the global community with respect to Australia fulfilling its international obligations.

Outline

Outline some of the issues relating to Australia's treatment of its Indigenous peoples and asylum seekers. Pay particular attention to the criticism that exists in relation to Australia's commitment to the International Covenant on Civil and Political Rights (ICCPR) and the International Convention on the Elimination of All Forms of Racial Discrimination (CERD).

Research

Research using newspapers, television stories and interviews, blogs, or the websites of non-government organisations.

Compare and contrast

Compare and contrast the nature of the criticism that exists at the local, national and international level. What has been the response of the Australian Government to these claims?

Communicate

Communicate your findings as a one-page summary or an A3 poster.

Activities

Remembering and understanding

1 Refer to the Glossary at the start of this chapter to define the term 'racial vilification' in your own words.

2 Provide one example of how signing CERD has led to a change in law in Australia.

Applying and analysing

3 Suggest ways that the Racial Discrimination Act was an important milestone in the campaign to improve the lives of Australia's Indigenous peoples.

4 Examine progress that has been made in the area of Indigenous rights in Australia (in the last 5 years) in comparison with one other country. Identify the achievements that have been made. Support your answer with examples and statistical data.

Evaluating and creating

5 In pairs, formulate a list of recommendations for the Australian Government on ways they can further implement the International Convention on the Elimination of All Forms of Racial Discrimination. Consider the following points to guide your response.

- **a** When and where is racial discrimination most likely to occur (workplace, schools, sporting environments, etc.)?
- **b** What policies and procedures exist to deal with racial discrimination in these places?
- **c** How could these policies be improved and strengthened?
- **d** What type of education and community awareness programs would help to eliminate racial discrimination from society?

LS 12D


M.U.A.
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Global citizens 13

Even though we might not realise it, our values, choices and behaviours can have considerable impact, both positive and negative, in other places across the world. From the clothes we wear and the food we eat, to the television we watch and the social media we engage in, our lives are connected not solely to our local communities but to the global community as well. This situation, if we can be aware of it and are prepared to learn more about it, positions each of us as potential change-makers who can have a positive impact on the lives of people across the world.

This chapter examines ideas of identity through a worldwide lens, and looks at how the global community of the twenty-first century is closely interconnected. It explores the ways in which citizens of the world can learn about, ask questions of, and, most importantly, act to address a range of life-changing issues faced by people around the world.

OVERVIEW QUESTIONS

13A In what ways has globalisation changed the world?

13B What does it mean to be a global citizen?

13C How does civil society help build and strengthen democracy?

13D How can social media enable people to actively participate as global citizens?

LS Before you begin

13.0.1 The Occupy movement highlights income disparity across the world. This demonstration in Sydney in 2011 was one of many mass protests held in major cities around the world.

GLOSSARY

active citizenship actions taken by people in a society that involves them in democracy at all levels in their communities

activism taking action to bring about social or political change

agency the capacity of individuals to act independently and to make their own free choices

bill of rights a list of the most important rights accorded to citizens of a country or state that helps protect those rights in law

civic engagement individual and collective actions designed to address issues of public concern through engagement in social and political institutions

developing nation a nation or a sovereign state with a less-developed industrial base and a low human development index (HDI) compared to other countries, also called a less-developed nation

diversity the inclusion of different types of people (including people of different races, cultures, abilities and lifestyles) in a group, organisation or society

equality the state of being equal, especially in status, rights or opportunities

ethics systems of moral principles that affect how people make decisions and lead their lives

free speech the right to express opinions without censorship or restraint

human rights basic freedoms and protections that belong to everybody; people should be treated fairly, treat others fairly and have the ability to make genuine choices in their daily lives

marginalised a group of people in a society who are isolated and excluded through the actions, or lack of attention, of others in that society

nationalism a sense of loyalty and devotion to a nation that places it above others through promotion of its culture and interests

pluralistic society a diverse society, where people believe a range of different things and tolerate each other's beliefs even when they don't match their own

rule of law the concept that everyone—including citizens and the government—is bound by and entitled to the benefit of laws

13.1 What's globalisation got to do with it?

Before you finish eating breakfast this morning, you've depended on more than half the world.

The famous US civil rights activist Martin Luther King Jr wrote the words above as an observation of human beings' interdependence on one another. The degree to which societies across the world are connected (and dependent upon one another) has never been more pronounced than in the twenty-first century. The process is called globalisation.

13.1.1 In this cartoon, artist Leunig presents a less-than-positive view of globalisation.

Outcomes of globalisation

Many outcomes that stem from the process of globalisation are to do with trade and finance. They include:

- increased international trade (between countries in all parts of the world)
- the growth of transnational corporations (TNCs), which are companies operating in more than one country
- a greater dependence on the global economy (meaning that outcomes in financial markets in one nation—good or bad—can influence the financial markets of another nation)
- easier movement of capital (money), goods and services from nation to nation.

The 'good' and the 'bad' of globalisation

Globalisation has had a dramatic effect on world economies and on ordinary people's lives around the world, including in Australia. Consequently, there are fierce supporters, and fierce opponents, of globalisation around the world.

Those that argue in favour of globalisation cite its positive effetcs:

- the fact that globalisation (through TNCs) encourages investment in countries and provides new jobs, skills and services for local people
- free trade, which makes companies more competitive and lowers prices for consumers
- the sharing of ideas, experiences and lifestyles of people and cultures from across the world; for example, Australians can now buy foods and other products previously not available
- Australian society has become more open and tolerant towards other people who are from different backgrounds, traditions and cultures due to the increased migration of peoples and exposure to different ways of life
- globalisation of communications enables Australia to be more aware of global issues (such as climate change, war and natural disasters) and, consequently, more able to contribute to debate on an issue or provide aid in an emergency.

13.1.2 A more globalised world means that the international community is better able to respond to humanitarian disasters via organisations such as the International Federation of Red Cross and Red Crescent Societies.

On the other hand, those who oppose globalisation point to its negative effects:

- the role of developing countries in the world market is mostly to provide richer nations with cheap labour and raw materials; while many Australians benefit from this by way of lower prices for goods, this system adversely affects people living in poorer countries (such as through **human rights** abuses)
- the wealth generated by TNCs will not always benefit the local community; the Australian government in 2017 sought to force TNCs such as Google, Facebook and eBay® to pay their share of tax owed on money earned from operating in Australia (a result which could deliver billions of extra dollars to the government)
- TNCs, with their huge buying power, often send local companies out of business; in addition, if it becomes cheaper to operate in another country (such as happened with the car industry in Australia) the TNC might close the factory and make local people redundant
- since there are few enforced international laws, TNCs may operate in developing countries in a way that would not be allowed in wealthier countries; consequently, the TNCs may pollute the environment, cut corners with industrial safety or offer poor working conditions and low wages to local workers to achieve profits with no risk of penalties
- globalisation is viewed by many as a threat to the world's cultural **diversity**; by establishing systems in which the capitalist, wealthier nations such as the United States dominate, local cultures (including languages and traditions) can struggle to survive
- TNCs are increasingly influencing political decisions; many believe there is a threat of corporations gaining too much power over governments, and some even claim that the rise of TNCs with extraordinary power are 'dangerous to democracy' due to the influence they wield.

Did you know?

In Australia in 2010, large mining companies such as BHP® and Rio Tinto® campaigned against the Australian Government's Carbon Price Scheme (carbon tax) and the Minerals Rent Resource Tax (MRRT). They used expensive television advertisements and large political donations to the Opposition to try and change government policy and influence the democratic process.

Activities

Remembering and understanding

1 List three of the outcomes of the process known as globalisation.

2 Describe two ways in which globalisation could be considered advantageous for people around the world and describe two ways in which globalisation might be considered harmful.

Applying and analysing

3 How can globalisation be said to be central to Australia's success as a diverse and multicultural society?

4 Research a specific website of a TNC such as Coca-Cola, Apple®, BHP or another of your choosing. What does that TNC claim it offers the countries in which it operates? By doing another internet search using relevant keywords, what do critics of the TNC and its operations identify as the problems it creates by its presence in other countries?

Evaluating and creating

5 Refer to the Leunig cartoon in Figure 13.1.1. It seems to offer a negative assessment of globalisation, suggesting that people around the world are connected via their despair, possibly at the very things globalisation has delivered.

Your task:
Create your own short cartoon strip (in the style of Leunig's), which instead offers a positive view of globalisation. Try to use examples that have been raised in this chapter, and research additional ideas and images via the internet to help you to draw and write your cartoon. If you are not a confident artist, use computer software to create your cartoon using online images.

6 Respond to the following statement, 'TNCs are more powerful than the democratic institutions of the Western world'.

LS 13A

13.2 Adopting a global identity

> We must foster global citizenship. Education is about more than literacy and numeracy. It is also about citizenry. Education must fully assume its essential role in helping people to forge more just, peaceful and tolerant societies.

Ban Ki-moon, UN Secretary-General, launch of the the Secretary-General's Global Education First Initiative, 2012

What do we mean by the term 'citizenship'?

The term 'citizen' is commonly applied with an understanding that people live in a country and possess a nationality. However, the idea of citizenship is not solely about where one lives. As well as the benefits and rights that being a citizen of Australia affords—for example, the right to live freely in a democratic nation and to be governed and protected by the **rule of law**—Australian citizens also have responsibilities. These include commitments, once 18 years of age, to vote in federal, state and local elections, as well as to serve (if required) on juries in courts of law in judgement of their peers.

13.2.1 An Australian passport enables citizens of Australia to travel overseas and gives them the protection and assistance of the Australian government in emergencies.

The concept of citizenship can also be understood in other contexts—including the sense of identity experienced when one belongs to a society, and being a 'good citizen'—where people have respect and tolerance for others, respect for the rule of law, and a willingness to participate in public life. In still another way, citizenship can be understood as the **agency** of individuals to change society by working against the unfair structures of society that privilege some while discriminating against others.

What is global citizenship?

The idea of global citizenship is widely debated. In one sense, it involves belonging to a community that extends beyond national boundaries. It is about making positive changes in this environment. A global citizen is someone who cares about themselves and their actions, and who reflects on how their actions impact others, locally, nationally and globally. Importantly, global citizens are willing to act if they feel that the world they live in is not the place they feel it should be.

13.2.2 As global citizens, we recognise the relationships between ourselves, our communities and the wider world, connecting the local with the global.

In many ways, each of us is a global citizen—whether we are conscious of it or not. As has been explained earlier, the process of globalisation creates and supports networks of connectedness and interdependence. A person's choices and actions therefore have repercussions for people, communities and the environment locally, nationally and even globally.

The concept of global citizenship includes having respect for oneself and respect for others, whatever their beliefs. Thinking as a global citizen means to think critically about what is fair and just, and to recognise and work against practices that cause harm to the planet and its people. By exploring themes of global citizenship, people can grow more confident in voicing and standing up for their beliefs. In addition, they can become more skilled in evaluating the **ethics** behind their beliefs, and reflective of the impact of their choices and decisions.

According to Oxfam International (a global confederation of twenty independent organisations focused on the alleviation of global poverty), a global citizen is someone who:

- is aware of the wider world and has a sense of their own role as a world citizen
- respects and values diversity
- has an understanding of how the world works
- is outraged by social injustice
- participates in the community at a range of levels, from the local to the global
- is willing to act to make the world a more equitable and sustainable place
- takes responsibility for their actions.

13.2.3 Key concepts of global citizenship as outlined by Oxfam

Some of the key concepts (although of course not all) that can be explored through a global citizenship lens include the interrelated concepts of 'human rights', 'sustainable development' and 'social justice'.

Human rights

The Universal Declaration of Human Rights was first drafted in 1948 after World War II. While the basic elements of the Declaration (individual liberty, **equality** and equity) remain, the ways these rights are applied across the world changes as society changes. For instance, the movement for LGBTQI (for lesbian, gay, bisexual, transgender, queer or questioning, or intersex) rights has emerged in the decades since 1948, and particularly over the last 20 years. The main difficulties with applying human rights across the world is that there is no effective way of ensuring that these rights are enforced. Consequently, there have been many examples of human rights abuses by states (nations), religious institutions and corporations.

Sustainable development

The concept of sustainable development is a commitment to the economic development of the world's **developing nations** that is achieved without ruining the environment or depleting the world's natural resources. In late 2015, as part of the United Nations global community, countries adopted the Sustainable Development Goals (SDGs) to protect the planet, end poverty and strive for prosperity for everyone across the world. Each of the 17 SDGs contains specific targets to be achieved by 2030 (including goals such as gender equality, climate action and zero hunger).

Social justice

Global citizens concerned with social justice view the growth of income inequality around the world as unjust and unacceptable. In today's world, the enormous gap in the distribution of wealth, income and public benefits continues to grow.

13.2.4 The United Nations' 17 Sustainable Development Goals to transform our world

The United Nations has further defined social justice by recognising six areas of inequality that need correction. The UN identifies inequalities in:

- the distribution of income
- the distribution of assets
- opportunities for paid work (in many places in the world, people work just to survive)
- access to knowledge
- the provision of health services and social security
- opportunities for civic and political participation (i.e. democracy).

Towards a global identity—the role of young people

Being a global citizen does not mean that an individual must give up aspects of their own identity, such as patriotism for their country or pride in their ethnicity. These elements are all part of someone's life and important parts of a person's identity. However, acting as a global citizen adds an extra dimension of responsibility that comes from being a part of a globalised world.

In recent times, it has often been young people who have grasped the concept of global citizenship and who have sought to exert positive change on their world. The rapid development in technology over this period, including tools such as the internet, has enabled young people to engage with issues and causes beyond their local environments.

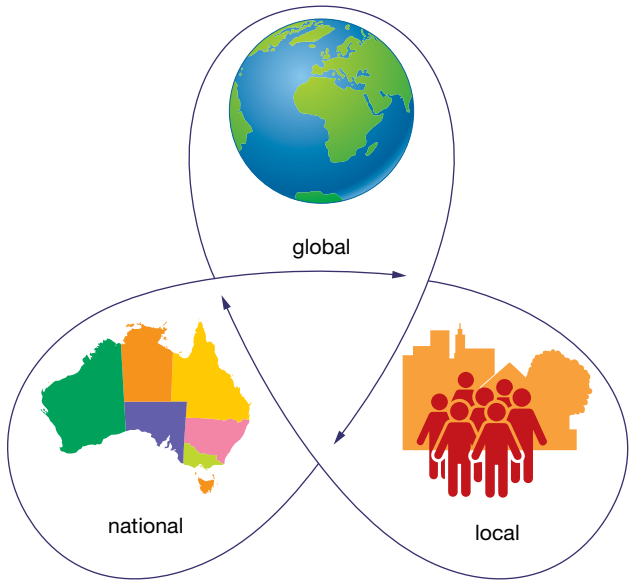
To identify as a global citizen, young people need to become more socially, politically and economically integrated with the world. This means:

- having a good knowledge of global events, cultures and faiths, as well as an understanding of important global conventions such as human rights
- questioning their own values and seeking to understand the values of others
- being able to reflect on their own circumstances in relation to those in different parts of the world, and recognise injustice and inequity
- having a sense of responsibility and a willingness to improve society and make life better for other people
- taking authentic, meaningful action on issues that are important to them.

Think globally, act locally

You may be familiar with the phrase 'think globally and act locally'. This instruction is directly linked to the process of globalisation, a process that has led to a far greater understanding of people from many different countries, including Australia, of issues of global significance (for example, climate change, the worldwide refugee crisis, terrorism, food security and environmental conservation). Consequently, people have felt part of something of wider importance than just their local context. In this way, citizens have felt empowered to act in accordance with their beliefs in their local communities (including through other ways, such as protest, fundraising and other forms of **activism**) thereby contributing to a global movement or campaign.

For example, when Australians choose to recycle their old mobile phones, they are helping to reduce the need for more coltan (a mineral extracted from the forests of the Congo in central Africa that forms a component of mobile phone circuitry). By recycling this material, the world's endangered lowland gorillas that live in this part of the world may be less threatened by the mining activity and the loss of their habitat.



13.2.5 Acting as a global citizen requires an awareness that by acting locally a person can bring positive change to not only their local communities but to the national and global sphere as well.

Why is global citizenship important for young people?

In many ways, an understanding of global citizenship is essential for young people to gain the skills and knowledge to be successful in their future careers and their broader lives. The ways of thinking that underpin global citizenship can contribute to the development of a fairer, more sustainable and safer world for our local communities as well as those in other parts of the world.

Useful skills for global citizenship

To be effective global citizens, young people need to be:

- creative, proactive and adaptable
- problem-solvers and decision-makers
- able to think critically and be able to communicate their ideas effectively.

Because a global perspective is based on ideas of connectedness and interdependency, it should be no surprise that global citizens need to be able to collaborate effectively in teams and groups. These skills and attributes are increasingly recognised as being essential to succeed in other areas of twenty-first century life as well, including many workplaces.

Activities

Remembering and understanding

1 What are the three interrelated concepts that global citizens seek to engage with?

2 Explain how citizenship can be more than simply where you were born or where you live.

Applying and analysing

3 Identify the key components of global citizenship.

4 Research the United Nations' Convention on the Rights of the Child (1989) and focus particularly on Article 32.

- **a** What actions could a global citizen (for example, in Australia) take to improve the situation of children in developing countries who do NOT benefit from the rights described in this Article?
- **b** Consider ways (direct and indirect, large or small) that you could impart positive change on this issue.

Evaluating and creating

5 Form a group with two to three of your classmates. Utilising the 'Useful skills for global citizenship' described above, brainstorm an issue (related to human rights, sustainable development or social justice) in Australia that also has global implications. Compose a short 10-minute oral presentation to your class detailing:

- **a** the issue or problem you've identified and why it is so important (to Australia and the world) to tackle
- **b** your proposed solution, featuring statements that explain the 'who', 'what', 'where', 'when', 'how' and 'why' of your solution
- **c** your anticipation of any problems that might derail or threaten the success of your solution. Include ideas for resolving any roadblocks or challenges your proposed solution might encounter.

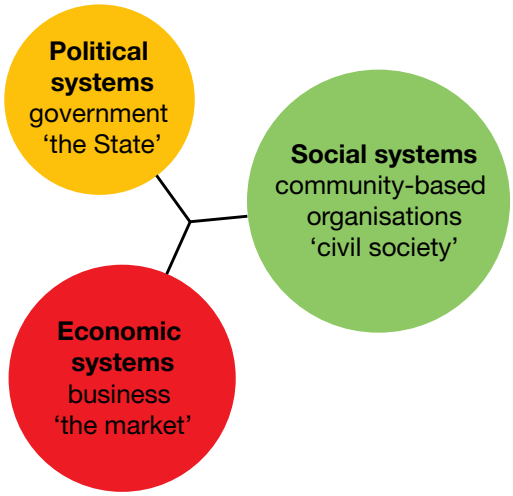
At the conclusion of all the group presentations, hold a class vote to determine which of the proposals has the most popular support. Remember to not only vote on your favourite issue but also the strength and feasibility of the solutions proposed.

LS 13B

13.3 Civil society and the roles of NGOs in our democracy

What is civil society?

Organisations that provide order to most societies generally belong to one of three sectors: the government sector, the 'for-profit'/private business sector, and the 'third sector', or civil society, which comprises individuals and organisations that are independent of the government. This includes organisations such as non-government organisations (NGOs), which are nonprofit organisations that seek to address a social or political issue. For a society to achieve its full potential, all three sectors need to cooperate with one another. Each sector has strengths and weaknesses in providing what citizens want and need.



13.3.1 The three sectors of a society must work together to achieve that society's full potential.

Exactly what makes up civil society varies from culture to culture. For example, what are considered essential elements for a civil society in Australia may not be considered essential elements in China. A Western point of view of a civil society promotes and supports the idea that all citizens, not just elected politicians, should be deeply involved in the democratic process. This includes the understanding that:

- all individuals have the right to be part of the decisions influencing their quality of life (for example, voting, as well as other decision-making avenues such as consultation and public debate)
- traditionally **marginalised** groups, such as women, indigenous people, youth and ethnic minorities, are included
- the effective partnerships between NGOs and/or businesses and government are accountable, transparent and inclusive
- the public participates throughout the process of design, implementation, and evaluation of projects, policies, or programs that help to legitimate decisions and strengthen outcomes
- there is cooperation among national, regional and local government authorities and groups such as NGOs.

What important roles does civil society play in building and strengthening democracy?

The organisations of a **pluralistic** civil society (a society built upon a wide diversity of beliefs and whose people tolerate the beliefs of others even if they don't match their own), including NGOs, can help to build and maintain democracy in numerous ways. This includes by:

- limiting and controlling the power of the state; civil society can help to expose the corrupt conduct of public officials and lobby for governance reform
- promoting political participation; NGOs can do this by educating people about their rights and obligations as democratic citizens, and encouraging them to listen to election campaigns and vote in elections; civil society organisations play vital roles in monitoring the conduct of elections, and the vote counting, to ensure free and fair democratic processes; NGOs can also help develop citizens' skills to work with one another to solve common problems, to debate public issues, and express their views
- helping to develop programs for democratic civic education in schools, advocating for democracy and human rights education
- providing training grounds for future political leaders; NGOs and other groups can help to identify and train new types of leaders (including, importantly, women leaders) who have dealt with important public issues
- informing the public about important public issues; NGOs can provide forums for debating public policies and disseminating information that affects the interests of different groups, or society as a whole
- mediating and helping to resolve conflict; NGOs have developed formal programs to relieve political and ethnic conflict and teach groups to solve their disputes through negotiation and accommodation
- helping states put **nationalism** aside (for example, a nation's interest is not always its people's interest) to deal with a common issue or threat (such as the plight of refugees).

13.3.2 People protest in Budapest in April 2017 against new draft laws that target the funding of independent civil society groups in Hungary. Protesters say the laws will threaten free speech by silencing those organisations who hold the government accountable.

13.3.3 UNICEF is the United Nations Children's Fund, an NGO that provides humanitarian and developmental assistance to children and mothers in developing countries.

A closer look at NGOs

The Commonwealth Foundation, a London-based NGO study group, has identified four characteristics of NGOs as outlined in below.

1 Voluntary:
NGOs are formed voluntarily by citizens with an element of voluntary participation in the organisation (either in the form of voluntary membership or through time given by volunteers).

2 Independent:
NGOs are independent within the laws of society, and controlled by those who have formed them or by elected or appointed boards. The legal status of NGOs is based on freedom of association—a basic human right.

3 Not-for-profit:
NGOs are not-for-personal-profit or gain. NGOs may, in many countries, engage in revenue-generating activities, but must use the revenue solely in pursuit of the organisation's mission (including in the payment of staff).

4 Not self-serving in aims and/or related values:
The aims of NGOs are to improve the circumstances of people and to act on issues that adversely affect the wellbeing or prospects of people or society as a whole.

13.3.4 The Commonwealth Foundation, from its 1995 publication *Non-Governmental Organisations: Guidelines for Good Policy and Practice*

Why are NGOs important?

Increasingly, NGOs are recognised as important players in the creation and application of development strategies (or strategic plans) at national and global levels. By working with NGOs, governments and intergovernmental organisations (such as the UN) can access local knowledge and encourage citizens to participate in programs that require participation from the whole community.

Amnesty International

NGOs vary markedly in their size, scope and purpose. Amnesty International Australia provides opportunities for people to engage with democracy as global citizens.

Amnesty International is a global human rights movement with a presence in more than 150 countries, including Australia. Beginning in the 1960s, as a tiny voice of protest seeking the release of political prisoners unjustly imprisoned for exercising their rights to **free speech**, Amnesty is now a vast organisation of over 7 million people that seeks to uphold all human rights. For example, advocating for the abolition of the death penalty, the protection of people's sexual rights and the rights of refugees.

AMNESTY INTERNATIONAL

13.3.5 Amnesty International, a major human rights NGO

Amnesty International is an organisation based on voluntary membership, and Amnesty International Australia is governed by a member-elected National Board. Amnesty's funding comes largely from individuals, giving the organisation independence from governments and organised religions, for example. While Amnesty does accept contributions from businesses, it applies a strict vetting process to ensure that any financial assistance does not compromise its independence or operational transparency (or complete visibility of its processes to the public).

Spotlight

Working as part of the global community with Amnesty

According to Amnesty International's website, there are many ways in which citizens can become involved in the organisation's activism. Accounts of people such as these below illustrate global citizenship in action.

- Amnesty International's Crisis Response Director Tirana Hassan, has spent the last 10 years living and working in conflict zones around the world. Her role of Global Researcher demands the skills of investigative journalism and research, and a thorough understanding of law and policies. In addition, roles such as this require a flair for community engagement.
- Darwin lawyer Kevin Kadirgamar was awarded the 2015 Australian Young Lawyer Award for his pro bono (for free) refugee work. Amnesty has campaigned in recent times (on behalf of asylum seekers) against the Australian Government's tough border protection laws.

13.3.6 Amnesty International's Crisis Response Director Tirana Hassan

This vetting process is crucial to maintaining its international reputation and building public trust, which enables it to work in so many different regions across the world.

The phrase 'thinking globally and acting locally' is exemplified by the Eltham branch of Amnesty International, which was recognised in 2017 for its commitment to the human rights organisation.

The group, formed in 1977 and which has raised awareness in Victoria of human rights abuses around the world, received the Clare Wositzky award, Amnesty International Victoria's highest award for outstanding and long-term service to Amnesty. Ways in which the local NGO has engaged in democracy include facilitating a forum on the introduction of a Victorian **bill of rights**, as well as hosting public meetings with their local Member of Parliament to advocate on refugee issues.

- Rae, who volunteers with Amnesty in Brisbane, is an example of those people you might have seen raising awareness at an event or on a public street. While not in paid positions, volunteer activists can campaign for issues of relevance and importance to them. As Rae notes:

  > *To me, being a volunteer activist is about standing up for what's right, every time. It's having the difficult conversation with a frustrated family member; explaining why refugees can't go back to where they came from. It's sitting up late at night reading article after article about Indigenous rights in Australia, because you just want to know more. The best part about being an Amnesty activist is that it doesn't matter where you're from, what you do for a living, or how old you are. Anyone is welcome. The only requirement is passion.*

- Film-maker Jessie Taylor has travelled the world creating documentaries (such as her 2016 film *Chasing Asylum*) that highlight human rights issues around the world. Methods such as this seek to introduce the human element into debates, which so often are bogged down in politics and policy.

Activities

LS 13C

Remembering and understanding

1. Define what is meant by the phrase 'civil society'.
2. Discuss how (in what ways) NGOs can strengthen democracy through their involvement in the electoral process in countries around the world.

Applying and analysing

3. Research UNICEF and another NGO of your choice. Identify their missions/aims. Write a brief description of the work these NGOs do.
4. Lots of companies around the world participate in programs that assist with providing help in the areas of human rights, sustainable development and social justice. How can the work and operations of NGOs be distinguished from the work that these companies do?

Evaluating and creating

5. Imagine you are a motivated global citizen who wants to work with Amnesty International as a volunteer. Write a one-page letter of application to Amnesty detailing:
   a. who you are, why you're interested in working for Amnesty and how such a role might help in your personal and professional development
   b. your main areas of passion concerning either human rights, sustainable development or social justice
   c. what you could bring to a role with Amnesty in terms of character traits and skills.
6. Research online a recent Amnesty report detailing the Australian Government's border protection policies and treatment of asylum seekers.
   a. What observations does the report make of Australia and its actions in this area?
   b. To what extent do you think NGOs such as Amnesty are important in holding national governments accountable and for protecting the democratic rights of all people?

13.4 Young people, social media and active citizenship

With the rise of technology comes the demise of silence. Young people can take a stand and make their voices heard!

CrowdOutAIDS Open Forum

Young people and active citizenship

Young people have an important active role to play in the political, social, economic and cultural formation of their communities (in present as well as future contexts), and yet evidence suggests that their contributions in these areas often remain underdeveloped. Many young people are not taught about concepts such as identity, citizenship and democracy, and remain unengaged (some people say uninterested) in their local, national and global communities.

This can be explained in some way by the formal democratic processes of a nation. For example, in Australia people can't vote until they turn 18 years of age. There are other possible reasons why young people are less likely to be active citizens. One is the lack of effective channels of communication between them and decision-makers (such as politicians). Often, young people lack knowledge of the political ideologies and systems of governance that structure their world; for example, how political institutions and economies operate.

13.4.1 Australian citizens over the age of 18 can vote in Australian federal, state and local elections.

Formal processes of democracy and **civic engagement** are only part of the picture. There are many other ways young people can engage in, and have influence on, the societal structures and issues that affect their lives and the world around them. It is arguable that it is inherent in young people to be involved and actively contribute. The amount of social justice programs, and other student-led initiatives, in schools around Australia is testament to this. But how are young people able to connect this **active citizenship** in their school or local community to the broader global context?

13.4.2 The internet has produced many different social media sites boasting huge membership and usage across the world.

Social media and active citizenship

Prior to the internet, a young person could only access information through traditional media such as TV, radio, newspapers and magazines. In terms of accessing knowledge about a social cause, it was often only through word of mouth, or an ability to attend relevant public forums, that young people could learn about and practise activism.

With today's widespread access to the internet, social media has become the communication tool of choice for young people around the world. Platforms such as Twitter, Facebook and Instagram let people create personas, develop new contacts, discuss issues and keep in touch in real time. Social media enables young people to evaluate and share content without any of the previous limitations they faced. While traditional media carries information only one way, social media enables more of a conversation. Questions can be asked (often anonymously) and people from different backgrounds, point of view and experiences can connect with each other and mobilise into like-minded communities of thought.

Via social media platforms, young people can read and view content about their country, their region and the world. They can now educate themselves about the decision-makers (such as politicians and officials) who govern their societies. Young people can join issues-based groups and participate in online petitions on Twitter, for example, or expose injustices to the world safely via YouTube®. Previously, young people have often felt a sense of disempowerment and alienation when it came to involving themselves in their communities. Social media now gives young people a sense of ownership over their actions and a measure of responsibility.

Spotlight

Marriage equality and social media

In the recent marriage equality debate in Australia, a group of 'yes' supporters used the power of social media to motivate Australians to cast their vote in the same-sex marriage postal survey. The #postboxselfie campaign encouraged voters to photograph the moment they posted their survey response and to share it on social media with the #postboxselfie hashtag. By using a social media campaign, the activists reached more people than traditional means such as 'door knocking'. In addition, by employing a straightforward and fun concept on a highly-familiar digital medium, the campaign appealed to young Australians who might otherwise have been alienated by the formal process of voting.

13.4.3 Comedian Magda Szubanski posted a photo on Twitter beside an Australia Post® postbox in support of the 'Vote Yes' campaign in Australia's 2017 Marriage Equality survey.

'Clicktivism' or 'slacktivism'?

The rise of the internet, and particularly social media platforms, has resulted in the phenomenon of 'clicktivism' (essentially the use of the internet for activism, often via online petitions and mass information campaigns on social media, as a primary means of influencing public opinion in relation to political, religious or other social concerns). NGOs such as Avaaz (literally meaning 'voice') is a global web movement designed to empower people to have their voice heard on issues of global importance. Many people have criticised the model of civic action that Avaaz relies upon, claiming that instead of genuine active citizenship, clicktivism enables people to voice an opinion when they have failed to genuinely learn about or connect to the issues. In this way, clicktivism has been labelled 'slacktivism', where so-called 'lazy people' (those who might feel drawn to an issue but do not take the extra step by actually taking action on an issue) can masquerade as global citizens.

One widely-known example of a campaign that demonstrates 'clicktivism' was the Kony 2012 movement. This worldwide social media campaign worked in conjunction with the release of a short documentary film by the charity Invisible Children. The film's purpose was to promote the charity's 'Stop Kony' movement, which sought to have the fugitive Ugandan and war criminal Joseph Kony (leader of the Lord's Resistance Army, LRA) arrested by the end of 2012. The film and its message went viral across social media (viewed over 100 million times in less than a week) asking for people to show their support for the campaign online and in their local communities. Both the film and the viral social media campaign that followed received both praise—for highlighting the shocking human rights abuses of Kony and the LRA—and criticism—for being too simplistic and arguably failing in its ultimate aim. As of April 2017, Kony was reported to remain at large in central Africa, although now only as a leader of a small band of approximately 100 people.

13.4.4 The *Kony 2012* film and accompanying viral social media campaign is seen variously as activism, slacktivism or simply a complete scam.

Skills builder

Taking action

Most action at the local-community level is organised by NGOs of all types and sizes. Some might be linked to regional and even global groups, while others might exist solely to serve the local community. Examples of NGOs working in your local community might be environmental groups, human rights groups and groups working with people experiencing homelessness. NGOs work to create change by organising their members in campaigns that rely on citizen action. However, organising a citizen action campaign takes a lot of careful planning and collaboration.

Use the following checklist to help plan a citizen action campaign on an issue of your choice. It will work better if you work as a group.

Develop a plan

1. Brainstorm the topics and issues of interest to you or your group and choose an aim for your campaign. What are you seeking to address or improve? Examples of issues include animal cruelty, people experiencing homelessness, the plight of refugees/asylum seekers and recycling for the environment.
2. Is there enough evidence to justify action on this issue? Conduct research into the issue to determine the key details of the issue.
3. Is there an NGO working in the local area on this issue with whom you could engage to help with ideas/advice/research?

Choose a course of action

1. Decide on a course of action (strategy) to achieve your aim. Who is your intended audience? Possible actions include staging a community protest, running a social media campaign to educate people about the issue, or highlighting the issue to decision-makers such as politicians.
2. Is the action that the group has chosen the most effective one available?
3. What might be the consequences of this action (legally, socially, economically)? Does the course of action need to be modified as a result?

Create your campaign

1. Does your group have the skills needed to complete this action? Assign group members roles (team leader, writer, graphic designer, videographer, social media manager etc.).
2. Does your group have all the resources (including time) needed to achieve your aim and ensure your citizen action is effective? Adjust your campaign accordingly.
3. Create a flow chart that details each member's role and what they need to complete (including timelines) to achieve a successful campaign.

Launch your campaign

1. Check all prepared material for accuracy and relevance, and ensure that you have followed any advice from the relevant NGO. Ensure that your materials have been checked by your teacher.
2. Decide upon the best methods of promoting your campaign and reaching your intended audience. This might include using social media, publishing an article in the school newsletter or by inviting interest from local media.
3. Assess the success of your campaign. What were you aiming for and did you achieve this? Write an evaluation detailing which aspects of your campaign worked and which aspects might have been too ambitious or needed more work.

Activities

Remembering and understanding

1 How might formal democratic processes such as voting serve to alienate and ignore the voice and opinions of young people?

2 In what ways can social media be said to have democratised access to global citizenship?

Applying and analysing

3 Examine the websites of an online activist group such as GetUp! or Avaaz. What issues seem to be at the forefront of these online activism sites? If one of the online petitions appeals to you, make your voice heard by contributing online. *Note:* Sometimes financial contributions are requested. Be very careful before committing any money to causes until you have researched the authenticity and security of the site. It is recommended that you discuss your intentions with a trusted family member or friend prior to engaging in activism online.

4 **a** The 'Kony 2012' campaign was only briefly explained in this chapter. Research this further by searching for 'Kony 2012' in your internet search engine. As noted in the chapter, the campaign was marked by disputes over the effectiveness and integrity of the methods and outcomes.

b Draw a PMI chart (Plus, Minus, Interesting, or Implications) to help you analyse the Kony 2012 social media campaign.

c What, according to your research, were the successes of the campaign? What were its failures/limitations?

d Why was Kony 2012 such an interesting (noteworthy, historic) expression of global citizenship 'clicktivism'?

Evaluating and creating

5 Every successful social media campaign needs a catchy slogan, a recognisable logo and, if possible, the support of well-known public figures. Using the example you may have brainstormed in the 'Skills builder' section, design:

a a logo (using simple designs and effective, relevant colours)

b a slogan of five words or less

c a list of celebrities or public figures who you might approach to assist your campaign.

LS 13D

Economics and business toolkit

14

In today's ever-changing world, economics and business play a crucial role in ensuring society is able to function and grow as the population booms and declines occur, while also ensuring that prosperity, standards of living and **gross domestic product (GDP)** rise accordingly. Understanding the nature and purpose of both economics and business affords us the opportunity to make informed decisions, determine the most desirable choices when spending money and ultimately examine practices and predict outcomes in order to make informed decisions for future benefit.

OVERVIEW QUESTIONS

14A What are the key economics and business skills?

14B What strategies can be used to resolve economics and business issues?

GLOSSARY

consequences (intended and unintended) the outcomes of a decision, which can be intended and beneficial, but in some instances can also be unintended; intended consequences are the desired outcomes; unintended consequences may be negative or unexpected

cost–benefit analysis (CBA) a process of comparing the financial costs and financial benefits of a business decision; this can also assess the social costs and social benefits

economic growth an increase in capacity to produce goods and services per person in a population, in a time period such as a year

gross domestic product (GDP) a measurement of economic growth that can relate to various sets of data but, in particular, the monetary value of the goods and services produced per year in a country (sometimes further measured per person)

hypothesis a proposition that provides an explanation or reason why something occurred or a problem exists; it helps frame investigation and research before a detailed conclusion can be reached

infrastructure the physical built environment required to run a business such as roads, bridges, ports and internet networks

living standards the amount of wealth households have access to including the quality of goods like housing, material comforts like cars and the necessities of life such as food

profit the amount of money remaining from revenue after paying costs

revenue the money that comes into a business through consumer purchases

14.0.1 Innovation within business is linked to increased productivity at Google.

14.1 Questioning and research

Australia and its neighbours

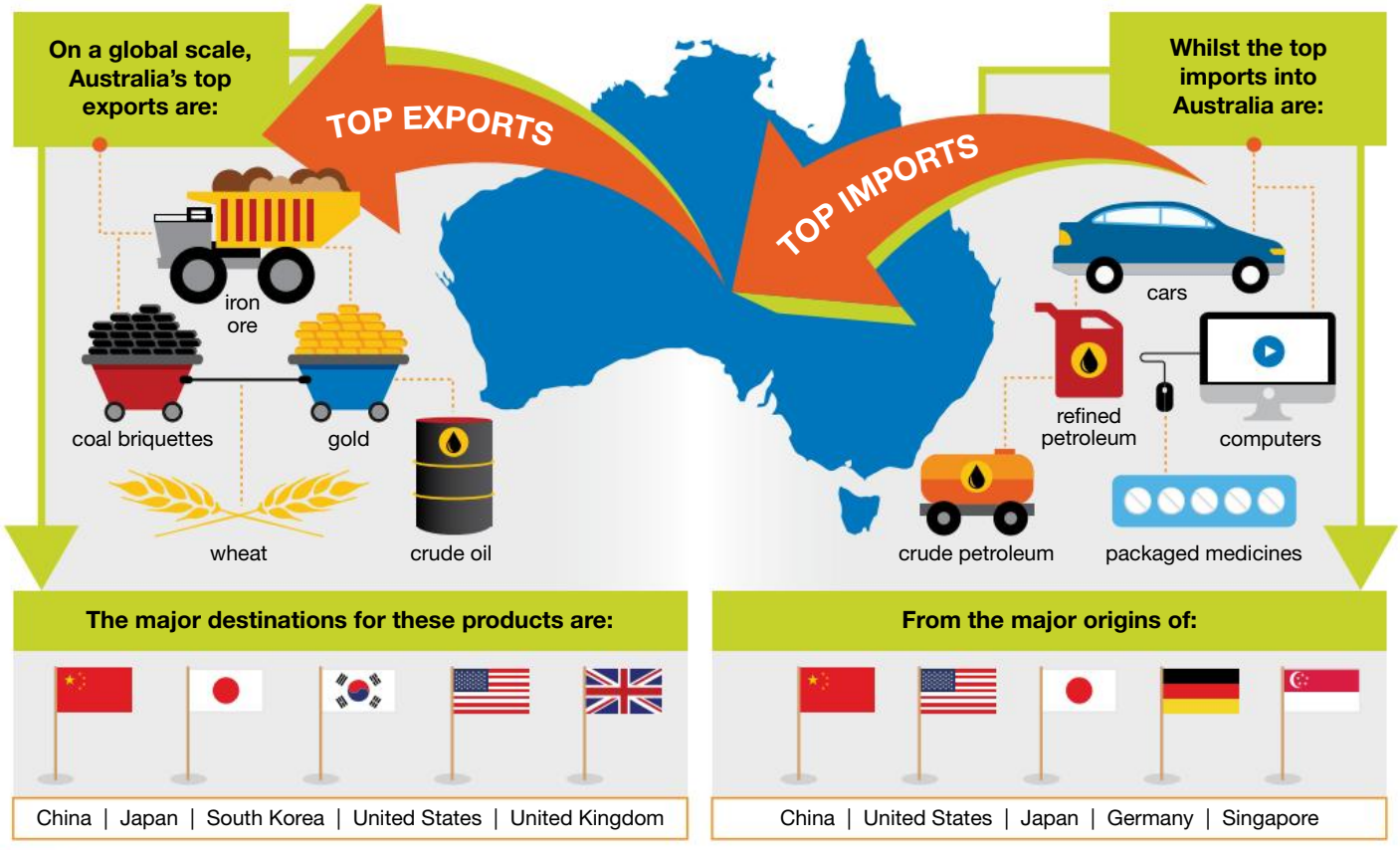
Australia is geographically linked to Asia. As a trading partner, Australia draws many resources and products from its neighbours. Proximity as well as lower labour costs make Asia a valuable source of cheaper imports for Australia. On the other hand, this proximity also makes Asia a valuable client for Australia's exports, usually for natural resources.

Looking for work?

Work has many benefits—personal, societal, government and economic. These benefits generally lead to increased **living standards**, lower unemployment levels and greater access to goods and services. As people age, their need for work, including the amount of working hours they require, will change and evolve. Parents may seek alternative hours in order to work around children, aging workers may seek to gradually reduce hours as they move towards retirement, students who study may need flexible working hours to fit around study commitments. The labour force, its size and composition are constantly changing and this can, in turn, affect standards of living as a result of increased or decreased access to paid work. Living standards are determined by both material (such as the house we live in and the food we eat) and non-material (such as our amount of leisure time and risk of being a victim of crime) factors. These factors ultimately determine how a country is performing and operating for its citizens when compared to that of another nation.

Did you know?

In October 2017, the Productivity Commission issued a report that promoted a realignment of economic priorities to boost the living standards of all Australians. It aims to do this by delivering more-efficient services, such as health care and education. This will ultimately see the macroeconomic (relating to economic issues at at a national or international level) and microeconomic (relating to economic issues at an individual or business level) policies updated, which will include greater trade, increased competition and tax reforms.



14.1.1 Australia's top imports, exports and trade partners

Spotlight

Developing a hypothesis

One of the most fundamental aspects of studying economics is the development of questions and hypotheses. A **hypothesis** is based on an economic question or issue that we want to investigate. We create a hypothesis and test it using data and evidence to accept or reject that hypothesis. This process enables us to evaluate economic scenarios.

Once we develop a solid economic question, we look to develop a hypothesis for it so we can set the criteria (principles or standards) for making a decision. We then collect and organise relevant data, and test the hypothesis. Doing this will answer this economic question and help us make determinations about economic behavior.

A good hypothesis is:

- short and concise
- specific (not too broad)
- able to be tested by using data or evidence
- useful for informed decision-making even when proven false.

Example hypotheses:

Hypothesis A—Foreign ownership leads to lower production levels.

Hypothesis A is assuming that when an Australian company is purchased by a foreign owner that total manufacturing levels for the company will fall.

This is an example of a hypothesis that is easily disproved. It is due to the fact that the main aim of any company owner is to increase a business worth, by selling a larger volume of products at the highest possible prices to make a maximum amount of **profit**. Therefore, foreign or domestic ownership does NOT lead to lower production levels, rather the opposite.

Hypothesis B—Foreign ownership can lead to lower domestic employment levels.

Hypothesis B is assuming that there is a link to foreign ownership and a change to the operation of a business and where production can and does occur.

This is an example of a hypothesis that can be investigated and supported with evidence. It is due to the fact that, historically, foreign ownership has often resulted in production being moved from domestic shores to more competitive international ones. For example, Holden and Ford moved car production from Australia to more competitive bases in Asia and America.

Activities

Remembering and understanding

1 Identify why Australia imports more from New Zealand than it exports?

2 Develop a hypothesis about the importance of trade to Australia's economy. Describe how you would investigate your hypothesis.

Applying and analysing

3 Australia has gradually expanded trade into Asia. This trade has altered traditional routes of trade and allowed markets to expand. Choose an Asian trading partner and compare the data for the Asian country to that of Australia. Use the same timeframes so data is accurate and comparable. Determine the value that this trade provides to the Australian economy.

Evaluating and creating

4 *Tourism is a vital part of Australia's exports.* Research this hypothesis and identify the strengths and weaknesses of tourism to the Australian economy. Ensure that examples are provided.

5 *Innovation is a key component of Australia's success and continued growth.* Evaluate this hypothesis and justify your answer with statistical and theoretical evidence in your response.

14.2 Interpretation and analysis

Examining economic indicators

Within any economic system, economists, analysts and business owners interpret data. Data provides evidence for performance and can easily highlight areas for growth and opportunities for improvement.

Government revenue and spending

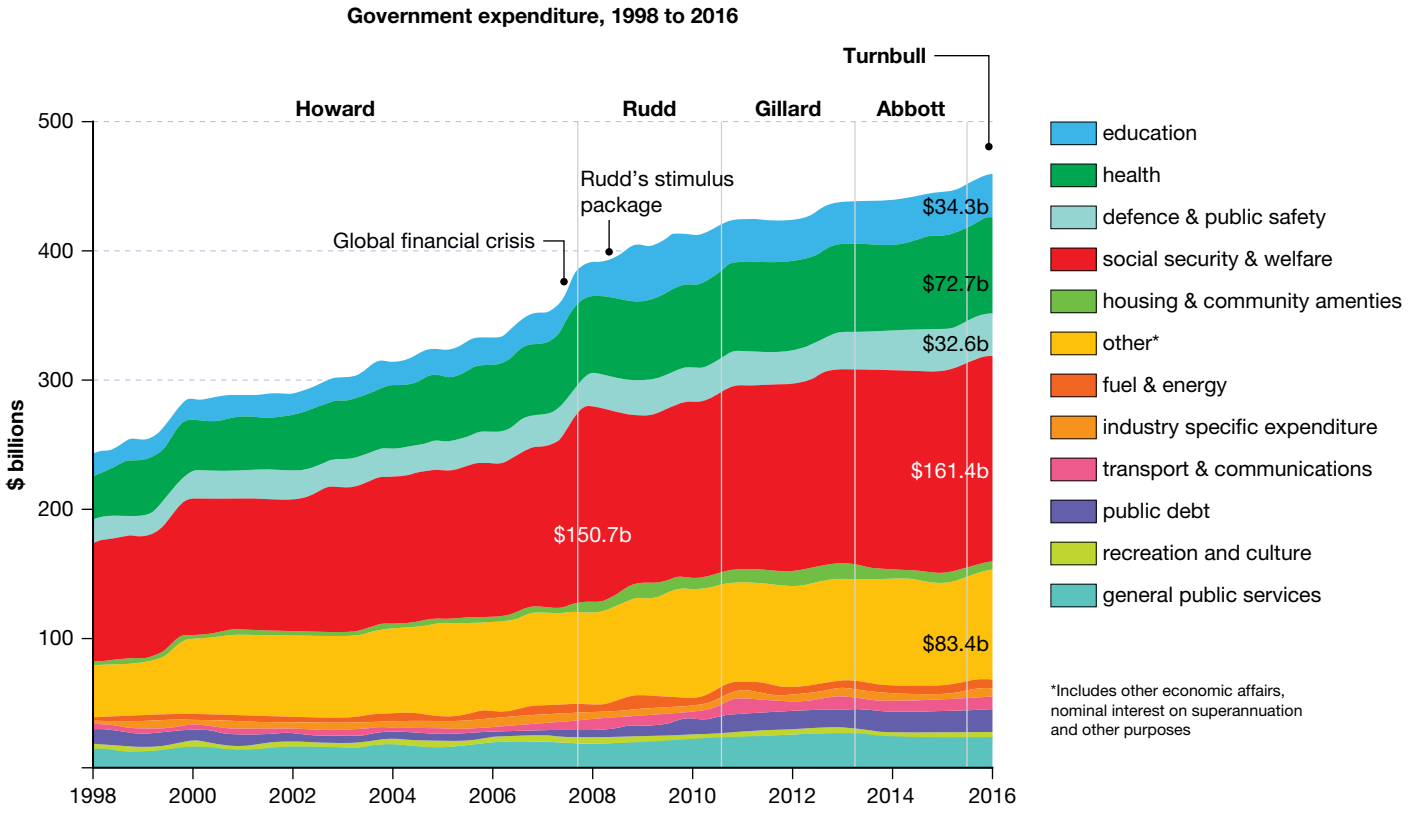
Government **revenue** and spending is essential for a country to cater to the changing needs of its population and to the global markets in which it operates. In Australia during the 2016–17 financial year, the government earned $416.9 billion in revenue and spent $445 billion in outlays. These outlays are for the improvement in the provision of services, support and **infrastructure** for the community. Figure 14.2.1 shows a summary of the areas of government spending from 1998 to 2016.

Where revenue comes from

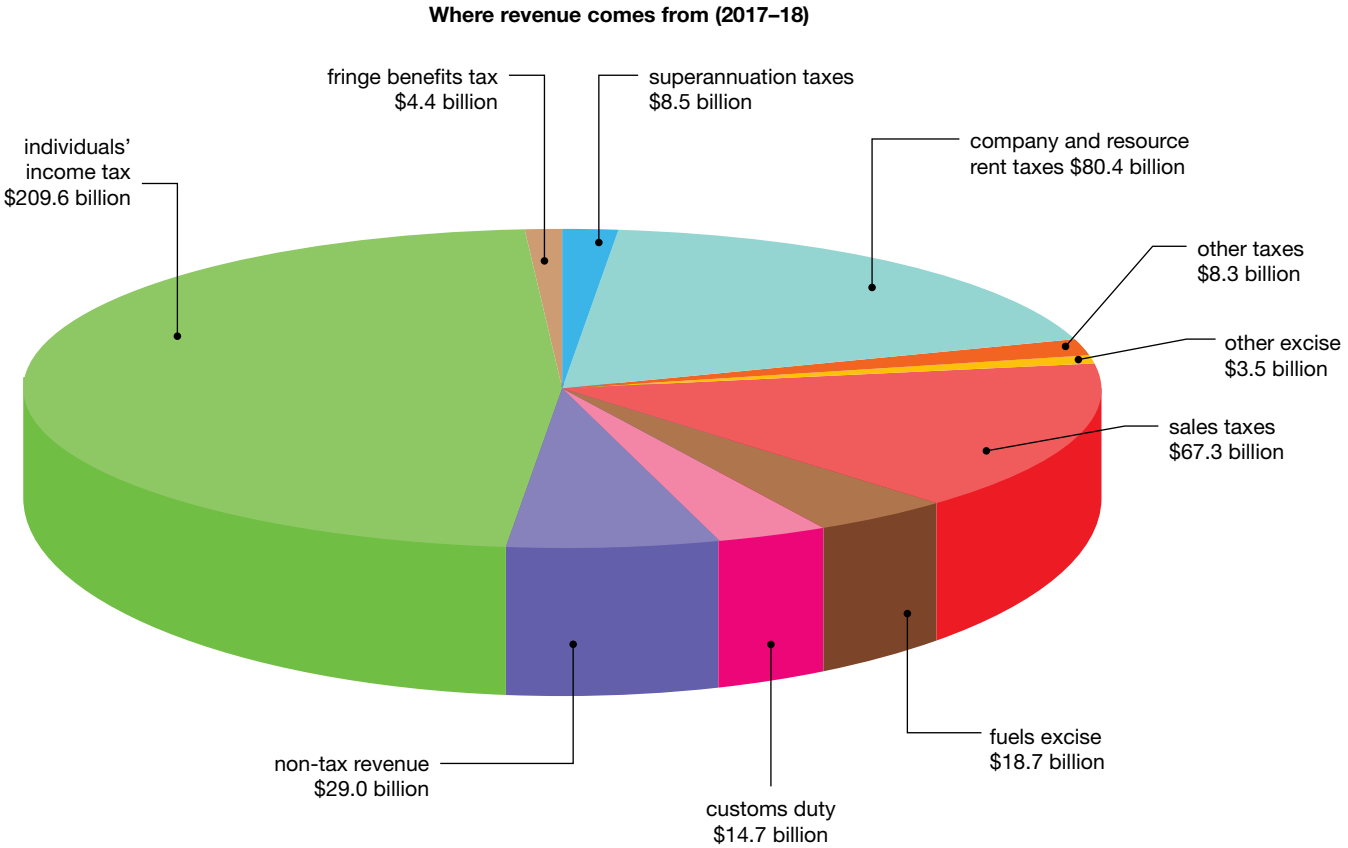
Although many citizens of Australia monitor government spending as a priority, many also monitor how governments earn the money that is spent. This is conveyed as revenue. The estimated revenue earned in the 2017–18 financial year can be seen in Figure 14.2.2. The majority of the government's earnings for the budgetary year of 2017–18 came from individual income tax and combined company and resource rent taxes.

The Australian Bureau of Statistics (ABS) and the Treasury Department compile charts, summaries and current data for public review at regular intervals. Some measures can be predictive while other reveal the actual figures post-date. The combination of these predictive and actual data charts can provide a clear indication of how an economy is progressing and reacting to current or recent global and local events.

Economic prosperity relies on positive government planning and budgeting. Good planning can assist in attaining **economic growth**, low unemployment figures, positive current account data and ultimately ensure an increase in the wellbeing and living standards of the population.



14.2.1 Government allocation/distribution of funds, 1998 to 2016



14.2.2 Government revenues for 2017–18 financial year by source

Spotlight

Data analysis

In economics and business, data is used in a wide variety of formats (graphs, statistics, tables, interviews and case studies). Using data from a range of sources can help predict outcomes, illustrate alternate perspectives, or explain cause-and-effect relationships. Using the sources provided here, complete the activities on data interpretation and analysis.

Activities

Remembering and understanding

1 Examine Figure 14.2.1 on government spending. Choose one area of spending, state how this area has changed over time and suggest reasons for these changes.

Applying and analysing

2 Consider Figure 14.2.2 examining government revenue. The largest area of government earnings stem from income tax revenue. The Opposition Leader is suggesting that income tax be lowered in the next Federal Budget. What consequences do you think this action would have on the following areas of society?

- **a** tax payers
- **b** government spending
- **c** business enterprises

14.3 Economic reasoning and decision-making

Purchasing choices

Every day, consumers are faced with many choices. These choices are influenced by many factors, such as:

- our needs (the things we consider essential for living, such as food, water and clothing) and wants (the things we desire, such as a holiday or a new car)
- the financial benefits of purchasing an item (such as increased **living standards**) and the limitations of making the purchase (such as opportunity cost and the loss of savings)
- the long-term implications (such as the cost of borrowing money) and the short-term implications (such as loss of savings)
- **intended** (expected) and **unintended** (unexpected) **consequences**.

When we make a large purchase, our choice is affected by the cost of borrowing or saving money. Some of the largest purchases we make include buying a car, buying a house and running a business.

Each purchasing decision has costs and benefits. Figure 14.3.1 compares some of the costs and benefits of owning a home compared with renting one.

14.3.1 Costs and benefits of buying versus renting a home

	Owning a home	Renting a home
Costs	• Mortgage principal (amount borrowed) and interest • Property taxes • Costs associated with buying and selling • Annual maintenance • Renovation • Homeowners' insurance	• Monthly rent • Rental insurance • Rent inflation • Rent deposit
Benefits	• Home value appreciation • Mortgage interest deduction	• Potential for higher yields, if the renter is able to save money after paying rent

Consumers need to research their decisions so that they can understand which choices are right for them in the short term and the long term.

Business decisions

Like consumers, businesses face many choices. Business owners need to make important decisions to ensure their long-term success.

An example of a company that has changed over time is Bloom Cosmetics. Since it was founded by Natalie Bloom in 1993, the company has grown significantly. Department stores such as Myer and David Jones began to stock its products, and then Bloom Cosmetics opened its own stores throughout Australia. Over time, the costs (including wages, rent and insurance) and demands of maintaining physical stores became too great, so Natalie migrated her business to an online platform. Since this change, the company's customer base has continued to grow steadily. Bloom Cosmetics has experienced growth, expansion and contraction, evolving over time to allow the brand to survive changes in the market.

14.3.2 The Bloom Cosmetics logo

Natalie's love of natural ingredients and obsession with packaging soon turned a hobby into a business and consequently a brand. Following the success of her gift collection, Bloom's product range grew to include Essential Oil Blends, Massage Oils and an Aromatherapy Lip Balms [sic]. Lip products then led to Eye products and soon a full cosmetics line was on the horizon.

Bloom's covetable range has swelled to feature over 350 products including colour cosmetics, an 80 shade nail polish range and the Bloom Organics range.

From Bangkok to London and Beverly Hills, Bloom is now an internationally recognised brand that is stocked across the globe.

14.3.3 Extract from the Bloom Cosmetics website

Spotlight

Applying strategies for resolving economic and business issues—cost-benefit analysis

For a business owner considering whether or not to migrate a physical store to an online business, a manager deciding whether to hire a new team member, or an individual unsure of whether to buy a house or rent, the benefits of the decision need to significantly outweigh the associated costs. These are the type of scenarios where a **cost-benefit** analysis can be useful.

Steps for performing a cost-benefit analysis

1 *Brainstorm all costs and benefits*—Brainstorm all of the costs associated with the project or purchase, and make a list of them. Do the same for all of the benefits. Costs should take into account the initial outlay as well as any interest paid over time. Can you think of any unexpected costs? Are there any benefits that you may not have anticipated?

2 *Assign a value to each cost or benefit*—For a project, include the costs of the resources needed (other things you may need to purchase), as well as the cost of any human effort involved. For a major purchase, include any ongoing costs. Consider factors such as inflation and interest rates. Along with the financial benefits that you anticipate, there may be other costs or benefits as an outcome of the project. For instance, consider the impact on the environment, employee satisfaction, or health and safety issues.

3 *Evaluate costs and benefits*—Calculate your total costs and your total benefits, and compare the two values. Do the benefits outweigh the costs? How long will it take to reach the break-even point (when the benefits have repaid the costs)? Taking all this information into account, make a decision on whether the project or purchase is worth the investment.

Did you know?

Degani Bakery and Café began in Clifton Hill in the late 1990s. This business entered the market at a time when Melbourne's cafe culture was expanding. Two decades later, Degani now has more than eighty cafes and restaurants across Australia. Selling franchises and changes to the company's product range have allowed this expansion and growth. Degani's owners have developed the business using careful planning, examining market needs and gaps, and cost-benefit analysis. (A cost-benefit analysis is a process of comparing the financial costs and financial benefits of a business decision.)

14.3.4 The Degani Café franchise started in the Melbourne suburb of Clifton Hill

Activities

Remembering and understanding

1. How does the expansion or contraction of a business affect its market operations?
2. Assess the decision by Bloom Cosmetics to shift its business from physical stores to an online store. How did this change affect the competitiveness and success of the business? Consider the effect of the decision on Bloom's sales and profit.

Applying and analysing

3. Analyse the impact Degani has had upon Melbourne's bakery and cafe industry over the last 20 years. Examine the expansion of the business and its business model.

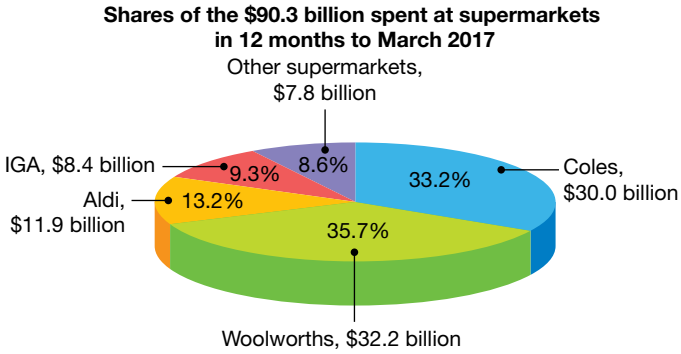
Investigating

4. Investigate a purchasing decision that you hope to make in the next 5 years. Consider the costs and benefits of that decision, as well as its intended and unintended consequences.

14.4 Communication and reflection

Examining industry competition: Supermarkets

Competition is a key component of a successful enterprise and industry. Competition provides businesses with the motivation to work harder and strive for greater market share, increased quality and increased sales figures. These elements drive businesses to achieve more. Organisations often choose to benchmark themselves against competitors to truly understand who is leading within a particular industry. For example, the supermarket industry within Australia has two main players: Coles and Woolworths. Aldi® is now starting to make an impact on market share along with a number of other independent brands such as Costco® and IGA®.



14.4.1 Competition and market share within the supermarket industry in Australia 2016–17

Figure 14.4.1 clearly shows Woolworths gaining the market leader advantage over Coles between April 2016 and March 2017. Aldi has increased its market share over time and is gaining more loyalty as time goes on.

The competition within the supermarket industry provides customers with the advantage of lower prices and constant competition between the various providers for greater customer patronage. However, the constant drive for lower prices is not always welcomed by producers who feel the constant pressure to provide perfect food items and lower prices. Competition can bring with it many positive factors, but can also push one player within the market to provide goods at a low cost, which does not offer them a reasonable profit margin.

Spotlight

Communicate your findings and reflect

Presenting arguments and evidence-based conclusions using a range of formats is a skill you'll learn as you work through these chapters. Remember to use economics and business conventions, language and concepts when communicating your findings. Also, consider or reflect on both intended and unintended consequences of any economic or business decisions.

Did you know?

Many Australian farmers are being asked to bin or compost a large volume of what they produce because the goods do not meet the stringent standards set by large supermarkets. As an example, banana producers place almost 2 tonnes of bananas into compost daily during peak seasons. This is due to the fact that the supermarkets will not purchase bananas that do not fit specifications; this includes bananas that are too long, too short, too straight, too curvy, too fat, too thin etc.

14.4.2 Farmers sorting bananas

Did you know?

On 20 June 2018, Woolworths banned all single-use plastic bags from stores nationwide, including the department store Big W and the liquor store BWS. Competitor Coles followed suit on 30 June but then re-introduced thicker plastic bags for free just a week later due to customer complaints (the free bag transition period ended on 30 August). It was estimated prior to the ban that each chain gave out 3.2 billion bags a year. Instead, the supermarkets have encouraged customers to buy or bring their own reusable bags. Coles has also announced that its produce bags (used to gather loose fruit and vegetables) will soon be made of 30 per cent recycled content. Woolworths is trialling the removal of packaging from 80 lines of produce.

14.4.3 Single-use plastic bags were phased out of use in Coles and Woolworths supermarkets in 2018.

Activities

Remembering and understanding

1. Consider the example of bananas being composted due to lack of appeal and purchase from large supermarket chains. Develop a hypothesis about how competition and market share of the supermarket industry affects farmers and producers.
2. Reflect on the intended and unintended consequences of the business decision to ban single-use plastic bags in supermarkets.

Applying and analysing

3. Analyse the impact Aldi has had on market share within the supermarket industry. Use the data you have been given to support statements made.

Evaluating and creating

4. Investigate a different industry that has witnessed competition and changes in market share. Develop a plan to investigate the factors leading to the changes in market share.


Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
London
Berlin
New Delhi
Canberra
Wellington
Tokyo

Australia's economy

15

Economists examine signs and indicators that can tell us how the economy is performing. Data on unemployment, economic growth (or GDP), inflation, imports and exports, poverty levels, the housing market, and the value of the local currency in comparison with other currencies, can provide important insights into a country's economy. The challenge for governments is to respond to this economic data by developing appropriate economic policies. These policies should promote sustainable **economic activity** that will help to make all citizens better off.

OVERVIEW QUESTIONS

15A What are the measures of economic performance?

15B How can living standards be improved while achieving economic goals?

15C What is the government's role in managing the economy?

15D What is Australia's relationship to the global economy?

LS Before you begin

15.0.1 Economists interpret economic data in order to gain valuable insights. This chapter will explore some of the economic indicators used to examine the performance of Australia's economy.

GLOSSARY

distribution of income the way a nation's total income is spread between households

economic activity all actions involved in producing, distributing and consuming goods and services

economic indicators measures that provide information about economic activity

global financial crisis (GFC) a period of global economic instability in 2007–08, which arose partly as a result of the collapse of a number of financial institutions in the US

gross domestic product (GDP) the total market value of all final goods and services produced in an economy in a year

hyperinflation very high rates of inflation

income the money that a person receives in exchange for working or making other resources available for productive purposes; wages and salaries are the most common forms of income, but it also includes earnings from leasing investment properties or interest on bank deposits

inflation rate the rate at which the general level of prices in an economy has risen over a year

international competitiveness the measure of an economy's competitiveness to sell goods and services on the international market

labour force the members of an economy who are employed plus those who are seeking employment

macroeconomic economic issues at a national or international level

market economy the economic system guided by the production and distribution of goods and services through market activity (with limited government intervention), based on supply and demand

microeconomic economic issues at an individual, group or business level

standard of living the level of material comfort that people in a community are able to achieve

wealth the value of all the assets owned by an individual that have the ability to earn an income in the future, including savings, property, shares and other investments

15.1 Indicators of economic performance

All consumers and businesses are affected by the performance of the country's economy. **Incomes**, patterns of employment, the demand for particular products and many other factors will all be affected as the level of economic activity changes. Economic activity refers to all the actions involved in producing, distributing and consuming goods and services. When economic activity increases sustainably over time, then standards of living will rise.

The government is the nation's economic manager and has a responsibility to the citizens. As an economic manager, the government aims to achieve a number of economic goals. In order to assess whether the goals are being achieved, the level of economic activity across a range of areas needs to be measured. In this way the effects of government policy can be assessed. The most important economic goals are:

- economic growth that is steady over time
- full employment or increasing employment over time (lower unemployment)
- stable prices (rather than rapidly-increasing prices)
- improved equality between rich and poor over time
- careful management of the environment and natural resources.

There are many different measures that give information about whether these economic goals are being achieved and, if so, to what extent. The measures used are called **economic indicators**. Some of the most-used economic data comes from the following economic indicators:

- the amount of national income generated by all economic activity within the nation each year
- the level of economic growth achieved each year, or the economic growth rate, measured by changes in **gross domestic product (GDP)**
- the amount by which prices of goods and services change over a year, measured by the **inflation rate**
- the number of people unemployed in the country
- how much difference there is between the socio-economically advantaged and disadvantaged
- how living standards and quality of life changes over time, measured by the human development index (HDI, which takes into account income, life expectancy and education).

Most indicators only measure an aspect of economic activity. Therefore, it is very important to consider several different indicators together when determining the overall state of the economy.

15.1.1 Australia has a mixed **market economy**, which is currently prosperous. 'Mixed' means that the market is free to operate but it has some government restrictions; it is a mix of freedom and regulation.

15.1.2 Floods and severe weather can affect prices of food, which can affect the inflation rate.

Did you know?

There are over 200 economic indicators that can be used to evaluate the economic 'health' of a nation. Due to the importance of economic information, there is a vast array of sources of economic data. Some of the data sets come from the Australian Bureau of Statistics (ABS), polls done by specialist survey companies such as Roy Morgan, the Reserve Bank of Australia (RBA), industry reports, the Australian Securities Exchange (ASX), banking data, the Organisation for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), government reports and even the Bureau of Meteorology (BOM).

Activities

Remembering and understanding

1. List five economic goals.
2. What are four important economic indicators?
3. Identify three sources of economic data.

Applying and analysing

4. Why are several measures of economic performance required when assessing the state of an economy?

Evaluating and creating

5. Evaluate the impact of very rapid economic growth on the rate of resource use and the environment.

15.2 Gross domestic product

Economic growth rate

Economic growth is a measure of the increase in total economic output of a nation from year to year. The value of a nation's output is measured by a statistic called the GDP, which is the total market value of all final goods and services produced in an economy in a year. Final goods and services are those that are purchased by consumers, such as clothing, cars, plumbing services, the use of a mechanic to fix a car and food purchases. GDP does not include items made by one business but then bought by another company to add to a final product, such as the tyres that come with a new car. This is necessary to avoid double counting, as the final value of the tyres is included in the overall final value of the car.

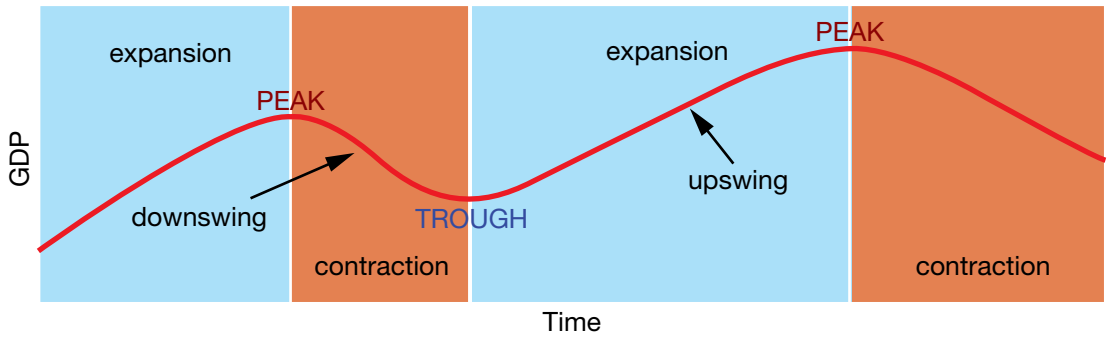
Since economic activity generates income for all people involved in producing goods and services, the level of economic activity and any changes in economic activity are very important economic measures.

The percentage change in GDP from one year to the next is known as the economic growth rate and is one of the most important indicators of economic performance. The change in GDP can be measured in two different ways. It can be measured in either nominal or real terms.

- *Nominal GDP:* This is simply a reference to the numerical value of the final goods and services produced in a year. It is calculated by adding up the final prices of all goods and services sold in a year. For example, in 2018 the total value of goods and services sold in Australia may be $1500 billion and in 2019 $1600 billion. The nominal growth between 2018 and 2019 in this example is $100 billion (the numerical difference between the two years). This indicates a positive growth from 2018 to 2019.
- *Real GDP:* This is a reference to the growth rate, after an adjustment has been made that removes the effect of price changes (or inflation). For example, if the price level (or cost of goods and services to consumers) increased by 10 per cent from 2018 to 2019, this will mean that the 2019 figure will have to be discounted by 10 per cent if we are to make proper comparisons between the two GDP numbers. So if $1500 billion in 2018 increased by 10 per cent, in 2019 it would be valued at $1650 billion. In this case the growth rate is actually negative because in 2019 the measure $1600 billion (the nominal GDP) is lower than $1650 billion (the real GDP).

The analysis above, which distinguishes between nominal and real GDP, is crucial when determining growth levels in an economy.

15.2.1 The levels of economic activity, such as consumer spending, are important economic measures.



15.2.2 The four phases of the business cycle are the peak, downswing, trough and upswing. In reality, it can be difficult to determine which phase an economy is experiencing.

Another measure of growth in an economy is the GDP per capita. This is a measure of the value of the total goods and services produced, divided by the population. In this way, the level of economic value per person (as an average) can be calculated. This is a very useful calculation when assessing the overall **wealth** of a nation and its people.

The rate of economic growth tends to move in waves known as the business cycle; it goes through phases of rising and falling growth rates, as shown in Figure 15.2.2. It may even experience recessions, during which the amount of goods and services produced falls each year and economic growth is negative. Australia's long-term average rate of real GDP growth is just over 3 per cent.

Economic growth and confidence

Economic growth is closely related to confidence. Confidence means the level of optimism consumers and businesses have about current and future prospects. Confidence is related to expectations and is closely linked to the business cycle shown in Figure 15.2.2. Consider the following: if a person is confident that they will have steady employment and even rising income, then they will be more likely to spend money and also to borrow money. This is because they will expect to be able to pay off borrowed monies and also because spending is directly related to a person's perception about the security of their income.

Businesses also make decisions based on expectations of current and future sales, and overall confidence. If sales data indicates that revenue is strong and that sales are likely to be strong, then a business might invest in capital (financial assets to be used in the business, such as machinery) in order to produce more. The business confidence in future sales affects its present investment decision. When businesses invest then future economic activity increases and economic growth is sustained. This situation is seen during an upswing in the business cycle. Conversely, during a downswing consumers and businesses both experience low levels of confidence, spend less and save more. This reduces economic activity and slows growth.

Activities

Remembering and understanding

1 How is economic growth measured?
2 What is the difference between nominal and real GDP?
3 How are economic growth and confidence related?

Applying and analysing

4 Calculate the real GDP in Year 2 given the following data:
- nominal GDP (Year 1)—$456 billion
- nominal GDP (Year 2)—$480 billion
- inflation rate between Years 1 and 2—10%.

Evaluating and creating

5 Evaluate the relationship between the economic/business cycle and consumer confidence.

15.3 Inflation rate

As the name suggests, inflation happens when the economy expands. Like a balloon, an economy can inflate as average prices for goods and services move upward, making it harder to afford the things we want and need. Inflation can be defined as a rise in the general level of prices of goods and services in an economy over a period of time. Inflation affects consumers by reducing the purchasing power of their income. In simple terms, when the price level rises, each dollar buys fewer goods and services. The inflation rate measures the rate at which the general level of prices in a particular economy has risen over a year. If inflation is 10 per cent per annum, what costs $10 000 today will cost $11 000 next year and $12 100 the year after. Unless incomes rise by the same amount each year, standards of living over time will decline.

Did you know?

The average price of a house in Melbourne has changed quite a lot over the past 40 years or so. In 1970, a house in Melbourne could be purchased for an average of $12 800. By 1980, the average house price had increased to $43 500. In 1990, this rose to become $147 000 and by the year 2000 the median, or average, Melbourne house price was $253 000. The average price then increased to $559 000 in 2010 and by the end of 2016 was $779 000. This means that the average house price in Melbourne has risen by just under 61 times over that 46-year period.

Measuring price changes

In order to track changes in price levels, and therefore the inflation rate, the value of goods and services needs to be compared over time. This is done though using the consumer price index (CPI). This is an index that monitors the value of a 'basket' of goods and services over time. Changes in the value of the items in the basket reflect how prices have risen (or fallen) over time. 'Items' include money spent on groceries, health care, fuel and education.

Spotlight

ABS CPI definition

The Australian CPI is conceptually designed to provide a general measure of price inflation for all Australian households. The simplest way of thinking about the CPI is to imagine a basket of goods and services comprising items bought by Australian households. Now imagine the basket is purchased each quarter. As prices change from one quarter to the next, so too will the total price of the basket. The CPI is simply a measure of the changes in the price of this fixed basket as the prices of items in it change.

Target inflation rate

In Australia, the government aims for steady inflation and sets a rate of between 2–3 per cent each year. It does not want inflation to fall below 2 per cent or rise above 3 per cent. While many consumers would probably be happy for prices to stop rising, a very low inflation rate would be bad for the economy for at least two reasons. Firstly, having a very low inflation rate can make an economy move to deflation quite easily. This would reduce confidence in the economy, which would have a negative impact on business and consumers. Secondly, it would be very difficult for workers to obtain wage increases if the inflation rate is very low. This is because rising prices can give businesses the opportunity to increase wages without decreasing their own profits.

Inflation that is too high is also associated with issues. One potential problem is that high inflation rates create economic uncertainty. Consumers are afraid to spend and businesses will not want to invest because the value of money will be falling. Another problem that inflation

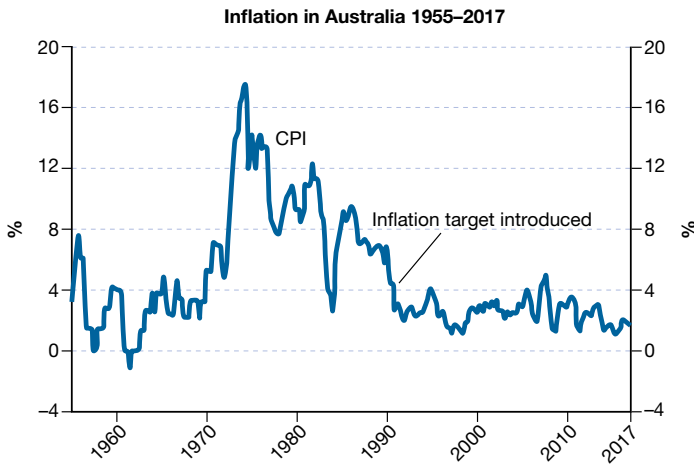
can cause is a loss of the country's **international competitiveness**. Inflation means the prices are rising. If prices rise, then the things we buy are more expensive. For people who buy Australian products, this means Australian products cost more. Compared to the rest of the world, this makes our products less competitive. Furthermore, high inflation rates reduce the purchasing power of people's income because their income rises at a slower rate than cost increases of goods and services. Exceptionally high rates of inflation are known as **hyperinflation**.

Skills builder

Interpretation and analysis

Look closely at the graph of inflation in Australia for the period 1955–2017.

a What does the graph represent?
b Outline the trend for inflation in the period 1955–1975.
c When was inflation at its highest point?
d Describe the general trend in inflation between 1976 and 2003.
e Explain what is meant by 'inflation target'.
f Using your own axes, plot the inflation over the period 1992–2017 and draw a line of best fit, indicating the average inflation rate over this time period. (*Note:* A line of best fit is a straight line that is drawn so that it is as close to as many points as possible.)
g Determine whether the introduction of an inflation target has been a success for the RBA. Justify your answer.



15.3.1 Inflation over time in Australia, 1955–2017

Activities

Remembering and understanding

1 What is inflation?
2 How is inflation different to deflation?
3 How is the inflation rate measured?
4 Identify the relationship between low inflation and wage increases.

Applying and analysing

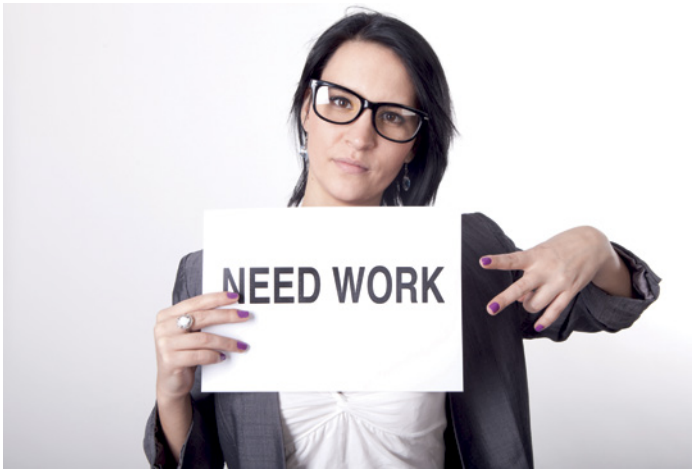
5 Discuss the elements of the CPI and state why it is important to measure price changes over time.

Evaluating and creating

6 Assess the effect of very high inflation on consumer spending and the value of money.

15.4 Unemployment rate

The number of people unemployed in an economy is a very important economic measure. This is because when people work they contribute to the economic activity and productivity of the nation. People not working means that labour resources are not being effectively applied to generating economic activity. Ideally, everyone willing and able to work should be able to work. Unfortunately, there are reasons why this theoretical ideal cannot realistically be achieved.



15.4.1 The unemployment rate is an important economic indicator.

Did you know?

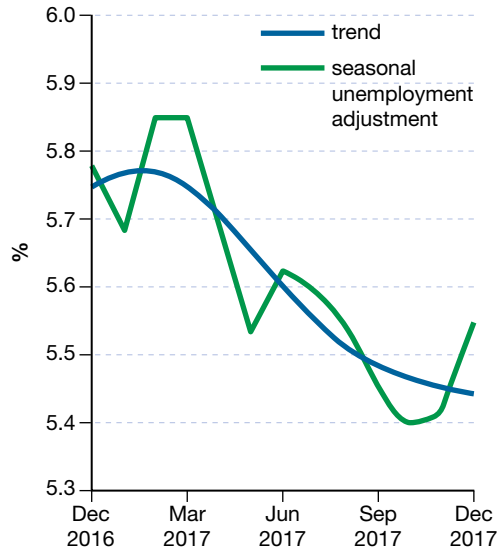
To be classified as employed in Australia a person only needs to do 1 paid hour of work per week. Yes, only 1 hour! However, a person cannot be employed for fewer than 2 hours on a shift, even if they are a casual worker. In some industries, the minimum shift length is 3 hours. This means, even if a person is only required for 1 hour they will be paid for 3 hours of work.

To be considered unemployed, a person must currently not have a job, be willing and able to work, and be actively seeking work. The requirement that a person be actively seeking work is important. This is because there are large numbers of people who do not have a job, but are able to and would like to have paid work—many school students for example.

When there is unemployment there is not only a loss of national productivity—since unemployed people need money to live on, the government needs to provide unemployed people with a form of income. This income, called 'social welfare' comes from Centrelink. Centrelink is the government agency that assists people who are unemployed. The money that is allocated to unemployed people is a form of transfer payment. This means that some of the income earned by the government through its collection of taxes is *transferred* to people who are in need of income support.

The unemployment rate tells us the proportion of the **labour force** that is currently unemployed. This means that people who are not available and not looking for work, such as full-time students and stay-at-home parents, are not included in the unemployment rate.

The rate of unemployment varies during the business cycle. As you would expect, during an economic downturn unemployment rises. This means that businesses experience lower sales and therefore need to lower production levels. This reduces the need for labour. Conversely, during a period of economic growth, employment rises and unemployment levels fall.



15.4.2 Unemployment rate, 2016–2017 including seasonal unemployment adjustment

Forms of unemployment

Even in a growing economy there will be some unemployment. This is because there are different forms of unemployment and they arise for different reasons. This is relevant for economic policy makers because it means that different policy measures will be used when addressing the different forms of unemployment. The different forms of unemployment are:

- *cyclical unemployment*—a form of unemployment that arises due to changes in the business cycle; during times of economic downturn cyclical unemployment is high and during an upswing it falls
- *seasonal unemployment*—a form of unemployment that arises due to seasonal and climate factors; some work is seasonal in nature, such as the work performed in the snow fields by ski instructors and the work performed by apple pickers
- *frictional unemployment*—this form of unemployment arises when people leave one job and move to another; the period in-between the jobs is when frictional unemployment occurs
- *structural unemployment*—this form of unemployment occurs due to changes in the way that work is performed; for example, advances in technology over time have meant that work is performed differently and some types of work have even disappeared, such as bookbinding and typing
- *hidden unemployment*—this is a form of unemployment that occurs when people do not work because they are psychologically unable to, or they are disinterested in finding work; as they are not actively seeking work they cannot be classified as unemployed and hence they are 'hidden' from the statistics of unemployed.

A close look at this list reveals that every single form of unemployment will always be present in an economy except cyclical unemployment. At the peak of the business cycle, there will be no cyclical unemployment. At this point, even though there are the other forms of unemployment still present, the economy is classified as being at full employment.

15.4.3 An example of structural unemployment is supermarkets employing fewer checkout operators now that self-checkouts have been introduced.

Activities

Remembering and understanding

1. Define the term 'unemployed'.
2. List two effects of unemployment.
3. Identify five different types of unemployment.

Applying and analysing

4. Explain why there will always be unemployment even if cyclical unemployment is zero.

Evaluating and creating

5. Research the current unemployment rate in Australia and how this has changed over the past 12 months. Design a pictogram or infographic to summarise how unemployment has changed over the past 12 months in Australia. (*Hint:* use the Australian Bureau of Statistics website.)

LS 15A

15.5 Economies and living standards

Economic growth, inflation and unemployment statistics give very useful information about economic performance. However, each indicator can be criticised for providing limited information about only one aspect of the economy. This is because most of the economic indicators discussed so far do not consider changes in the **standard of living**. A country may be experiencing excellent performance with regards to economic growth, inflation and unemployment, but this does not necessarily mean that people in that country are better off or happier each year. There are a number of other indicators designed to measure the population's broader wellbeing. These include the human development index (HDI), the better life index (BLI) and a range of other measures of sustainability.

Human development index

The HDI is calculated by the United Nations based on three key variables: expected lifespan, education and average income in each country. The HDI of each nation is calculated on a scale between zero and one. A higher HDI score suggests a higher standard of living. The HDI measures how effectively economic activity is being translated into real improvements in these aspects of the standard of living.

Better life index

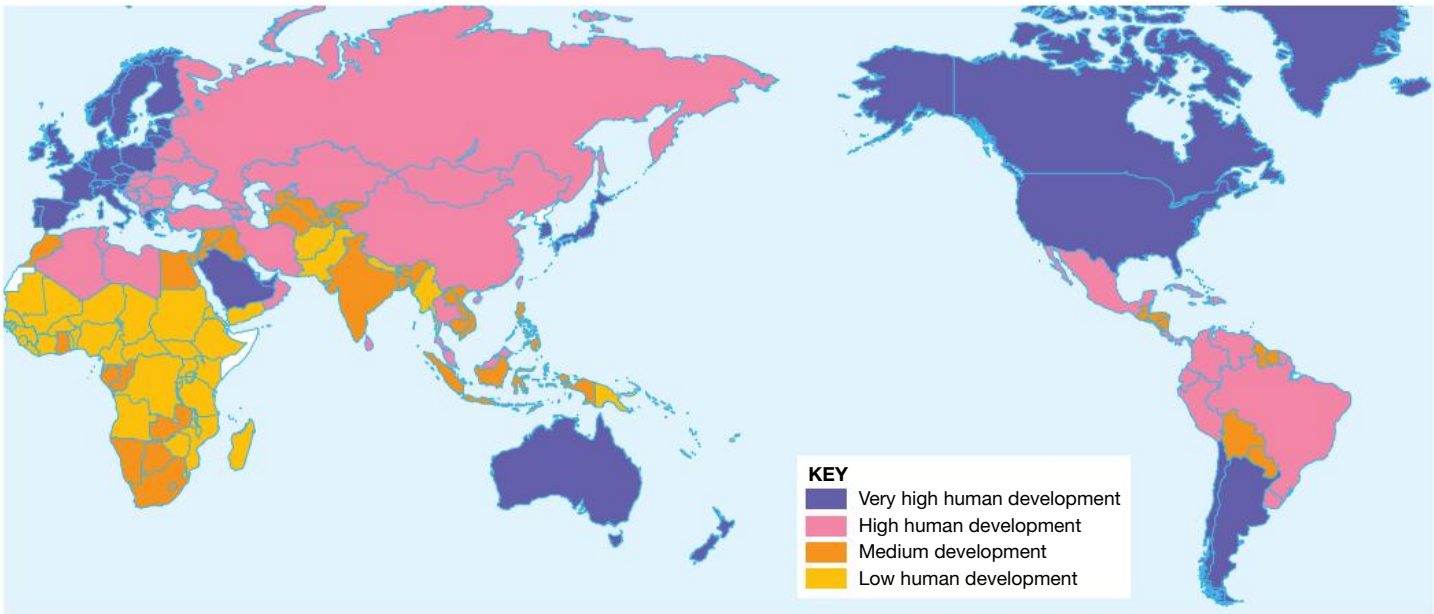
The OECD calculates the BLI by looking at eleven different measures of wellbeing. This includes GDP per person, as well as broader indicators such as job security, air quality and work-life balance. According to 2017 data, while the United States of America has the highest income per person of the OECD countries, it ranks below the OECD average for work-life balance; South Korea has a very high average income, but life satisfaction is significantly below average.

Sustainability indexes

A number of private and public sector organisations have developed measures to compare the environmental sustainability of different countries (see Table 15.5.2). One example is the Environmental Performance Index (EPI) developed by Yale University and the World Economic Forum, which is calculated every two years. It considers health measures such as air quality and access to clean water, as well as environmental issues such as biodiversity and management of natural resources.

15.5.2 Each sustainability index focuses on different aspects of economic activity. Overall, Australia's sustainability performance is very strong.

Country	HDI ranking 2015	BLI ranking (OECD countries only) 2017	EPI ranking 2018
Australia	2	3	21
South Korea	18	29	60
Japan	17	23	20
China	90	N/A	120
United Kingdom	16	16	6
United States	10	8	27



15.5.1 While living standards worldwide have improved significantly, large differences still remain. In particular, the average living standard in central Africa remains at a low level.

15.5.3 A snapshot into the different levels of development, according to the United Nations Development Programme (UNDP) 2016 Human Development Report

HDI rank	Country	HDI value	Life expectancy at birth (years)	Expected years of schooling (years)	Mean years of schooling (years)	GNI ($) per capita (2011)
Very high human development						
1	Norway	0.944	81.6	17.5	12.6	64992
2	Australia	0.935	82.4	20.2	13.0	42261
High human development						
62	Malaysia	0.779	74.7	12.7	10.0	22762
75	Brazil	0.755	74.5	15.2	7.7	15175
Medium human development						
110	Indonesia	0.684	68.9	13.0	7.6	9788
116	Vietnam	0.666	75.8	11.9	7.5	5092
Low human development						
147	Pakistan	0.538	66.2	7.8	4.7	4866
185	Chad	0.392	51.6	7.4	1.9	2085

Living standards

Economists define the standard of living as the level of material comfort that people in a particular community are able to achieve. This is very difficult to measure; it includes the amount of goods and services a person can buy, but also a range of less tangible aspects such as life expectancy, access to education and water quality. If economic growth and other measures of economic performance improve, this should result in an improvement in living standards.

If an economy is producing more, the people in that economy should be earning higher incomes and so should be able to consume more goods and services. With higher incomes, they might be more likely to invest in measures to improve the environment, or could choose to work shorter hours—choices that would also enhance living standards.

Over time, living standards as measured by the United Nations human development index have improved significantly. However, large differences remain between various countries and regions, with average living standards in sub-Saharan Africa significantly lower than those in Europe. About 1 billion people in the world live in extreme poverty (less than US $1.90 per day) at present and up to 3 billion people live in poverty.

Measuring standards of living

In order to measure living standards, it is common to assess average income per person living in a nation. A decent standard of living can be determined by comparing the GDP per capita of a nation. The average GDP per head of population is not an accurate reflection of the living standards within a nation because of possible income inequality. If inequality in a nation is very high there can be a small proportion of very wealthy people living well and a large proportion of very poor people living in poverty, so the average does not really show what life is like for most people. This has led to the development of measures such as the multidimensional poverty index (MPI). The MPI measures the level of deprivation people experience in terms of each of the following factors:

- *health*—including nutrition and the child mortality rate
- *education*—including years of schooling and also school attendance rates
- *living standards*—including access to cooking fuel, improved sanitation, safe drinking water, electricity, flooring and savings.

Economic performance and living standards

There is a relationship between the overall economic performance of a nation and the living standards experienced by its citizens. If an economy is performing very well and there are high levels of economic growth, then the government can receive high levels of taxation income. This money can be applied to build and upgrade infrastructure, such as improving roads, rail, telecommunications and internet connectivity, as well as clean running water and electricity. A government with money can also provide services such as health care, education and social welfare. All of these things will improve the living standards of people living within the nation.

If living standards are very poor then there can be increased crime rates and also increased corruption amongst officials within a country. In a country with low living standards and high corruption, income is not shared fairly between all people.

Did you know?

There is a direct relationship between corruption and the level of economic confidence businesses and investors have. In nations where there is a very large gap between rich and poor people and where government officials are paid low wages, there can be very high levels of corruption. Corruption is when government officials take bribes and misdirect government funds for their own personal gain. This means that government money does not make it to the people it is intended to help. Corruption creates uncertainty and so it actually limits economic growth and investment. Transparency is a situation where there is openness and accountability. Transparency International is a group that encourages nations to focus on anti-corruption measures so that there can be appropriate governance over economic and other matters.

Activities

Remembering and understanding

1 Define the term 'standard of living'.
2 List three economic measures of wellbeing.
3 State the three variables that make up the HDI.
4 Outline the importance of the BLI as a measure of wellbeing.

Applying and analysing

5 Look closely at the data provided in Table 15.5.2. Using the data as evidence, explain why it is important to assess various measures of economic wellbeing.
6 Using the data in Table 15.5.3, assess the relationship between HDI, life expectancy, average income and mean years of schooling.

Evaluating and creating

7 Evaluate the relationship between economic performance and overall living standards within a nation.

LS 15B

15.6 Income and wealth

The terms income and wealth are related but different concepts. Income refers to the money that an individual receives in exchange for working or making other resources available for productive purposes. Wages and salaries are the most common forms of income, but income also includes money earned from renting out investment properties, dividends paid from shares or interest on bank deposits.

Wealth refers to the value of all the assets owned by an individual that have the ability to earn an income in the future. This includes savings, property, shares and other investments.

Income, wealth and living standards

Income is related to wealth and both are related to living standards. A person with a high income will be more easily able to manage their needs and have extra money to buy some of the things they desire. A high income can mean a person can save and also borrow. This will mean that the person can accumulate savings to buy assets such as a car or even to invest in a property purchase.

People on low incomes spend most or all of their money on the things they need: rent, clothing, food, electricity, phone and transport. There will not be a capacity to save or to generate wealth through borrowing. This will mean that the living standards will be low and choices limited.

Did you know?

There is an economic theory that states if you give money and opportunity to entrepreneurs and business people then the living standards for everyone within the nation will improve. The theory, called 'trickle down' economics, is based on the idea that as people get wealthy they will tend to employ others. This increases the incomes and wealth of the employees who will in turn spend their money, boosting the incomes of shopkeepers and so forth. However, the theory has actually been found not to be true. The economic reality has been that as people gain wealth they tend to share it among people they know (such as family members) and hence consolidate wealth rather than distribute it. In some cases, they pay others so poorly that the cycle of poverty cannot be broken for their employees.

The government has an obligation to support its citizens to improve their living standards. Poor living standards can affect mental and physical health and can lead to people becoming stuck in a life of poverty and marginalisation.

Policy options to improve living standards

Governments have to address the issue of living standards for all of their citizens. It can do this by implementing policies in the areas of education, training and the workforce.

Access to education as a policy to improve living standards

Education is seen as a key to opportunity in employment. There is a close correlation between income levels and education. Generally, the most highly-educated people earn the highest incomes because they tend to be more highly skilled and can earn higher wages. Education levels vary widely between countries. Even within the OECD, which is a group of developed nations including Australia, the average number of years of education varies from 14.4 years in Mexico to nearly 20 years in Ireland. Australia is highly competitive in this area, at 19.4 years. Around 80 per cent of children in OECD countries will receive some form of tertiary education; in sub-Saharan Africa, the figure is around 6 per cent.

The longer young people remain in education, the better their chances of earning an income that can boost their living standards.

15.6.1 Access to education is a key factor behind high-income inequality in many African countries. Around one in three children do not attend school. More than half of those not in school are girls.

Training opportunities as a policy to improve living standards

Training is a reference to programs focused on developing vocational skills for job seekers so that they are able to get employment. In Australia, about 4 million students are involved in vocational training each year. The aim of the training is to help them to get a job, improve their existing skills, enter the workforce or gain access to higher levels of education. Training provides a pathway for people to access work and therefore access an income. This will mean that opportunities will arise and living standards can be improved.

Government policies on the workforce

A third policy area for boosting living standards arises from government policies on the workforce. For example, a government policy to support parents with child care costs can encourage people to do paid work. Workforce policies can focus on equality of access, boosting work skills, creating job opportunities and creating favourable work-life balance. If people get work, improve their job prospects or gain higher qualifications then their income will rise and they will have more to spend and save. They will experience a greater range of choices. For those with work, living standards improve when there is workplace flexibility such as paid parental leave or an opportunity to work from home.

Government policies on income redistribution

In many countries, governments actively work to reduce the extent of income inequality. This can occur through taxation systems that are designed so that higher income earners pay higher rates of tax than lower earners. This money is then used to provide a range of income support payments. In addition, governments often provide basic services such as health care and education to ensure that all citizens have access to an acceptable standard of living.

Impact of income inequality

Income inequality is a reference to the difference in income between the richest and the poorest people in a nation. When there is a wide difference between the richest and poorest then economic and social problems arise. For example, when there are many disadvantaged people in a society who are not working, the government receives less taxation revenue and also has to provide welfare payments. A further economic issue is the building of social infrastructure such as social housing, which is publicly-provided, low-cost housing for disadvantaged people to live in without paying much rent. The amount of money required to assist the poorest means money cannot be spent on other areas of the economy. There are social impacts of income inequality, such as the creation of an underclass of people who are discriminated against, marginalised and lack access to work and education.

A certain level of income inequality is sometimes regarded as an economic positive as it is said to provide an incentive for people to engage in economic activity, get an education and take entrepreneurial risks in the hope of achieving income rewards. However, too much inequality can contribute to social and economic problems.

Countries with high levels of income inequality tend to achieve lower growth rates than countries with more equitable **distribution of income**. This occurs because countries with significant income inequality are unlikely to employ the full potential of their workforce, as many people are disadvantaged by lower education levels or social restrictions.

If a country has a high degree of inequality, there is a risk that political influence will be concentrated in the hands of the minority of the population, with access to sufficient funds to pressure governments. This can result in economic and social privileges targeting those who are already relatively wealthy.

The poverty trap

The poverty trap refers to the social or economic systems that make it very difficult for poor people to raise their standard of living. Children from families experiencing poverty may not be able to focus on their education to the same extent as children whose families earn even slightly higher incomes. Hunger, stress from ongoing difficulties, poor health and the need to get a job as early as possible may all make it harder to achieve educational outcomes that can help create new opportunities in life.

Recent trends in the distribution of income

Many countries, including Australia and the United States, have experienced a rise in income inequality since the 1990s. This is largely due to increasing differences in the amount of income households earn from sources other than paid employment. As some households accumulate greater wealth, this raises their income from sources such as rent and interest from investment properties and shares. The current increase in income inequality is closely linked to wealth inequality.

Recent research by economists on the distribution of income and wealth focuses on the role played by opportunities. While some inequality is always going to be present, the key for policymakers is to ensure that, as far as possible, opportunities are available to all citizens. This includes opportunities for education, access to finance and a flexible social system that allows people to accumulate reasonable rewards for their efforts.

15.6.2 In Jakarta, a commuter train passes between a shantytown and a business district, highlighting the income inequality in Indonesia.

Activities

Remembering and understanding

1 Distinguish between income and wealth.
2 How is income related to wealth and how are both related to living standards?
3 List three policy options to improve living standards.
4 Define the term 'income inequality'.

Applying and analysing

5 What effect does a government policy on improving vocational and workplace skills have on living standards?
6 Explain the impact of paid parental leave on living standards.

Evaluating and creating

7 Research the issue of income inequality in a nation other than Australia. Assess the impact of income equality on national productivity. Summarise your findings on a single-page poster using infographics to support any statistics you use.

15.7 Managing the economy

Economic roles of the government

Government spending contributes approximately 25 per cent of Australia's GDP, indicating that the government plays a significant role in generating and managing economic activity. The central aim of this is to raise living standards. There are five main methods that the government uses to achieve this aim:

- providing goods and services
- regulating business activity
- redistributing income
- **macroeconomic** management
- **microeconomic** policies.

Providing goods and services

Governments are involved in providing key goods and services, called public goods, which contribute to the nation's standard of living. Some items offer little or no profit for the private sector and therefore will only be produced by the government. Walkways and parks are examples of public goods provided by the government for the benefit of the community. These items contribute to the country's overall wellbeing, but will be produced only by the government sector.

The government also supplies services that improve productivity and wellbeing, which are benefits to society beyond those experienced by the people using the service. Education and health care are examples; they can be provided by the private sector at a profit, but the government supplements their supply to ensure that all citizens can access these essential items. A service like education benefits all of Australia, not just students and teachers.

Regulating business activity

Regulations are laws that shape how businesses conduct their operations. In the pursuit of profit, businesses may sometimes act in ways that do not promote the public interest. As a result, governments regulate the activities of businesses in order to achieve a range of economic, environmental and social goals. A major area of regulation is the management of adverse effects of economic activity that are experienced by people who were not directly involved in the production or consumption of the goods involved.

15.7.1 Walkways and parks are an example of a public good. The people shown here are enjoying the public space at Southbank along the Yarra River.

For example, the government regulates the amount of pollution that can be emitted by factories in order to protect the health of local residents and the environment. Environmental safeguards promote living standards by helping to ensure that everyone can access essential clean air and water.

Governments also regulate the activities of companies in order to protect consumers and businesses. For example, it is illegal for competing businesses to work together to fix prices as this may result in consumers being charged unreasonably high prices.

Redistributing income

If the government played no role in the economy, the income received by any individual would be entirely determined by the contribution they could make to productive economic activity. In reality, people with rare skills (such as surgeons) are paid vastly more than people who receive welfare. The tax system ensures that high-income earners pay high taxes so that this can be allocated to people on low incomes. This is a redistributive effect. Without any action by governments, this would lead to considerable differences in income and wealth.

Australia's taxation system

In many countries, including Australia, the taxation system helps those on low incomes. The tax system in Australia is 'progressive', which means as income rises the amount of tax paid also rises. Individuals pay income tax based on the amount of income they earn; companies pay company tax based on the amount of profit they make. The Goods and Services Tax, or GST, is a type of sales or consumption tax charged when consumers buy most goods and services. The GST is collected by retailers and service providers who must then forward it to the government. The government uses some of the money raised from taxation to provide a range of welfare payments such as the age pension, job search allowance and disability support pension. These payments aim to raise the standard of living of those who have limited ability to earn an income.

A tax is described as progressive if its rate increases as income increases. In Australia, income tax is highly progressive, as shown in Table 15.7.2. Some other taxes are described as regressive. This means that as the taxpayer's income rises, they pay a lower proportion of it as tax. A regressive tax is one that taxes all people whether rich or poor. An example is the GST—all people pay this tax when they buy goods and services. This sort of tax is preferred by governments, as is rises over time without the government needing to do anything.

15.7.2 Australia's income tax rates for the 2017–18 financial year demonstrate that income tax is progressive.

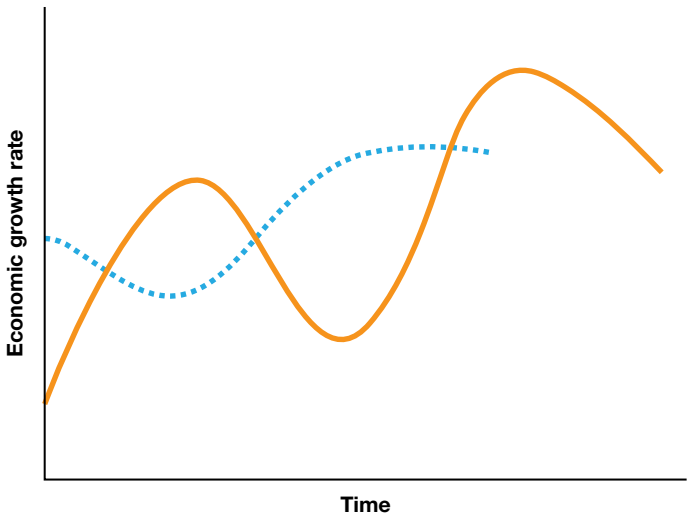
Taxable income	Tax on this income
0–$18 200	Nil
$18 201–$37 000	19c for each $1 over $18 200
$37 001–$87 000	$3572 plus 32.5c for each $1 over $37 000
$87 001–$180 000	$17 547 plus 37c for each $1 over $87 000
$180 001 and over	$54 547 plus 45c for each $1 over $180 000

Macroeconomic management

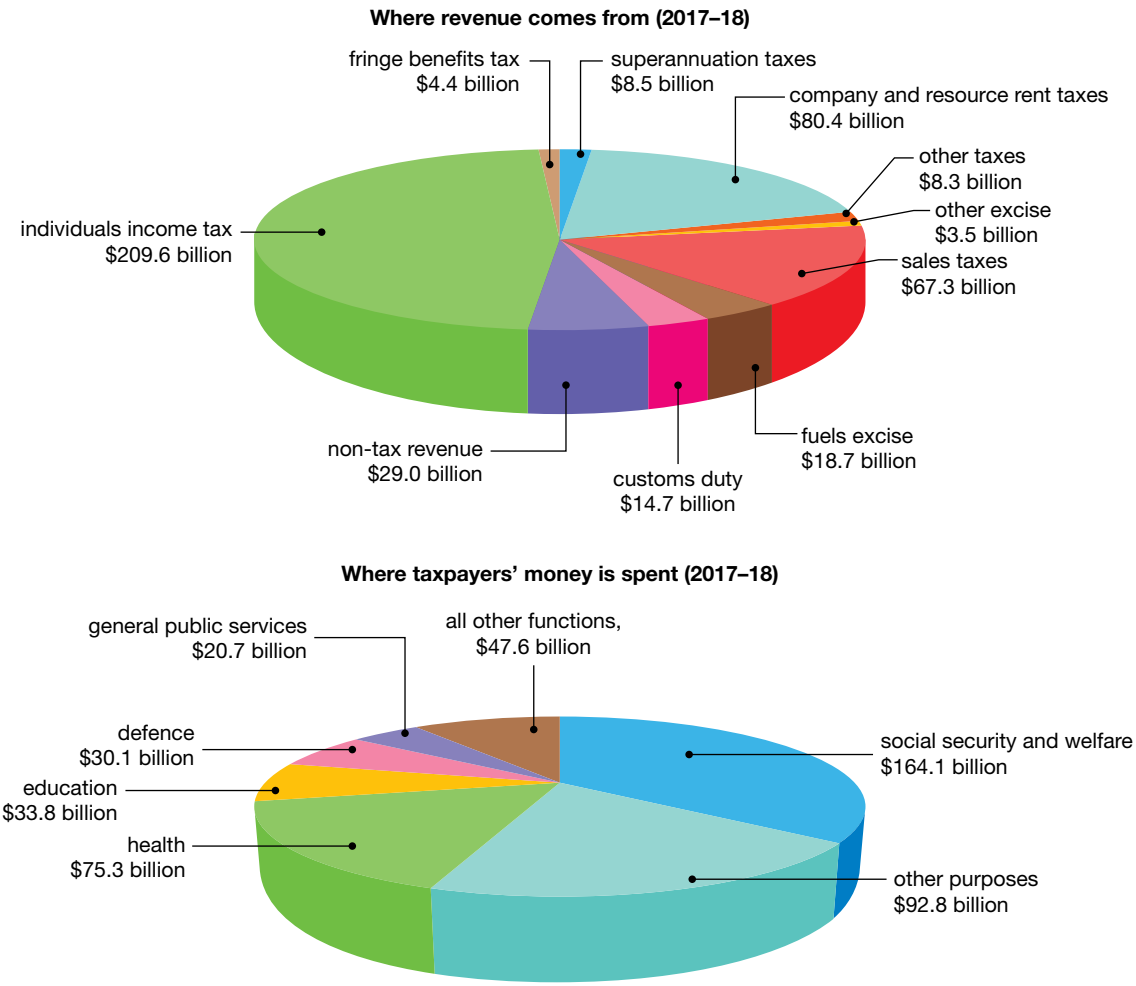
In order to sustain living standards, governments are involved in directly managing the level of economic activity through two main policies. These are fiscal policy and monetary policy, which are focused on consumers and consumption.

Fiscal policy

This refers to the combination of government taxation and spending and how it is used to support economic growth. During the boom phase of the business cycle, inflation tends to rise as more money enters the economy, so governments will tend to increase taxation and decrease spending to help reduce the level of economic activity. This is because high inflation can result in lower living standards. In a trough, governments will try to raise economic activity and create new jobs by reducing taxation and raising spending, often by borrowing money. This is sometimes described as a counter-cyclical policy, meaning that the government tries to counteract the extremes of the business cycle (see Figure 15.7.3).



15.7.3 The orange line demonstrates the business cycle without government involvement. Successfully implementing counter-cyclical policies will mean that the economy follows the dashed blue path, avoiding both the high inflation that is associated with the peak phase and the high unemployment experienced in the trough.



15.7.4 In 2017–18, the government expected to receive $444.4 billion in revenue, mostly from income tax. Total spending was expected to be $464.3 billion, with social security and welfare being the largest area of expense. The difference in these figures can be regarded as debt.

The federal government's largest source of income is individual income tax, although company taxes and sales taxes are also significant (see Figure 15.7.4). The single largest area of spending is social security and welfare, demonstrating how the government redistributes income. Health, defence and education are also significant areas of expenditure.

Monetary policy

The second main policy, monetary policy, refers to the RBA's adjustment of the cash rate in order to influence the level of economic activity. The cash rate is the fundamental interest rate paid on money loaned. If the cash rate rises, interest rates will rise and total spending will fall as it becomes more expensive to borrow money or pay off existing loans. Higher interest rates also encourage people to save money as they can earn higher interest on savings. When the cash rate falls, interest rates fall and spending rises as it is cheaper to borrow money or pay off existing loans, but money in savings accounts earns little interest.

Microeconomic policies

In order to sustain living standards, governments are involved in influencing how suppliers produce, what suppliers make and how much suppliers make. This is done through implementing microeconomic policies that focus on supply. Microeconomic policies include productivity policy, labour market policy and competition policy (which aims to promote competition, and improve efficiency in individual markets).

Productivity policy

Productivity refers to the amount of output produced by each input into the production process; an example is the manufacturing of clothes from raw materials such as cotton. If productivity rises, this means that a particular company or supplier is able to make more output from the same amount of inputs. Governments aim to raise the economy's productivity as this allows the economy to raise GDP without needing to employ additional resources; as a result, the standard of living should rise.

In Australia, productivity policy has included measures to encourage businesses to invest in research and development

processes, and strategies to improve education, training and the efficiency of the taxation system.

Labour market policy

Sustaining, and improving, standards of living in the future will require ongoing efforts to develop the skills of those in the workforce. Governments are involved in developing policies to support education from early childcare through to vocational and higher education and training. Significant investments are being made in promoting and supporting science, mathematics and related areas as these are expanding industries that are expected to help support Australians' future standard of living.

By contributing towards the cost of childcare, the government can make it easier for parents of young children to return to, or enter, the workforce. Changes to government payments over time have also aimed to increase the number of people entering the labour market.

Another labour market policy relates to migration and the use of skilled visas. Australian companies sometimes have difficulty finding local employees who have appropriate skills. To support the growth of these companies, the government has a skilled migration policy. This policy encourages workers with appropriate skills and experience overseas to migrate to Australia. For example, significant numbers of overseas-trained doctors have been recruited to fill vacancies in rural and regional hospitals. Skilled migration can help fill skill gaps in Australia, promoting the growth of Australian companies while also providing Australians with an opportunity to learn new skills from those trained overseas.

Activities

LS 15C

Remembering and understanding

1. List the government's five main methods of raising living standards.
2. Explain the difference between a tax described as progressive and a tax described as regressive.
3. Which institution sets monetary policy in Australia?
4. What does the Australian government's skilled migration policy encourage?

Applying and analysing

5. Construct a flow chart to demonstrate the impact of the RBA's changes to the cash rate.

Evaluating and creating

6. Develop criteria to help determine if services the government supplies are positive externalities.
7. Discuss the statement, *The government should not regulate the activities of businesses*. Do you agree?
8. Research the four main methods the government uses to raise living standards, and predict which method may be most important in the next 10 years.

15.7.5 Skilled migration can help to fill skill gaps in Australia with those trained overseas.

15.8 Australia's trade relationships with other countries

Australia engages in trade with numerous nations globally. When Australia trades internationally, it benefits from having access to goods and services not available here in Australia. Consumers can access food, clothing, electronic goods, motor vehicles and the like that are not made locally. As labour costs are lower in some other nations, this also means that the cost of purchases for Australian consumers can be cheaper. From a business perspective, trade with other nations means that businesses can access more customers and increase their income and profits. It also means that businesses can set up operations in other nations to save costs, access resources and be close to markets. International trade has significant benefits to the trading nations.

Free trade agreements (FTAs)

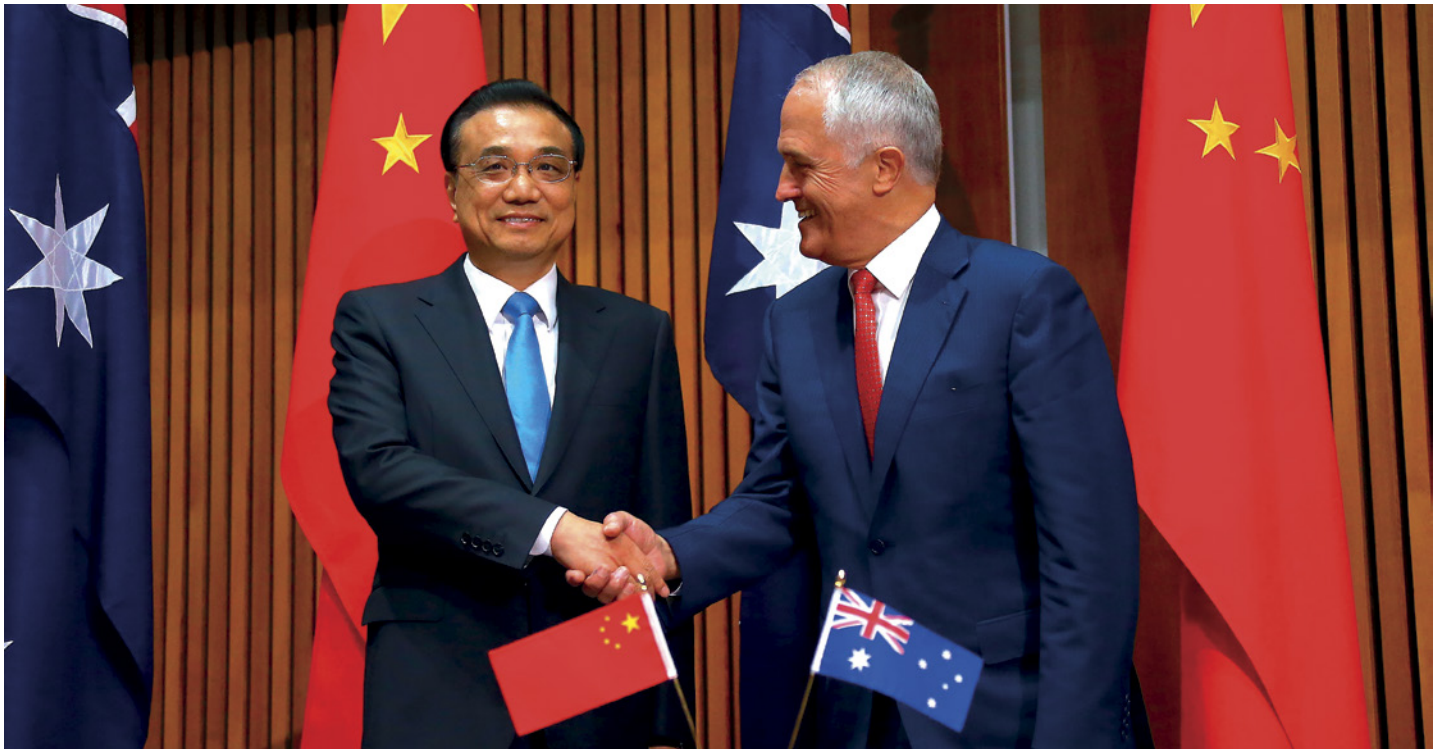
FTAs are international agreements between countries that agree to reduce and eventually remove any government restrictions or barriers to trade. This means finding ways to reduce taxes, encourage imports and exports, and allow products (goods and services) to enter the nations for sale to consumers. Australia has formed a number of FTAs. There are different types of FTAs and they may be bilateral or multilateral.

Bilateral trade agreements

Bilateral trade agreements are negotiated between two nations and exclude all other nations. Negotiations between two nations are often more easily negotiated than those agreed between many nations. Bilateral FTAs are increasingly common and can be negotiated far more quickly than multilateral agreements. Finding areas for trade will generally be quite easy. The availability of a wider range of consumer goods, lower prices for importers and expanded markets are significant drivers of bilateral agreements. Australia has nine bilateral FTAs as detailed in Table 15.8.2.

Multilateral trade agreements

Multilateral trade agreements are negotiated between three or more nations. While these trade deals are far more complex, and take longer to negotiate, they also have distinct advantages for the member nations. These advantages include that such agreements create greater equality between negotiating countries and that they are more stable than bilateral agreements. Other advantages include that they have a negotiated framework for the settlement of disputes that may arise under the agreement.



15.8.1 Chinese and Australian officials sign a Declaration of Intent regarding the Review of Elements of the China–Australia Free Trade Agreement in the presence of then Prime Minister Turnbull and Chinese Premier Li in 2017.

15.8.2 A list of Australia's bilateral and multilateral FTAs

Name of bilateral FTAs	When came into force
Australia–New Zealand (ANZCERTA)	1 January 1983
Singapore–Australia (SAFTA)	28 July 2003
Australia–United States of America (AUSFTA)	1 January 2005
Thailand–Australia (TAFTA)	1 January 2005
Australia–Chile (ACIFTA)	6 March 2009
Australia–Malaysia (MAFTA)	1 January 2013
Korea–Australia (KAFTA)	12 December 2014
Japan–Australia (JAETA)	15 January 2015
China–Australia (ChAFTA)	20 December 2015
Name of multilateral FTAs	**When came into force**
ASEAN–Australia–New Zealand (AANZFTA)	1 January 2010

Australia has nine bilateral FTAs and one multilateral agreement in force. It has signed two other agreements, but they are not yet in force. These are the Trans-Pacific Partnership (TPP) and the Pacific Agreement on Closer Economic Relations (PACER). Australia's trade agreements have helped Australian producers to access and sell to bigger markets. When Australian exports go to larger markets then the cost of production can fall. This is because of an economic concept called economies of scale. Economies of scale occur when the rise in production leads to lower per unit costs of production.

Although there are some issues that arise with FTAs there are also many benefits. The main issues are:

- cheaper imports into Australia affect Australian producers; they may not be able to make money if they sell their product at a lower price, so they may have to close down their production and make employees redundant
- local businesses may have to invest in new technologies to be able to produce more efficiently, which can be a significant cost
- Australian businesses that are affected by increasing competition may have to find new opportunities or new industries to work in; this causes structural change within the economy.

Some of the benefits of Australia's FTAs include:

- expanded opportunities for Australian-based businesses to increase their sales and enter new markets
- stronger international relationships leading to deeper cultural and political understanding
- as Australian businesses grow, they earn more profits and income, which means they can pay more taxes into the Australian economy
- in order to compete with other businesses in different countries, Australian businesses become more innovative and find new ways to produce goods and services productively.

Activities

Remembering and understanding

1. List two benefits that consumers obtain when nations trade with one another.
2. Outline how a business can benefit from international trade.
3. Define the term 'free trade agreement'.

Applying and analysing

4. Distinguish between the benefits and issues arising with FTAs and determine whether the benefits outweigh the issues.

Evaluating and creating

5. Research any one of Australia's nine FTAs. Create a summary of the key benefits of the FTA by creating a poster. (*Hint:* visit the Department of Foreign Affairs and Trade (DFAT) website.)

15.9 Global connections

Australia's relationship to the global economy

In 2016, the total value of items produced in the entire world was about US $76 trillion. Australia was responsible for around 1 per cent of this, and is often said to have a small economy. It is also described as an open economy because Australian consumers and businesses engage in trade with the rest of the world. However, because Australia's economy is such a small proportion of the world economy, any change in the rest of the world can have a significant impact on the level of economic activity in Australia.

Australia relies on the global economy in many ways. It needs to sell its exports to households and businesses in other countries, but also needs to be able to purchase those goods and services that are not produced domestically. Transnational corporations (TNCs) greatly facilitate the movement of goods and services between countries, and they can have significant influences on the pattern of economic development.

Transnational corporations

TNCs, also known as multinational corporations, are businesses with operations in more than one country. Mazda®, Ikea®, Samsung®, Aldi, Westfield® and BHP are all examples of TNCs. Transnational businesses are a very important part of the global economy as they help customers gain access to cheaper products than might otherwise be possible, increase employment opportunities and promote economic development.

Economies of scale

A business achieves economies of scale when it is able to reduce its costs by increasing the level of production. For example, a car manufacturer needs to invest in many expensive machines in order to produce cars. As those machines make more and more cars, until the factory reaches its capacity, the cost per car keeps falling as the cost of the machines is spread over the increasing volume of output.

The size of transnational corporations allows them to achieve economies of scale and to produce their output at a lower cost than smaller companies. With lower costs of production as a result of the scale of their operations, TNCs are able to sell their products at lower prices than their competitors. This means that households have the choice of buying the cheaper product from a TNC and having more money left over to spend on other goods and services.

Economic development

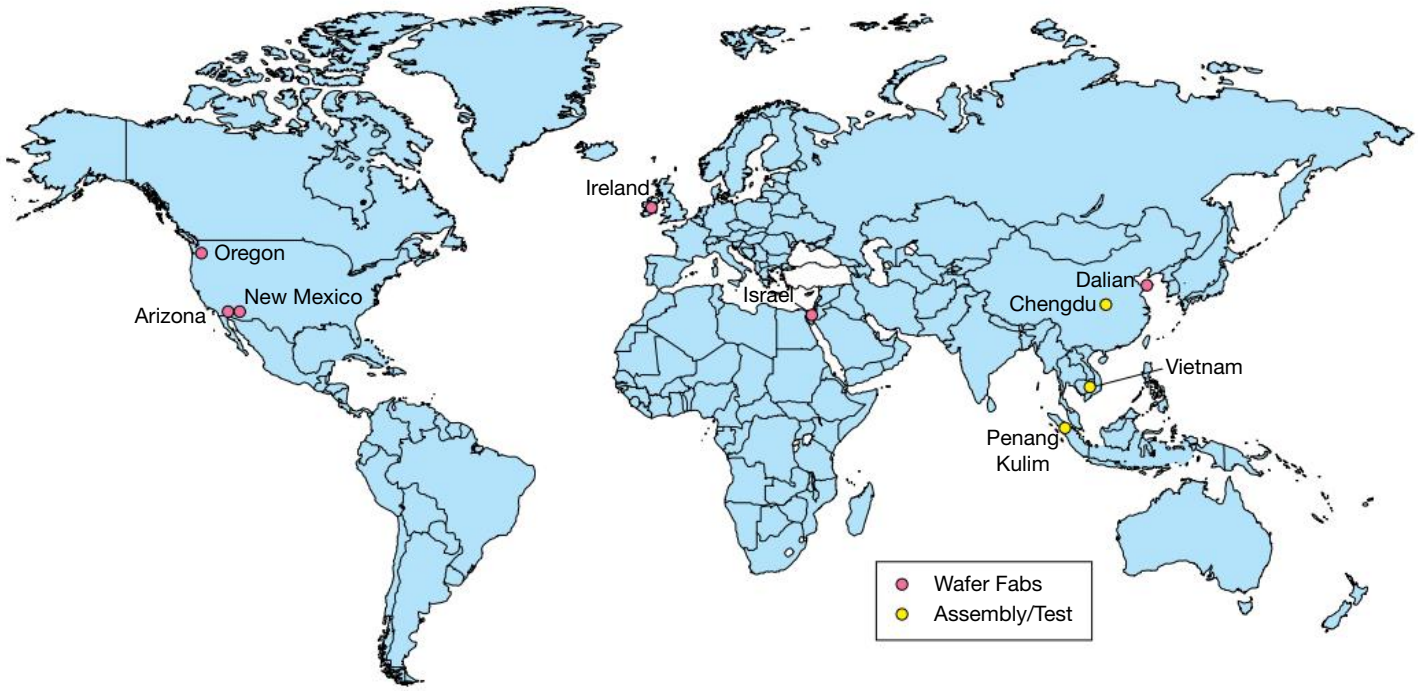
TNCs also have a role to play in promoting the development of many economies. They have the financial resources and expertise to set up operations in whichever country is the best fit for the company's needs. In many cases, this involves setting up factories in less-developed countries, such as Vietnam and Thailand, where labour costs are much lower than in places such as Australia, Europe and the United States. These factories provide new employment opportunities for the local residents, but may also lead to substantial benefits for the wider local economy as supporting facilities and businesses develop around the factory—for example, the development of better roads and electricity networks, and shops to sell food and other items to employees.

Supply chains

A supply chain refers to to where businesses source their inputs. Transnational corporations will often produce components of their final product in different countries before bringing them together for final assembly. For example, the technology company Intel® produces parts of its products in such diverse countries as Israel, Ireland and the United States before assembling the final product in China, Vietnam and elsewhere. This means that individual facilities can focus on producing just a part of the final product, allowing the company to produce each component wherever it is cheapest to do so.

Governments and TNCs

Governments will sometimes introduce policies designed to attract transnational corporations. These might include incentives such as lower tax rates, or guarantees that infrastructure such as harbour facilities will be constructed in a way that suits a TNC's requirements. A government may choose to do this to increase its country's chances of benefiting from the employment and development that TNCs bring.



15.9.1 Intel's production facilities, referred to in this map as 'Fabs', are spread all over the world, but the final items are assembled in China, Vietnam or Malaysia.

Impact that TNCs have on Australia

The operations of transnational corporations affect the Australian economy in many ways. They provide goods and services that Australian households and businesses demand, offer employment opportunities and mostly pay tax on their Australian earnings to the Australian government. Australia is also home to several TNCs, including Woolworths, which has operations in Australia and New Zealand, and the National Australia Bank, which has operations in Australia, New Zealand, Asia, the United Kingdom and the United States.

In 2017, Ford and Holden closed their production facilities in Australia. This decision was largely based on the fact that operating costs were higher at their Australian plants than in many other parts of the world. This closure has meant that significant numbers of employees have had to find other work or have been retrenched. One impact of TNCs has been widespread job losses in the manufacturing sector in Australia. Unemployment imposes a significant cost on workers while transnational corporations benefit from shifting their operations to lower-cost environments. This demonstrates that while TNCs can bring significant benefits while they are operating in a particular country, there is also the potential for great costs to local companies as the TNCs continue to seek economies of scale and lower costs.

Global events and the Australian economy

Being a country with a small, open economy, Australia can be heavily affected by global events. The levels of economic activity, employment and even prices in Australia can change when international conditions change. Two major events that had wide-ranging effects on the Australian economy were World War I and the **global financial crisis (GFC)**.

World War I and the Australian economy

World War I had devastating human costs that affected Australia and the world. It also had far-reaching effects on the Australian economy. Trade agreements that had previously existed with Austria–Hungary and Germany were cancelled, and new opportunities arose for Australian businesses. For example, the steel industry expanded rapidly as guns, ships and other equipment were needed in unprecedented quantities. The wool industry also grew, as the British government purchased every bale of wool produced in Australia (and also New Zealand) from 1916 to 1920 in order to provide clothing for the troops.

As international trade was disrupted by the war, Australia needed to start producing many items that had previously been imported. By the end of the war, more than 400 additional products were being made in Australia that had not been made before the war broke out. In addition, with so many men serving as soldiers, Australia's economy and society were transformed by the need for women to join the workforce.

15.9.2 The Newcastle steelworks expanded significantly during World War I.

15.9.3 Australia's iron ore and coal industries grew strongly through the GFC, supported by strong demand from China.

The effects of World War I on the Australian economy were not all positive. Shortages of some items drove prices up, leading to a series of major strikes. Those who had built up savings before the war were potentially able to benefit from the federal government's war loans program, meaning that some households became wealthier as a result of the war while others suffered greatly.

The global financial crisis and the Australian economy

The GFC of 2007–08 was followed by a period of the lowest worldwide economic activity since the Great Depression of the 1930s. This was caused by significant financial instability in the United States—share prices fell, several international banks became bankrupt and closed, many people lost their homes—and then spread around the world as US consumers and businesses cut back on the amount they were importing from other countries.

Australia's economy demonstrated remarkable resilience through the GFC, largely because of its strong relationship with China. The Chinese government put a number of policies in place to support the Chinese economy even as the US economy faltered. This meant that demand for Australia's exports, in particular iron ore and coal, grew strongly once the initial shock of the US situation had passed. A period of uneven activity in the Australian economy followed as businesses and industries that traded industrial goods with China grew while other sectors, such as tourism, struggled.

Activities

Remembering and understanding

1 Define the term 'transnational corporation'.
2 List the countries involved in producing Intel's products.
3 Name the two companies that in 2017 closed their production facilities in Australia.
4 Identify the product generated in Australia that the British government purchased every item of during World War I.

Applying and analysing

5 Summarise how economies of scale work.
6 Examine the impact that TNCs have on Australia.

Evaluating and creating

7 Evaluate Australia's relationship to the global economy.
8 Assess the impact of the GFC on the Australian economy.

15.10 Australia and tourism

In 2016–17, there were 7.9 million international visitors to Australia, who spent around $28 billion while staying 266 million nights in Australia. Over the same period, many Australians took holidays within the country, spending a total of $61.7 billion. To put these figures into context, the tourism industry in Australia accounts for about 3.2 per cent of our GDP and directly employs 598 200 people. In other words, the tourism industry is a very important contributor to the Australian economy.

Reasons for international travel

There are three broad reasons why people travel to other countries for short periods before returning home. They are:

- leisure
- business
- education.

Leisure travel is the practice of taking holidays, often as breaks from work. Business travel includes travelling to conferences, for meetings with business partners, customers or suppliers, or to conduct research.

Finally, education-related travel includes high school, university and postgraduate students travelling to other countries to study specific courses at recognised institutions. China is a very significant source of demand for Australian tourism: over one quarter of all education-related visitors to Australia in 2016–17 came from China.

Demand for tourism in Australia

International demand for holidays in Australia has grown strongly in recent years. The Asian region has been the greatest contributor to this. Asia's proximity to Australia, the rapid growth and development of China and India in particular, and the appeal of Australian experiences have helped drive the growth in this industry. Tourism Australia is the national group representing the tourism industry. Tourism Australia is very active in developing campaigns to promote Australian tourism to the rest of the world, such as the 'There's nothing like Australia' promotion that was launched in 2018, and the iconic 'Throw another shrimp on the barbie' campaign in the late 1980s.

15.10.1 Tourism Australia launched its $36 million marketing campaign 'There's nothing like Australia', during the 2018 Super Bowl. The campaign hopes to increase tourism from the US.

15.10.2 Galleries and restaurants are important businesses in the tourism industry.

Factors affecting the demand for tourism in Australia

Event tourism

Following the success of the Sydney Olympics in 2000, Australia has hosted many major events that draw visitors from around the world. The Cricket World Cup and the Asian Football Cup, hosted by Australia in 2015, are both examples of events that have contributed to increased demand for tourism. Official events also lead to higher tourism: the Commonwealth Heads of Government Meeting (CHOGM) held in Perth in 2011 and the G20 Summit held in Brisbane in 2014 created new opportunities to promote Australia as a tourism destination.

The Australian dollar

The value of the Australian dollar is also a key determinant of the level of demand for tourism in Australia. When the Australian dollar rises in value, it is more expensive for people in other countries to purchase Australian currency, adding to the costs of a holiday in Australia. The fall of the value of the Australian dollar from the high levels reached in September 2017 made it cheaper for overseas visitors to come here. It also made it more expensive for Australians to travel overseas, raising the demand from Australian households for holidays within the country.

15.10.3 The Sydney Olympics created many opportunities to promote Australia as a tourist destination to viewers around the world, including footage of key attractions during TV coverage of major events.

Economic impact of tourism to Australia

There are around 273 500 tourism businesses in Australia, 95 per cent of which are small businesses. Tourism businesses are not only hotels and tour operators. Museums, galleries, restaurants, specialist shops and currency exchanges are all examples of businesses directly related to the tourist trade.

Despite the industry directly employing over 598 000 people and indirectly employing a further 400 000 people, there are still labour and skill shortages. This is a major problem for the Australian tourism industry. Most tourism businesses operate seven days a week and require highly-skilled employees, such as people with specific knowledge about a particular area and the ability to speak at least one language fluently other than English. According to Tourism Research Australia, there will be a need for a further 60 000 skilled workers in the industry during the period 2016–2020. This number is likely to rise as the lower value of the Australian dollar and ongoing marketing campaigns lead to even higher demand for tourism.

Tourism ventures in Australia are as varied as the tourists who visit them. Some are focused on experiencing Australia's natural attractions, while others are based on history, local food, the built environment or any combination of these. Three very popular but very different tourism businesses located in Victoria are the Twelve Apostles, the Melbourne Cricket Ground (MCG) and the Royal Botanical Gardens.

Activities

LS 15D

Remembering and understanding

1. State the value of tourism to the Australian economy.
2. Name the three main reasons why people travel to other countries.
3. Outline the trend for inbound tourism within Australia.
4. Summarise how the value of the Australian dollar can impact tourism to Australia.

Applying and analysing

5. 'Indirect employment' is when an individual is employed in a role that supports another. For example, bus drivers to drive tourists to the 12 Apostles. Suggest other forms of indirect employment that might be linked to the 12 Apostles, MCG and Botanical Gardens.

Evaluating and creating

6. Research departure information to determine the most popular overseas destinations for Australian tourists. Which of these destinations would be your top three holiday recommendations, and why?

15.10.4 Tourist group at Uluru (Ayers Rock), Uluṟu-Kata Tjuṯa National Park, Northern Territory


amazon

Innovation and productivity

16

Businesses aim to maximise their profitability. This can be achieved by maximising sales and minimising costs. In competitive markets, it can be difficult for businesses to gain and retain market share because there are other businesses competing for customers. It can be even harder in such markets to sustainably increase profits over time. In this context, a focus on creating new products can be the difference between business growth and business decline. Innovation, or the capacity to develop novel products (goods or services) that can be sold for profit, can be a distinguishing factor between businesses.

OVERVIEW QUESTIONS

16A How do businesses manage competition?

16B What effect does innovation have on business and consumers?

16C Why do businesses seek to improve productivity?

LS Before you begin

GLOSSARY

acquisition the act of acquiring or gaining possession

capital all equipment (machinery, buildings, infrastructure) used in production

capital deepening when the capital stock increases faster than the labour force

capital widening when the capital stock increases at the same rate as the labour force

competitive advantage aspects of a business that it does better, or differently, than any other business, which makes it the preferred choice for consumers

cost leader the business within an industry that has the lowest costs and therefore can set prices lower than competitors'

investment a financial expense that has the potential to make a profit

marketing the entire process by which products are promoted and sold

merger the joining of two businesses to form a single business

productivity the amount of output produced by each unit of input; the efficiency with which an economy employs resources to produce goods and services

takeover the purchase of one business by another; the purchased company is sometimes hostile to the purchase

16.0.1 Jeff Bezos, CEO of Amazon®. Amazon is ranked third on Forbes' list of the world's most innovative companies. Innovation is founded on two core principles: always placing the customer foremost and employing people who are open to invention and who can be trained to become innovation leaders.

16.1 Competition and innovation

Competitive advantage

A **competitive advantage** is anything that places a particular business in a better position than its competitors. If a business does not have some kind of competitive advantage, or does not clearly communicate its advantage, there is no reason for potential customers to purchase its products repeatedly over time. In addition, the business needs to continually seek new ways to enhance its existing advantages and to create new ones; otherwise, it runs the risk that it will lose customers to other, more innovative businesses.

There are two major sources of competitive advantage:

- leading the industry by reducing costs
- product differentiation.

Cost leadership

A business that is a **cost leader** is able to provide a product at a lower price than all of its competitors. To do this, the business needs to continually work on increasing the efficiency of its operation. This may involve negotiating with suppliers to keep input costs down or investing in new machinery that will speed up the production process, reduce wastage and lower per unit costs.

Employee wages and salaries are often a significant part of the overall cost structure of a business, so they will tend to be a key focus of measures to reduce costs; for example, pay rises may be tied to workers' **productivity**, or employees may be provided with non-cash benefits such as the use of a company car for personal purposes. Alternatively, a business may outsource or change full-time employment into part-time or casual forms to reduce overall costs.

Did you know?

It is usual for consumers to think that businesses will always compete on price. This is not actually true. If all businesses within an industry were to compete on price then there would be discounts and products would sell quickly. This would lead to a problem, as profits for every business would fall. Instead, businesses tend to differentiate what they make so that they do not have to compete on price alone.

Product differentiation

A business has achieved clear product differentiation if consumers consider its product to be different to those produced by its competitors. This might involve having a highly desired brand, better customer service, faster delivery, lower price or a higher-quality offering. A considerable advantage of product differentiation is that it may allow the business to charge a higher price than its competitors, on the grounds that customers are receiving a better quality item. For example, premium unleaded petrol sells at a higher price than standard unleaded because the premium product is supposed to provide additional benefits, including improved engine performance.

Businesses can also differentiate their product by focusing closely on one section of the overall market—perhaps on a small niche that is not fully served by other businesses. This might involve customer service that is specially geared towards the needs of a certain community, or a slightly different product offering. Bendigo Bank is using this strategy very successfully by helping local communities set up 'community banks' when the major banks no longer have branches in that area.

16.1.1 Bendigo Bank's competitive advantage lies in providing banking services to towns where other banks have closed their branches.

Blended marketing

Developing a competitive advantage does not have to involve changes to the business' product or managerial approach. With careful **marketing**, it is possible to create a new competitive advantage without undertaking potentially expensive alterations to the company's operations.

Currently, many businesses adopt blended marketing techniques to help gain a competitive advantage.

16.1.2 At this petrol station in Germany, 'V-Power®' premium unleaded petrol is being sold at a higher price than the standard product. By offering what is perceived to be a higher-quality product, the company aims to achieve a competitive advantage.

This phrase 'blended marketing' refers to the combination of online and offline approaches to create a single cohesive marketing presence. The aim is to gain the benefits of the physical, electronic and cyber marketing mediums, such as newspapers, billboards, radio, online banner advertisements, Facebook, Instagram and YouTube videos, while presenting a consistent message that reinforces consumers' impressions of the business. The business Famish'd® in Melbourne uses a combination of Twitter, Facebook and Instagram to complement its mainstream marketing efforts.

Targeted online marketing

Another marketing technique being used by some companies is targeted online marketing, using services such as Google's AdSense®. The aim is to present advertisements that align with the potential customer's interests. This gives businesses an opportunity to create a competitive advantage by keeping consumers aware of their product offering, so that their product appears to be a logical choice when the consumer is actually ready to make a purchase.

Open innovation

Open innovation is a reference to an approach to innovation that utilises both external ideas and internal ideas to foster the development of new products. Open innovation requires a business to develop its own solutions to market opportunities, as well as a capacity to scan and learn from other businesses. In doing so, internal ideas can be shaped by available technologies and the insightful application of the best ideas from outside.

Did you know?

When a person browses a website, metrics (or measurements) are being recorded. These metrics include 'reading' the device the browser is using to access the website, recording which pages the person spends time on and for how long, where they scroll to on each page, which link they click to reach a subsequent page, and which page they leave the site from. This sort of browser information helps the business determine what people want and what they engage with on their website.

Businesses can take various steps to foster innovation. Investing in research and development can help provide future sources of competitive advantage, although it can also be highly expensive. The managerial culture of a business can also play a role in promoting, or stifling, innovation; if managers are open to ideas and suggestions from employees, and if they recognise and reward innovation and increased productivity, the business is more likely to actually experience innovation than a business with a less open culture.

Innovation involves taking risks; not all apparently great ideas will translate into real advantage in a highly-competitive market. Governments can play a role in helping businesses manage the risks and returns of investing in innovation. One means to achieve this can be through making money that is spent on research and development tax-deductible. Having clear laws regarding intellectual property is also helpful as businesses are more likely to pursue a possible innovation if they will be able to gain exclusive benefits from it for a period of time.

16.1.3 In recognition of the importance of continual innovation, the federal government launched the National Innovation and Science Agenda in 2015. The aim is to encourage innovation, which will help Australian workers and companies ensure they maintain a competitive advantage in a globalised world.

Most competitive advantages tend to be fairly short lived. Once a business has adopted a particular strategy and is benefiting from it, the business's competitors will soon start copying, or even improving on, that strategy, eroding the benefits received by the first business. For example, the first cafes that offered free wi-fi to customers enjoyed a brief competitive advantage, but wi-fi has now become a common feature. To keep finding new sources of competitive advantage, a business needs to be innovative.

Innovations may emerge in any part of a business's operations. They could take the form of:

- ideas for a new product
- better ways to produce existing products
- new ways to structure staff rosters
- new processes for dealing with customer complaints.

However, it is important to distinguish between innovation and imitation—a business that simply imitates others is highly unlikely to receive competitive advantage from doing so.

Digital technologies and social media

Social media has become a critical element of many business' marketing strategies. Having a strong, appealing and up-to-date presence on Facebook, Instagram and YouTube can help a business reach potential customers who might not encounter marketing from more traditional channels. One example of an Australian business making very effective use of social media is Lorna Jane®, a sportswear company.

Domino's®, Australia's largest pizza company, launched an app in 2016 that enables customers to order via Facebook. The app incorporates the pizza-tracker technology allowing customers to follow the progress of their order in real time as it is processed. Black Milk® is an example of an Australian clothing business that uses social media exclusively as its approach to marketing. It has all of the following active social media accounts: Facebook, Instagram, Pinterest®, Twitter, YouTube, Tumblr® and Snapchat.

Digital technologies

Digital technologies involve computers, software codes and algorithms in order to perform business tasks. The use of digital technologies allows for the capability of businesses to increase. Digital technologies enable business to create

16.1.4 Social media and digital marketing have become key elements of marketing strategies in recent years.

databases that record and classify a wide range of consumer behaviour. Businesses that invest in collecting data about all aspects of their operations, including their customers, have the potential to gain new insights into how their business is performing. Having ready access to detailed, timely market data can help a business identify shifts in the market.

This knowledge can allow the business to alter its operations in ways that take advantage of the new climate—ideally, before its competitors have even realised that the environment has changed.

Sustainable production practices

Sustainable production practices are those that utilise resources in a way that does not restrict future access or use of resources. This requires business managers to assess how production is undertaken, including its impact on the broader environment and community. Sustainable production practices will need businesses to distinguish between non-renewable and renewable resources.

Non-renewable resources are those that cannot be replenished after they have been used. They include inputs such as oil, natural gas, natural minerals and fossil fuels. Such inputs can take many millennia to be created through natural processes. This effectively means that once they are utilised they cannot be replenished unless new reserves are found.

Renewable resources are those that can be replenished if they are used in a sustainable manner. Renewable resources include water, wood, agricultural products and animal life—such as fishing stocks. To utilise such resources in a sustainable manner means that they have to be used in a way that does not reduce access to those resources by future generations.

Sustainable resource use requires planning. The level of use of inputs for production needs to be matched with the availability of resources and the replenishment of any used in production. This will mean that a business will not be able to grow without any limits. Sustainable resource use occurs when the scale of business processes is balanced with the rate at which resources can be regenerated and replenished.

Other sustainable production practices

Other aspects to sustainable production practices include each of the following:

- Protecting the environment through reducing the amount of carbon emitted through the production process.
- Reducing material waste through recycling water and other inputs, as well as through efficient use of materials.
- Reducing energy waste through designing energy use systems that save electricity and draw on solar and other renewable energy sources.
- Through implementing quality standards that focus on the highest standards of inputs, sourcing from environmentally-sustainable suppliers.

Did you know?

Westpac® has been ranked as the World's Most Sustainable Bank on the Dow Jones Sustainability Index for 10 years. According to its sustainability report, Westpac provided 12-week paid internships to five refugees or people seeking asylum to help build their Australian workplace connections and experience in 2017.

Activities

Remembering and understanding

1 Rewrite the definition of 'competitive advantage'.
2 Outline what it means to be a cost leader.
3 Describe the steps that businesses might take to gain cost leadership.
4 Define what makes clear product differentiation.
5 Explain why most innovations are short lived.

Applying and analysing

6 Analyse the use of social media by Domino's Pizza. Predict whether or not this will prove to be a competitive advantage for the business.
7 Distinguish between hardware and software as forms of digital technology, providing three examples of each. Analyse whether hardware (physical forms of technology) or software (processing capacity) is more important, justifying your choice.
8 Explain whether it is possible to use non-renewable resources sustainably and, if so, how. In your answer refer to two different non-renewable resources.

Evaluating and creating

9 Evaluate Westpac's success in blending a focus on sustainability with its achievement of profits. (*Hint:* Search for the 2017 Westpac Sustainability Report.)

LS 16A

16.2 Business strategies for competitive advantage

Businesses will seek to find means by which to create a competitive advantage and then to sustain that advantage over time. There are several areas over which a business can claim a sustainable advantage including:

- in the area of productivity
- innovation based on research
- cost-cutting
- branding
- employing the best people in the industry
- through shaping the business to maximise efficiency.

Improving productivity

Productivity is how much output can be made per unit of input. Businesses often seek to increase productivity as this will mean that resources are being better utilised through the business, generating less waste and processing more efficiently. Improving productivity can require an **investment** in technology, the replacement of machines and the rationalisation of supply chains. Rationalising the supply chain involves assessing all of the suppliers, and then reducing the number of suppliers to the lowest number possible. Rationalisation at Orica® involved reducing the number of suppliers from over 2000 down to about 200.

16.2.1 Orica successfully managed to reduce its number of suppliers without affecting profitability. The business increased its efficiency through supplier rationalisation.

Orica, a producer of chemicals used by thousands of other businesses, operates in a highly-competitive market. Orica has become a market leader in Australia through its focus on productivity. In order to improve productivity, the business has had to invest in the newest technologies, reduce the number of suppliers it draws from and invest in staff training.

Skills builder

Innovating to create competitive advantage

Imagine that you run a business that operates in the smartphone market. Your competitors are Samsung and Apple. You want to create a new phone that will be different to anything else on the market.

You have to:

1. Investigate the range of currently-available smartphones offered in Australia by Apple and Samsung.
2. Do a competitor analysis by listing in a table the strengths of each of the smartphone brands. This can be a list of the features such as memory, camera resolution, security features, syncing functions, and so forth.
3. Note what aspects are unique to each brand.
4. List the features that would be in a wholly new, innovative phone, incorporating what you think is best in the current products but adding additional features that would be useful, though not actually presently available (such as an integrated security reader for home, car, work or something equally unique).
5. Justify a price for your new smartphone, and write a convincing 100-word sales pitch for the competitive advantage your innovative product has.

Apart from investment in technology and rationalisation, a business can improve the quality of labour through upskilling. By improving the skills of current employees, the business avoids the cost of hiring more staff. That is, current employees with improved skills will be more productive, saving the cost of hiring extra employees.

16.2.2 Business Awards, such as those offered by AustCham, help to recognise outstanding innovation and quality of product.

Undertaking R&D

Research and development, or 'R&D' is investment in experimentation and innovation. If successful, R&D can lead to product innovations. Innovations are new ideas that when turned into goods and services can generate profits for business. Many businesses spend money on R&D as a means of trying to gain a competitive advantage through innovation. The government can encourage business to engage in R&D by giving grants to businesses, such as Starpharma® receiving $4.2 million 2014, or by making spending on R&D tax deductible.

Adopting innovative and efficient practices

Innovation can reduce costs and assist in making business become efficient. To be efficient means to increase profitability while maintaining or reducing the amount of money spent.

DEK Technologies

DEK Technologies is a business noted for its innovative and efficient practices. The company develops innovative software and hardware solutions in the data communications and telecommunications industries. The software and hardware products are designed by its specialist engineers. An example of one of the business's products is Telegea. This product allows people to monitor the air quality and temperature in a building so that it can be efficiently heated and cooled. It also ensures that heat-producing devices in the home can be automatically cooled to optimum working temperature.

All products made by DEK meet the international standards of quality. DEK Technologies employs over 400 staff and operates in five countries: Australia, Sweden, Italy, Vietnam and the US. Based on its approach to innovation, the company was a finalist in the 2018 Australian Chamber of Commerce Business Awards in Vietnam.

Araza IT and innovation

Many innovative businesses operate in the information technology (IT) industry. Melbourne-based Araza® has developed a highly-specialised approach to assisting businesses and government. The company specialises in helping other businesses have data security when data is stored in the cloud. It also assists businesses to have secure processes related to data transfer. This is very important for banks and government. The company is also involved in security, robotics, and digital and mobility solutions. Mobility is a reference to helping staff within businesses have the kind of flexibility they need to be able to work anywhere, at any time and on any connected device. This is very attractive when doing business in different nations and time zones and also for businesses that want staff to have a work-life balance.

Araza has won numerous awards and is a business that other businesses want to work with. It is a preferred supplier to the top companies in Australia based on its reputation, ability to help organisations save money and improve their practices.

Advertising and marketing

A sustainable advantage can be derived when a businesses 'positions' itself in the mind of the consumer and the perception of its competitors. Advertising and marketing are important aspects that affect what people know and understand about a business.

Marketing involves identifying and meeting the desires of customers through delivering the products they want at the price they can afford. Marketing involves a number of processes, including:

- product design, development, branding and packaging
- pricing so that the market is attracted to make purchases
- promotion that attracts customers to become buyers
- distributing the product to the customer.

Advertising is only one aspect of promotion, but it is the most highly visible. Advertising involves the use of mass media to convey information about a business and/or its products. It also aims to convince customers to buy the products. Advertising can take place through print or electronic media. Print media includes billboards, newspapers, journals, magazines etc. Electronic media involves the use of television, radio, YouTube and other social media sites. More direct forms of marketing occur through the use of targeted text messages and email.

Black Milk Clothing

Consider the Australian business Black Milk Clothing, founded in 2009 by James Lillis. This business started off in a garage and Lillis used only his personal blog as a medium for engagement with customers.

16.2.3 Black Milk Clothing employed innovative advertising and marketing strategies to create a competitive advantage.

Lillis made leggings and encouraged his buyers to take 'selfies' and share the pictures with others. People then requested that he design leggings for them, which he did. Through the use of his blogs, and later social media, Black Milk Clothing sold only online and did not want any shop presence. Nine years later and the company has nearly 2 million social media followers (750 000 on Facebook, over 1 million on Instagram and 14 000 subscribers to its YouTube channel).

Offering a lower-cost product

A source of competitive advantage that is hard for Australian businesses to achieve is that of cost leadership. Cost leadership involves a business having the lowest costs in the market. This is done by reducing input costs and processing costs. In Australia, many inputs are purchased from other countries, which means that the cost of inputs can be very low. However, Australian labour costs are amongst the highest in the world. This means that the cost of producing in Australia can be higher than the cost of producing in other nations. As a result, many businesses close their Australian production and shift to low-cost overseas countries. Generally, Australian businesses do not compete or find sustainable advantage in reducing cost. Instead they tend to focus on high quality and this becomes the source of competitive advantage. High quality always tends to attract higher prices, meaning that Australian products are known for their overall value—a combination of both price and quality.

Brands

Shifting to overseas production was a strategy taken by Pacific Brands® in 2009 and 2010. At the time, Pacific Brands owned Bonds®, Berlei® and Sheridan®. The manufacturing was taken to China, which meant that both labour and processing costs fell. This gave the company the opportunity to sell high-quality garments at the same price as other brands with lower quality, effectively cutting the prices.

Did you know?

Businesses are increasingly sending production from Australia to other low-cost locations such as the Philippines, India, Vietnam and China. The benefit is lower wages, lower rental costs and lower taxation. This leads to cost savings, which can mean the product is made cheaply but can be sold in Australia at a high price. Outsourcing can be a profitable strategy for business.

Innovative ways of managing the workforce

In competitive markets, the quality of staff can be the biggest difference between the most successful businesses and their competitors. This is because employees can show initiative, application of skills, and a level of customer care that distinguish it from other businesses. In order to boost employee productivity, many businesses will find innovative ways to manage and also to reward the workforce. An example is seen in the ways MECCA Brands®, a private company, is managed.

MECCA Brands

Competition in the beauty industry is intensifying with more international retailers, discount retailers and online retailers wanting a share of the Australian and New Zealand market. In the midst of such intense competition, MECCA is continuing to engage their employees with the brand. Brand training is not just limited to store teams, either. By regularly hosting live webinars, MECCA is enabling all their team members to engage with international experts from around the globe. MECCA cares that their team members have goals both professionally and personally, so as part of their quarterly reviews they coach and encourage their managers to learn about their team's priorities outside of work. Personal goals may be as simple as walking to work twice a week, leaving work at 5.30 p.m.; or they can be longer-term such as running a 15-kilometre fun run, or finishing a graduate degree. It is their duty to provide a forum for team members to share what matters to them outside of work, so that the organisation can support them to achieve all of their goals.

Implementing efficient operations strategies

Another source of competitive advantage can arise from process improvement or improvements in the way in which a business makes its products or delivers its services. Process improvements make a business more efficient and cost-effective.

Junkeer

Junkeer New Era Consulting® is an award-winning Australian business that helps other businesses implement efficient operations strategies through making process improvements. This involves assessing how businesses operate. From here, Junkeer identifies where there are ineffective or inefficient processes and then helps the businesses to change how things are done so that they save money and increase productivity.

Activities

Remembering and understanding

1. What is productivity?
2. Outline the relationship between R&D and innovation.
3. Describe one innovation created by DEK Technologies and state how it is useful.
4. Define the term 'marketing'.
5. Explain the role of social media in the success of Black Milk Clothing.

Applying and analysing

6. Explain the importance of innovation in achieving a sustainable advantage.

Evaluating and creating

7. Evaluate the factors that make a business a preferred workplace by reading the 'Best Places to Work' Australia report. Use it to design a workplace that is innovative in how people are managed.

LS 16B

16.3 Increasing productivity

Importance of productivity

Productivity can be defined as the amount of output produced by each unit of input. For example, from the input of one tiler it may be possible to lay 1 square metre of tiles in an hour, which is the tiler's output.

Businesses are very interested in improving the productivity of their workforce, as higher productivity can create higher levels of production with no additional cost. If productivity rises, this means that more output can be produced in each period of time, meaning there will be more finished units available for sale without the business having to pay the costs associated with hiring additional workers. This should increase profitability.

Strategies that businesses use to improve their productivity fall into two broad categories:

- measures to improve the quality of the workforce
- measures to increase the quantity and quality of **capital** available.

Training: Improving the quality of the workforce

One of the most important methods businesses use to improve their productivity is training their staff. This can take two broad forms: pre-service training, which potential employees undertake before starting work in a particular career; or in-service training, which employees undertake while employed by a particular business.

Pre-service training

Pre-service training includes formal education and training that prepares the student for a particular career. TAFE and career-specific university courses are examples of this. To help ensure that graduates are ready to make a productive contribution once they start work, some businesses and industry groups enter into partnerships with training providers. For example, Holmesglen's programs provide students with relevant work experience and training in over 500 courses, including child care, hospitality, building and construction and education and training. These courses allow potential employers to have input into the training process.

16.3.1 It can be very difficult to measure the productivity of some workers. Measuring this primary school teacher's productivity based on the number of students who receive A grades might be easy, but may not be appropriate in all situations. Similarly, measuring the productivity of a doctor or nurse needs to involve more than just the number of patients they see in a day.

16.3.2 In order to work as an electrician in Victoria, an Electrical Licence must be obtained. This lasts for 5 years, after which in-service training must be completed in order to renew the licence.

In-service training

Ongoing training is an important part of many careers. Businesses may provide training for their entire staff, or for targeted groups or individuals. This may take place within the working day, but can also occur during the employee's own time. In either case, most businesses pay part, if not all, of the fees directly related to relevant courses. In many cases, these are short courses, running for a few hours or days, and focus on a particular area of the employee's work. An accountant might attend a seminar on changes to one aspect of company reporting, or a sales assistant might be required to participate in a short course on new sales techniques.

In some career paths, it is common for employees to identify their individual training needs. When employees identify their own training needs, the employer would only pay for this if there were clear relevance for the employee's contribution to the business, either in their present role or a likely future opportunity. Providing opportunities of this nature can contribute to productivity gains while also having the benefit of boosting the morale and job satisfaction of employees.

Under some circumstances, businesses can provide support for employees undertaking longer-term training programs such as further study for formal qualifications. This has the advantage of allowing the company to retain the employee, perhaps on a part-time basis, while they are studying, and can make it easier for the employee to afford the significant investment that can be required. In addition, by supporting employees who are engaged in further study, the business gains access to the latest theories and methods being taught by training institutions. For example, a manager working towards a Master of Business Administration (MBA) may bring new ideas and theories back to their workplace that can enhance overall productivity.

Certification

In order to work in some jobs it is necessary to have formal industry certification beyond a TAFE or university qualification. In many cases, to retain this certification employees, such as electricians, doctors and accountants, need to demonstrate that they have engaged in sufficient relevant on-going professional training. This is often called Continuing Professional Development (CPD). These formal requirements for ongoing training help ensure that these professionals are implementing current best practice rather than relying on what may have been standard 20 years ago.

Improving the capital stock

In order to create output in any business, workers need to combine their labour with some kind of capital—human-made items such as computers, machinery, tools and vehicles that support labour in the production process. Businesses can enhance productivity by improving the capital that those workers have access to. This can occur through measures to increase the quantity of capital, or the quality of it.

Economists distinguish between **capital widening** and **capital deepening**. Capital widening occurs when the capital stock increases at the same rate as the labour force. As an example, in a business where each employee is given a laptop, capital widening would occur if, when a new employee commenced, the business also acquired a new laptop. This raises the total amount of capital available to workers in the business but does not change the amount of capital per worker.

Capital deepening occurs when the capital stock increases faster than the labour force. If a bakery purchases an automatic oven for cooking pizza, the productivity of each employee increases without the business needing to hire additional workers. Economists consider that capital deepening results in greater productivity gains than capital widening, so long as each worker has access to the essential equipment they require to do their job. This is because capital deepening often takes the form of shared equipment that multiple employees have access to.

Investing in new technology

Capital deepening often takes the form of investing in new technology. This may involve upgrading existing software or purchasing entirely new items. Investing in new technology has an element of risk, as a system that works well for one business in an industry may not integrate with the existing systems in another business. Before committing to a particular investment, the business needs to evaluate new systems carefully, considering not just the cost of implementing new technology, but also any issues involved in maintaining it.

Sometimes, a business may choose to invest in internal programs to develop custom solutions for the business's

specific situation. Research and development projects can be very expensive, but bring the potential benefit of producing an item that is exactly targeted to the needs of the business.

In recent years, there have been significant changes in the ways businesses receive payments from customers, which can be considered capital deepening. For example, with tradespeople, rather than having to wait for a customer's cheque to clear or having to bear the risks of carrying large amounts of cash, they can now receive payments instantly by entering the customer's credit card details into a mobile payment system on their smartphone or tablet. Investing in mobile EFTPOS® facilities, activating PayPass® systems and establishing secure online payments can have multiple benefits; they enhance the productivity of workers, but may also make the business more attractive to potential customers by offering convenient, safe payment systems.

Just-in-time inventory management

One of the largest areas of expense for trading businesses (those that sell goods, rather than services) is the requirement to maintain a suitable level of inventory. Inventory is a business's stock of items, including resources that are going to be used in the production process and finished goods awaiting sale. If the business can reduce the amount of inventory it holds, without reducing its ability to sell to customers, this can lead to substantial cost savings. By reducing the space required to store the inventory, simplifying security, reducing concerns about items perishing, and reducing the substantial costs of having purchased, or made, items but not yet sold them, the business can make significant cost savings.

Just-in-time (JIT) inventory systems aim for the inventory to arrive from suppliers just in time for it to be used or sold. Investment in these systems can be very expensive as they require reliable communications and tracking systems so the business knows exactly where each item is.

Did you know?

There is a common misconception about JIT inventory management and the use of warehouses. The misconception is that if a business adopts a JIT system then no storage is required. However, this is not actually true, especially in the age of globalisation. In the modern world, most manufactured products such as clothing, electronic and household goods are imported. In order to utilise a JIT system the goods need to be stored in a centralised warehouse (called 'distribution centre') and then from the warehouse to the stores, stock can be ordered as required. Every supermarket chain and large retail brand with multiple outlets in Australia use a mix of warehousing and JIT to manage inventory.

16.3.3 Manual inventory management can be time consuming and is prone to human error. Shifting to JIT processes has the potential to greatly enhance the business's profitability.

Activities

Remembering and understanding

1. Why are businesses interested in improving the productivity of their workforce?
2. List two measures businesses use to improve their productivity.
3. What is pre-service training?
4. Define the term 'inventory'.

Applying and analysing

5. Examine the benefits for a business of an employee undertaking in-service training such as further study for formal qualifications.
6. Distinguish between capital widening and capital deepening.
7. Explore industries where investing in new technology is commonplace. Write these into a list and suggest why these industries tend to innovate.

Evaluating and creating

8. Compile an information report about in-service training for an employer to give new employees. Ensure the benefits of the training to both employee and employer are made clear.

16.4 Responding to improved economic conditions

New opportunities from higher profits

Most businesses aim to earn a reasonable level of profit. When conditions in the economy improve (for example, when the economy is in an upswing phase of the business cycle) this can often provide a range of new prospects for the business as sales and profits rise. These can include opportunities to:

- research new products
- expand market share
  - **mergers**
  - **takeovers** and **acquisitions**
- invest in new technology or facilities
- consolidate the business's financial position.

Researching new products

The boost to profits that accompanies an improvement in the economic environment can be used to develop the business's next range of products. Research and development is often very expensive and there is no guarantee that the business will receive a worthwhile return on its investment; it is far from certain that research projects will produce a viable potential product. Due to this high level of risk, research and development budgets may be a target for generating cost savings during unfavourable economic conditions. Once circumstances improve, the funding can be restored so the business can continue developing the ideas that may deliver a future competitive advantage.

Expanding market share

Another way in which businesses can respond to improved profitability and economic conditions is to expand their market share. They can use their increased profits to pay the costs of establishing the business in a new geographical area, with the hope that a larger market presence and greater market share would be better if managing future economic downturns.

For some businesses, the cheapest and easiest way to increase their market share is to open new branches. This might take the form of a law business opening an office in

16.4.1 Chinese consumers learning about Australian wine during the Top Wine China International Exhibition and Conference 2017 in Beijing, China

a new area, or a plumbing business setting up a franchise. It can also involve the establishment of a sales office or outlet in an entirely new country, such as Victorian wineries employing agents in China. As the demand in a particular area expands with the improving economy, a business may be able to obtain a share of the growing market without causing excessive competition with established businesses.

Wine consumption in China reached 4.45 billion litres in 2015 ...

Australian wine is ... well received by the market due to varied price points, stable quality, continuous marketing, industry star rating, etc.

Chinese middle-class consumers are the main market for higher value Australian wines. Their importance lies in their long-term, stable purchasing power, brand awareness and influence on those around them, making them the true driving force of the consumer market in the wine industry.

16.4.2 This advice on the Austrade website to Australian wine growers suggests that those looking for growth may be able to move into the Chinese market.

Mergers

Mergers allow two businesses to pool all their resources to become one business, often with an entirely new name. This can allow the new business to achieve far greater efficiency and productivity than the two separate businesses. Depending on the specific businesses involved, a merger may also allow for greater diversification of risk as the merged company has access to the markets previously served by either of the initial businesses.

The Australian Competition and Consumer Act states that mergers that will, or are likely to, substantially reduce the level of competition in a market are prohibited. To give an extreme example, this means that the Coles and Woolworths supermarket chains would not be permitted to merge. However, a supermarket chain operating mainly in Victoria and a supermarket chain operating mainly in New South Wales would usually be allowed to merge.

16.4.3 Mergers do not always successfully increase productivity. The merger of German car manufacturer Daimler-Benz with US Chrysler® in 1998 to form DaimlerChrysler was dissolved 9 years later.

BHP Billiton, one of the world's largest mining companies, was formed in 2001 as a result of the merger of BHP, an Australian-based company, and Billiton, an Anglo-Dutch company. It has recently changed its name back to BHP to reflect the Australian base of its operations. A more recent merger occurred in 2016, between the Starwood® and Marriott International hotel groups, forming the world's largest hotel chain.

Takeovers and acquisitions

A corporate takeover occurs when one business buys another. For example, in 2017 Disney Studios purchased 21st Century Fox for $60 billion. When a takeover occurs, the newly acquired company may still operate as an independent division of the parent, or it may be integrated into the parent company.

Sometimes, a takeover is referred to as an acquisition if the target is willing to be purchased by the other business. The term 'takeover' may therefore imply that the target is resisting the purchase, but it is important to note that this is not necessarily the case. When one business buys another, the parent company becomes the owner of the target's assets and responsible for any debts the target may have.

In 2010, the US business Kraft® (which already owned Vegemite®, among many other brands) was successful in its takeover of Cadbury®, a British business. However, not all ventures of this nature are successful. In 2005, News Corp acquired MySpace® for $580 million. Initially, this worked well for News Corp, but the spectacular growth of Facebook led to the decline of MySpace, which was sold in 2011 for just $35 million.

Mergers, acquisitions and takeovers create a larger business that may have greater market share in a particular area, or may reach into more markets than previously. While mergers may happen at any stage in the business cycle, acquisitions and takeovers are more likely to occur when the buyer has access to plenty of finance, which will normally be during an upswing.

Investing in new technology or facilities

As economic conditions improve, many businesses choose to use their additional earnings to help set the business up for the future by investing in new technology or facilities. This may include building new production facilities or upgrading existing systems. For example, in late 2014, Tesla® responded to rapid increases in demand by temporarily halting production at its plant in California in order to increase the factory's capacity. During the 2 week shutdown, Tesla employees put 65 000 hours of work into the upgrades; this demonstrates the scale of the operation and the degree of confidence felt by the company in order to engage in an investment of this magnitude.

16.4.4 Aerial view of Intel's factory in Qiryat Gat, Israel

In 2014, computer hardware company Intel announced that it would spend $6 billion upgrading its manufacturing facility in Israel. A range of incentives offered by the Israeli government facilitated this project. This highlights the key role that government policy can play in businesses' investment decisions. When very large sums of money are at stake, even small incentives from a government may encourage a business to invest in one country rather than another.

Consolidating the business's financial position

Not all businesses will respond to improved economic conditions by engaging in spectacular mergers, takeovers or investment projects. In some cases, improved conditions provide a welcome opportunity to clear debts acquired during more difficult times, or to engage in restructuring to set the context for future growth. This could include selling off entire divisions that are no longer seen as necessary to the company's future, or changing the managerial structure to help the business become more flexible and responsive to changing conditions.

While businesses will respond to improving economic conditions in many different ways, increased cash flow is usually seen as presenting new opportunities. A business that simply accepts the higher profits, paying them to owners or shareholders, may find in the near future that it is being out-competed by more flexible, proactive rivals.

Activities

Remembering and understanding

1 When conditions in the economy improve, what opportunities might be open to businesses?
2 What is the cheapest and easiest way for some businesses to increase their market share?
3 Which company did Disney Studios purchase in 2017?
4 State how the Israeli government facilitated Intel's upgrade to its Israeli manufacturing facility.

Applying and analysing

5 Research new products to identify an example of a successful product that was developed by a company.
6 What are the key differences between a merger and an acquisition?
7 Investigate the merger of BHP and Billiton in 2001 and explain why it might have occurred.

Evaluating and creating

8 Evaluate the positive and negative consequences of a merger between the two supermarket giants in Australia—Coles and Woolworths. Justify your answer.

LS 16C

The changing workplace

17

Over the past 50 years the workplace in Australia and around the world has changed remarkably. The nature and pace of technological change, globalisation, legal and social changes have all impacted on the workplace. The two main participants, employers and employees, have had to adapt to the changes that affect the workplace. Historical practices that gave a huge amount of power to managers and business owners while workers were effectively powerless have been replaced with more ethical practices. Over time there has been legal change, which has improved the rights of employees through imposing legal duties on employers.

OVERVIEW QUESTIONS

- **17A** What are the different roles and responsibilities of employers and employees?
- **17B** What is the role of government in shaping the workplace?
- **17C** How can employee initiative be encouraged and rewarded?
- **17D** In the workplace, who is responsible for productivity improvements and how?

LS Before you begin

17.0.1 Hard hats, high visibility workwear and safety boots are some of the aspects of physical safety required for this industrial worker outside an ash treatment facility in Queensland. There are now many policies in place to protect employees in their workplaces.

GLOSSARY

capital-labour substitution a process by which human resources are replaced by technology

company tax a government charge on company profits

direct discrimination occurs when a person is treated unfairly because of a personal feature or characteristic, such as cultural background or gender

economies of scale the reduction of per unit costs of production that occurs when the volume or scale of production rises

extrinsic motivation occurs when people are motivated by external factors such as monetary rewards, recognition or a promotion

income tax the tax imposed on a person's income

indirect discrimination occurs when a practice or procedure unfairly affects one group of people because of a personal feature or characteristic

intrapreneur an employee who has the talent to innovate and develop ideas in their own workplace

intrinsic motivation when people are motivated by their inner beliefs, values and personal standards

outsourcing a process by which business activities are done by external providers, instead of within the business

progressive tax an approach to tax where people on higher incomes pay higher rates of tax

redundancy occurs when the skills of an employee are no longer in demand by employers (increasingly due to advances in technology)

remuneration the amount of money given to an employee in exchange for their labour

stakeholders parties with a vested interest in a business or workplace and who are affected by the business or workplace

steward a person who acts in the best interest of others, such as the person they are employed by

superannuation a government-imposed payment made on behalf of an employee into a retirement fund accessible when the employee reaches retirement age

17.1 Roles and responsibilities

Workplace stakeholders

Internal stakeholders
(the business has a high degree of influence over these parties)

- Owners
- Manager and other employees ('workers')

External stakeholders
(the business has little or no control over these parties)

- Institutions such as unions / employer associations
- Governments: State and Commonwealth

17.1.1 Key internal and external participants or stakeholders in the workplace

The employers and employees within a workplace have particular roles and responsibilities. Both parties should seek to maximise the success of the workplace. A successful workplace is productive and efficient. In a business, a successful workplace creates profitability, which can be shared between the owners and the employees.

There are different participants or **stakeholders** in workplaces who shape and guide how the work is done. Some of the main stakeholders include employers, employees, industrial organisations and various governments. The employees are sometimes called the workforce within a business. The employers include managers and owners. Industrial organisations include unions whose role is to protect the interests of employees. Unions assist employees in negotiating with government about wages and working conditions. Other industrial organisations support employers. The Business Council of Australia (BCA), and Australian Chamber of Commerce and Industry (ACCI) are examples of such bodies. Their role is to help employers boost their productivity, flexibility and efficiency through research, training and development and lobbying government.

Role of employees

A workplace cannot operate without people to do work. The employees, or the workforce, of a business will perform the necessary tasks so that the business can function effectively. Employees have a range of roles within the workplace, depending on their level of responsibility. Managers and workers have different roles and accordingly have different types of responsibilities. A summary of the difference in their roles is found in Figure 17.1.2.

The main difference between managers as employees (who are also employers) and other lower level employees in the workplace is that of responsibility in the achievement of the goals of business. The managers must act on behalf of the owners.

Roles of different employees in the workplace

Managers

Look after the business in the interest of the owners

Have responsibility that arises from their role

Have responsibility for managing the employees, budgets, sales and operations goals

Set goals for employees, organise training and check their performance

May need to discipline employees, and even suspend or sack them

Workers

Must faithfully do the work assigned to them by managers

Should not act in a manner that disrupts managers

Should report breaches of policies to managers

Need to be accountable to managers, and should be treated with respect by managers

17.1.2 Key differences between managers and workers as employees with different roles within the workplace

This means that managers (as employers) will be accountable to owners and will have to manage other staff to ensure business goals are met.

The main role of employees is to carry out work faithfully for the workplace. This role requires the application of knowledge and skills to do the work assigned. In exchange for working, employees are paid a salary or wages. Income rewards mostly reflect the value of the work performed by the employee.

Employee responsibilities

All employees have responsibilities that they must fulfil. The three main responsibilities include:

- to keep the confidence of the business
- to work with due diligence and care
- to present the business favourably to others.

Keeping business confidence

All workplaces have their own practices and procedures. The way a business organises work is generally a private matter for the business. In doing their work, employees may be exposed to things they should keep confidential. Certainly, employees should not reveal the confidential plans of the business to anybody, including competitors. Employees are in a privileged position to know about the inner workings of the firm and also about its goals and plans. It is their responsibility to protect their workplace from others.

To perform with due diligence

Employees are paid to do their work. They should be careful in performing their work duties and should honestly apply their efforts for the benefit of the workplace. This means doing their job to the best of their ability and assisting others in the workplace as necessary to do their jobs well. This is best done when employees demonstrate good teamwork skills and can work independently as well as part of the wider group.

If an employee is asked to do a job, and the request is reasonable, then employees must do it. If however an employee is asked to do something unreasonable or unlawful then they can refuse.

To present the business favourably

Every employee will be exposed at times to criticism of the business coming from outsiders, such as customers. It is a very important responsibility for employees to protect the reputation of their workplace, giving a favourable impression through their conduct as employees. This extends to how employees speak about their workplace. Employees should respect the workplace and their employers. Employees should not disparage their workplace or tell others what an awful place it is to work. This makes others lose confidence and can be very damaging to the business. It is better if employees have issues that they talk to managers within the business and seek ways to improve how things are done.

Role of employers

Employers are those employees with additional responsibility over hiring, managing and maintaining staff. Employers usually have managerial roles and this means that they have certain distinct duties that arise from the work they do. The three main roles of employers are:

- to manage all aspects of staffing
- to ensure all legislation is followed
- to achieve the business objectives.

To manage all aspects of staffing

Staffing involves a number of activities including hiring, motivating, maintaining and even firing staff if required. These roles are extremely important to the smooth functioning of business. Attracting the right staff to appropriate positions that match their knowledge and skills is a central aspect to the role of employers. In order to help employees to be efficient, employers will need to implement strategies to motivate employees to work hard. Well-considered training and development programs can be beneficial to boosting the productivity and efficiency of staff.

Succession planning involves employers being able to anticipate what would happen if key employees leave, and shaping the organisation so that if this occurs, another employee has been trained into the role left vacant. This requires employers to anticipate future changes and to take actions that minimise the risk of disruption and discontinuity in the workplace.

To ensure all legislation is followed

All workplaces must follow the relevant workplace law. Legislation covers all aspects of work, and a failure to comply with the law can result in serious penalties for the business. Some workplace laws, and the resulting effects on the workplace are dealt with in Units 17.2 and 17.3.

Legislation changes from time to time, and any changes will need to understood and accommodated by the business. The most important workplace laws such as the *Fair Work Act 2009*, occupational health and safety laws and anti-discrimination laws must be followed by the business. It is the role of employers to ensure these laws are followed.

To achieve the business objectives

Employers are expected to act in the interests of the business and to focus on the overall achievement of business goals. This requires that employers understand what the purpose of the business is and to find methods and strategies of assisting in the achievement of the objectives.

Did you know?

Managers who look after the hiring, motivation and management of other employees, must take on the role of a **steward**. A steward looks after a business as if it were their own, putting the interests of the owner ahead of their personal self-interest. The stewardship function of managers is central to their role as employers in business.

Employer responsibilities

All employers have responsibilities that they must fulfil. The three main responsibilities include:

- to ensure the workplace complies with workplace laws
- to pay the agreed **remuneration**
- to listen to employee concerns.

In addition to these, there are specific legal responsibilities which are discussed in Unit 17.2.

To ensure the workplace complies with workplace laws

There is a duty on employers to follow all workplace laws. This includes abiding by fair work laws, workplace safety laws and anti discrimination laws. These laws provide the framework for the employment relationship and keep employees safe in the workplace. The government drafts workplace laws in order to make the workplace function in an orderly manner. It also does so in order to help employees know their rights and entitlements.

To pay the agreed remuneration

Remuneration means the monetary and non-monetary rewards given to employees for the work they perform. Remuneration usually takes the form of wages or salary and a range of different forms of paid leave such as holiday leave, sick leave and study leave.

Apart from the agreed pay, employers should provide equal pay for equal work. This means that all people who do the same work are paid the same rate of pay.

To listen to employee concerns

Employees will express concerns from time to time. These concerns could be about the working conditions, the need for training arising as a result of new technology being purchased or the threat to jobs coming from a new competitor. On top of it simply being the right thing to do, employees who feel listened to, want to do their best, because they feel valued and important.

17.1.3 Virgin® makes a habit of listening to its employees, valuing their opinions and ideas, to have healthy debates and continuously innovate. Employees feel important and engage with the organisation.

Activities

Remembering and understanding

1. Distinguish between the terms 'role' and 'responsibilities'.
2. State the difference between employers and employees.
3. List three responsibilities of employees.
4. Identify three responsibilities of employers.
5. Explain the importance of workplace laws.

Applying and analysing

6. Analyse how employees can make the difference between businesses that compete in the same market. (*Hint:* begin this question by thinking about your experience of staff working in two similar businesses.)

Evaluating and creating

7. Evaluate the importance of employer attitudes to employees. In doing this consider how respect for employees and a capacity to listen affect the experience and trust experienced by employees. Present your ideas in a poster that demonstrates the effect of employer attitudes on employees (both positive and negative).

LS 17A

17.2 Legal responsibilities of employers

Responsibilities are sometimes called duties or obligations. Employer responsibilities often arise under the law. Workplace laws must be followed by employers otherwise they face penalties. There are many areas over which the law imposes obligations on businesses. Some of the main laws are shown below in the 'Spotlight'.

Spotlight

Main workplace laws shaping businesses in Australia

- *Fair Work Act 2009* (Cth)
- *Safe Work Australia Act 2008* (Cth)
- *Superannuation Guarantee Charge Act 1992* (Cth)
- *Work Health and Safety Act 2011* (Cth)
- *Workplace Gender Equality Act 2012* (Cth)
- Other workplace safety, worker's compensation, anti-discrimination and equal opportunity laws, both Commonwealth and State-based.

Compliance costs

In obeying the workplace laws, employers are abiding by their obligations. Whenever businesses follow the laws that shape workplaces, they incur costs. In following the workplace health and safety laws, the anti discrimination laws and the range of taxation laws businesses face significant costs and complexity. It is for this reason that businesses will often do exactly as required and no more than the minimum imposed by the law.

Superannuation

As employees work, in addition to their income, a separate amount of money is paid into their **superannuation** fund. Superannuation is a compulsory payment made by the workplace on behalf of its employees. The purpose of superannuation is to assist people to save for their retirement later in life. In the 1980s and early 1990s the Commonwealth government realised that Australia's birth rate was falling and that people were living longer. These two factors meant that over time the government would not have enough money to fund everyone's retirement. It therefore passed the *Superannuation Guarantee Charge Act 1992*, which forces workplaces to pay 9.5 per cent on top of the employee's income. This is available for employees who earn over $450 per month.

Some workplaces offer a superannuation rate for employees, which is well above the 9.5 per cent that must be paid under the law. In order to attract candidates sometimes a superannuation of 17 per cent is offered.

Paid Parental Leave (PPL)

Paid parental leave (PPL) is a scheme that requires employers to pay employees who take leave when they have a baby. Parental leave applies to both women and men. According to the Department of Human Services and Fair Work Australia, people can be paid 18 weeks of pay as they take parental leave. The amount of pay will be at the minimum wage rate. A summary of the PPL entitlement can be read in Figure 17.2.1.

Paid parental leave

Employees can get Parental Leave Pay from the Australian Government and paid parental leave from their employer.

Employees who get paid parental leave are still entitled to unpaid parental leave.

Australian Government Paid Parental Leave Scheme

Eligible employees who are the primary carer of a newborn or adopted child get up to 18 weeks' leave paid at the national minimum wage.

These payments are made to the employer first, who then pays them to the employee. These payments can be paid before, after or at the same time as other entitlements such as annual leave and long service leave.

Parental Leave Pay from the Australian Government doesn't change paid parental leave from an employer – an employee can be paid both.

17.2.1 A summary of the entitlement of Paid Parental Leave

There are several rules that apply to employees seeking to get access to the PPL scheme. For example, there is an income test which means only people on a salary of $150 000 or less are eligible. Since a minority of people earn a higher salary, some workplaces choose to give their employees paid parental leave even though the person would not qualify for any government payment. A workplace can offer an employee payments, even if the person does qualify, and is paid by the government.

Apart from the income rule, there is also a rule that the person must have worked for 10 of the 13 months prior to the period of leave.

Clearly, the paid parental scheme will cost the government money. When workplaces choose to pay their own parental leave then this too adds cost to business. Despite the costs, the scheme is hugely beneficial to young families and particularly to women, who prior to the scheme would have to take leave without pay. At a time when there are huge personal changes, the loss of income made the transition even harder.

Income tax

Australia has a progressive **income tax** rate system. The **progressive tax** system means that the highest income earners pay more and the lowest income earners pay least. Income tax is a tax levied by the Commonwealth government on the money people earn from their work.

Income tax is the tax that is imposed on a person's income. If a person earns more than $18 200 annually then tax must be paid. As income rises, the amount paid rises. This can be seen in Figure 17.2.2. The income tax is usually paid by the employing workplace on behalf of the employee. This means that the person will be paid their income after the tax has been given to the government. The money received by an employee after the tax has been paid is called net income. The total amount before tax is paid is called gross income. The formula applied is:

Net income = gross income – income tax

Example

If a person earns $50 000 per year this is called gross income. The tax payable, using the data in Figure 17.2.2, is calculated as follows: $3572 plus 32.5 cents for each dollar above $37 000.

$3572 + ($50 000 – $37 001) × 32.5 cents

= $3572 + ($12 999 × 0.325) = $3572 + $4224.68 = $7796.68

The net income = gross income – income tax

= $50 000 – $7796.68

= $42 203.32 (net income)

Income tax is the largest source of revenue for the Commonwealth government. The biggest expenditure of the government each year is on social welfare while the smallest expenditure is recreation and culture.

17.2.2 Personal income tax rates 2017–18

Taxable income	Tax on this income
0 – $18 200	Nil
$18 201 – $37 000	19c for each $1 over $18 200
$37 001 – $87 000	$3572 plus 32.5c for each $1 over $37 000
$87 001 – $180 000	$19 822 plus 37c for each $1 over $87 000
$180 001 and over	$54 232 plus 45c for each $1 over $180 000

Company tax

Company tax is the tax paid by companies on the profit they earn each year. Company tax is a significant part of government income. The company tax rate for most companies in Australia is 27.5 cents per dollar of profit. This tax rate applies to companies that earn a profit of $25 million or less. Very few companies generate profit higher than this amount. If a company earns profit greater than $25 million the tax rate will be 30 cents in the dollar.

Some global companies have been exposed and criticised for moving profits offshore to avoid paying taxes in Australia. In addition, some Australian companies, such as Qantas, have earned billions of dollars but pay no company tax. From 2009–18 Qantas earned over $106.4 billion in income but the flying kangaroo avoided paying any company tax.

Spotlight

Company tax rates 2017–18

From the 2017–18 income year, companies that are base rate entities must apply the lower 27.5% company tax rate.

A base rate entity is a company that:

- has an aggregated turnover less than the turnover threshold—which is $25 million for the 2017–18 income year
- is carrying on a business.

Goods and Services Tax (GST)

The income tax rate is called progressive, meaning that the more people earn the more they pay. The goods and services tax (GST) is a fixed tax of 10 per cent of most goods sold and services supplied. For example, a plumber charges $300 for some work performed. The GST is an additional $30. This will mean that the total cost of the service plus GST is $330. All consumers pay the $30 GST regardless of their income. In this sense, GST is a regressive tax (which means it takes a larger percentage of income from low-income earners than from high-income earners).

17.2.3 The goods and services tax (GST) affects people on low income more than it affects people on high incomes due to the impact on their overall cost of living.

Spotlight

Businesses and GST

If you run a business or other enterprise and have a GST turnover of $75 000 or more ($150 000 or more for non-profit organisations), or you provide taxi travel (including ride-sourcing), you need to:

- register for GST
- include GST in the price of your taxable sales
- issue tax invoices for your taxable sales
- obtain tax invoices for your business purchases
- claim GST credits for GST included in the price of your business purchases
- put aside the GST you collected so you can pay it to the Australian Taxation Office (ATO) when due
- lodge activity statements or annual returns to report your sales and purchases.

Did you know?

Corporate social responsibility or (CSR) occurs when businesses are prepared to go beyond the minimum standards imposed by the law. This can be seen when they pay more than the minimum wages, get involved in environmental protection programs, engage in safety and training programs that identify and mitigate risk in advance of any safety problems arising and actively encouraging workplace participation for those who have been discriminated against or marginalised in previous times.

Activities

Remembering and understanding

1 Provide two alternative names for employer responsibilities.
2 How are business costs related to their need to comply with the law?
3 What is superannuation?
4 Detail why paid parental leave (PPL) is an important employer responsibility.

Applying and analysing

5 Examine the effect of a progressive tax system.
6 Describe the importance of companies paying company tax.

Evaluating and creating

7 Evaluate the effect of an increase in the GST on people with low incomes. Compose an argument that would be made by those on low incomes to oppose any increase to the GST.

17.3 Government protection for employees

The impact of the workplace on employees can be significant. Most employees spend a significant amount of their time in the workplace. Workplaces need to be physically safe and also places where employees are not bullied or harassed. A need for workplace safety has led to the development of health and safety laws.

Social changes over time have increased the diversity of the workplace and the law has had to pass protections in the form of a range of anti-discrimination laws. All states and territories have their own workplace safety laws and anti-discrimination laws. In addition, the Commonwealth passed the Work Health and Safety Act in 2011 that has been mirrored by most of the other States (Victoria is an exception).

Occupational Health and Safety (OH&S)

A workplace injury can be devastating for the affected employee and their family. Taking time off work to recover can make an employee feel isolated, lose income and can also lead to an erosion of work skills, especially if the time required to recuperate is lengthy. Occupational Health and Safety (OH&S) laws recognise that employees need an income while recovering from injury. The laws also impose duties on employers to provide a safe workplace where health and safety risks are identified and addressed proactively.

Did you know?

The current approach to workplace injury management is to get an employee back to work as quickly as possible. This approach to rehabilitation has been proven to assist employees in their recovery, even if they are only doing light duties and working a few hours per day. The old approach was to keep people away from work until they had fully recovered, often making the injured employee feel isolated and depressed.

17.3.1 Hard hats, harnesses and safety boots are some of the aspects of physical safety required on construction sites.

Spotlight

Victoria's Workplace Safety laws

- *Accident Compensation (Occupational Health and Safety) Act 1996*
- *Occupational Health and Safety Act 2004*
- *Workers Compensation Act 1958*
- *Workplace Injury Rehabilitation and Compensation Act 2013*

There are a range of laws that protect employees in Victoria. It can be seen that workplace safety laws have been in existence for over 60 years. Over time, the OH&S laws have progressed from a focus on physical safety to include psychological safety. This recognises that employees need to be protected from harassment, bullying and other forms of threats to personal safety.

Anti-discrimination laws

As the there have been social changes in Australia, the law has had to adapt in order to ensure that people are protected from discrimination in the workplace. Social factors such as the increased feminisation of the workplace, increased cultural diversity and an aging population have all contributed to diverse and interesting workplaces in Australia. However, diversity has also led to different forms of discrimination arising—both direct and indirect. The government protections in the area of anti-discrimination are shown in Figure 17.3.2. A close look at the title of the laws reveals how social changes affected the passing of laws. Over time, protections specific to gender, race, disability and age have been passed.

Anti-discrimination laws passed since 1975, providing improved protection over time

Commonwealth

- *Racial Discrimination Act 1975*
- *Sex Discrimination Act 1984*
- *Disability Discrimination Act 1992*
- *Age Discrimination Act 2004*
- *Workplace Gender Equality Act 2012*

Victoria

- *Racial and Religious Tolerance Act 2001* (Vic)
- *Charter of Human Rights and Responsibilities Act 2006* (Vic)
- *Equal Opportunity Act 2010* (Vic)

17.3.2 The development of anti-discrimination laws can be seen in the progression of laws passed since 1975.

Direct and indirect discrimination

Anti-discrimination laws aim to put a stop to both direct and indirect discrimination. **Direct discrimination** occurs when a person is treated unfairly because of a personal feature or characteristic which is protected by the law—such as cultural background or gender. **Indirect discrimination** occurs when a practice or procedure unfairly affects one group of people because of a personal feature or characteristic. An example of indirect discrimination is seen when a workplace is only accessible by stairs meaning that a person in a wheelchair cannot gain access to that workplace.

LS 17B

Equal Opportunity Act 2010 (Vic)

One way of addressing the issue of prejudice and discrimination is through the passing of equal opportunity laws—in Victoria, this is the *Equal Opportunity Act 2010*. According to the Victorian Equal Opportunities and Human Rights Commission:

> The objectives of the *Equal Opportunity Act 2010* are to encourage the identification and elimination of discrimination, sexual harassment and victimisation and their causes, and to promote and facilitate the progressive realisation of equality. It is... against the law under the *Equal Opportunity Act 2010* to discriminate against a person on the personal characteristics listed in the *Equal Opportunity Act 1995*. It is also against the law to sexually harass someone or to victimise them for speaking up about their rights, making a complaint, helping someone else make a complaint or refusing to do something that would be contrary to the Equal Opportunity Act.

Activities

Remembering and understanding

1. List two government protections for employees.
2. What is Occupational Health and Safety (OH&S)?
3. Name the main laws that protect the safety of workers, and help rehabilitate workers after injury in the workplace.
4. Define the term 'discrimination'.

Applying and analysing

5. Describe the difference between direct and indirect discrimination and provide an example of each.
6. Why are laws such as the *Equal Opportunity Act 2010* important to protection of employees in the workplace?
7. Investigate the role of the Victorian Equal Opportunities and Human Rights Commission.

Evaluating and creating

8. Evaluate the method by which complaints to the Victorian Equal Opportunities and Human Rights Commission are resolved. Create a poster detailing the process that is followed when resolving complaints.

17.4 Initiative and intrapreneurs

Within the workplace there are employees with different skills, aptitudes and approaches to work. Employees are most valued when they demonstrate that they are motivated to do their job as well as they can. Employees are motivated by different things. Some workers simply see work as a means to getting paid. Others view work as an opportunity to bring their skills and effort to the workplace to make a difference. The way in which employees are motivated will affect their attitude to their work.

Motivation can be either intrinsic or extrinsic. **Intrinsic motivation** can be seen when people are motivated by their inner beliefs, values and personal standards. Such people will do the best work they can at all times because doing their best makes them feel like they have respected their workplace and their work. **Extrinsic motivation** occurs when people are motivated by external factors such as monetary rewards, recognition or a promotion. Most people are predominantly motivated by either intrinsic or extrinsic factors.

17.4.1 The difference between intrinsic and extrinsic motivation

Intrinsic motivation	Extrinsic motivation
• People are motivated by their own internal standards. • They take pride in their work because doing something well matters to them. • They do not need to be directed by others. • They can set their own goals and work towards the realisation of the goals.	• People are motivated by factors outside of themselves. • They seek public recognition or affirmation. • They want to win prizes or avoid something adverse, like getting 'in trouble'. • They respond very well to punishment and reward models.

Initiative

Employees who do their work without needing to be told, who solve workplace problems without leaving an issue unattended, who make decisions in the interest of the business are demonstrating initiative. Employers highly value those who show initiative as workplaces are always better when employees are self-motivated to solve problems, make improvements or address issues as they arise.

Did you know?

Many people will say that a significant motivator or attractor to a workplace is the money that is paid. If a person is offered $300 000 to work then it may be tempting, if other workplaces offer the person $95 000. However, what if the work was on an oilrig, in the middle of the ocean, far away from family and loved ones? Work on an oilrig can be risky and lonely. Many people would not want work in the middle of sea, far away from home, with poor communications and in isolation. Money can be motivator, but only up to point. People will balance the income against the level of risk and working conditions.

Intrapreneurs

Workplace managers and employers have recognised that there are some employees who have unusual capabilities which can be utilised and rewarded by the workplace. **Intrapreneurs** are people who have the talent to initiate and develop ideas in the workplace. That is, they can innovate and help the business to create new products or work in ways that are novel.

Intrapreneurs are employees who find solutions to problems, and take advantage of opportunities to develop their workplace. In order to do so they need managers who do not feel threatened by their employees. Intrapreneurs also need to have structures that support their ideas.

Intrapreneurs are of great value to workplaces. They bring new ideas, sense and solve problems as they arise and are prepared to respond to circumstances in an adaptive and creative way. If managers encourage staff who are intrapreneurs then the whole workplace can benefit and improve. Indeed, visionary managers will employ people who demonstrate initiative and who are accountable.

These people are more likely to solve problems while also following the ideals of the organisation. Working within the limits, while also pushing into new areas or finding novel solutions to issues is always the circumstance faced by intrapreneurs. Examples of intrapreneurs include Paul Buchheit and Art Fry. Buchheit helped to develop Gmail® and also Google AdSense when he worked at Google. Art Fry helped 3M develop the Post-It® note. These people brought a visionary idea to a problem and helped the business they worked for become extremely successful.

17.4.2 Appreciation and recognition of employees can significantly boost workplace productivity and contribute to the creation of a positive work culture.

The difference between intrapreneurs and entrepreneurs

Intrapreneurs and entrepreneurs share many common characteristics. They both have the insight to solve business problems, are innovative, think in ways that see connections others may not, and create products that are valuable to markets. However, despite common traits, they are also different.

Entrepreneurs run businesses and take financial risks that intrapreneurs do not. Intrapreneurs are employees in the workplace who are given the opportunity to think and act freely. They display unusual insight and high levels of initiative. However they do not face personal risk. They therefore can develop ideas and innovations more easily. They do so being conscious of cost and resources and therefore assist entrepreneurs to achieve profits from the development of innovative products.

Activities

Remembering and understanding

1. What is the difference between intrinsic and extrinsic motivation?
2. Outline the meaning of the term 'initiative'.
3. Describe what an intrapreneur does.
4. How is an intrapreneur different to an entrepreneur?

Applying and analysing

5. Explain whether people are solely motivated by high income or monetary returns.

Evaluating and creating

6. Evaluate the complementary roles of entrepreneurs and intrapreneurs, detailing how a business with both types of people is likely to be very successful and innovative.

LS 17C

17.5 Productivity gains and trade-offs

All workplaces need to adapt to a changing world. Globalisation has brought increased competition and the changes to technology have accelerated the pace of change. The development of social media has meant ideas are communicated more quickly to larger numbers of people and this has also increased the level of social awareness in communities.

In this environment business workplaces try to maintain or increase their profitability. This can be done through becoming more productive. Productivity is defined as the amount that can be produced from a given volume of inputs. Two important inputs into the workplace are:

- labour or staff inputs, including their overall level of skills and education
- the amount, and type, of technology used, and what it does. This is important for its impact on staff within a workplace.

These days businesses seek to maximise productivity in the way staff and technology are utilised.

Staffing

Staff is a reference to the personnel or human resources used by the business. The group of people who work in the business are sometimes called the workforce. The staff provide the labour—or human skills and effort—required by the workplace.

There are different approaches to maximising the output of staff within the workplace. These approaches include utilising more staff, upskilling current staff and utilising a mix of technology and staff in the search for the highest productivity possible.

Utilising more staff

In trying to produce more goods and services, workplaces may adapt to increased demand by hiring more people. Employees can be a useful source of productivity, particularly if a larger workforce can achieve **economies of scale**. Economies of scale is achieved when the cost of each unit produced is lower due to the increased scale of production.

Imagine a restaurant where there is a single chef and four wait-staff. The restaurant can cater for thirty meals per night. Suppose that the restaurant is favourably reviewed and experiences an increase in demand. There is clearly a limit to how much one chef and four waiters can effectively support with quality meals. The business will have to hire one or two additional chefs and up to three or four more waiters if it is to meet the increased workload required to satisfy the market. The restaurant can now cater 110 meals per night.

17.5.1 Economies of scale can be achieved when resources, including human resources, are used productively through specialisation.

The productivity has increased from thirty meals per chef to over thirty-six meals per chef.

Through utilising more staff this business has been able to allow the chefs to specialise and increase their overall productivity.

Upskilling current staff

All alternative to adding staff and increasing the size of the workforce, is to make present staff more capable. This can be achieved through a process known as upskilling. Upskilling involves training staff to improve their competence, skills and flexibility to solve problems as they arise. Upskilling requires that a business invest in training and development programs. If staff skills can be improved then each staff member can be trained to do a wider variety of tasks. This will mean that fewer staff are required when increasing productivity.

Despite the investment in training and development being a cost, the business actually saves money in the long run because it has a more skilled workforce. If, for example, David who is a waiter in a cafe, is paid to attend a barista course, then David can add more value to the cafe through waiting and also making coffees if required. If all staff are trained to all the jobs in a cafe, from making coffee, to waiting, taking payments, washing and cleaning, then there will be a need for fewer staff.

In some manufacturing companies in Australia, upskilling has meant that instead of using three workers every 24 hours on 8-hour shifts, they can use two workers every 24 hours on 12-hour shifts. This saves the business money, increases the pay of employees and rewards them for the increased skill they use on the longer shifts.

Skills builder

Staffing: Trade-offs

Productivity is defined as the measure of how much a business produces for each unit of input. Over time, businesses try to increase their productivity. A business can employ more staff or train existing staff better through upskilling. Look at the information provided in the table below.

Number of employees (without training)	Amount of product produced (tonnes)	Number of employees (with training—upskilled)	Amount of product produced (tonnes)
10	1000	8	800
12	1200	10	1100
14	1410	12	1400
16	1660	14	1800
18	1900	16	2400

Use the data provided to calculate each of the following:

1. What is the amount produced per employee when there is no training?
2. What is the amount produced per employee when there is training (upskilled)?
3. Decide whether it is better to employ more people or use fewer people but train them to improve their skills. Explain your answer.
4. If businesses only chose to train and upskill people, less people would need to be employed. Discuss the trade-off between employing more people or upskilling employees.

Technology

Technology is also called 'capital' and is a reference to the machinery used by business when producing goods and services. Technological advances have changed the way work is performed and has also meant the automation of routine, unskilled work. Modern day machines can work faster than people, and can do work with greater accuracy (fewer errors), more consistent quality and less downtime. It is because of their greater productive capacity that businesses will invest in technology.

Investing in technology requires that the employees adjust to accommodate a changing workplace. Employees will need to adapt to using machinery effectively. New work skills may need to be acquired through training. Even the actual layout of a workplace or the factory can be significantly affected by the use of new machinery and other technologies.

The development of computer aided design (CAD) software, computer integrated manufacture (CIM) and 3-D printers are all impacting on workplaces and the nature of work performed by the employees.

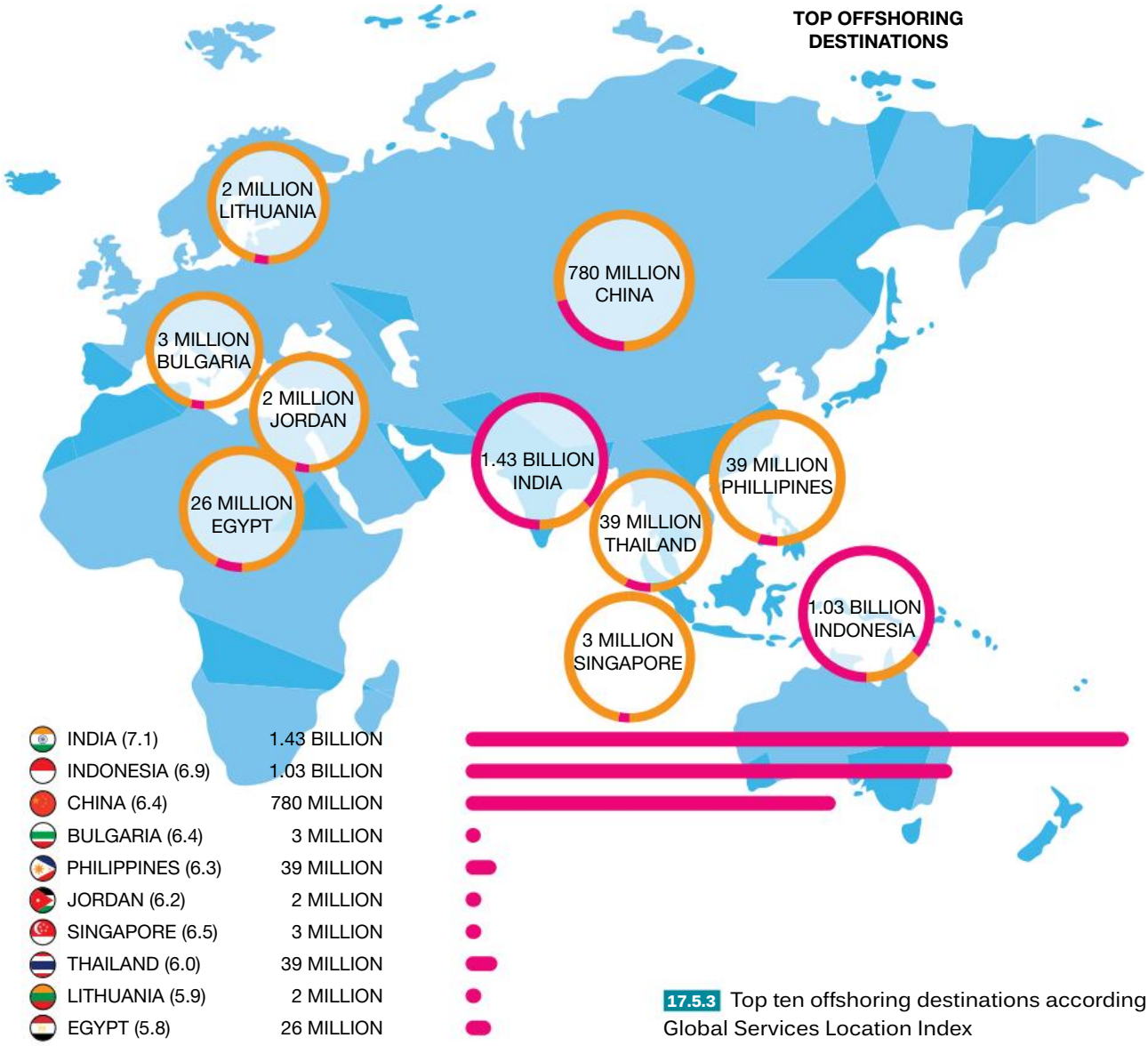
Replacing staff with technology

A modern day concern that arises with new technology is how the staff are affected. If staff are to use machines then they will need to be trained appropriately. Machines can make work far easier and can boost workplace productivity. However, the development of technology can also lead to **redundancy** of staff and the replacement of staff with machinery.

17.5.2 Changying Precision Technology Company's factory in Dongguan, China, used to need 650 human workers to produce mobile phones. Now, the factory is run by sixty robot arms that work around the clock across ten production lines. Only sixty people are still employed by the company—three are assigned to check and monitor the production line, and the others are tasked with monitoring computer control systems.

Redundancy can occur when technological advances lead to the development of machines than do the work that is done by people. Effectively, this means that the work can be done faster, more accurately and at lower per unit cost by machines than people. If this occurs then the people who used to do the work will no longer be required. If this occurs then the investment in machines leads to the human labour being replaced because their work skills are no longer relevant or required.

When people are replaced by machinery the phrase used is **'capital-labour substitution'**. This means that there has been a purchase of machinery (capital) and it replaces the need



17.5.3 Top ten offshoring destinations according to the 2017 Global Services Location Index

for people. The machines are a substitute for human labour and the employees can now be dismissed as there is no work that they can do.

If this occurs then the now unemployed labour will have to retrain to get relevant skills for different work or move to be employed in other industries where the machinery has not replaced the need for skilled workers.

Outsourcing

Outsourcing occurs when a business uses another provider to do work for the business. Outsourcing is done because the provider is usually highly specialised, can do work at lower cost and with greater skill. If a business outsources some of its work, such as marketing and accounting, then it can focus on its production. In this way, outsourcing can simplify a business.

Most Australian businesses will outsource for two main reasons. Firstly, cost savings are the biggest factor that drives outsourcing. A second factor is that the provider may be more skilled, so the actual work is done to a higher standard, faster and at lower overall cost. This makes outsourcing a very attractive option for businesses that want to maximise their productivity.

Outsourcing to overseas

The labour costs in most nations are far cheaper than the labour costs in Australia. China, Vietnam, the Philippines and India, are all attractive destinations for outsourcing. These nations offer huge cost savings and increased productivity. Telstra®, the Commonwealth Bank®, Optus®, Virgin and numerous other Australian companies use offshore outsourcing.

Evaluating the costs and benefits of different alternatives

When trying to increase workplace productivity, businesses will weigh the costs and benefits of increasing the size of workforce, upskilling, investing in technology and outsourcing before deciding which action to take. If a business chooses to increase the number of employees then it might not be able to afford to invest in new technology. Each choice taken means that there is choice given up. This means that the business will have to trade off between these alternative approaches in the aim to increase workplace productivity.

Did you know?

Outsourcing can assist in improving the productivity and efficiency of business. The country that is growing most rapidly as an outsourcing provider is not what you might think; it's the Philippines. The nations that have the greatest number of outsourced contracts for services are India, China, Malaysia, Indonesia, Brazil, Vietnam, the Philippines, Chile and Columbia. However, the growth rate is highest in those nations where the level of spoken English is highest, which is the Philippines and India.

Activities

Remembering and understanding

1. Identify two important inputs into the workplace.
2. Provide alternative names for the term 'staff'.
3. Outline how utilising more staff can increase workplace productivity.
4. State the benefit to the workplace of upskilling current staff.

Applying and analysing

5. Use research to identify the effect of changing technology on a cafe or other small business.
6. What are the key costs incurred when buying new technologies for the workplace?
7. Investigate the issue of redundancy in Australian workplaces. You may start with a workplace such as Murray Goulburn which recently had to let staff go.

Evaluating and creating

8. Evaluate the consequences (or trade-offs) of Australian companies outsourcing production to an overseas manufacturer.
   a. Use the following criteria to assess the benefits of outsourcing manufacturing to nations such as China, Vietnam and India:
      - social effects (impacts on broader community, including employees and their families)
      - economic effects (impact on the level of employment and other economic activity within Australia, overall costs and profits)
      - environmental effects (impacts on the land, water and air arising from the move to other locations).
   b. Consider both domestic and overseas costs and benefits for each criteria. You could devise a rating system that ranks the benefits and the costs for each of the criteria. (*Hint:* To do this task you will need to think about the costs and benefits from different perspectives. For example, from the perspective of the business, outsourcing might save money. By contrast, from the perspective of consumers, outsourcing might make sales service more difficult.)
   c. Select and justify your preferred criteria for decision-making.

LS 17D

Glossary

A

absolute poverty a lack of access to the minimum essentials required for living

acidification an increase in the acidity of ocean water as a result of the uptake of carbon dioxide from the atmosphere; an estimated 30 to 40 per cent of carbon dioxide released by humans into the atmosphere dissolves into oceans, rivers and lakes

acquisition the act of acquiring or gaining possession

active citizenship actions taken by people in a society that involves them in democracy at all levels in their communities

activism taking action to bring about social or political change

activist a person who actively promotes a cause

agency the capacity of individuals to act independently and to make their own free choices

Allies the countries that opposed the Axis powers—Britain, Soviet Union (Russia), United States of America, China, France, Australia and New Zealand

alternative rock a style of music distinct from mainstream rock, which developed in the 1980s

analyse to break down into parts and to study the interrelationships of those parts

anti-Semitism discrimination or hostility towards Jews

aquiclude an impermeable (water resistant) body of rock or a layer of sediment that acts as a barrier to the flow of groundwater

aquifer an underground layer of water-bearing (permeable) rock or unconsolidated materials like gravel, sand or silt from which groundwater can be extracted

assimilate to take on the customs of another culture and to give up your own customs and way of life

assimilation the process whereby a minority group gradually adapts to the customs of the dominant culture

asylum seeker a person who is seeking protection as a refugee, but has not been granted refugee status

Axis powers the nations that fought against the allies—Germany, Italy and Japan and their controlled countries such as Hungary and Romania

B

baby boomers people born during the rapid period of population growth that followed World War II

base flow the portion of stream flow that is not runoff and results from seepage of water from the ground into a channel slowly over time

bias unfairly favouring one opinion or point of view

bicameral structure of parliament that features two chambers, such as Australia's two houses of parliament (House of Representatives and Senate)

bill of rights a list of the most important rights accorded to citizens of a country or state that helps protect those rights in law

bioaccumulation the build-up of substances such as pesticides in an organism

biodiversity the variety of all life forms: plants, animals and microorganisms; the genes they contain; the ecosystems of which they form a part; and the processes that link them

biodiversity corridors continuous and connected areas of land that connect healthy ecosystems and help to maintaining biodiversity

biomass plant material that comes from living, or recently living, organisms; biomass can be burnt directly to produce heat, or converted to various forms of biofuel; it is an energy source

biome a vegetation community occupying a large area of the Earth's surface

biophysical environments environments that are dominated by natural features such as landforms and vegetation; this includes the Earth's soil, water, air, sunlight and all living things

bioregion a region defined by the natural environment rather than by human-made demarcations

blitzkrieg German for 'lightning warfare' in which massive aerial bombardment on infrastructure is followed by rapid overwhelming ground attacks

boat people asylum seekers from Vietnam who arrived in Australia by boat without permission to enter the country

bodgie the male equivalent of a widgie; young man who adopted a particular fashion trend in the 1950s

boycott deliberately withdrawing from using a service, for example African-Americans refusing to travel on buses

Bringing Them Home report published in 1997 that documents findings from the Keating Labor government's national inquiry into the separation of Aboriginal and Torres Strait Islander children from their families

Bushido 'way of the warrior'—a code of honour and conduct for samurai warriors established in medieval Japanese history and similar to the medieval code of chivalry for European knights

by-catch fish and other marine life caught unintentionally while catching targeted fish species

C

cabinet a group or committee of senior ministers in government who are usually responsible for the most important areas of government, including policy

camouflage military disguise of soldiers and equipment to blend in with the environment

capital all equipment (machinery, buildings, infrastructure) used in production

capital deepening when the capital stock increases faster than the labour force

capital widening when the capital stock increases

capitalism an economic system that allows private ownership of property and encourages a free market; often the economic system to support democracy

capital-labour substitution a process by which human resources are replaced by technology/ machines

carbon cycle a series of naturally occurring processes in which carbon is exchanged between organisms and the environment

carbon sink a natural or artificial reservoir (contained area) that can absorb and store carbon dioxide

ceasefire the suspension of fighting in a war

citizen a person who legally belongs to a country and has the rights and protection of that country

citizenship the position or status of being a citizen of a country

civic engagement individual and collective actions designed to identify issues of public concern through engagement in social and political institutions

civics the study of the rights, responsibilities and duties of citizens and how the government works

civil rights rights, claimed by citizens, to freedom and equality for all

classified in war, information that is kept secret and only available to authorised people

climate change long-term change in weather patterns impacting on sea levels due to an increase in the average atmospheric temperature

Cold War the name given to the period following the end of World War II, characterised by intense economic, political and ideological conflict between capitalist Western bloc countries led by the United States and communist Eastern bloc countries led by the Soviet Union, and the build-up of military forces and weapons

communal violence violence as a result of tensions between different ethnic or religious groups

communism a political system in which all property is in theory owned collectively; in practice, government holds ownership of farms, factories, businesses and banks

company tax a government charge on company profits

competitive advantage aspects of a business that it does better, or differently, than any other business, which makes it the preferred choice for consumers

concentration camp brutal prison for those perceived to pose political, intellectual, religious, or racial threats to the German state

connectivity conservation a corridor of protected forest lands that extend over hundreds or thousands of kilometres to protect biodiversity and critical ecological processes

conscientious objector one who is opposed to war for moral or religious reasons

consequences (intended and unintended) the outcomes of a decision, which can be intended and beneficial, but in some instances can also be unintended; intended consequences are the desired outcomes; unintended consequences may be negative or unexpected

conservation protection of natural environments and resources through careful management

conservation reserves areas of land that are protected by law to maintain biodiversity and/or natural or cultural heritage values

conservative a political philosophy that is used to describe one who prefers to maintain tradition; during the Vietnam War conservatives came to be associated with aggressive foreign policy goals that advocated use of the military to achieve them

constitution a set of principles and laws used as the basis for governing a nation

constitutional monarchy a form of government where a monarch (e.g. Queen Elizabeth II) is the head of state, but their powers are limited by the Constitution or Parliament

constructed environments human-altered landscapes, including all those features that are normally associated with settlements, industries and agriculture

contention a key argument or position, expressed concisely

contested the subject of debate or controversy

continuous resource a renewable resource that is not affected by human activity; for example the energy of the sun

convention an international agreement on a particular subject

corroboration confirming information in a source by finding supporting evidence elsewhere

cost–benefit analysis (CBA) a process of comparing the financial costs and financial benefits of a business decision; this can also assess the social costs and social benefits

cost leader the business within an industry that has the lowest costs and therefore can set prices lower than competitors'

Country an Aboriginal person's land, sea, sky, rivers, sites, seasons, plants and animals; their place of heritage, belonging and spirituality

D

debt bondage when a person is forced to pay off a loan by working or offering services for no salary, rather than actually repaying the debt

defection to desert or abandon your country

deforestation the removal of large expanses of trees for their timber or to make way for other land uses

democracy a political system where government leaders are elected by the country's people to make decisions on their behalf

desertification the expansion of deserts due to overgrazing, soil erosion, climate change or prolonged drought

detention a place where people are held with restricted movement and freedom

developed world rich countries of the world with high incomes; after fulfilling their everyday needs of water, food and shelter, most people have money left over for buying consumer goods and luxury items

developing country (or nation) a poor or middle-income country; in many of these countries, most people depend on subsistence farming; for most people in developing countries, life is a constant struggle to satisfy the basic needs, also called a less-developed nation

development a process of change that results in an improvement in the quality of life of a community; it usually involves reducing poverty

direct discrimination occurs when a person is treated unfairly because of a personal feature or characteristic, such as cultural background or gender

disco a genre of music that was popular in dance clubs in the 1970s

displaced person a person who is forced to leave their home because of war or political persecution, and seeks refuge within their own country

Displaced Persons Scheme an international agreement to assist the global effort to resettle displaced people from internment camps in Europe

dispossession the act of taking away land or forcing people from their land, way of life and culture

dissent to publicly disagree with an official opinion, decision or set of beliefs

distribution of income the way a nation's total income is spread between households

diversity the inclusion of different types of people (including people of different races, cultures, abilities and lifestyles) in a group, organisation or society

drainage basin an area of land where water collects and drains to a common outlet such as into a river or lake

E

ecological the relationship between living things (including people) and their physical environment

ecology the study of the relations and interactions between living things and their environment

economic activity all actions involved in producing, distributing and consuming goods and services

economic growth refers to an increase in capacity to produce goods and services, per person in a population, in a time period such as a year

economic indicators measures that provide information about economic activity

economies of scale the reduction of per unit costs of production that occurs when the volume or scale of production rises

ecosystem approach a management approach that integrates the management of land, water and living resources in ways that promote conservation and sustainable use in an equitable way

ecotourism responsible travel to natural areas that conserves the environment and improves the wellbeing of the local people

emergent trees trees that tower above the forest canopy

endemic native to a certain place

environment the totality of our surroundings

environmental strategy a plan of action intended to accomplish a specific environmental objective

ephemera items intended to be used for a short time only

equality the state of being equal, especially in status, rights or opportunities

equality of opportunity equal treatment of all people in a society, regardless of race, age, gender, religion, or mental or physical disability

espionage use of spies by the government to find out the political and military activities of other nations

ethics systems of moral principles that affect how people make decisions and lead their lives

evaluate to judge the accuracy or reliability of a source

executive power power to administer and enact the law

extinct (species) a species of animal or plant that no longer exists

extrinsic motivation occurs when people are motivated by external factors such as monetary rewards, recognition or a promotion

F

fascism an ideology of varying elements, but commonly suggesting that only those most suited to hold power should do so

fertility rate a measurement of the average number of children born, usually measured in the number of children per 1000 women of child-bearing age

feudalism a social/political system under which a small group of rich, powerful people own land while peasants farm it, often in exchange for protection and a share of the crops and/or livestock produced

flow diagram an illustration showing the interactions that occur within and between the biophysical, managed and constructed environments

flowline maps maps that show statistics of movements that have occurred, from one location to another; the maps demonstrate patterns and linkages

forebear an ancestor or relative from whom a person is descended

fossil fuels a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms

fracking the process of creating fractures in rock strata by injecting fluid into cracks to force them further open; the process allows more oil and gas to flow out of the rock strata and into a bore, from where they can be extracted

free market an economic system in which prices are determined by unrestricted competition between privately owned businesses

free speech the right to express any opinions without censorship or restraint

freshes the sudden rise in the level of a river caused by heavy rain or melting snow

G

genocide mass extermination, or its attempt, of an entire cultural ethnic group of people in order to wipe them out of existence

geographical inquiry an investigation that starts with geographical questions and proceeds through the collection, evaluation, analysis and interpretation of information to the development of conclusions and proposals for actions

glam rock a genre of popular music that emerged in the 1970s, characterised by performers dressed in elaborate costumes

global citizen an individual, institution or government that understands the rights and responsibilities of humans at a global level, transcending (meaning to go beyond and not be limited by) geographical and political borders

global financial crisis (GFC) a period of global economic instability in 2007–08, which arose partly as a result of the collapse of a number of financial institutions in the US

global warming the gradual rise in average temperatures brought about by an increase in the heat-absorbing gases present in the atmosphere

globalisation the integration of systems such as the economy, politics and culture across the globe

governance the process and rules by which decisions are made and implemented within different bodies , such as state/national governments and corporations

governor general person who acts as a representative of the monarchy in countries within the Commonwealth, including Australia

gradient the steepness of a slope, road or river

graphic organiser visual display demonstrating relationships, concepts or ideas

greenhouse effect the atmospheric processes that trap the sun's warmth in the lower atmosphere

gross domestic product (GDP) a measurement of economic growth that can relate to various sets of data but, in particular, the monetary value of the goods and services produced per year in a country (sometimes further measured per person)

gross national product (GNP) the total final value of all goods and services produced in a country in a period of time, usually 1 year

groundwater water held underground in the soil or in pores and crevices in rock

grunge a guitar-based sub-genre of alternative rock

H

habitat the physical environment in which a community of plants and animals lives

hard engineering the controlled disruption of natural processes through the use of human-made structures

heat budget the balance between the incoming and outgoing heat

hire purchase a system of payment for goods over time

historical evidence primary or secondary sources used to interpret the past

historical interpretations views of people after the period of study, usually found in secondary sources

historical perspectives views of people in the period of study, usually found in primary sources

Holocaust the genocide of Jews and others, including communists and mentally-ill people, by Hitler and the Nazis; death sites in Auschwitz, Belsen, Buchenwald and others

House of Representatives lower house of Australian Federal Parliament

human rights basic freedoms and protections that belong to everybody; people should be treated fairly, treat others fairly and have the ability to make genuine choices in their daily lives

hung parliament situation where no one party wins the required number of seats to form government in the House of Representatives

hydrologic cycle the circulation of water between the Earth's oceans, atmosphere and land, involving precipitation as rain and snow, drainage in streams and rivers, and a return to the atmosphere through evaporation and transpiration

hyperinflation very high rates of inflation

hypothesis a proposition that provides an explanation or reason why something occurred or a problem exists; it helps frame investigation and research before a detailed conclusion can be reached

hypoxic water a water body in which oxygen levels are extremely low

I

ideology system of ideas and beliefs

imperialist tendencies attempts to gain control over other countires

import substitution an economic policy that involves replacing foreign imports with domestic production

income the money that a person receives in exchange for working or making other resources available for productive purposes; wages and salaries are the most common forms of income, but it also includes earnings from leasing investment properties or interest on bank deposits

income tax the tax imposed on a person's income

indentured servitude a system where a person is bound by a signed contract or is forced to work for an employer for a fixed time, in exchange for an agreed service or benefit

indirect discrimination occurs when a practice or procedure unfairly affects one group of people because of a personal feature or characteristic

Indochinese people from the South-East Asian peninsula, which includes Vietnam and Laos

Industrial Revolution a period of industrialisation that took place in Britain and the rest of Europe during the late eighteenth and early nineteenth centuries

inflation rate the rate at which the general level of prices in an economy has risen over a year

infrastructure the physical built environment required to run a business such as roads, bridges, ports and internet networks

integration the Australian Government policy of acknowledging that different cultural groups had something to offer Australian society and should be encouraged to do so

interest groups collectives of people who share a particular concern in an issue and aim to influence government policy on these areas

international competitiveness the measure of an economy's competitiveness to sell goods and services on the international market

international treaty an agreement under international law, entered into willingly by two or more countries

internment camp a place where people of German, Italian and Japanese background were kept in Australia during World War II to prevent them from conducting any enemy activity

intrapreneur an employee who has the talent to innovate and develop ideas in their own workplace

intrinsic motivation when people are motivated by their inner beliefs, values and personal standards

investment a financial expense that has the potential to make a profit

J

judicial power power to make judgements and interpret the law

K

Ku Klux Klan extremist right-wing group in the US who target African-Americans

L

labour force the members of an economy who are employed plus those who are seeking employment

land degradation when the activities of people make the land less fertile and productive

land-use zoning plans outlining how land can be used in an area

legislative power power to make or change the law

liberal democracy government system whereby a range of freedoms exist for individuals, including the freedom to elect representatives; the powers to control or rule the nation are separated so one group or person cannot hold all the power

living standards the amount of wealth households have access to including the quality of goods like housing, material comforts like cars and the necessities of life such as food

local relief the difference in elevation or height over a particular small, defined area

locational disadvantage areas of concentrated poverty and disadvantage, where people cannot access work, education, health and other services

longshore drift the movement of sand along a beach shoreline by waves approaching the shore at an angle

M

macroeconomic economic issues at a national or international level

managed environments human-changed landscapes dominated by the natural environment; this includes crop and grazing lands, plantations and planted forests

marginalised a group of people in a society who are isolated and excluded through the actions, or lack of attention, of others in that society

marine debris human-created waste that has deliberately or accidentally been released in a lake, sea, ocean or waterway

market economy the economic system guided by the production and distribution of goods and services through market activity (with limited government intervention), based on supply and demand

marketing the entire process by which products are promoted and sold

mass media technologies that are intended to reach large audiences via mass communication

mass production the production or manufacture of goods in large quantities, especially by machinery

maternal mortality the death of a mother during childbirth

McCarthyism public campaign led by US Senator Joseph McCarthy against alleged communists and their sympathisers in the 1950s

mechanisation work done by machinery rather than by hand

mediate negotiate in a dispute in order to bring about an agreement or reconciliation

merger the joining of two businesses to form a single business

microeconomic economic issues at an individual, group or business level

middle class the social group positioned between the upper and working classes; it includes professional and business people and their families

migrant a person who moves from one place or country to another one; in Australia an immigrant, especially one who has arrived recently

misogyny a hatred or dislike of women

mixed economy an economic system in which both the private sector and the state play a role in the economy, reflecting characteristics of both market-based economies (capitalism) and planned economies (under government control)

monopolistic capital dominance based on commercial power

monsoon a seasonal wind in the South and South East Asian region, which blows from the south-west between May and September, bringing rain (the wet monsoon), and blows from the north-east between October and April (the dry monsoon)

moratorium ban on an activity; in the case of the Vietnam War an organised public demonstration to protest against involvement in the war

multiculturalism the Australian Government policy of recognising and respecting the cultural diversity of the population and supporting programs to assist ethnic minorities

music television a television program that plays music videos of recording artists

N

national integrity control of or protection of one's nation

nationalism feeling of special pride in a country by the citizens of that country; a sense of loyalty and devotion to a nation that places it above others through promotion of its culture and interests

naturalist a person who studies or is an expert on nature; works to protect the natural environment

new wave innovative trends outside of the traditional

non-government organisations (NGOs) a nonprofit organisation that operates independently of any government, and which exists usually to address a social or political issue

nuanced argument an argument that acknowledges complexity or contradiction

O

offshore detention the practice of sending asylum seekers to locations outside Australia while they have their claim for asylum processed by the Australian government

open-ended question a question that encourages a full, meaningful answer; it can't be answered by a single word or simple facts

outsourcing a process by which business activities are done by external providers, instead of within the business

overland flow the water flow that occurs when the soil is penetrated to full capacity and excess water flows over the land

overstorey the upper tree layer or canopy of a forest, where the crowns of the trees spread their branches and foliage to capture light to photosynthesise

ozploitation low-budget horror, comedy and action films with an R rating

P

parliament the elected group of people who control and make decisions and laws for a country or state

pastoralist livestock farmer

paternalism policy of controlling in a 'fatherly' way

patriarchal attitude the belief that society and government should be controlled by men

peacebuilding long-term strategies aimed at preventing nations from falling back into conflict

permaculture a system of agriculture that aims to be renewable and self-sustaining

perspective a particular attitude or way of thinking; a point of view

pesticide a chemical sprayed on plants to kill insect, fungal or plant pests

pluralistic society a diverse society, where people believe a range of different things and tolerate each other's beliefs even when they don't match their own

policy plans for activities to be conducted by political parties; political parties will often have a series of policies under broad headings or portfolios e.g. health, education

pollution the release of any hazardous, or potentially hazardous, substance into the environment

popular culture a set of behaviours and values shared by a group or groups within society at a particular period of time

population pyramid a graphical representation of a population's age and sex structure

population viability the ability of a population of a species to persist over time and avoid extinction

poverty the inability to meet the basic needs for food, clothing and shelter; the absence of money, goods or the capacity to make a living

poverty line the estimated level of income needed to secure the necessities of life; this level of income differs between countries

preservation maintaining areas of the Earth in a state untouched by humans, preventing use by humans

Prime Minister the head of the government

profit the amount of money remaining from revenue after paying costs

progressive tax an approach to tax where people on higher incomes pay higher rates of tax

propaganda materials designed to influence or present a particular point of view

protection policies laws that enabled Australian state governments to control aspects of Aboriginal and Torres Strait Islander people's lives, such as where they could live, the wages they could receive and whom they could marry

protectionism a policy that protects a country's domestic industries from foreign competition by taxing imports

purchasing power parity (PPP) how much a similar product costs in different countries, after accounting for the exchange rate; a technique used to determine the relative values of different currencies

Q

quartile a statistical value representing 25 per cent of a population (a quarter)

quintile a statistical value representing 20 per cent of a population

R

racial vilification behaviour that incites (causes) hatred, serious contempt or serious ridicule of an individual or a group because of their race

ratified adopted or approved; for example, once a law is ratified it takes effect

Reconciliation an ongoing campaign to improve the relationships between Aboriginal and Torres Strait Islander people and the broader Australian community

redundancy occurs when the skills of an employee are no longer in demand by employers (increasingly due to advances in technology)

referendum a direct vote by the electorate to make a change to the Australian Consitution

refugee a person who is forced to leave their home country because of the dangers of war, or of political or religious persecution, and who asks for safe refuge in another country

relative poverty a condition in which people are unable to maintain the average standard of living in the society in which they live

reliability the trustworthiness and accuracy of a source

relief the shape, height and steepness of the land

remuneration the amount of money given to an employee in exchange for their labour

resolution a formal expression of an opinion or a decision

resonance the process whereby an outgoing low tide collides with the incoming high tide, causing a wave of water to be pushed into a bay

revenue the money that comes into a business through consumer purchases

rights of nature the legal and political theory that advocates giving nature legal standing, rather than viewing nature as property to be exploited

rock'n'roll the fusion of country and western music with African-American rhythm and blues, a popular style of music from the 1950s onwards

romantic movement an artistic, literary, musical and intellectual movement that originated in Europe toward the end of the 18th century

royal assent the process where a country's monarch (or representative) gives formal approval of a proposed law, turning it into an Act of Parliament

rule of law the concept that everyone—including citizens and the government—is bound by and entitled to the benefit of laws quartile a statistical value representing 25 per cent of a population (a quarter) quintile a statistical value representing 20 per cent of a population

S

sand dunes long hills of sand formed by the wind

Second AIF the Second Australian Imperial Force in World War II (the First AIF served in World War I)

Senate upper house of Australian Federal Parliament

sequestering removing or withdrawing

shifting cultivators people who clear a small patch of forest to grow food for a short period of time; when the land is exhausted, the people move on to clear another patch

soap opera a dramatic fiction radio or TV serial presented as ongoing episodes

Social Darwinism a now discredited theory based on the belief in the laws of natural selection, which claimed that some groups will have advantage over others as the result of biological superiority

social infrastructure the basic facilities necessary for human development; includes health (hospitals), education (schools) and housing

social mobility the movement of individuals, families or households between the various levels of class in Australia, for example from middle class to upper middle-class

socialism the political and economic theory of social organisation that holds that the means of production, distribution and exchange should be owned or regulated by the community as a whole

socio-economic relating to or concerned with the interaction of social and economic factors

socio-economic status a level of economic and social wellbeing based on factors such as employment, income, education and social position relative to others

soft engineering the use of vegetation and other materials to alleviate land–sea interactions

source someone or something that provides information and evidence

spatial inequality unequal amounts of qualities or resources and services depending on the geographical location; distinct geographical divisions between poor and affluent areas

stakeholder a person or group that is involved in an issue

standard of living the level of material comfort that people in a community are able to achieve

steward a person who acts in the best interest of others, such as the person they are employed by

Stolen Generations groups of children forcibly removed from their families under state policies, from the 1880s to the 1970s

stream flow the flow of water in streams, rivers and other channels; a major element of the water cycle

subsistence producers farmers who grow just enough food to feed themselves and their families

subsistence production production at a level sufficient for a person's own use or consumption, without any surplus for trade

suburbanisation the shift in living in central urban areas to suburbs

superannuation a government-imposed payment made on behalf of an employee into a retirement fund accessible when the employee reaches retirement age

supply government budget bills

sustainability protection of the environment and natural resources in order to maintain long-term ecological balance

T

takeover the purchase of one business by another; the purchased company is sometimes hostile to the purchase

terra nullius (Latin) a territory belonging to no one, or a territory which no one claims ownership; the concept has been used to justify the invasion and colonisation of Australia

thermal expansion the tendency of water (and other matter) to expand when heated

topographic map a detailed, large-scale representation of part of the Earth's surface

totalitarian regimes governments that seek to control all aspects of their citizens' lives

transboundary crossing at least one political border, either a border within a country or an international boundary

transboundary pollution air and water pollution that travels from one area to another, often crossing state or international boundaries

turbidity the amount of suspended sediment in water

U

understorey the smaller plants adapted to the shady conditions of the forest floor

unicameral structure of parliament or government that features one chamber

United Nations an international organization founded in 1945 and currently made up of 193 member states; its purpose is to promote international cooperation and to create and maintain international order

upwelling upward movement of water from deep in the ocean

W

water table the level below which the ground is saturated with water

watershed high ground that marks the boundary between two drainage basins; in the USA, watershed refers to the drainage basin itself

wealth the value of all the assets owned by an individual that have the ability to earn an income in the future, including savings, property, shares and other investments

widgie the female equivalent of bodgie; young woman who adopted a particular fashion trend in the 1950s

wilderness wild, uncultivated and uninhabited area

writs a formal order or command given by a body such as a court or parliament

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