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VCE GEOGRAPHY SERIES

3rd Edition

UNIT 2

Tourism

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Tourism: issues and challenges

AUTHORS
Andrew Chisholm, Adrian De Fanti, Trish Douglas, Lynne Griffiths, Theodore Hartman, Stephen Matthews and **Ray Pask**

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Contents

1 Geographical concepts and questions

Geographers investigate and interpret the *places* that make up our world by exploring, analysing and understanding their characteristics and the *processes* that shape them. Geographers use a number of concepts in this *process*. Concepts are the big, organising ideas which, together, uniquely belong to Geography as a field of study.

VCE Geography is underpinned by twelve interrelated key geographical concepts. These should form part of your vocabulary and guide you in your thinking, description, analysis, synthesis and communication in Geography. The concepts are used in conjunction with skills, and are applied to topics of study to create a uniquely geographical way of investigating and understanding the world.

In VCE Geography the twelve key geographical concepts are: *place*, *scale*, *distance*, *distribution*, *environment*, *interconnection*, *movement*, *region*, *change*, *process*, *spatial association* and *sustainability*. It will become clear through your work with the concepts in this chapter that they *interconnect* with, and support one another extensively.

The purpose of this chapter is to provide an understanding of, and some experience with, using key concepts that are of importance to the study of Geography, particularly as they relate to tourism. Your aim should be to understand and apply each concept as a means of thinking and working geographically.

Key geographical concepts in context

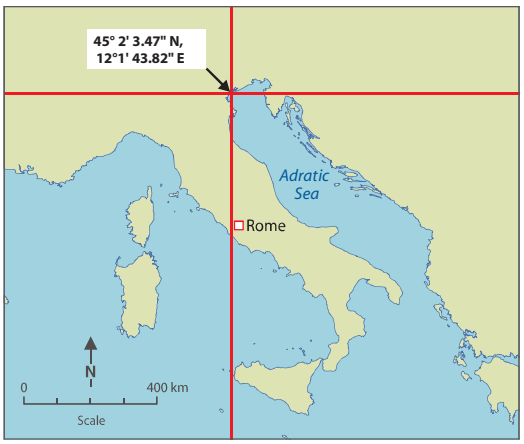
Place

'Where's your *place*?' It is a common enough question to ask someone where they live, but there is more behind this question than you might think. A reply might be as generic as a reference to a suburb, as specific as a street address, or (with the aid of a smartphone) even a latitude and longitude. The latter two are regarded as absolute locations, there being no other *place* on Earth that meets that locational definition. In addition, a six-figure grid reference from a topographic map will allow you to give an absolute location. Location is the 'where of *place*' and is an important component of *place* in its own right. Figure 1.1 shows the location 45° 25′ 53.47″ N latitude, 12° 19′ 43.82″ E longitude mapped – which, by itself, is rather meaningless. When it is linked with further information, such as the *place* shown in Figure 1.2, the absolute location takes on meaning and significance as Venice, Italy, one of the world's great tourist cities. Even if you have never visited this *place*, it is likely to have meaning to you.

Relative location refers to the *distance* and direction from one *place* to another. The use of *place* names, landmarks and *regions* helps to specify the relative location of one *place* by comparing to the location of another *place*. For example, Venice is located in the north-east of Italy on the north-west coast of the Adriatic Sea, approximately 350 kilometres north of the capital Rome.

Understanding a *place* relates to how people perceive and attach meaning to a location and its immediate surroundings; this creates their 'sense of *place*'. Though people may recognise the significance of a *place* as a home, the sense of *place* is naturally much greater for the person living there because of their attachment to, experience in and the value they place on it.

With the meaning of *places* comes value. A value could be the monetary value for a property, or a *place* could be valued for its aesthetic beauty, untouched remoteness or, for some people, a spiritual significance and attachment to *place* going back many generations.



▲ **Figure 1.1** A map showing the absolute location of a *place* – Venice, Italy

▼ **Figure 1.2** A *place* – the Grand Canal, Venice, Italy

Place is central to the study of tourism; people visit *places*, not just locations, and they do so for pleasure. The connection between *place* and tourism is fundamental, but also complex. While *place* attracts tourists, people's reasons for visiting specific *places* vary.

Some tourists might visit *places* for reasons of solitude, isolation and the sense that you can be out of touch with civilisation or be immersed in an awe-inspiring landscape. It can therefore be ironic that these qualities might be lost, the more tourists visit a particular *place* or it becomes developed for tourism. It can also be the case that tourism can *change* a *place*, sometimes to the degree that its attraction is lost for some. Franz Josef Glacier, New Zealand, attracts up to 6000 tourists per day during peak season. On 1 January 2020, the glacier recorded its busiest day ever with 7137 visitors. It used to be possible to walk up to the glacier, but in March 2012 the terminal face of the glacier collapsed, and it is now too dangerous to approach; signs warn against crossing the safety barriers at the lookout. As of 2020, the valley walk ends at a lookout about 50 metres from the main terminal face of the glacier. Visiting the glacier now requires a helicopter flight past the unstable terminal face as shown in Figure 1.3. There are well-developed accommodation facilities, extensive car parks and trails. While its natural grandeur and aesthetic qualities remain, it is neither isolated nor tranquil.

Over-commercialisation, infrastructure development, overtourism and contrived or exaggerated cultural experiences can affect a *place* and its appeal to some tourists, or indeed create a completely new *place*. Figure 1.4 depicts a Disney theme park. Such parks are located in different parts of the world yet follow a formula. The architecture and United States flags might lead you to believe you are in Disneyland California, but it is in Paris; perhaps a *place* out of *place*? Nonetheless, Disneyland Paris is very popular, and more accessible for Europeans than the original, with 9.75 million visits in 2019.

▲ **Figure 1.3** Signs warn about the rise in helicopter usage at Franz Josef Glacier

▲ **Figure 1.4** Disneyland Paris – American culture transplanted for tourists – is an example of a globalised tourist attraction

Climate, landscape and culture clearly play a role in defining *place*, and are particularly important where tourism is concerned, but so does a sense of *place*.

If you were asked to close your eyes and visualise a 'tropical island paradise', no doubt brilliant blue, crystal clear water, white sand, palm trees and sun – perhaps with friendly islanders and traditional dwellings – and a feeling of tranquillity and relative isolation would come to mind. This represents elements of your sense of *place*, even if you have never visited such an island. The Cook Islands, typified in Figure 1.5, like many of the world's tropical island nations, is heavily reliant upon tourism, with tourism contributing to nearly 70 per cent of its Gross Domestic Product (GDP). Tourism has grown considerably in Cook Islands over the last 25 years. Visitor numbers have risen from less than 10,000 in 1976 to 168,760 visitors in 2018, a big influx for a nation with an estimated resident population of only 17,379. Tourism is critical to the Cook Islands, with tourists being drawn, in part, because of their sense of *place*.

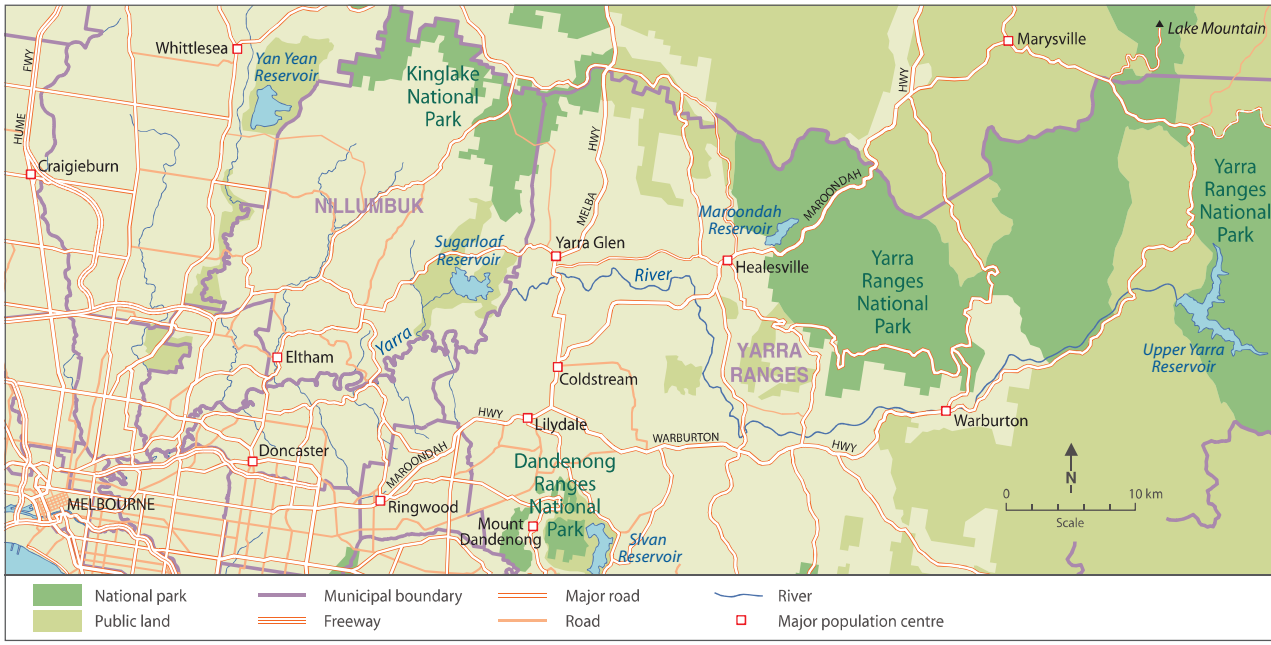
▼ **Figure 1.5** View of Aitutaki lagoon, Cook Islands

Scale

Scale refers to the size of something compared with something else and is used in one of two practical ways in Geography.

In one sense, we use *scale* on maps to determine the size relationship between the reality of something on the Earth's surface, and the size at which that thing can be represented on a much smaller map (or model). The *scale* of a map influences how it can be used. Figure 1.6 shows the location of the Yarra Valley, one of Victoria's most popular tourist *regions* due to its wineries and scenery in close proximity to

▼ **Figure 1.6** A small-*scale* location map of the Yarra Valley



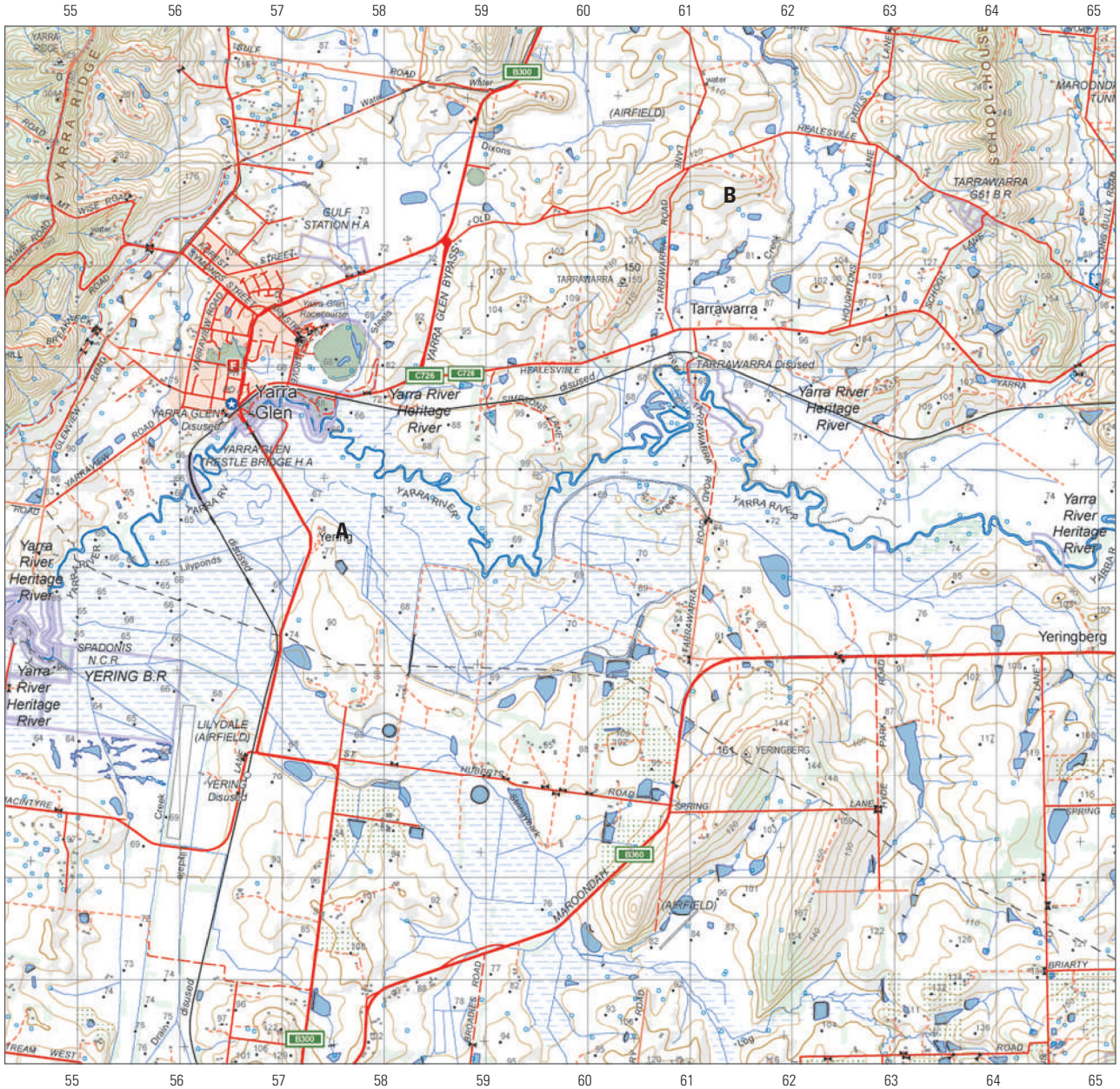
▼ **Figure 1.7** Applying observational *scale* in Geography

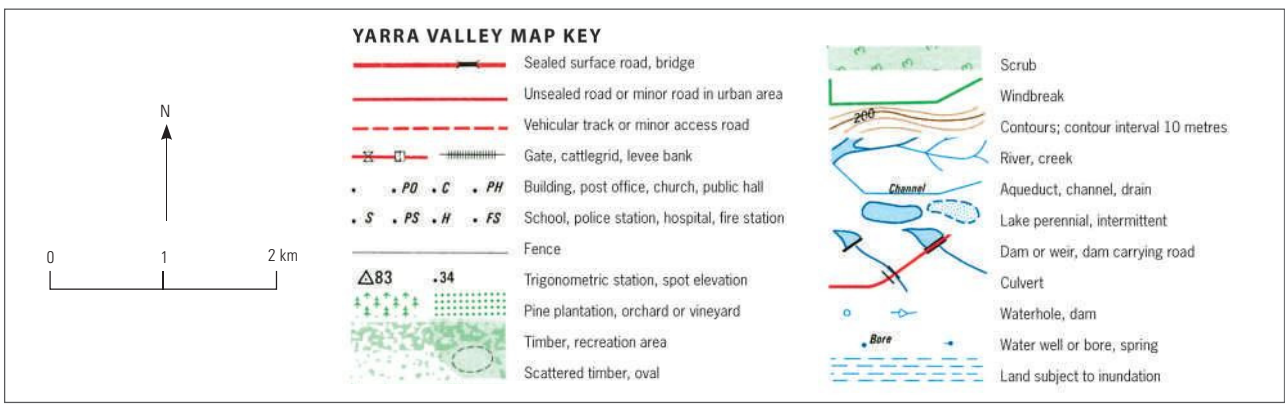
Observational *scale*	Examples
Local	Involving a limited area such as a farm, shopping centre, a suburb or rural town; the immediate area around a location
National	Involving an entire country, or being of national significance and impact
International	Involving two or more countries, crossing national borders
Global	Involving the entire Earth, or impacting on the planet as a whole
Regional	Flexibly defined, varies in size and nature; may be inter-national i.e. covering more than one nation, or intra-national i.e. within a nation (see *Region*, page 6)

Increasing *scale*

Melbourne, while Figure 1.8 shows Yarra Glen, within the Yarra Valley, on a topographic map. Figure 1.6 is a smaller-*scale* map as it depicts a larger area in less detail and would be useful to tourists by providing a general overview of key locations and transport routes. The larger-*scale* Figure 1.8 shows a smaller area within the Yarra Valley in greater detail and would be more useful to navigate the area around the town.

The second use of *scale* is observational. These are the logical and descriptive size-based units into which geographers divide the world in order to structure the study and understanding of *places, regions* and phenomena. The *scales* geographers use are summarised in Figure 1.7.





▲ **Figure 1.8** A large-*scale* topographic map extract showing Yarra Glen

Figure 1.9 Common travel routes and major tourist attractions in South-East Asia

Investigating the characteristics and impacts of tourism can involve all *scales*. Tourist *movements* can be examined and analysed between countries of the world (global *scale*), between two countries (international *scale*), between countries in a *region*, such as South-East Asia (*regional scale*, Figure 1.9), or between the States and Territories of Australia (national *scale*).

Geographers require the ability to freely zoom in and zoom out in their *scale* view when seeking explanations, relationships, influences and outcomes of and between phenomena. *Scale* is also important because many geographical *processes* only operate at one or more *scales* e.g. only locally but not globally, so their impact might or might not be limited to a particular *distance* or *region*.

Region

A *region* is a definable area containing one or more characteristics that distinguish it from surrounding areas. *Regions* can be defined at a range of *scales* by physical characteristics such as mountain ranges and drainage basins, politically by official decisions about boundaries and names, and by common usage or for a given purpose by selecting a particular characteristic such as the western suburbs of Melbourne. Smaller *regions* can exist within larger ones, and different *regions* can overlap.

CAREER PROFILE

Yan Gaoulil

Policy Officer at the Department of Environment, Land, Water and Planning (DELWP)

In my role I work as part of a team to maintain and improve planning policy and regulation in order to protect communities and the environment. These policies include responding to bushfire risk, planning for coastal adaptation, managing contaminated land and preventing land-use conflict.

I have been interested in Geography for as long as I can remember. At school I was passionate about Geography, cities, travel and transport, but didn't realise there was a career perfectly suited to those interests until later into high school. Overseas travel furthered my interest in understanding the workings of cities and landscapes, and inspired me to pursue these interests at university.

I completed a Bachelor of Urban and Regional Planning (Honours) at RMIT University in Melbourne. This provided me with background in environmental sustainability, Geography, social policy and research, as well as practical knowledge of strategic and statutory planning mechanisms and policy implementation.

As part of my work, I often need to interpret spatial data and analyse mapping. Broad knowledge of Geography is incredibly useful in planning for natural hazards such as bushfires and managing the use and development of land. Probably the most valuable lesson that Geography study has offered me is learning how to understand the world through its many layers – environmental, economic, social and cultural. This is crucial because, as a planner, you are often faced with many competing issues and need to balance these to achieve the best outcome.

Planners regularly deal with professionals across diverse fields, so the interdisciplinary skills that Geography study provides are a huge asset. With these skills also comes a wide range of available career pathways. Geographers in planning will be needed more and more to help understand and respond to some of the most pressing challenges we're facing, such as climate change and population growth.

▼ **Figure 1.10** Examples of *regions* at different *scales* and how they are defined

Region	***Scale* relationship**	**Defined by…**
Inter-tidal zone	Local	Physical
Chadstone Shopping Centre	Local	Land use
Otways rainforest	Local	Vegetation
Melbourne Central Business District	Local	Political/administrative, land use
Victorian Central Highlands	National	Political/administrative, physical
Great Victoria Desert	National	Climate, physical
South-eastern Australia	National	Location, common use
Amazon Basin	International	Physical
Tropics	International	Location, climate
Sub-Saharan Africa	International	Location, common use

Region is important in terms of *scale*. *Regions* can be seen and defined at each of the local, national and international *scales*. Figure 1.10 provides examples of *regions* at a variety of *scales* that can be classified into various types. In this way, *region* itself can be used to represent a *scale*.

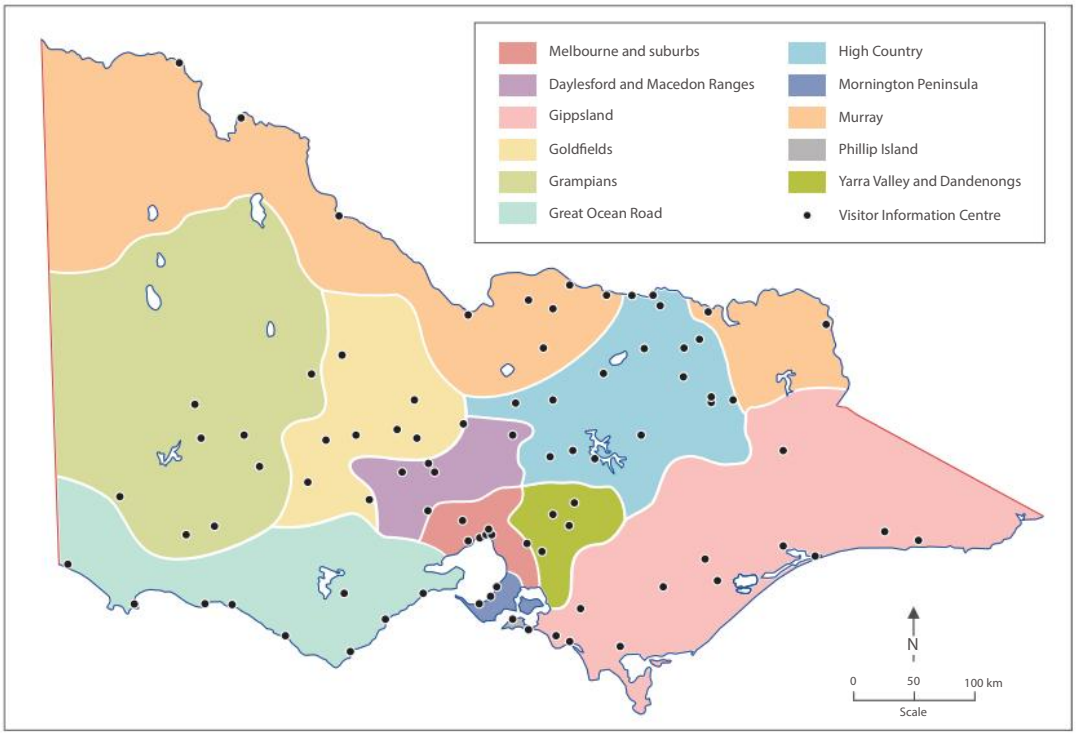
Regions can form convenient units for the investigation of tourism and are also used for tourism planning. Figure 1.11 shows the tourism *regions* of Victoria used by the government. The *regions* on this map are clearly defined in spatial terms but are less consistent when it comes to how they are defined, as indicated by their naming.

For example, most *regions* are named by their geographical location, such as the Mornington Peninsula, whilst others are named by particular feature in the *region*, such the Goldfields or Grampians/Gariwerd. Other *regions* are identified via a feature that crosses the *region* such as the Great Ocean Road or Murray River – although this is not consistent as the Murray *region* is in two parts and excludes an area located in the High Country. The size of the *regions* also varies enormously as do the number of Visitor Information Centres within each *region*. These *regions* are important in terms of planning and promoting tourism in Victoria.

Distance

Distance is measured in a number of ways. In its simplest form, it is the space between two different locations and can be determined using an absolute measure such as kilometres. *Distance* is used to assist with defining where things are in space, often also using direction. As an example, Bendigo is 150 kilometres north-west of Melbourne.

Distance is clearly used as an indication of proximity, which often suggests the existence of relationships between things. Theoretically, greatly distant phenomena are less likely to influence one another.



◀ **Figure 1.11** Victoria's tourism *regions* and the locations of Visitor Information Centres

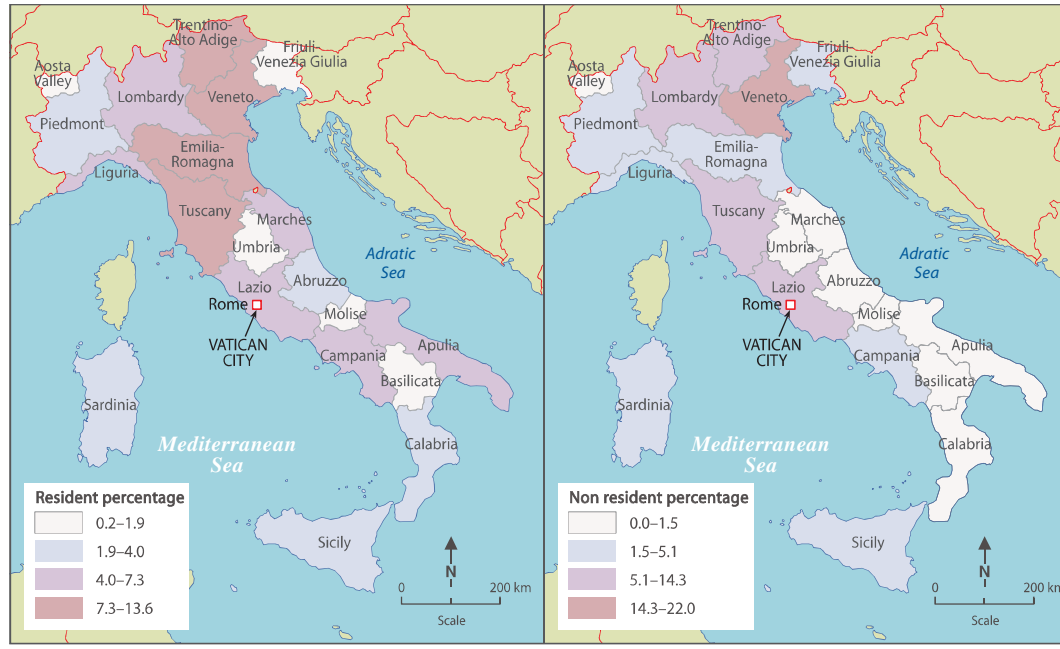
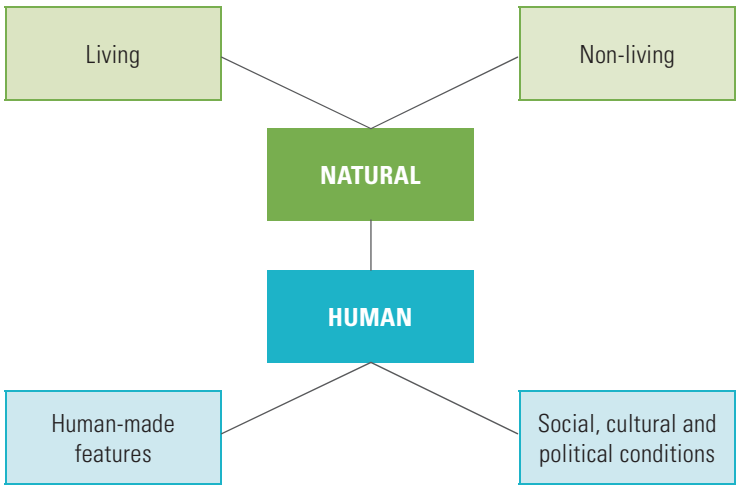


Figure 1.12 Nights spent at tourist accommodation establishments based on tourist residence (percentage shares), within *regions* of Italy, 2016

Yet distant *places* are often linked by tourism which can then influence the behaviour of tourists. For example, when an event occurs in a distant location such as civil unrest or disasters, it can force a *change* in the plans of travellers who may be thousands of kilometres away.

Relative *distance* is a second broad category that can be measured in other ways. The amount of time it takes to travel a given *distance* (for example, 'I live 20 minutes away from here.'), is an example of relative *distance*. It is also possible to use less tangible measures such as psychological *distance*, where familiar *places* seem closer than less familiar ones (for example, 'Until I travelled there, I didn't realise Mildura was located so far from Melbourne.'). The psychological *distance* between Disneyland in Paris (Figure 1.4), and the original Disneyland in California is insignificant, the relative *distance* measured by time flying in an aircraft is 10.5 hours, while the absolute *distance* is 9133 kilometres. Improved transport has also reduced travel times. For example, in 1947 a flight from Australia to London could take four days and nine stops whereas a flight from Perth to London can now take just 17 hours non-stop. Relative *distance* is particularly relevant to studies of tourism.

Figure 1.13 Components of the *environment*



Distribution

Distribution involves the arrangement of features or objects on the Earth's surface. *Distributions* can occur at all *scales*, and often patterns can be observed and described as the arrangement or density of phenomena.

Distribution relates to tourism in various ways. During fieldwork, we might investigate and map the *distribution* of visitors within a local tourist attraction. The *change* in *distribution* of those visitor numbers over time might also be investigated and mapped or graphed. At a larger *scale*, it is possible to map the *distribution* of tourist destinations in a city or *region*. For example, Figure 1.12 shows the *distribution* of tourists visiting Italy in 2016, as shown by the nights spent in tourist accommodation establishments for residents and non-residents. In general, most resident (i.e. domestic) tourists spent time in the north of Italy in the *regions* of Tuscany, Emilia-Romagna, Trentino-Alto Adige and Veneto with 7.3–13.6 per cent of nights spent at tourist accommodation establishments. However, while non-resident (foreign) tourists also favoured the north of Italy, they were especially attracted to Veneto, where the city of Venice is located (see Figure 1.2).

Environment

Environment refers to the world around us. It comprises the *interconnected* living and non-living physical elements of the Earth's surface and atmosphere as well as human-made features and the human conditions of *places* (see summary in Figure 1.13). The natural *environment* includes weather and climate, landforms, water features, natural vegetation and soils, and these features can be classified as living or non-living. The human *environment* includes surroundings made by people such as settlements, transport routes and nodes, and farmlands as well as the social, cultural and political conditions affecting a *place*. These conditions may be located in or beyond a particular *place* and may include economic influences.

Tourists are attracted to features of both the natural *environment* (as shown in Figure 1.5) as well as human

Figure 1.14 **(a)** Cruise ship tourists at the Argentinian Base Brown, Antarctica **(b)** Antarctic tourists in a zodiac photographing a leopard seal

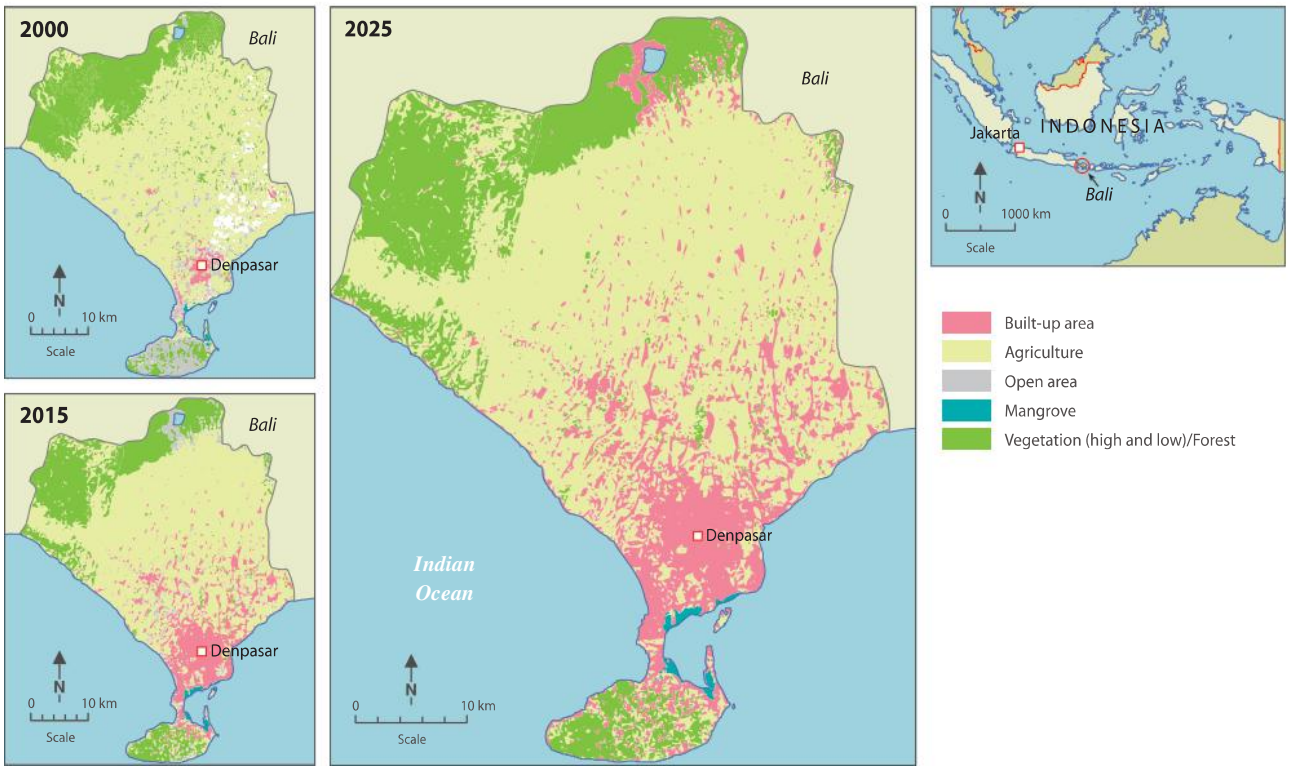
environments (as illustrated in Figure 1.4). The quality of the *environment*, whether natural or human, is an essential component of tourism. If there are too many tourists to a *place*, often many negative consequences for the tourist *environment* can occur. For example, the city of Prague has become the fifth most visited destination in Europe, rising from 2.6 million tourists in 2012 to 7.6 million tourists in 2017. Effects of too much tourism development (overtourism) are increasingly constraining the local population's quality of life and impact negatively on the tourism experience for visitors. Even in remote areas, tourist numbers are increasing. For example, more than 56,000 tourists visited Antarctica during the 2018–2019 season, with most of them making landings ashore (see Figures 1.14 (a) and 1.14 (b)). Without careful planning and management, the nature of the *environment* that attracts tourists in the first place can be degraded to the point that tourists are no longer attracted to a destination. Overtourism is now a major issue in many tourist *places*. This situation is investigated further on pages 40, 108–9 and 111–12.

Interconnection

The concept of *interconnection* emphasises that all *places* and *environments* are *interconnected* in some way and that they do not exist in isolation, whether at a local or global level. Geographical phenomena are connected to each other through *environmental processes* or human activities.

An example of *interconnection* in tourism, at a local level can be seen in Bali, Indonesia. Rapid tourism growth has caused land use and land cover to *change* dramatically from a more natural *environment* to a predominantly human *environment*. Figure 1.15 shows that the built-up areas expanded from Denpasar to the neighbouring areas between 2000 and 2015, as land use was converted from agriculture, open area and vegetation/forest to built-up land use. The built-up area is predicted to continue to grow by up to 43 per cent from 2015 to 2025. *Interconnected* with this *change* is the impact on the traditional social structure based on irrigation known as Subak.

Figure 1.15 Land use and land cover *changes* in southern Bali for 2000, 2015 and prediction 2025



This irrigation system binds Balinese agrarian society together within the village's community centre and Balinese temples that are the main focus of this cooperative water management. Due to the decrease in rice fields, there is now limited access to water for the local residents. It is estimated that 65 per cent of the island's water reserves are used to supply tourism facilities as the hotels have priority over the local people. *Interconnected* with the land use and land cover *change* due to tourism growth is a *change* in the traditional irrigation system of Subak that has existed in Bali since the 9th Century.

Movement

Movement involves a *change* in the location of phenomena such as people, goods, money and ideas through travel or flow. Tourism fundamentally involves *movement* because, by definition, people are travelling voluntarily from their home location to other *places*. Their purpose for travelling can involve a variety of reasons such as for pleasure or business. Employees at tourist venues may also travel to work commuting daily, *moving* seasonally or migrating permanently.

Where *movement* is concerned, *distance*, direction, the mechanism bringing about *movement* (in this case tourism itself), in addition to the frequency, volume or magnitude of *movement*, may all be considered. *Movement* is represented in different ways graphically – colour and lines can show the date of spread while arrows can show the *distance* and direction of *movement* (for example, Figure 1.9).

The use of geospatial technology can be used to plan tourist *movement*. For example, online mapping platforms that use Global Navigation Satellite System (GNSS) such as the BikeMap app, can assist with planning a local route for a bike tour based on crowd sourced data and details on the road surface and gradient. Since 2011 the Schleswig-Holstein *region* of Germany, popular with cycle tourists, has provided an online bike routing portal that allows tourists to plan and map their *movement* between 2500 points of interest, taking into account average speed, terrain, and weather forecasts as shown in Figure 1.16. Cyclists can plan their individual bike tour in Schleswig–Holstein with just a few clicks and then load the routes in various file formats onto their smartphone. At a global *scale*, the use of GNSS in commercial aircraft provides very precise aircraft position, altitude, heading and ground speed information enabling more accurate flight *movement*.

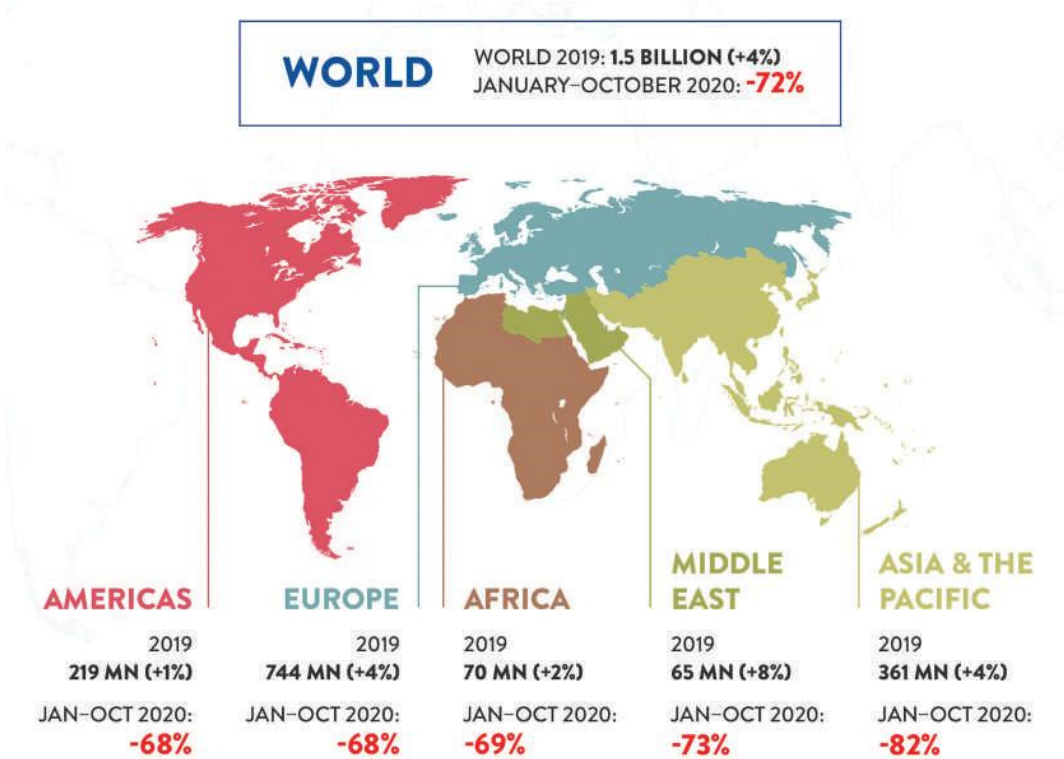
Figure 1.16 The Schleswig-Holstein online bike routing portal

Change

Change relates to the degree to which something alters, or is modified, over time. As phenomena studied in Geography are dynamic (*changing*), they are often best understood by investigating how the focus of investigation has developed over space and time. It is also valuable to examine the effects and impacts of *change*, and this often relates to *sustainability*.

Change can be spatial and *place*-related. This can include *changes* in the location (that is, *movement*), size,

Figure 1.17 *Change* in tourist arrivals from January–October 2020 compared to 2019 due to the COVID-19 pandemic



distribution, density, *scale* or pattern of phenomena. The transformation of the use, nature or quality of a *place* can also be identified. *Change* can be non-spatial and still be of relevance to Geography such as *changes* in land use policies. Varying occurrences of something over time can provide important information for geographers to consider. Temporal *change,* or *change* over time can lead us to consider what factors are behind the *changes*. *Changes* can bring about issues such as how land and water resources should be used and who should benefit. As a consequence, challenges arise of how should further *changes* be carried out to reduce or remove the issues.

The COVID-19 pandemic has caused a dramatic *change* in tourism around the world. The infographic in Figure 1.17 shows the number of international tourist arrivals from January through to October 2020 decreased in comparison to the number of arrivals for 2019. All *regions* of the world recorded a decrease ranging from between –68 per cent to –82 per cent, with a world average decline of –72 per cent, and the Asia-Pacific *region* suffering the highest rate of decrease of –82 per cent. The pandemic has *changed* the nature of tourism into the future.

Rates of *change* are important. In Geography, *change* can be studied in time *scales* which range from millions of years for geological and landscape *change*, to a matter of a few years, months, days or even hours. Figures 1.18 (a) and 1.18 (b) show *change* over four decades in Orlando, Florida, the location of Walt Disney World's four theme parks, which were opened in stages through 1971 (Magic Kingdom), 1982 (Epcot), 1989 (Disney Studios) and 1998 (Animal Kingdom).

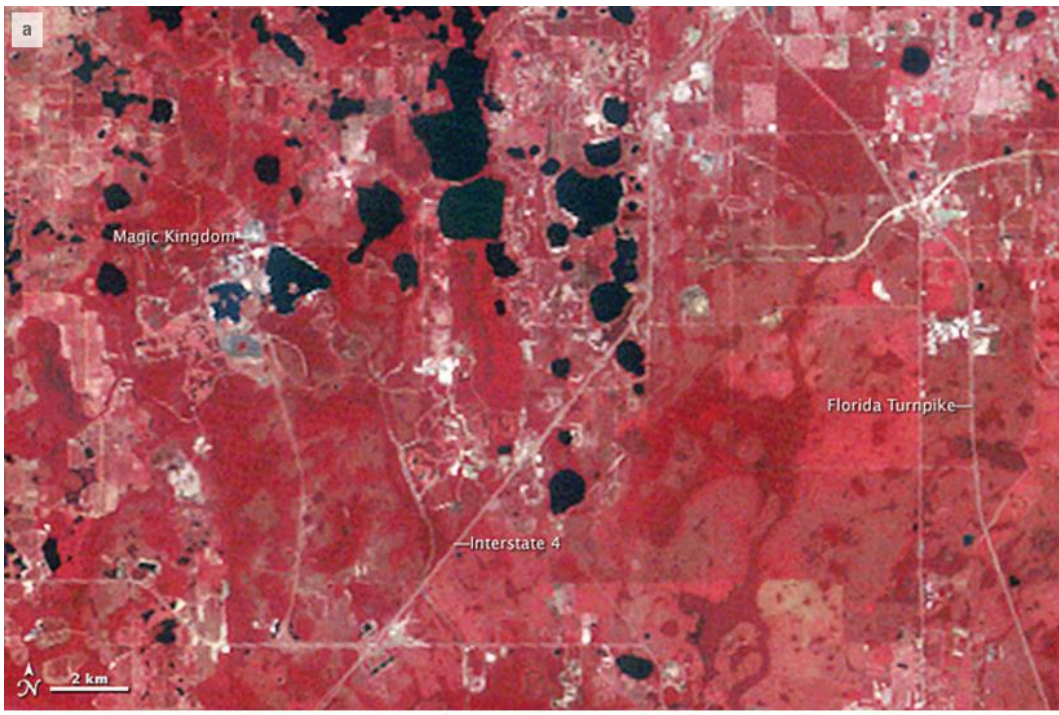


Figure 1.18
(a) A 1972 Landsat false-colour satellite image of Orlando, Florida, a year after the first of Walt Disney World's four theme parks – Magic Kingdom – opened

Figure 1.18
(b) Orlando, Florida, in 2014. It is now the location for two other major theme park complexes in addition to Walt Disney World, and major residential expansion

The entire complex is now 110.3 square kilometres, about the same size as San Francisco, on land acquired gradually in the 1960s. The *region* itself was formerly marshy flatlands and cattle pasture, though it already had a developed road network, and the Interstate 4 Highway was planned for construction. The decision to locate in Florida was based on surveys that showed only 5 per cent of visitors to the original Disneyland in Anaheim, California, came from the eastern side of the United States, where 75 per cent of the population lives, making it a vast, untapped tourist market. Florida also has a warm climate, conducive to tourism. The complex is now the most visited resort in the world with 20.9 million guests in 2019. In the period since its development, other major theme parks have located nearby, and Orlando's population has *changed* significantly, rising from 500,000 in 1970 to 2.6 million in 2020, with the rate of property development still unable to cope with demand.

Process

Processes involve a series of ongoing events or steps that lead to the development, *change* or preservation of something. Often *processes* create cause-and-effect relationships between things. *Processes* can operate within and between *places*, and at a variety of *scales*.

Where tourism is concerned, *processes* may be less obvious than in other topics. Tourism can, however, be promoted through political decision-making and economic *processes* involving the development of tourism infrastructure, improving accessibility to attractions, or staging major cultural or sporting events. External *processes* can also affect tourism, examples including natural *processes* such as volcanic or earthquake activity, or socio-political *processes* which bring about civil unrest or conflict. These have a negative impact on tourism to affected *regions*.

For example, the *process* of glacial advance and retreat is a part of a natural cycle. The popular tourist destination of the Franz Josef Glacier, in New Zealand began losing ice mass from 1999 to 2005 but then increased slightly from 2005 to 2008. However, after 2008, Franz Josef Glacier was in a period of rapid retreat. The glacier lost around 800 metres of length. The major shrinking of the glacier may also be attributed to the *process* of global warming. Based on past variations, scientists expect that Franz Josef Glacier will retreat 5 kilometres and lose 38 per cent of its mass by 2100 in a mid-range scenario of warming. In mid-2012 the collapse of the front 70 metres of the Franz Josef Glacier made foot access unsafe. The valley walls that once braced the glacier were exposed and vulnerable to rock falls, making hiking too dangerous. *Changes* were made to the National Park Management Plan to allow increased helicopter flights to facilitate glacier access for the glacier hiking companies (see Figure 1.3). Tourists can now only access the glacier by paying for either a scenic flight with brief landings or a longer, guided glacier walk at the top of the glacier. Glacier-related tourism, an important part of the New Zealand economy, is experiencing increasing challenge from ongoing *process* of glacial retreat.

Spatial association

It is common to find things occurring together on the Earth's surface. *Spatial association* is the degree to which two or more phenomena are similarly *distributed* or arranged on the Earth's surface. Where *distribution* patterns of phenomena are consistently similar, a strong or high degree of *spatial association* exists. For example, there is a strong *spatial association* between areas of the Earth with low rainfall and low population density. When one phenomenon has a high frequency and another phenomenon is lower in frequency, there is a weak or low degree of *spatial association*. For example, there is a weak *spatial association* between urban areas and the *distribution* of native animals in Australia. It is also possible for there to be no *spatial association* at all. The task of the geographer is to determine the degree of *spatial association* and explore potential underlying reasons for the existence of a relationship, or lack thereof.

Some of Victoria's significant tourism resources on an international and national *scale* are its national parks. Logic might suggest that national parks are only to be found a long *distance* from high population densities, areas that have survived development over time. Is this the case? Figure 1.19 shows the locations of national parks, while Figure 1.20 is a generalised map of the state's population density. These figures allow for an assessment of the degree of *spatial association* between the locations of parks and where people are living. To add a further dimension, comparison can also be made with Figure 1.11, considering the locations of Visitor Information Centres against national parks and population.

Spatial association can also be viewed through the perspective of impacts. The coincidence between phenomena spatially might occur by chance, but the fact that they do have overlapping *distributions* has consequences.

Sustainability

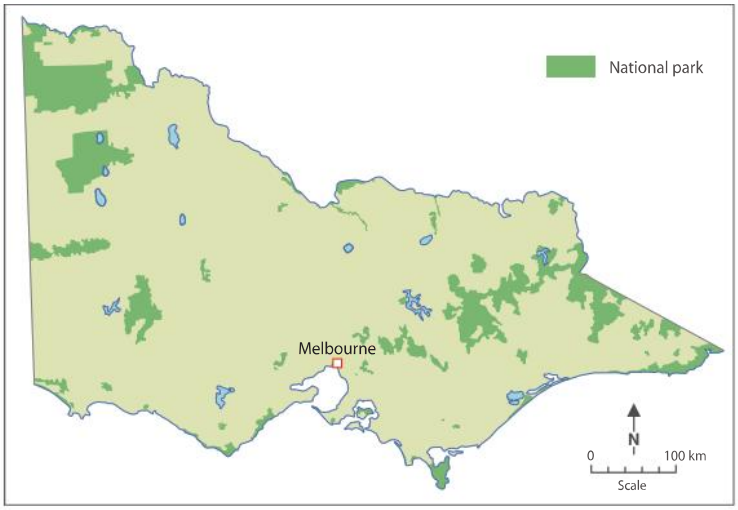
Sustainability is a different concept from the others and it encourages the formation of evaluations or judgements about current situations and their potential *change* into the future. *Sustainability* is the capacity of the *environment* and social systems to support people and other living things now and into the long-term future. It involves *environmental*, social, economic and political criteria to judge the wisest use of resources.

When considering tourism, *sustainability* can be used as a concept in various ways from an evaluative standpoint. Initial questions might focus on whether or not the type or nature of tourism itself is *sustainable* or even desirable; for example, where social, *environmental*, or other impacts are involved. *Sustainability* is also appropriately considered where individual tourist resources are concerned; for example, visitor numbers putting pressure on a resource, and the consequent measures that might need to be applied to manage *sustainability*.

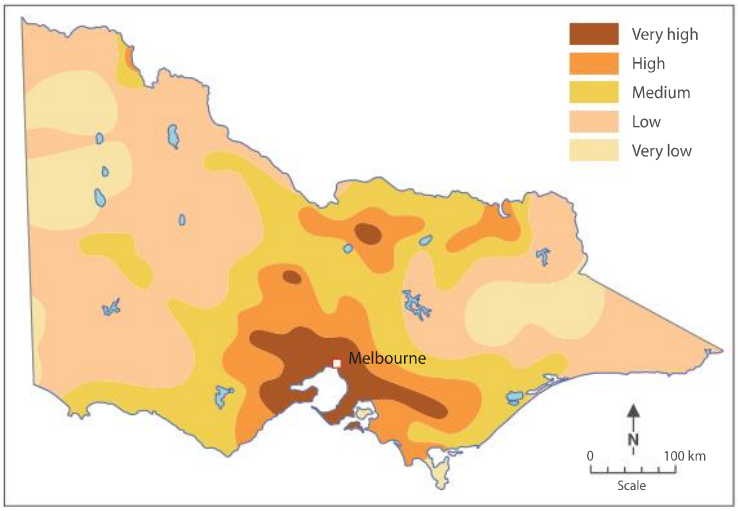
For example, the Philippines government announced its best-known holiday destination, the island of Boracay, would be closed to tourists for six months commencing 26 April 2018. Boracay is a 1000-hectare island located approximately 275 kilometres south of the capital, Manila (see Figure 1.9).

The closure was due to concerns that the once idyllic white-sand resort had been tainted by unregulated and *unsustainable* development. The challenge was how to take action in order to possibly restore the *environment* that had originally attracted tourists. Philippine President Rodrigo Duterte ordered the shutdown accusing the island's hotels, restaurants and other businesses of dumping sewage directly into the sea and turning it into a 'cesspool', as shown in Figure 1.21.

Nearly 200 Boracay businesses were found to be discharging untreated waste-water into the sea, resulting in increased concentration of human faeces along the beaches. The nutrient-rich sewage caused greater unsightly seaweed growth and the pathogens and toxins posed health risks to swimmers. Boracay had 500 tourism-related businesses, with a combined revenue of $1.07 billion in 2017. About two million people, including Australians, visited the island each year before its closure. However, the island's popularity with tourists had grown at an *unsustainable* rate with infrastructure unable to cope with tourist numbers. The shutdown aimed to rehabilitate the island, with major renovation works, especially of the sewage system, which had become obsolete and insufficient. The island re-opened in October 2018, with a set of new rules for businesses and tourists designed to achieve a more *sustainable* level of tourism development.



▲ **Figure 1.19** The location of Victoria's national parks



▲ **Figure 1.20** Generalised map of Victoria's population density

▲ **Figure 1.21** Algal bloom in Boracay on 25 April 2018, a day prior to the resort island's closure

ACTIVITIES

1. Refer to Figures 1.2, 1.3, 1.4 and 1.5. Identify the features in each figure that make them attractive to tourists.
2. Identify the common feature attracting tourists in each of the following figures:
   - Figures 1.3 and 1.19
   - Figures 1.4 and 1.18
   - Figures 1.14 (a) and 1.14 (b).

Place

3. Give the absolute and relative location of Franz Josef Glacier in New Zealand. (You will need to consult an atlas or use Google Maps.)
4. Use Figure 1.8 to state the absolute location of Yarra Glen Racecourse using a six-figure grid reference.

Scale

5. Refer to Figure 1.7. Classify the observational *scale* of the following figures:
   - Figure 1.1
   - Figure 1.6
   - Figure 1.8
   - Figure 1.9.
6. The COVID-19 pandemic has *changed* the *scale* of tourism. Explain this statement.

Region

7. Refer to Figure 1.11. Which tourism *region* in Victoria would the following belong to (these are Victorian locations from Figure 1.10)?
   - Chadstone Shopping Centre
   - Otways rainforest
   - Victorian Central Highlands.
8. Refer to Figure 1.11 and 1.19. Which Victorian tourism *regions* contain most national parks?

Distance

9. Describe the relative location of Yarra Glen to Melbourne shown in Figure 1.6. Include *distance* from Melbourne in your answer.
10. Why would *distance* from Melbourne be an important consideration for tourists?
11. Refer to Figure 1.8. How long is Spring Lane, Yeringberg? (GR 618267)
12. Refer to Figure 1.9. Some tourist *movements* cover a short *distance* whereas others cover long *distances*. Give an example of each type of *distance*.

Distribution

13. Refer to Figure 1.8. Describe the *distribution* of vineyards (refer to the legend) in this *region*.
14. Figure 1.8 also shows the topography of the Yarra Glen *region*, as shown by contours. Describe the *distribution* of land subject to inundation (flooding).
15. Describe the *distribution* of foreign tourists to Italy as shown in Figure 1.12.

Environment

16. Refer to the following figures in order to classify the *environment* as natural or human:
   - Figure 1.2
   - Figure 1.4
   - Figure 1.5
   - Figure 1.14 (a)
   - Figure 1.14 (b).
17. Refer to Figure 1.9. Classify the major tourist attractions into natural or human *environments*.
18. Refer to Figures 1.14 (a) and 1.14 (b). Outline how could large numbers of tourists visiting Antarctica have an impact on the natural *environment*.

Interconnection

19. Identify the reasons why tourists to Bali require so much water.
20. Refer to Figures 1.5 and 1.17. The COVID-19 pandemic caused a huge decrease in the number of tourists travelling across the world in 2020. As mentioned in the text, tourism contributes nearly 70 per cent of the Cook Islands' Gross Domestic Product (GDP). Describe the *interconnections* the pandemic would have had with the Cook Islands' economy.

▶ ACTIVITIES *continued*

Movement

21. Refer to Figure 1.9. Identify the *region* with the most *movement* (name the countries involved).

22. Refer to Figure 1.16. Describe how the Schleswig-Holstein online bike routing portal would assist a bike tourist plan their *movement* on the route shown.

Change

23. Refer to Figure 1.15 and describe the land use and land cover *changes* between:
- 2000 and 2015
- 2015 and 2025.

24. Refer to Figures 1.18 (a) and 1.18 (b). Describe the *change* in the *distribution* of settlements between 1972 and 2014.

Process

25. The *process* of climate *change* may be contributing to the retreat of glaciers. This has had a negative impact on tourism in New Zealand. How else could the *process* of climate *change* have a negative impact on other tourist sites?

26. Refer to Figure 1.21. Describe how political *processes* can impact on tourism.

Spatial association

27. Refer to Figures 1.11 and 1.20. Describe the degree of *spatial association* between Visitor Information Centres and *regions* of low and very low population density.

28. Refer to Figures 1.19 and 1.20. Describe the degree of *spatial association* between Victoria's national parks and the generalised population *distribution*, noting any evident exceptions.

Sustainability

29. Boracay in the Philippines is just one example of a coastal tourist resort that is suffering from *unsustainable* tourism. A similar situation of overtourism was also described in the text as occurring in Prague. Outline how high tourist numbers could constrain the local population's quality of life and impact on the tourism experience for visitors. Was the *unsustainable* situation in Boracay only due to too many tourists?

30. It could be argued that the COVID-19 pandemic has created conditions for more *sustainable* tourism. Explain why this may occur.

Analysing and interpreting data

In many cases in Geography, analysing and interpreting data relates directly or indirectly to the key geographical concepts. Developing a conceptual understanding and applying concepts to information analysis is the basis of many activities in this textbook. Some questions or tasks will include a concept by name, while others imply the use of one or more concepts in your thinking.

Tips for using concepts:

- In written responses to tasks which name a particular concept, it is usually appropriate to use that concept by name in your answer.
- Conceptual understanding can often be demonstrated visually: for example, in a map, graph or diagram. Examples of concepts shown well on maps include *scale*, *distance*, *distribution*, *region*, *movement*, *change* and *spatial association*. Commonly graphed examples include *distribution*, *movement* and *change*, particularly those involving a time *scale*. *Process* and *interconnection* might be appropriately shown in a flow diagram.
- Higher quality written responses often communicate clear conceptual understanding, without necessarily using the concept by name.
- Avoid using concepts in responses unnecessarily. Doing so does not always show an understanding of the concept.

Applying instructional terms in Geography

Throughout the chapters in this book, instructional (or directive) words are used in many activities. They specify how you should approach and complete a given task. Understanding these words and knowing what is expected of a response are important skills, and will improve the quality of your answers and enhance geographical understanding.

The table in Figure 1.22 provides explanations for instructional or directive terms found in this book, or likely to be used in class activities, assessments or fieldwork.

▼ **Figure 1.22** Explanation for instructional and directive terms

Analyse	Show the essence of something (e.g. a situation or a map) by breaking it down into separate points and critically examining the relationship between each part.
Annotate	Add labels, comments or explanatory notes to images, maps, graphs, diagrams or text.
Assess	Weigh up the value of or judge the strengths and weaknesses of something. Similar to 'evaluate', but more general.
Calculate	Use data or statistics provided in various forms to determine an answer.
Categorise	Arrange or group by distinctive characteristics into different categories.
Classify	Organise into different classes distinguished by key characteristics.
Compare	Show the similarities or differences when examining two situations, events, ideas, features or *processes*.
Consider	Think about what has been observed regarding something; be able to support observations using appropriate evidence.
Construct	Create, develop or draw a map, diagram, graph, flow chart or table.
Contrast	Highlight the differences when examining two or more situations, events, ideas, features or *processes*.
Describe	Provide characteristics of a situation explaining what is observed.
Discuss	Show understanding of a situation, where appropriate, by presenting both sides of a situation, issue or event. Include the strengths and weaknesses of available data. Usually involves more detail than 'explain'.
Evaluate	Weigh up and interpret a statement, viewpoint or situation and state a conclusion about its value or importance. Similar to 'assess', but with a focus on the outcome or result. Include consideration of different opinions.
Explain	Relate cause and effect. Give reasons why a situation exists or a *process* occurs.
Explore	Adopt a questioning approach, looking at all aspects of the situation, including points for and against. Similar to 'discuss'.
Identify	Establish the nature of a situation by distinguishing its features and naming them.
Interpret	Examine visual data such as a map, graph or diagram to make sense of what is being depicted and to draw conclusions.
Justify	Use examples or find sufficient evidence to show why, in your opinion, a viewpoint or conclusion is correct.
Outline	Summarise the main points of given information or events in a situation.
Predict	Suggest what may happen in a given situation based on evidence gathered.
Quantify	Use numbers or statistics to describe a phenomenon and support conclusions.
Rank	Arrange factors, outcomes or elements in order of importance.
Suggest	Present a hypothesis or theory about a particular situation.

What is geospatial technology?

All geography students need to have the ability to interpret spatial data – information shown via maps. You may have used a form of spatial data when booking and tracking transport using Uber or when using Google Earth. Geospatial technologies are the digital tools for geographical inquiry that include software and hardware interacting with real world locations. This includes any form of technology that organises and collects data that is referenced to a point on the Earth's surface via latitude and longitude. Geospatial technologies enable the visualisation, manipulation, analysis, display and recording of digital spatial data. It is important to be able to interpret and analyse spatial information as more decisions in our world are spatially based.

The different forms of geospatial technology are summarised in Figure 1.23.

Good sites for further information on geospatial technology

GNSS

- www.youtube.com/watch?v=CCKisghkcA4

  This YouTube clip by Geospatial Media offers a simple explanation of GNSS. [Duration: 2.44 minutes]

GIS

- ESRI What is GIS?
  www.esri.com/en-us/what-is-gis/overview

  This site offers a clear explanation of how GIS works.

  Follow this up by selecting an example from the link to GIS showcase.

- National Geographic MapMaker Interactive:
  http://mapmaker.nationalgeographic.org/

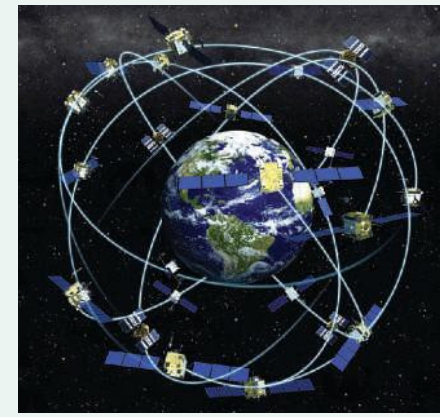
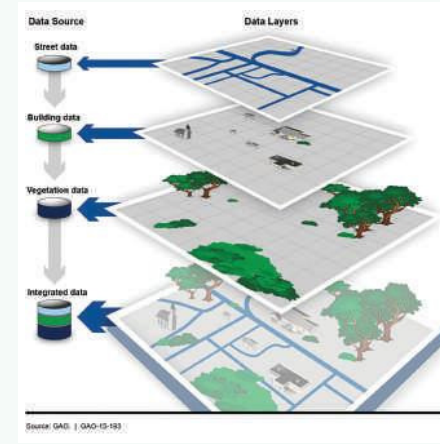
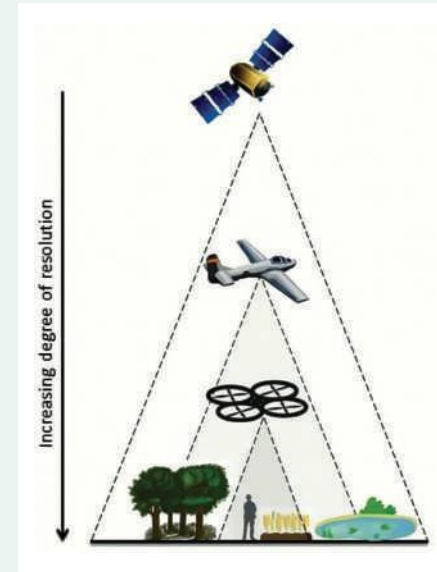
  A very simple but useful GIS tool with some basic tools such as measuring *distance*, adding labels and place-marks.

Remote sensing

- NASA Earth Observatory
  http://earthobservatory.nasa.gov

  This site provides access to an enormous number of satellite images. The site provides featured images each day, as well as breaking news articles that feature satellite imagery. Current topical stories are also provided, with satellite imagery. Topics include climate *change*, natural disasters, deforestation, pollution and more.

▼ **Figure 1.23** Different forms of geospatial technology

Geospatial technology	Explanation
GNSS Global Navigation Satellite System	Often inaccurately referred to as the Global Positioning System, this network is based on a system of at least 24 satellites that circle the Earth. The GNSS system can determine a user's position in terms of latitude and longitude as well as altitude. This enables users to identify their exact location on the Earth via a smart phone or in-car navigation unit. Once the system has determined a user's position, software can then calculate other information such as speed, bearing, track, *distance*, *distance* to destination, and many more features. GNSS forms the basis of modern mapping and can be used in mobile apps or for specific purposes such as tracking the *movement* of cyclones. 
GIS Geographic Information System	This is the most common geospatial technology tool used today. Geographic Information Systems use computer-based mapping software that collect, store and analyse previously unrelated information and display this information as easily-understood maps. The GIS program represents the data as layers of information that can be turned on or off, according to what the user wants to look at and the relationships they are trying to find. For example, layers could include road layout, buildings and vegetation *distribution*. Google Earth and ArcGIS are examples of GIS. Associated with this technology are many online interactive mapping applications usually focussed on a particular topic – for example, weather forecasting, town planning or monitoring emergencies. 
Remote sensing	Remote sensing obtains information about the Earth's surface without being in contact with it. This involves data collected above the Earth from space or by an aircraft and includes satellite images and aerial photographs. A recent trend in this area has been the development of drones that include cameras or sensors to record information. Remote sensors can be either passive or active. Passive sensors respond to external stimuli and record natural energy from the Earth's surface such as reflected sunlight or re-radiated heat (infra-red radiation). In contrast, active sensors use internal stimuli to collect data about Earth. For example, a laser-beam remote sensing system projects a laser onto the surface of Earth and measures the time that it takes for the laser to reflect back to its sensor (known as LiDAR or light detection and ranging). Remote sensing data is often then used to provide a base layer for a GIS map. Remotely sensed data is useful for hazard management and monitoring data about oceans and the atmosphere. 

2 Tourism: an overview

Geographers study tourism for many reasons:

- there are large numbers of people involved – such as 1.5 billion international tourists in 2019 and around 300 million jobs generated worldwide
- tourism is seen as a major source of income for *regions* and countries and a driver of economic and social progress
- it has wide-ranging impacts on the use of resources such as land and water, and on local and national cultures of host and guest populations. These impacts result in a range of issues and challenges
- tourism *interconnects* with climate, landforms, culture, economics, history and politics
- it increases the knowledge and understanding of our beautiful and increasingly complex world.

▲ **Figure 2.1** Sovereign Hill, Ballarat

Who are tourists?

The United Nations World Tourism Organization (UNWTO) defines tourists as people who travel to and stay in *places* outside their usual *environment* for more than 24 hours, but not more than one consecutive year. This travel may be for leisure, business, visiting friends and relatives, and other purposes.

Tourism refers to the activities of tourists and the supporting activities and infrastructure such as air transport, airports and hotels that are used by tourists. Tourism is classified as either domestic or international. Domestic tourism refers to tourism within a tourist's own country. International tourism refers to tourism outside a tourist's own country. For example, leaving your home in Geelong and staying on the Gold Coast for a week would make you a domestic tourist. If you left Australia and visited Fiji for a week you would be considered an international tourist. However, if you go to see a friend or attend a sport event away from your usual *environment* and return home within 24 hours, you are a visitor not a tourist.

▶ ACTIVITIES

1. List the three defining characteristics that identify a tourist.
2. What is the difference between domestic tourism and international tourism?
3. Look at Figure 2.1, what would make this destination one for international tourists?
4. Classify the following activities as domestic tourism, international tourism or a non-tourist activity. Justify each of your decisions.
   - You attend a school in France for a six-week language course.
   - An Australian businessperson is working in Shanghai for two years.
   - Oceanographers from the United States attend a three-day conference in Cairns.
   - An English couple visit their son and daughter-in-law in Sydney during the Australian summer season.
5. a. Survey your class and decide where in the world you might like to travel and why. Each person could choose up to three different *places*. Plot these *places* onto a world map and discuss the pattern that results.
   b. Repeat the survey and mapping but this time choose up to three different *places* each person would not like to visit. Try to identify common reasons for the choices.

The *scale* of global tourism

The huge *scale* of tourism is at times staggering. Many millions of people are involved in travelling domestically and internationally. In doing so, they directly and indirectly employ many millions of people, generate huge amounts of money, and directly impact on the *environment*, society and culture of different people and *places*.

In 2019 an estimated 1.5 billion tourists crossed international boundaries. The major origins and destinations of these international tourists are unevenly *distributed* throughout the world, as Figure 2.2 and Figure 2.3 show. The largest proportion of international tourists originates from the world's more-economically-developed *regions*, particularly Europe and North America. Europe remains the world's most popular destination with approximately 715 million international tourists a year – slightly less than half of all international arrivals in the world, as Figure 2.2 indicates. Six of the top 10 most popular countries for arrivals are in Europe (see Figure 2.4 (a)), and five of the top tourism earners are also European (Figure 2.4 (b)).

Figure 2.3 shows large-*scale movements* of more than 10 million people a year flow to and from Europe to North America and the Middle East. Similar-sized flows occur from North America to central and South America, and in Asia from China and Japan to North America, South-East Asia and Europe. More and more international tourists are originating from the rapidly growing economies of the Asian and South American *region* including China, India, Brazil, and Mexico. These countries now support a sizeable middle class with rising disposable incomes and a desire to travel. Similar to their counterparts in the older, more-developed *regions* of the world, these tourists are drawn to destinations within their own *region* as well as further afield.

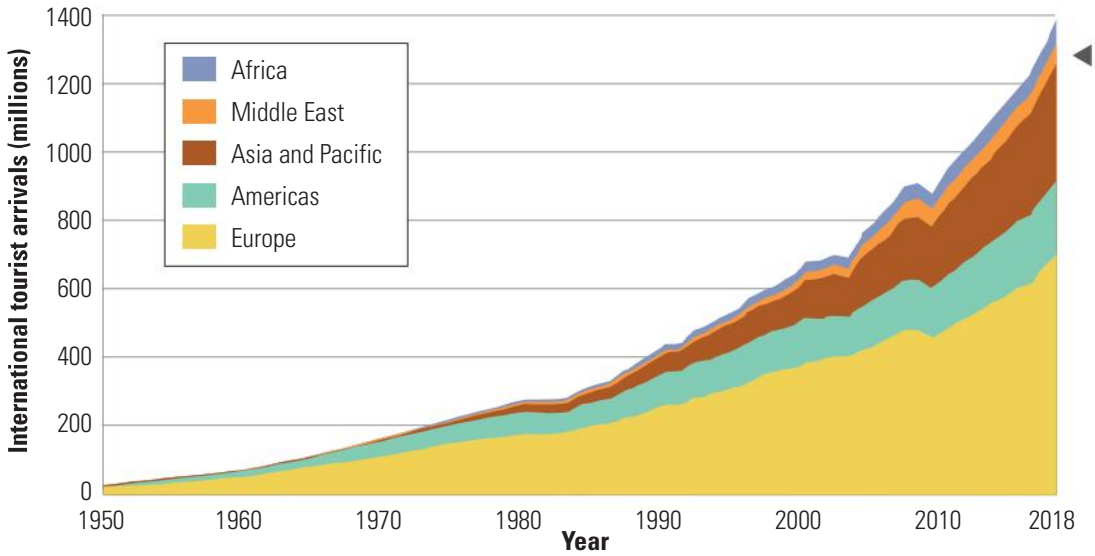


Figure 2.2 International tourist arrivals by *region*, 1950 to 2018

Figure 2.3 Major international tourist *movements*, 2019

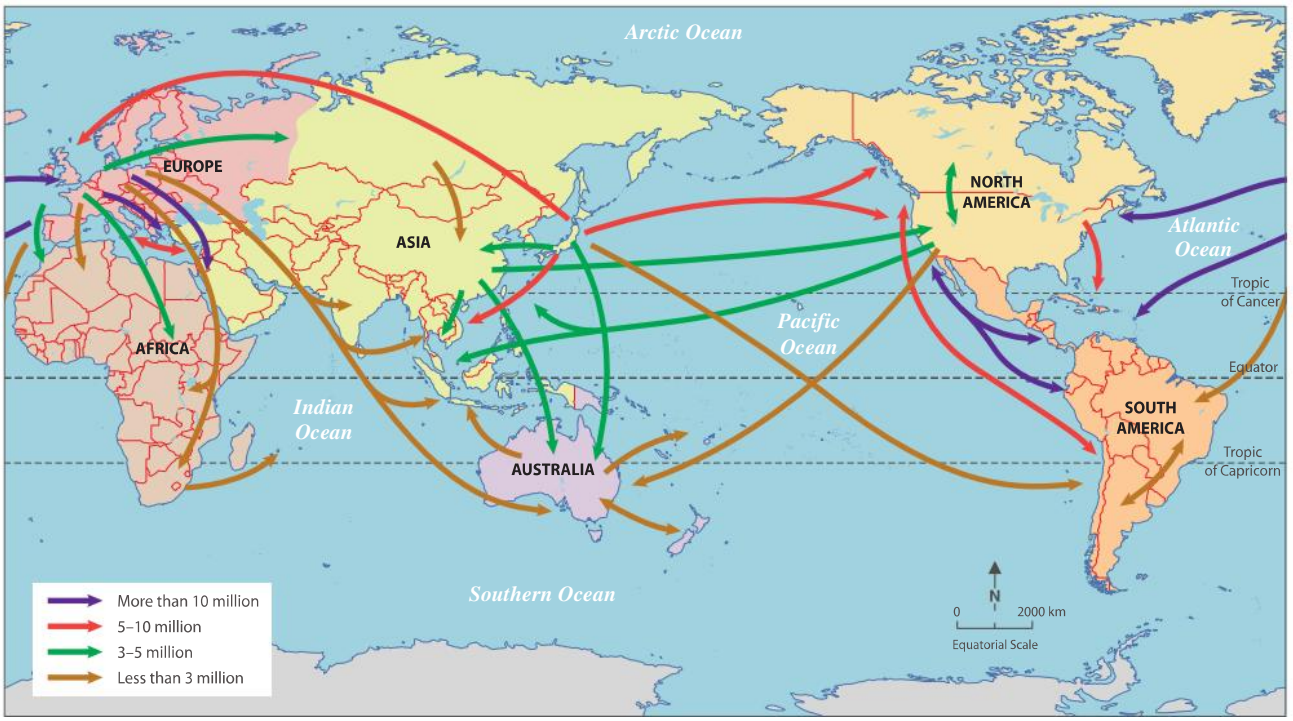


Figure 2.4 (a) The top 10 destinations of international tourist arrivals, 2019

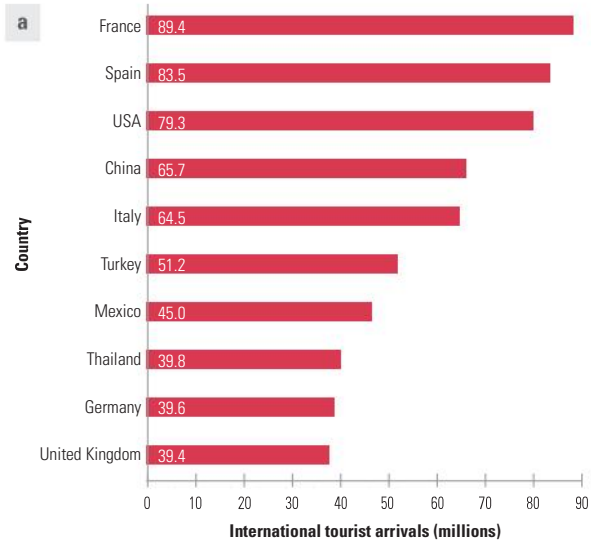


Figure 2.4 (b) The top 10 destinations by international tourism receipts, 2019

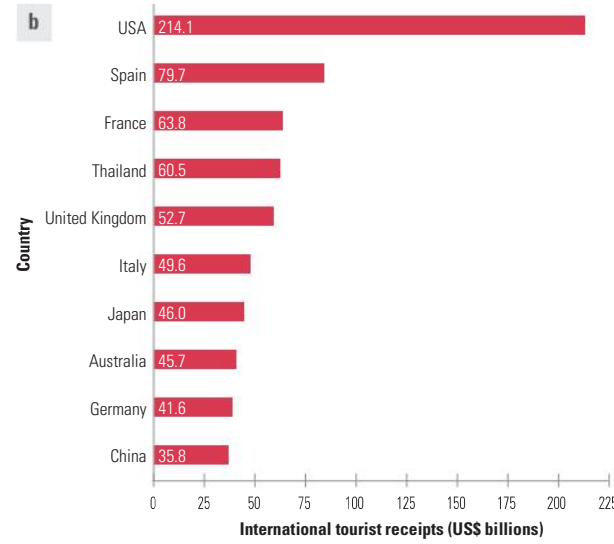
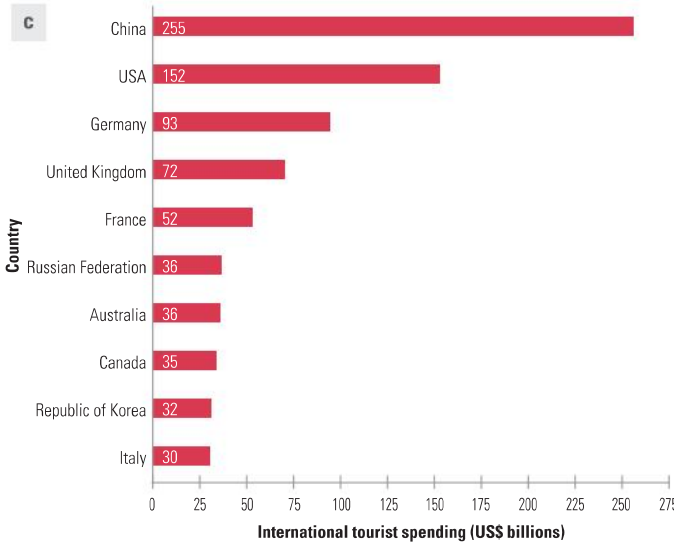


Figure 2.4 (c) The top 10 countries by international tourists' spending, 2019



In the future, UNWTO believes that while all *regions* of the Earth will receive more tourists, the Asia–Pacific *region* will continue to be the fastest growing one for international tourist arrivals.

The large-*scale* worldwide *movement* of international tourists generates huge expenditures for accommodation, food and drink, entertainment, shopping and transport. In 2019 this expenditure peaked at US$1.3 trillion. As Figure 2.4 (c) shows, many of the top tourism spenders are also some of the top earners from tourism (Figure 2.4 (b)). Large-*scale* expenditures in destination countries can be a very important contributor to economic growth, especially employment in construction and personal services – pages 38–40 investigates these impacts further. International tourism now accounts for 30 per cent of the world's service exports – behind the level for chemicals and fuel but more important than automotive parts and food.

The *scale* of domestic tourism

Domestic tourism is the more common form of tourism, accounting for around 83 per cent of all tourist arrivals worldwide. Domestic tourists travel more frequently, over short *distances*, staying longer and more often with friends and relatives than international tourists.

Figure 2.5 shows the *distribution* of Australian tourists within their own country in 2018–2019. These domestic tourists in 113 million overnight trips recorded a total of 400 million overnight stays. The *distribution* of these stays has a strong *spatial association* with our population *distribution:* the major population centres attract most visitors, both domestic and international. Sydney (Figure 2.6) hosts over 20 million overnight stays for domestic tourists and remains Australia's number one domestic tourist destination. Estimates from census reports, flight bookings, hotel and motel registers, and caravan parks are used to derive these domestic tourism numbers.

Figure 2.5 Overnight trips by *regional* spending in Australian States and Territories, 2018–2019

State or Territory	Overnight trips (millions)
New South Wales	4.4
Victoria	3.1
Queensland	2.8
Western Australia	0.99
South Australia	0.49
Northern Territory	0.29
Tasmania	0.28
ACT	0.27

▼ **Figure 2.6** Central Sydney's tourist attractions on a harbour setting have become a major focus for Australian and international tourists

As well as travelling domestically, Australians are travelling as tourists internationally. Approximately 57 per cent of Australians have a passport and, in the 2018–2019 period, about 10 million international trips were made. The main travel destinations Australians are travelling to are summarised in Figure 2.7, including how many days they are likely to spend at their destinations. Figure 2.8 has information about domestic travellers' age groups, spending and time spent away from home.

On a larger *scale* than Australia are China's domestic tourist numbers, estimated at over two billion in 2019. Growing affluence and increased leisure time have resulted in more Chinese *moving* around their own country for pleasure. Shanghai's Bund (Figure 2.9), as well as many thousands of locations within China, is an especially busy *place* for locals and domestic tourists alike to enjoy the city's *changing* landscape. The largest source of China's domestic tourism is the twice annual *movement* of several hundred million urban dwellers to their home towns and villages – during Spring Festival and Harvest Moon Festival.

▼ **Figure 2.7** International destinations of Australian travellers and the average number of days spent, 2019

Destination	Number of travellers (000s)	Days spent
New Zealand	1444	8
Indonesia	1311	10
USA	1079	16
United Kingdom	668	25
China	611	17
Thailand	565	12
Japan	484	15
India	416	24
Singapore	405	9
Fiji	345	8

▼ **Figure 2.8** Domestic travelling characteristics of Australians, 2018–2019

Age group (years)	Average spending per trip (A$)	Average days spent per trip
15–29	471	3.1
30–54	809	3.3
55+	666	4.2

▼ **Figure 2.9** Shanghai's Bund, popular with domestic and foreign tourists

▶ ACTIVITIES

1. Refer to Figures 2.2, 2.3 and 2.4.
   a. Rank the *regions* from most to least international arrivals in 2018. How had the ranking *changed* since 1950?
   b. Europe receives the largest number of international tourist arrivals. Discuss in class why this might be so. Where are the main sources of these arrivals?
   c. Which *regions* appear to be the main source of international tourist arrivals in the Asia–Pacific *region*?
2. China, India, Brazil, and Mexico have grown as major sources, as well as destinations, of tourism. How does this trend correspond with *changes* in these countries' economies and personal wealth?
3. As international tourists, Australians travel long *distances*. What evidence is there on Figure 2.3 to support this?
4. Evaluate the following statement: "The further Australians travel away from Australia, the longer they are likely to stay."
5. Discuss in a group what factors could determine the location and time spent on an Australian holiday for you and your family or friends. The data in Figures 2.5 and 2.8 should be used.

Where do tourists go?

The Earth's very diverse natural and human *environments* give tourists a huge range of opportunities at a wide variety of locations, domestically and internationally for activities. These opportunities can be put into four broad categories:

- natural *environments*, including coastal waters and mountain scenery
- built facilities, including theme parks and conference, medical and health facilities
- culture and history, including pilgrimage sites, the remains of past civilisations and shopping and food sites
- dark locations, including memorials and sites of conflict.

Many tourist destinations have multiple opportunities for different activities. These opportunities become *interconnected* because of their proximity to one another and because visitors are likely to take on more than one of these opportunities. For example, a coastal resort such as Queensland's Gold Coast offers opportunities including swimming and surfing, whale watching, visiting theme parks and shopping. Tourists often want to experience different things on a holiday. Globally, many of the most successful destinations for tourists, such as Paris, London, Bali, Phuket, Florida and Dubai, offer multiple opportunities for different activities within easy access of major transport networks.

▼ **Figure 2.10** **(a)** Bryce Canyon, United States **(b)** James Bond Island, near Phuket, Thailand **(c)** Part of Iceland's natural landscape

Natural *environments*

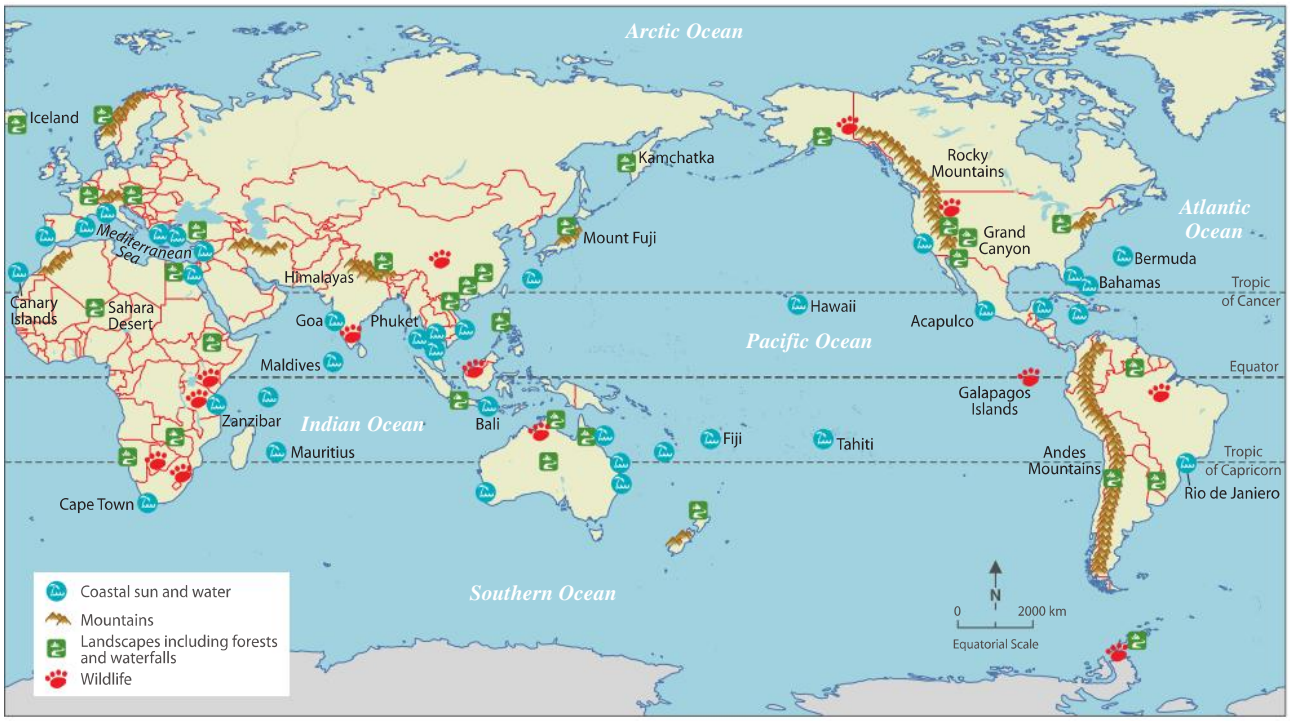
So many of the Earth's beautiful and awe-inspiring *places* have become tourist destinations, like those in Figures 2.10 (a), 2.10 (b) and 2.10 (c). Natural *environments* vary greatly and include mountains, valleys, rivers, waterfalls, deserts, glaciers and rainforests together with the wildlife that inhabits them. Many of these *environments* contrast to those in towns and cities from where most tourists come. Therefore, these different *environments* become an attraction, and the basis for nature-based tourism (see Chapter 7).

Natural *environments* of mountains such as the Rockies of North America (see Figure 2.10 (a)) and the Himalayas of South Asia have unique combinations of height, slope (steepness), vegetation, wildlife and weather. They provide opportunities for admiring the scenery, walking, mountaineering and skiing. Coastal locations such as Phuket in Thailand (see Figure 2.10 (b)), Bali in Indonesia and Cancun in Mexico, provide access to beaches as well as warmth for tourists escaping cold winters in Europe, North America and south-east Australia and New Zealand. Hundreds of coastal *regions* are sites for surfing (e.g. Maui and Oahu in Hawaii, Jeffrey's Bay in South Africa) and diving (e.g. Palau in the northern Pacific and the Great Blue Hole in Belize).

Iceland (Figure 2.10 (c)), with its wild scenery of mountains, active volcanoes, hot springs and ice attracts more than two million tourists a year. Wildlife sites such as games reserves in South Africa and Botswana give tourists a chance to see elephants, lions, hippopotamuses and giraffes at close quarters. The rainforests of Borneo give tourists a chance to view unique vegetation as well as wildlife, including orang-utans (see also Chapter 5).

To experience their beauty and drama, access roads and accommodation facilities are built at key points in or near many natural *environments*. Souvenir outlets, restaurants and night entertainment can also be developed over time. The value of the original natural *environment* may be reduced by these developments. This can result in the emergence of issues and challenges to the local population, tourism authorities, tourists and the natural *environment*. Pages 40–3 examine this *process* in more detail.

▼ **Figure 2.11** *Distribution* of some natural *environments* attracting tourists



ACTIVITIES

1. From Figure 2.11, name five coastal destinations based on islands.
2. How does the *distribution* of the Earth's coastal destinations differ from the *distribution* of wildlife locations?
3. How different would tourists find the natural *environment* in Antarctica to that in Australia? Locate on the internet at least two images of each *region* to illustrate your answer.
4. What different activities could tourists do at locations such as those in Figures 2.10 (a), 2.10 (b) and 2.10 (c)? What additional facilities to support large numbers of visitors would you expect to find close to these *places*?
5. Conduct some internet research to discover the main *processes* helping to form Iceland's landscapes. Suggest why specific landscapes might be considered hazardous to tourists.
6. Make your own *distribution* map of dive and surf sites.
   a. Use a search engine to locate and map top 10 dive sites and top 10 surf sites, based on popularity. Google Earth will help with some of the more remote locations. Use a key for *place* names. Don't forget a title!
   b. Which sites are nearest to Australia?
   c. Which type of activity has a wider *distribution*?
   d. Investigate one of the sites in each activity to find why they are so popular.

Built facilities

Places with built facilities can attract and serve domestic and international tourists because of their specialised buildings and functions, like the complex in Figure 2.14. *Places* with built facilities are frequently developed at the same locations as ones with outstanding natural attractions. Some examples of this *spatial association* are the theme parks on Queensland's Gold Coast and the extensive convention centres in Hawaii and Florida. To maximise the number of tourists, these facilities are often built close to or within attractive natural landscapes such as coasts.

Theme parks and viewing stations

Every year, millions of people throughout the world visit theme and amusement parks, and ascend viewing stations, like the London Eye (Figure 2.12). These built facilities are often the highlight of a visit and frequently the reason for travelling to a *place*. Worldwide, there are thousands of theme and

▲ **Figure 2.12** The London Eye adds to that city's many attractions for tourists

▼ **Figure 2.13** The world's most popular theme and amusement parks

Park	Location	Attendance 2019
Magic Kingdom at Walt Disney World Resort	Florida, USA	20,963,000
Disney Park at Disneyland Resort	California, USA	18,666,000
Tokyo Disneyland	Chiba, Japan	17,910,000
Tokyo DisneySea	Chiba, Japan	14,650,000
Universal Studios, Japan	Osaka, Japan	14,500,000
Disney's Animal Kingdom	Florida, USA	13,888,000
Epcot at Walt Disney World Resort	Florida, USA	12,444,000
Chimelong Ocean Kingdom	Hengqin, China	11,736,000
Disney's Hollywood Studios	Florida, USA	11,483,000
Shanghai Disneyland Park	Shanghai, China	11,210,000
Universal Studios Florida	Florida, USA	10,922,000
Universal's Islands of Adventure	Florida, USA	10,378,000
Disney California Adventure Park	California, USA	9,861,000
Disneyland Park	Paris, France	9,745,000
Universal Studios Hollywood	California, USA	9,147,000
Everland	Yongin, South Korea	6,606,000
Lotte World	Seoul, South Korea	5,953,000
Nagashima Spa Land	Kuwana, Japan	5,950,000
Europa-Park	Rust, Germany	5,750,000
Ocean Park Hong Kong	Hong Kong, China	5,700,000

amusement parks catering for a variety of interests and ages. Figure 2.13 lists the world's most popular theme and amusement parks of 2019. Typically, these built facilities have a theme or subject such as water features, thrill rides, movies or fantasy.

To remain competitive with other *regional* and international parks, and attract large numbers of visitors, theme parks require considerable investment. Atlantis in Dubai (Figure 2.14), with its luxury hotel accommodation and a range of water park features, cost around $18 billion to build in 2008. Increasingly, theme parks are built and operated by international companies such as the Walt Disney Corporation. This company runs theme parks in California and Florida (United States), Tokyo (Japan), Hong Kong (China) and Paris (France). Together these parks had over 146 million visitors in 2019. Magic Kingdom in Florida attracted 20.9 million visitors in 2019, making it the world's most visited tourist site.

▲ **Figure 2.14** The Atlantis complex in Dubai is a luxury hotel, conference centre and theme park

Large-*scale* theme parks need space and infrastructure including roads, parking areas, water supplies and waste disposal systems along with training centres, hotels, restaurants and other food provisions. Frequently in the larger theme parks, hotels are built within the parks or nearby, together with shopping malls and golf courses.

The Walt Disney World Resort, adjacent to Orlando in Florida (USA) is sited on 110 kilometres square. An equivalent area would be twice the size of the Melbourne suburbs of the City of Whitehorse or City of Bundoora. Within the resort are four major theme parks, four golf courses, 36 hotels and entertainment and shopping centres. In 2019 Walt Disney World Resort remained the United States' largest single-site employer with approximately 77,000 people and an annual payroll of around US$3 billion.

ACTIVITIES

1. The major theme parks are strongly *spatially associated* with other built facilities. What advantage would this give to theme parks?
2. Sovereign Hill in Ballarat (see Figure 2.1) is Victoria's most visited theme park. Research on the internet to discover Sovereign Hill's average number of visitors a year. What proportion of these visitors are day trippers to Ballarat? Discuss how Sovereign Hill and the surrounding *region* might become more popular with Australian and overseas tourists.
3. What conclusions can you make about the *distribution* of the world's most popular theme parks listed in Figure 2.13?
4. Discuss in a group what inhibits an Australian theme park making the list in Figure 2.13.
5. Evaluate the suitability of Melbourne or another Australian *place* to become a successful site for one of the following:
   - a world theme park
   - a major convention centre for Australia and the Pacific
   - a centre for medical tourism
   - an increased share of world education tourism.

   Be sure to decide on the basis for your evaluation. What evidence would you need to find to support your evaluation?
6. Figure 2.12 is not part of a theme or amusement park yet it attracts many thousands of visitors a week. Can you suggest why?

Medical health facilities

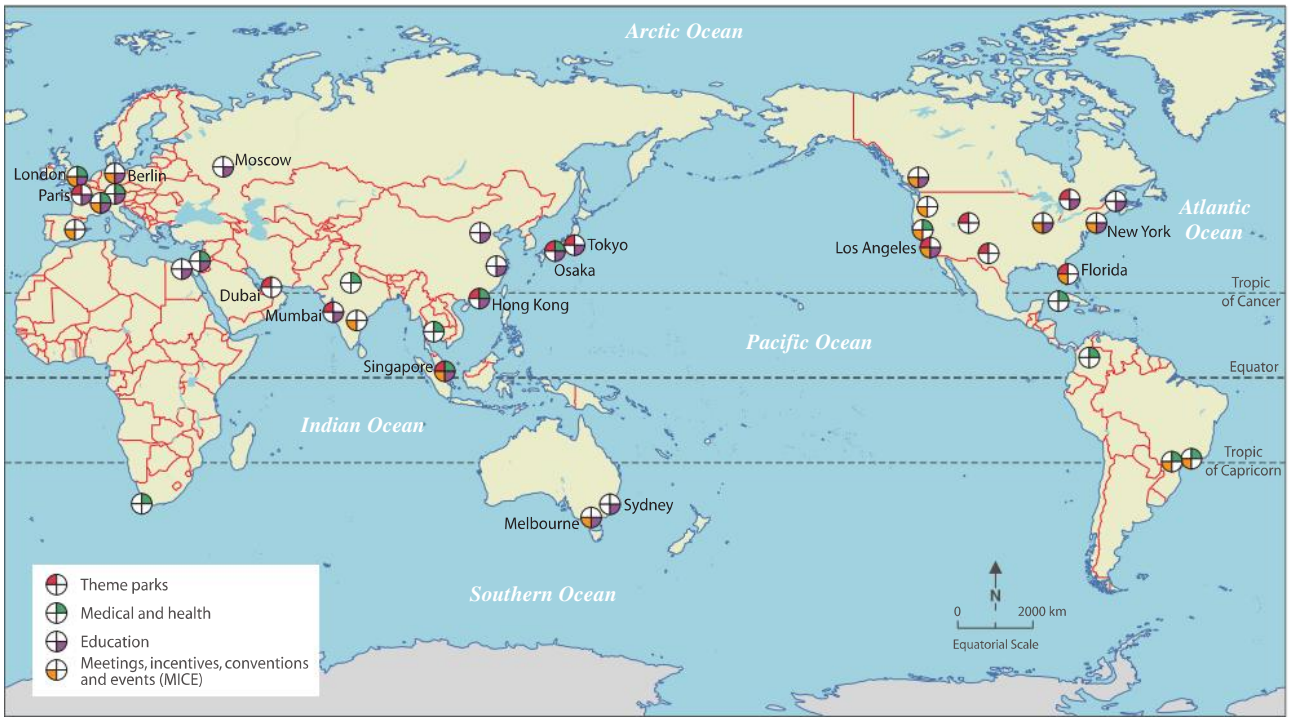
Many people travel domestically and internationally for medical and health reasons. In the past, wealthy people from less developed countries would often travel to the more developed countries for medical and health reasons. Today, the reverse is mostly true. Today's medical and health tourists are mostly from wealthier *regions* such as North America and Europe. They aim to avoid long waits for treatments and/or the high costs for medical treatment in their own countries.

Medical tourism involves travelling to a destination to undergo medical procedures whereas health tourists seek a destination that will maintain, enhance or restore their minds and bodies. Both medical tourism and health tourism require specialised built facilities. Figure 2.15 shows the destinations for the world's major medical, health and some other tourism centres.

World-class hospitals treating patients from overseas have developed in many countries including Jordan, Cuba, Mexico, India, Thailand, Malaysia, Singapore and South Korea. Each of these countries earns over US$1 billion annually from payments by medical tourists. Procedures such as joint replacements, dental implants, cardiac surgery, cosmetic surgery, fertility treatments and even organ transplants have been arranged. Sometimes a vacation package is added as part of the pre- or post-medical procedure. Medical tourists to South Africa could try a 'medical safari' involving animal watching followed by world-class, low-cost dental surgery.

Figure 2.16 shows the average costs for some treatments compared to costs in the United States. The popularity of lower cost treatments has been helped by other *interconnecting* factors: cheaper international flights, access to the internet's sources of information and promotion by government and private agencies. In 2019 approximately 15,000 Australians took advantage of medical opportunities in other countries.

Figure 2.15 The *distribution* of some *places* with built facilities for tourists



▼ **Figure 2.16** The average costs of key medical treatments, selected countries, 2019 ($US)

	Costa Rica	India	Malaysia	Mexico	Poland	Singapore	South Korea	Thailand	United States
Heart bypass	27,000	7900	12,100	27,000	14,000	17,200	26,000	15,000	123,000
Hip replacement	13,600	7200	8000	13,500	5500	13,900	21,000	17,000	40,300
Dental implant	800	900	1500	900	925	2700	1350	1720	2500
Breast implant	3500	3000	3800	4500	3900	8400	3800	3500	6400
Face lift	4500	3500	3550	4900	4000	4400	6000	3950	11,000

▼ **Figure 2.17** Tourists at a Dead Sea resort in Jordan experience the health benefits of its mud and water

Health tourism destinations are often associated with warm climates of desert and coastal locations, and the clean air of mountains and rural locations. Specialised *places* with thermal springs, mud pools and mineralised water attract day visitors and longer-term tourism in seismically-active *places* such as Japan, Hungary and New Zealand, as well as the Dead Sea (Figure 2.17) which borders Jordan and Israel. In Victoria, Hepburn Springs is a small centre for health tourism based on its mineral waters. People with skin conditions, arthritis, and rheumatism benefit from specialised treatments at nearby facilities.

▶ ACTIVITIES

1. Give two reasons why people travel internationally for medical purposes. How are their goals different from those of people who travel for health reasons?
2. Imagine you want dental implants. Referring to Figure 2.16, which country's pricing appeals to you? What other information would you need to know before signing a contract to carry out procedures? Will you travel alone or with someone? How might your costs increase unexpectedly?

▲ **Figure 2.18** An educational tour in Iran included the study of Islamic architecture

Educational facilities

Tourism can be educational when people travel to a *place* with an aim of gaining a learning experience directly related to their destinations. It can take several forms:

- study tours organised for increasing understanding of a particular *place* or culture. Examples are visiting the remains of past civilisations such as those of Egypt, Greece, Cambodia or Mexico; studying the natural habitats of the orang-utan of Borneo or the wildlife on the Antarctic Peninsula; and investigating agricultural practices in arid *environments* such as Pakistan or Sudan. For many study tour tourists, like those in Figure 2.18, the educational component may *interconnect* to other recreational pursuits such as shopping or simply relaxing at a resort.

- educational programs to acquire specialist skills, such as a foreign language, in an overseas institution. School excursions and exchange programs are important forms of educational tourism. In these cases education becomes a priority over relaxation and other tourism activities.

UNESCO (United Nations Educational, Scientific and Cultural Organization) estimated that in 2018–2019 over 5.5 million students studied outside their home country. Although they are not classified as tourists, these had increased from two million in 2000. The United States hosted over one million students. European Union countries hosted 1.7 million students, over 25 per cent of these studying in the United Kingdom. Australia had attracted over 800,000 international students by 2020, including 327,000 who commenced their studies before the COVID-19 pandemic brought a temporary halt to further arrivals.

The majority of Australia's international students stay in Australia for longer than one year and therefore are not officially tourists by the WTO definition. Nevertheless, foreign students temporarily form a significant pool of domestic tourists in their host countries. Victoria enrolled around 227,000 international students in 2018 (see Figure 2.19) with the largest numbers coming from China (88,400 in 2018), India (50,460), Malaysia (16,600) and Vietnam (12,700). The Victorian government estimates that international student fees and spending generates over $6 billion per year and supports between 50,000 and 60,000 jobs in the state. The impact of fewer international students, due to the 2020–2021 pandemic, highlights the importance of this source of income. Melbourne's CBD and the suburbs of Carlton, Clayton and Burwood experienced reduced student populations and lost between $580 million and $1.2 billion in spending in 2020.

Apart from Victoria, international centres attracting educational tourists include London, Reading, Oxford and Cambridge in the United Kingdom, as well as Paris, Berlin, New York, Los Angeles and Singapore. These *places* are shown on Figure 2.15.

Although the total number of international students worldwide is likely to rise, Australia's and Victoria's share of these educational tourists may be at risk. The number of cities competing to host international students is increasing. In addition, the major sending countries such as China and India are developing their own high-quality education programs. An added complication for Australian institutions wanting to attract international students is the high cost of courses and living in Australia.

MICE facilities

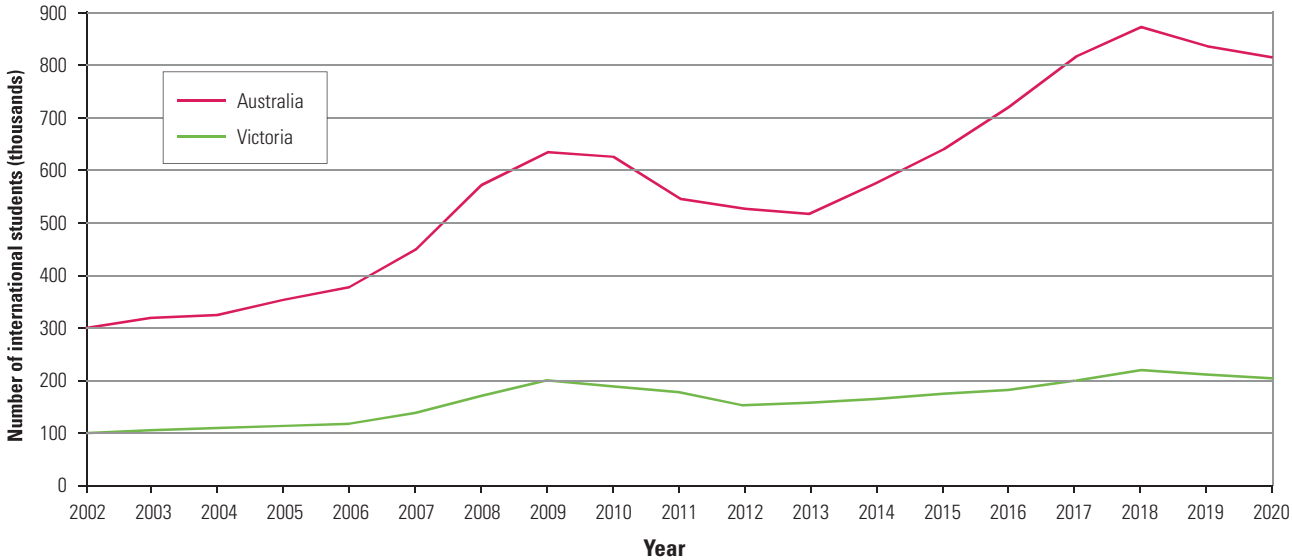
Meetings, Incentives, Conventions and Events (or MICE) attract over 20 million international business people and professionals to *move* across national boundaries every year. These events are mostly centred on a particular theme or purpose, such as electronics, toys, and fashion.

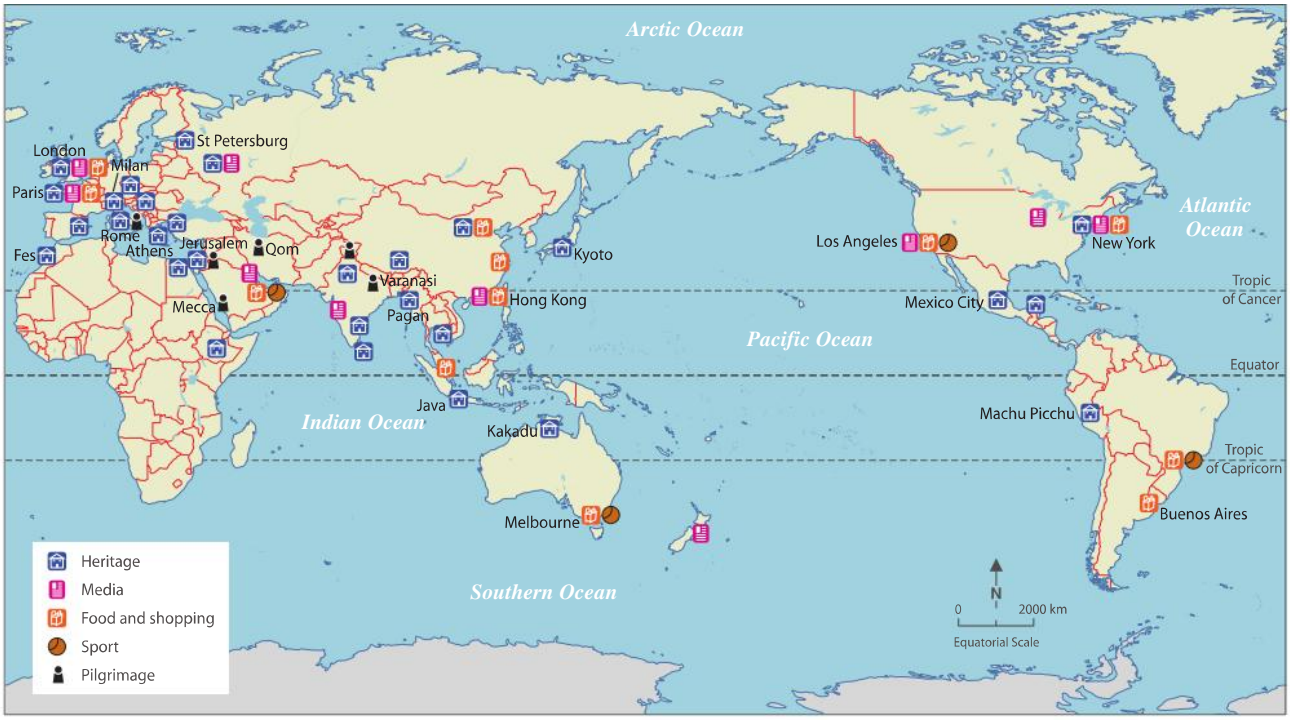
There is much competition between large cities throughout the world to gain a share of this growing, lucrative market. The more successful are *spatially associated* with location on international air routes and at sites *interconnected* with other attractions such as coastal resorts, entertainment and shopping. Accommodation for several hundred, even several thousand, delegates and visitors as well as effective telecommunication networks is essential to their success. Figure 2.15 shows their *distribution*.

ACTIVITIES

1. What might make you travel to another country as an educational tourist? Include a preferred destination in your answer.
2. From Figure 2.19 estimate the proportion of international students in Australia who study in Victoria. What benefits do these people bring to the state? Could there be any disadvantages?
3. Many Australian tertiary courses allow students one or two semesters to study in another country. What advantages would you gain from being an educational tourist?
4. Visit several internet travel sites that promote educational or study tours for students or adults. Estimate what proportion of the time spent away from Australia would be educational. At the end of a tour what knowledge and understanding might have been reached?
5. What is the nearest facility to your school, including your school, that could host a two-day convention for 100 or more delegates? Try the same scenario for at least 500 delegates. What *interconnected* facilities are available in the *region* to support this convention?

Figure 2.19 Victorian and Australian international students





▲ **Figure 2.20** *Distribution* of some major cultural tourism sites

Cultural tourism

This category of tourism covers a considerable range of tourism. It includes people travelling to experience different societies to their own, to visit historical sites and to experience events that interest them. The *distribution* of some major cultural tourism sites is shown in Figure 2.20.

Heritage tourism

Heritage tourism refers to visiting sites of past events and the structures that remain today. It provides many opportunities for tourists: visiting museums and historical remains, and watching and participating in re-enactments and festivals. Heritage tourism provides an opportunity for national and local governments to present their history to a wider audience and develop a sense of pride in achievements. The heritage may only be a few generations old, as in Victoria's goldfields such as Sovereign Hill in Ballarat, or it may have developed hundreds or thousands of years ago such as the civilisations of China, India, Iran, Egypt and Greece (see Figure 2.21). Many heritages are protected by local and national laws as well as by a UNESCO listing as a World Heritage site; the latter including prehistoric cultural sites more than 40,000 years old such as at Lake Mungo in southern New South Wales.

Media tourism

The beauty and drama of scenery, different cultures and historic locations featured in films and on television can influence people to visit *places* not otherwise considered. In urban *environments,* tourists frequently want to see, eat, drink and socialise in the same cafés, bars and restaurants featured in programs set in London, Paris and New York, for example. New Zealand has been advertising itself as the Home of Middle Earth (Figure 2.22) – a reference to the *Lord of the Rings* films made there. The steps outside Philadelphia's Museum

▲ **Figure 2.21** The 2500-year-old Acropolis in Athens is visited by an average of six to seven million tourists a year

▲ **Figure 2.22** New Zealand's successful advertising of itself as Home of Middle Earth resulted in a significant increase in international visitors

of Art are now 'Rocky's footsteps', made famous where Rocky Balboa trained. At London's Kings Cross Station, you can find Harry Potter's Platform 9¾. Authorities in some cities such as London and Los Angeles have produced maps to help enthusiasts discover locations used in film and television.

Places such as Hawaii have an active organisation to promote the *regon's* advantages for film and television production, knowing that tourists will follow.

Concert tours of contemporary and classical music, opera, ballet and orchestras, as well as individual performers, often have dedicated followers from city to city and country to country. Like sport tourists (see below), these tourists will also take up other tourism opportunities offered such as shopping and sightseeing.

Food and shopping

Many tourist destinations capitalise on people's enjoyment of food and shopping. At one extreme there are tourists visiting a *place* simply to shop for bargains or the latest styles in clothing and music. Destinations such as London, Paris, New York and Hong Kong–Shenzhen attract this kind of tourist. There are also tourists who organise their travel primarily to enjoy food and wine of another culture. Tours, often involving cooking lessons, are popular through Italy, France, India, Vietnam and Hong Kong. And there are millions of travellers who combine the pleasure of good eating (as in Figure 2.23) and shopping with other reasons for travel such as visiting scenic *places*, meeting friends and gaining an understanding of local histories and cultures. Key *places* for food and shopping tourism are shown on Figure 2.20.

Sport tourism

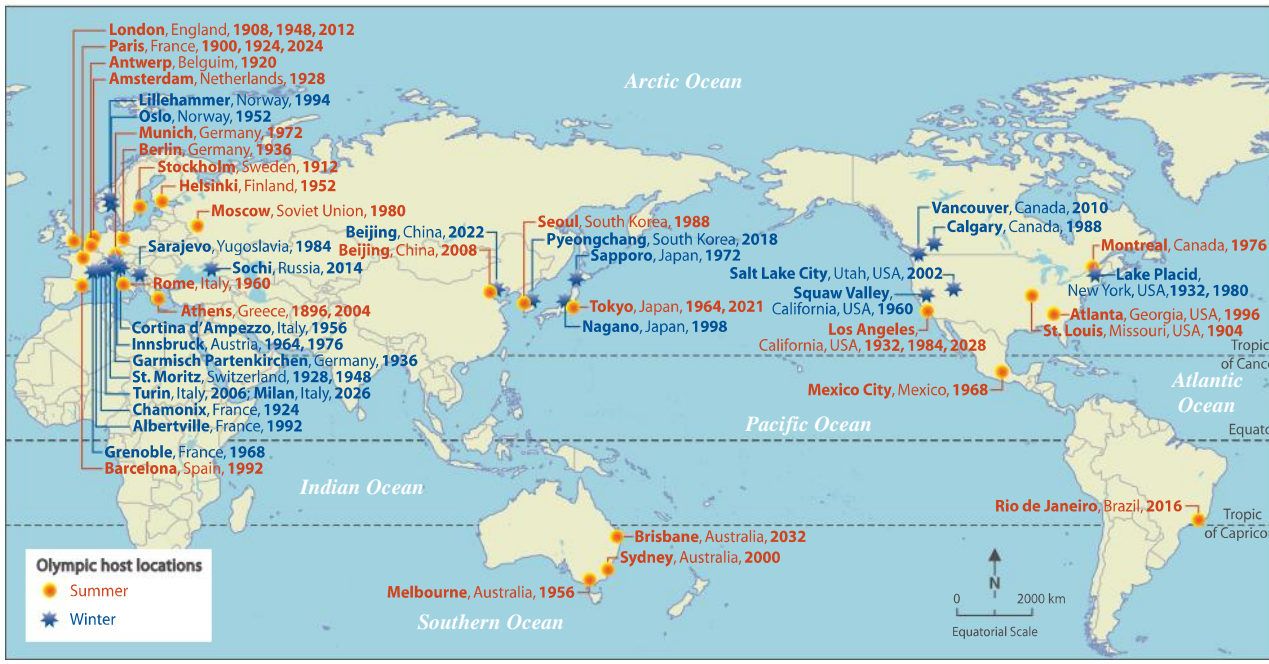
People travel to play sport and to watch sport. Like other forms of tourism, sport tourism may be a key objective or part of other activities such as sightseeing or visiting friends. Sporting activity that is not provided locally or can be better provided elsewhere is a major reason for sport tourism. Skiing in Japan, Europe or North America is an option for Australian snow-sport lovers during the Southern Hemisphere's warmer months, for instance.

▲ **Figure 2.23** Temple Street in Hong Kong is a popular destination for locals and tourists

As well as competitors and supporting staff, large-*scale* international sporting events attract hundreds of thousands of spectators. Particular sports often have dedicated followers to events that occur within a *region* or in different parts of the world. The latter events include:

- Olympic Games (see Figure 2.24)
- cricket, including test matches and one day events
- football, including the World Cup and *regional* competitions
- tennis, including Grand Slam events in London, New York, Paris and Melbourne
- golf, especially North American and European tournaments
- motor racing, including Formula One events in Monaco, Shanghai and Melbourne.

▼ **Figure 2.24** The *distribution* of the modern Olympic Games sites



▲ **Figure 2.25** Crowds at the Australian Open, Melbourne

▲ **Figure 2.26** Part of the Fatima E Massummeh Shrine complex in the holy city of Qom, Iran

These large-*scale* events have an impact on a *place* whether it is a once-only event, such as a Summer Olympics, or an annual event such as Melbourne's Australian Open Tennis championship (Figure 2.25). The nature of these impacts is examined more closely on pages 38–40 as well as in Chapters 3 and 4.

Pilgrimage tourism

Every year millions of domestic and international tourists take part in pilgrimage tourism. Often this is a visit to a sacred *place* or shrine that is part of a person's beliefs and faith, like the Fatima E Massummeh Shrine in Iran's holy city of Qom (Figure 2.26). The city is a focus for major religious studies as well as for pilgrims. Worldwide pilgrimage sites are usually embellished with buildings to allow for large *scale* worshipping, contemplation, ceremonies, study and accommodation. *Spatially associated* with these centres are transport routes and nodes, hotels and camping sites, restaurants and souvenir shops. Annually the world's major pilgrimage sites attract more than 300 million people to *places* including Mecca (Muslim followers), Jerusalem (Jewish, Christian and Muslim), Rome (Christian) and Varanasi (Hindu). These destinations are located in Figure 2.20.

▶ ACTIVITIES

1. In your local *region* there is heritage. It may be a public building, housing styles from a past period, or perhaps evidence of past vegetation. Discuss in groups what this heritage is, what value you see in it now and who else might be interested in it. Is there any attempt to conserve or restore this heritage, and attract tourists? Who is encouraging these *processes*?
2. What UNESCO-listed World Heritage sites exist in Victoria and the rest of Australia? What types of tourists might visit these sites?
3. What impact could the following events have on tourists, both domestic and international, who visit Melbourne for shopping?
   - Decrease in the value of the Australian dollar
   - Media coverage of celebrities visiting the city
   - Opening of a department store dedicated to the latest styles
   - A televised Master Chef festival with cooking demonstrations.
4. A number of sites shown on Figure 2.20 have multiple attractions for domestic and international tourists. Identify them and carry out research to obtain more information about the attractions at two different locations.
5. What tourist facilities might have developed at a site such as in Figure 2.22 after the film production crews have left?
6. Use the internet to find a site showing the locations of scenes used for a film or television program. Are there any equivalent locations in Victoria or elsewhere in Australia?
7. Name two large sporting events held in Australia that attract mainly domestic tourists and two that attract a large proportion of international tourists.
8. In a group, discuss the likelihood of:
   - Australia hosting a Winter Olympics
   - Nigeria or Kenya hosting a Summer Olympics.
9. Select one pilgrimage site shown on Figure 2.20. Undertake research to discover why it has importance to some people. What can visitors to the site expect to see and do there?
10. Why are entrepreneurs in cities such as Melbourne keen on attracting large-*scale* sporting and cultural events?
11. Analyse the data in Figure 2.24 and comment on the *distribution* of sites:
    - in more-economically-developed countries compared to the rest of the world
    - in the northern and southern hemispheres
    - in *places* that have held multiple Olympics.

Dark tourism

Tourists often visit *places* that have experienced or are linked to conflict, death and tragedy. Dark tourism *places* can take different forms: historic and modern battlefields, fortifications, museums and memorials. Museums and memorials may be at the site of events (as in Figure 2.27 (a)) or in public *places* away from the location of the event (Figure 2.27 (b)). Some dark tourism sites, such as Japan's Hiroshima Peace Park, New York's Ground Zero and Poland's Auschwitz, have become large-*scale* tourism sites. Often, dark tourism sites are a feature of tourists' agenda which may include sightseeing and shopping. The challenge of managing dark tourism sites to avoid commercialisation and alienating survivors and or descendants of the tragedies involved, raises important ethical issues. Figure 2.28 summarises some key dark tourism sites across the ages.

ACTIVITIES

1. Identify dark tourism sites that could fit the following categories:
   - Found in most Australian towns and cities
   - One of several extermination camps developed in World War II by the German Nazi government
   - A result of a major nuclear reactor explosion
   - Two towns buried by volcanic ash and lava almost 2000 years ago.
2. Give two reasons why tourists would want to visit a dark tourism site.
3. Develop your own world map to show the *distribution* of dark tourism sites. Start by including the ones mentioned in the text. Add to these from the collective knowledge and research of the class. Be sure to add in at least five Australian related dark tourism sites.
4. Suggest what other activities tourists might use that could be *spatially associated* with dark tourism sites.

Figure 2.27 **(a)** Australian war graves in northern France **(b)** Melbourne's Shrine of Remembrance

Figure 2.28 Some major dark tourism sites

Site and location	Event
Western Front, Northern France	Battlefields and cemeteries of World War I and II
Pearl Harbour Arizona Memorial, Hawaii, USA	Resting *place* of 1102 service personnel killed in the Pearl Harbour attack, 7 December 1941
Anne Frank House, Amsterdam, Netherlands	The house where Anne Frank and her family hid during World War II
Hiroshima Peace Park, Japan	In 1945 an atomic bomb levelled most of the city. The central area is dedicated to world peace.
Auschwitz, Poland	A Nazi-run concentration and death camp for political prisoners, Jewish people and others regarded as undesirable. Over a million people were murdered.
Australian War Memorial, Canberra	Commemorates the loss of life by Australians in war
Quang Tri and Cu Chi tunnels, southern Vietnam	Tunnels dug and used in the 1960s and 1970s by the Vietcong to escape American and South Vietnam forces
Chernobyl, Ukraine	An explosion within a reactor of the nuclear power plant during a safety test in April 1986 led to the release of radioactive materials in Europe and over 350,000 people *moved* from the immediate area.
Tuol Sleng Genocide Museum, Pnom Penh, Cambodia	A security prison for interrogation and torture by the Pol Pot government, 1975–1979
Ground Zero, New York, USA	The site of a terrorist attack in New York city resulting in the destruction of the World Trade Center, 11 September 2001
Okawa and Sendai, Japan	Two of dozens of memorials to the thousands of victims of the 11 March 2011 tsunami that hit coastal towns and villages

Different tourism forms

Tourism takes many forms. Some tourists prefer to travel alone or with family, or with a few friends. Many of the tourists getting off the boat in Figure 2.29 (a) are solo travellers, backpacking through the Greek Islands to enjoy the sun and the local ambiance. Other tourists prefer to arrange their own travel and accommodation, perhaps through a travel agent or an internet site. Other tourists travel as part of a package where travel, accommodation and activities are paid for in advance to the organising travel company. Package tours and individual travel may be part of a cruise, a mountain trekking adventure or simply sightseeing.

Two important and quite contrasting trends in tourism are ecotourism and cruising. Ecotourism is travel to and experience of natural *environments* without having a major negative impact on the *environment* or any local population. The tourists in Figure 2.29 (b) would probably see themselves as ecotourists: appreciating the natural *environment* of Sri Lanka with its biodiversity and making minimal impact during their several nights' stay in a national park. When the next group of tourists visit, they too are likely to find an *environment* largely untouched by human activity. This responsible travelling approach helps ensure the *sustainability* of tourist sites. Ecotourism is increasingly widespread. Examples include:

- Antarctica, with landings on the Antarctic Peninsula, to view landscapes and wildlife
- *regions* with rainforests and wildlife such as Central and South America, and Borneo (see Chapter 5)
- offshore coral reefs and diving sites including Australia's Great Barrier Reef, Palau, and the Red Sea.

In many countries there is a growing demand for goods and services that are produced more *sustainably*, are pro-poor, and less harmful to local *environments* and communities. Tourism is part of this movement. Ethical tourism involves travellers avoiding activities that could negatively impact on *environments* and communities. The list of potential actions is lengthy but include the following:

- travelling to destinations overland and not by air
- avoiding staying in multinational hotels; homestays are an alternative
- eating and buying locally rather than from international chains
- respecting the local heritage (see Figure 2.30).

Increasingly, tour operators are including aspects of ethical tourism in their itineraries to attract discerning tourists. In response, local authorities are regulating and authorising more sensitive tourist developments.

Cruising on ocean-going vessels such as the one in Figure 2.31 has been attracting over 20 million people a year – mainly from higher-income and older age (37 per cent are aged between 50 and 69) groups, particularly from North America and Europe. Together these people spend over $30 billion a year on cruise fares and additional spending such as travel to and

▼ **Figure 2.29 (a)** Tourists arrive at Syros, Greece

▼ **Figure 2.29 (b)** Tourists on an organised wildlife excursion in Sri Lanka

▼ **Figure 2.30** An Easter Island sign reminds tourists to view and not touch

▲ **Figure 2.31** Large cruise ships like the *Oasis of the Seas* can carry over 6000 passengers

from ports. Cruising may be between ports or returning to its port of origin. Cruises may last a few days to almost a year. The Caribbean and Mediterranean seas are the most popular *regions* for cruising. Today's vessels can be large, usually over 100,000 tonnes, with multi-storeys including cabins with balconies, shopping arcades, casinos, theatres, health centres and child care facilities. Four international companies dominate the cruise market and employ over 250,000 on-board workers in normal years. Cruising has been criticised for its high fuel usage as well as its reputation for disposing overboard the considerable volume of wastes (solids and water wastes) generated. Short-haul and lower-cost vessels organised as a fun experience and catering for a younger cohort have emerged in Mediterranean, Caribbean, Pacific and South-East Asian waters.

Cruise ships became a source of contamination of the COVID-19 pandemic in early 2020 because of their crowded and semi-enclosed areas and limited access to medical resources. With hundreds of millions of dollars of losses per month, the industry virtually closed, isolating thousands of on-board workers. Hundreds of cruise ships were temporarily taken out of service, and liners were broken-down permanently for scrap metal. By mid-2021, however, regular cruising had begun to resume catering for the Northern Hemisphere summer.

▶ ACTIVITIES

1. What is a package holiday? What can make a package holiday an attractive option for international travellers? How might such a holiday differ from a backpacker's travels?
2. Visiting Antarctica, whale watching and whitewater rafting: what makes each these examples ecotourism?
3. Research *Oasis of the Seas*. What facilities are on board? Find three facts that define its *scale*.
4. Explain the link between ecotourism and *sustainability*. Reference to Chapter 5 could help here.
5. Armed with a smart phone, many solo travellers or couples feel well equipped to travel without a guide or a package deal. What could the main travellers arriving in Syros (Figure 2.29 (a)) use their phones for?
6. Discuss in class the value of signs such as the one in Figure 2.30.
7. Before booking a holiday destination, some tourists ask: "are workers paid award wages in the hotel?", "how is the hotel waste treated?" Do you think these are valid questions to ask? Give your reasons.
8. On holidays, would you do the following:
   - climb Uluru
   - ride an elephant
   - hunt wild game
   - bargain down the price of a wood carving in a market
   - stay at an all-inclusive resort?

   Justify each of your responses and compare them to responses by other people.

▼ **Figure 2.32** Istanbul's weather and international tourist arrivals

Month	International tourist arrivals (millions)	Average monthly temperature (°C)	Days with rain	Hours of sunshine
January	1.33	8	19	5
February	1.26	9	19	6
March	1.8	11	14	6
April	2.28	16	11	8
May	3.3	21	9	10
June	3.8	25	6	11
July	4.96	27	4	12
August	5.14	27	5	10
September	4.88	24	7	9
October	3.86	19	12	6
November	2.15	15	14	5
December	1.4	11	18	4

Factors influencing tourism

There are many factors influencing the destinations of tourists, the number travelling and how they travel. Many of these factors are *spatially associated* with each other. That is, they are found in the same areas as each other. This *spatial association* can mean the factors *interconnect* with each other. For example, a rise in incomes together with increased leisure time can impact on the number of domestic tourists a *region* generates. A *change* in one factor can have impacts on other factors, and in turn impact on still more factors.

Physical factors

Physical factors include climate, topography and *distance* as well as natural hazards and disasters. Many tourists travel to enjoy better weather than they experience at home. Warm tropical waters and temperatures averaging between 25°C and 35°C combined with sandy beaches and well-serviced accommodation are very appealing to people experiencing winter in an urban *environment*.

Places with wet or cool seasons will experience an off-season period for visitors. The Mediterranean's winter between November and February and South Asia's monsoon period between June and August generate lower tourist arrivals than other periods of the year. Elsewhere, some venues close because of lack of snow or the risk of tropical storms. Figure 2.32 shows the close correlation between the number of people visiting Turkey and the weather in Istanbul. Most visitors to Turkey would pass through Istanbul.

Places to visit that can be accessed easily from population centres, airports and other transport nodes have an advantage for developing into successful tourism sites over ones that are remote from these features. The remoteness of Tibet, Kamchatka (see Chapter 5), Greenland, the Sahara and Antarctica, combined with the cost and time to reach interesting sites, act as deterrents to many tourists. Easter Island (Figure 2.33) in the south-east Pacific is approximately six hours flying time from the nearest largest population centre in Chile. The island has no deep-water harbour for large cruise ships to berth. Against these negatives are the drawcards of a wealth of cultural heritage together with diving and surf sites. Visitor numbers reached over 100,000 in 2019 – low for what is on offer, though excessive in the minds of the island's 5000 inhabitants. Visitors are now restricted in the length of time they can spend on the island.

The outbreak (or fear of an outbreak) of a disease can result in a rapid fall in tourist arrivals. The COVID-19 pandemic in 2020–2021 had a devastating impact on both domestic tourism, due to enforced lockdowns within many countries, and on international tourism. Most governments refused to accept travellers from other countries except returning nationals. One impact is seen in the number of arrivals at Sydney Airport for the 2019–2020 period in Figure 2.34.

The annual occurrence of cyclones and typhoons may result in damage to infrastructure including airports, resorts and erosion of beaches. Fiji, Samoa, Vanuatu and coastal Queensland have all suffered from this

▼ **Figure 2.33** Restored moai or statues fascinate Easter Island's tourists

factor several times. Rebuilding of tourist facilities can take several years. Japan's 2011 earthquake and tsunami saw international tourist numbers drop by 28 per cent for the year, although successful promotions helped restore arrival numbers the following year.

Political factors

Political factors have a marked influence on the *movement* of tourists. Government policies promoting tourism to and within particular *regions* may take several paths:

- advertising to particular age groups in domestic and international markets. The Australian government encourages young backpackers and those on gap years to seek casual work on farms, especially during fruit picking periods.
- reaching agreements with airlines to extend regular services or grant budget airlines landing rights. Since the early 2000s, a number of new airlines, such as Sichuan Airlines, China Southern, AirAsiaX and Malindo Air, have been allowed to fly into and out of Australia.
- simplifying visa procedures for international tourists. Australians have visa-free or visa-on-arrival entry to around 180 countries or territories. This makes Australian passport holders some of the world's freest travellers.
- financing for infrastructure such as airports, roads and energy supplies. The construction of Sydney's new airport is being partly financed by government grants and loans.
- rezoning land from farming or natural coverage to become tourist resorts. This *process* has been allowed in many of the world's tourism destinations including Da Nang and Hoi An in Vietnam (see Chapter 6), Bali (see Chapter 1), the Yucatan Peninsula in Mexico, and Tropical North Queensland (Chapter 3).
- prohibiting or limiting *movement* of travellers to particular *places* (see previous section). It may be because too many tourists are visiting a *place* and the infrastructure cannot cope with the number of visitors. The community's attractions and values may be at risk. This condition of overtourism is outlined on pages 108–9 and 111–12 in Chapter 6.

Political unrest including riots, civil war and terrorism may lead to tourists postponing or cancelling their travel plans. Government authorities at home may advise (or even prohibit) their nationals from travelling to a particular *region*. Since 2014–15 the Australian government has strongly recommended its nationals should not travel to Afghanistan, Syria, Iraq and Libya because of political troubles there.

One country affected by political instability has been Egypt (Figure 2.35 (a)). In 2019 its tourist arrivals peaked earning the country around US$14 billion. The tourism

▼ **Figure 2.34** Domestic and international arrivals at Sydney Airport (millions), 2019–2020

	Domestic	International	Total
July	2.38	1.49	3.85
August	2.29	1.37	3.67
September	2.28	1.36	3.65
October	2.54	1.44	3.97
November	2.37	1.36	3.73
December	2.35	1.61	3.95
January	2.27	1.66	3.93
February	1.98	1.09	3.08
March	1.32	0.69	2.01
April	0.05	0.04	0.09
May	0.06	0.03	0.09
June	0.14	0.03	0.17

▼ **Figure 2.35** **(a)** Egypt's international tourist arrivals. **(b)** An almost empty hotel near one of Egypt's major tourist resource

a Year	Arrivals (millions)
2006	9.1
2007	11.1
2008	12.8
2009	12.5
2010	14.7
2011	9.5
2012	11.5
2013	9.1
2014	9.6
2015	9.1
2016	5.3
2017	8.2
2018	11.2
2019	13.6

industry employed 1 in 8 working Egyptians, either directly or indirectly. After the 2011 Arab Spring, *changes* in government and considerable street violence, together with terrorist attacks on churches, there has been significant variations in tourist numbers and spending. In 2020–2021 the tourism industry was decimated by the global pandemic. This resulted in empty hotels such as the one in Figure 2.35 (b), underused cruise boats, rising unemployment in the tourist sector, and a lack of investment opportunities in tourism facilities.

Technological factors

Technological factors have revolutionised and continue to revolutionise tourism. Technology has altered transport methods, increased the availability of information and modified ways of organising travel.

In particular, technological developments have *changed* transport to produce safer, quicker and lower-cost journeys. These developments have enabled tourists to access less traditionally visited destinations and more remote ones, such as Easter Island (Figure 2.33). Areas relatively remote from Australia such as Antarctica, western China, east Africa and the Caribbean are now all within range of Australia in less than two days. Air transport is not only faster (see Figure 2.36) but typically carries more people per aircraft at lower costs than previously. Technological developments in transport have had an impact on motor vehicles and, combined with greater affluence and leisure time (see below), car ownership is almost universal in Australia and North America. This has allowed people to travel frequently over long *distances* and, for many, off road.

Technology brings access to information. Online research and booking of flights, accommodation and sightseeing trips are common practice for travellers. Figure 2.37 is an example used in a *region* of Iceland. Reviewing hotels and identifying what to see and when to see it can be done with a smart phone while travelling. Technology has brought about safer travel through surveillance and electronic checks, particularly at airports.

Figure 2.36 *Changing* travel time, Melbourne to London

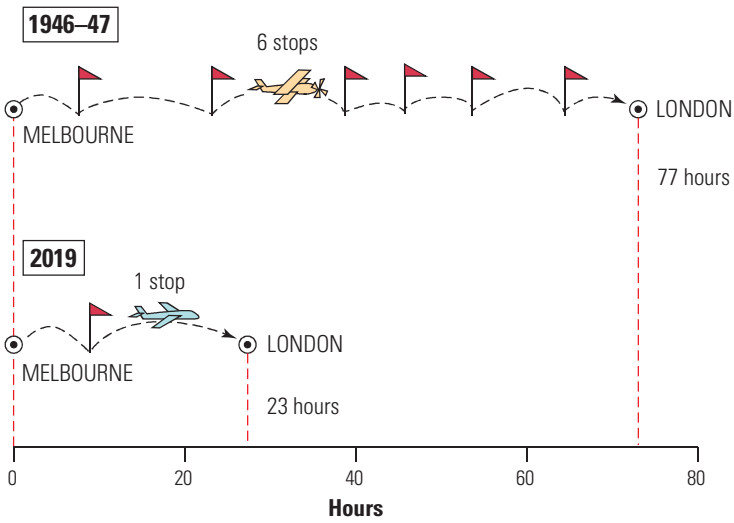


Figure 2.37 A free app available to tourists in an Icelandic *region*

Lifestyle factors

Lifestyle factors include the levels of disposable income, amounts of leisure time and the demand for tourism.

Disposable income is the amount of money a person has to spend after meeting taxes, rent and other essentials. Increases in leisure time have resulted from shorter working hours, more public holidays and more paid annual leave. The combination of rising disposable income and increases in leisure time has greatly influenced the level of domestic and international tourism. For example, since the early 2000s China's economy has rapidly expanded and household incomes for many have risen together with increased number of non-work days. Government policy now allows travel outside of the country. As a result, China has emerged as a major source of tourists for other countries, notably Canada, the United States, Australia and western European countries. Tourist spending has become a major source of income for many *regions* of the world. Figure 2.42 (later in the chapter) provides more details.

Getting away for a few days or a few weeks becomes an important way for people to relax and recuperate from a busy working and home life. Tourism has become part of many people's lifestyle in countries with high disposable incomes. Just over half of all international tourists travel for leisure and recreation reasons and another 27 per cent to visit friends and relatives. Travelling has become an important part of the lives of young people ('to see and know more of the world') as well as retirees ('to enjoy the fruits of a long working life'). Backpacking, working holidays, ocean cruising and 'grey nomading' in mobile homes are outcomes of this lifestyle choice.

Information factors

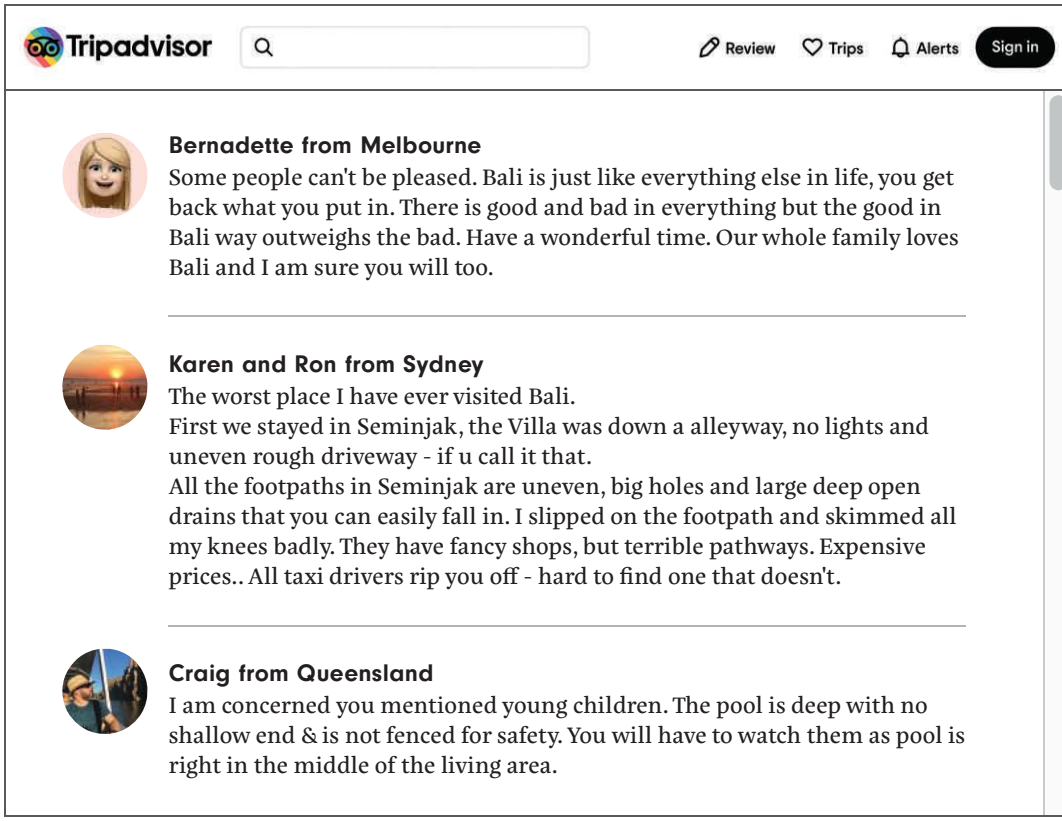
Tourists need information – about costs, types of accommodation, what to do and see, how to travel and when, what to avoid, what religious and cultural practices to take into account, what languages are spoken and what can be bought.

Media reports on television, in newspapers and on the internet are peppered with travel programs, advice and advertisements. Internet sites such as Wikitravel and TripAdvisor and guidebooks by publishers such as Lonely Planet, Rough Guides and Fodor, have become important information sources for many travellers.

A positive report about the cleanliness of a destination's beaches and other *environmental* concerns, its night life, value for money and friendliness of the locals can help people to decide to visit a *place*. Similarly negative reports, such as the ones in Figure 2.38, about rising costs and safety issues may deter visitors.

Media reports, often generated by tourist writers and presenters, may be sponsored by tourist companies or authorities to promote particular destinations. They help create a demand for travel to new destinations or to take part in new developments. Long-*distance* cruising, trekking in Central America and visiting Antarctica are typical of the promotions offered. In addition, electronic devices such as smartphones can deliver travel guides, translations, imminent weather conditions and hotel vacancies – all of which can help tourists *move* more easily in unfamiliar *places*.

▼ **Figure 2.38** Bali reviewed by some social media contributors



▶ ACTIVITIES

1. Refer to Figure 2.32.
   a. What trend can you identify in the monthly arrivals to Istanbul in Turkey?
   b. Describe the link between the number of tourist arrivals and Istanbul's weather.
   c. Suggest one other factor, apart from weather conditions, that could account for the variations in tourist arrivals.
   d. What impact could these variations have on:
      - hotel room prices
      - tour guides
      - souvenir sellers?
   e. Name at least three tourist locations in Australia that might be adversely affected by seasonal weather. Be sure to say when and why this effect occurs.
2. Name two ways political factors could increase tourism to a *region* and two ways they could result in a decline.
3. International tourists now travel further from home, more often and to remoter destinations than 30 to 50 years ago. How have developments in technology assisted this *change*?
4. a. What link is there between the increase in disposable income and the increase in the demand for tourism? What other factors could be *interconnecting* to produce this development?
   b. Suggest how sources of international tourism for Asia, Australia and Western Europe are likely to *change* with greater economic development in countries such as Brazil, China, India and Russia.
5. What is a grey nomad? How different might their tourist experience be to university students taking a gap year and backpacking in Europe?
6. Look at Figure 2.38. Imagine you are planning to visit Bali. What effect might these reports have on your plans? What other information would you look for?

The impacts of tourism: issues and challenges

The nature of tourism is quite complex, as the previous sections of this chapter show. Therefore it is no surprise that the impacts of tourism on people and *environments* reflect this complexity. These impacts give rise to a range of issues and challenges. One way to help categorise these *processes* is to look at a model of tourism development.

Butler's evolution of tourist areas

Butler's Model, summarised in Figure 2.39, was developed from the *changing* fortunes of tourist resorts in England, but many aspects of the model can be applied to other parts of the world. It summarises the *processes* of tourist growth from early development through to mass tourism and possible decline, or further growth of tourist destinations. It also suggests the stages where issues start to become significant to local communities and tourists.

▼ **Figure 2.39** Butler's Model of the evolution of tourist areas

Stage 1: Exploration The natural beauty or culture attracts a limited number of tourists; few tourist facilities exist. For example, Kamchatka (Chapter 5) and Antarctica.
Stage 2: Involvement Some of the local population provide accommodation for tourists; a distinct tourist season begins to emerge. For example, Vanuatu and Borneo (Chapter 5), Daintree *region* (Chapter 3).
Stage 3: Development Extensive facilities are built for the many tourists who now want to visit; external investment now dominates the economy; some tension between the locals, developers and tourists may emerge. For example, Bali, Port Fairy (Chapter 4), Great Barrier Reef (Chapter 3).
Stage 4: Consolidation The local economy becomes dependent on tourism; numbers of tourist arrivals stagnates as competition from newer destinations develops. For example, Cinque Terre (Chapter 6), Nha Trang (Chapter 6), Fiji and Mykonos (Figure 2.40).
Stage 5: Stagnation The resorts and destination begin to lose their attractiveness as facilities age; some business may close. For example, Cairns in the 1990s and 2000s (Chapter 3).
Stage 6: Decline or Rejuvenation Decline is evidenced by a drop in numbers and/or shorter stays by visitors unless local authorities and organisations take steps to modernise the destination. For example, Cairns 2010 onwards (Chapter 3).

Economic impacts

These impacts include employment and income, infrastructure development and resource use.

Employment

Growth in tourism has led to growth in tourist-linked employment, like the activities in Figures 2.40 and 2.41. Tourism employment tends to be labour intensive. In other words many people are needed to work in services such as hotels (managers, porters, cleaners, kitchen staff), transport (drivers, mechanics), shops (management, sales) and tours (guides, drivers, booking agents).

In less-developed-economies, the growth of tourism may help absorb large numbers of low-skilled labour. Vietnam's growing tourist industry directly employs almost two million people in the sectors of accommodation and services, transport, entertainment and attractions, food and beverages and retailing. Intensive training is raising the number of its semi-skilled and skilled tourism workers, especially as managers, planners and multilingual guides. Much of Vietnam's tourist development corresponds to Butler's Model Stage 3 (Figure 2.39). Globally, tourism employs almost 300 million people. This amounts to one in 10 paid jobs in the global economy.

Employment at tourism sites may be variable within a week, seasonal or from year to year. For example, tourist numbers fall at coastal destinations when temperatures drop, or a wet season begins. Income levels fall and workers may *move* away temporarily until the next tourist season. In addition, government policies, seasonal water shortages, outbreaks of disease and local labour unrest can bring rapid *changes* in the need for tourism workers. A challenge faced by authorities, organisations and workers involves how to maintain employment and still be ready for the potential return of tourists.

▲ **Figure 2.40** Mykonos, Greece. Much of the small island's coastal space has given way to tourist facilities such as shops, restaurants and hotels. During summer over one million tourists visit Mykonos

▲ **Figure 2.41** Souvenir seller, Alexandria, Egypt. Employment in tourism for local populations is sometimes low skilled and frequently underutilised

Income growth

For individuals, organisations and governments, tourism generates income as well as jobs. In 2018, international tourism receipts reached a total of US$1.7 trillion. Direct spending by tourists on accommodation and services, transport, entertainment, attractions, food and drink plus retailing totalled US$1.3 trillion. International transport added another US$216 billion. Just over 36 per cent of all international tourism receipts were earned by European countries, with Asian and Pacific countries earning 30 per cent.

Tourism's contribution to a country's Gross Domestic Product (GDP) can be both direct and indirect. Direct spending is measured by the receipts from international tourism, as described above. Indirect spending comes from private companies and government agencies, including investment in new hotels and resorts, airport upgrades, training of personnel and the purchase of goods such as food, buses and hotel fittings. The economy also benefits from spending by individuals employed in tourism, and by those who earn incomes indirectly from it. In total, all of this extra spending is often called the multiplier effect because the benefit is many times greater than the original expenditure by tourists.

Tourism's contribution to a country's Gross Domestic Product varies considerably, as Figure 2.42 shows. Any downturn in tourist numbers (see Figure 2.35) can significantly affect the wellbeing of a population. The less-economically-developed countries appear particularly vulnerable, yet they are also able to reap the benefits when there is a flourishing tourism sector.

The challenges for many governments with a strong income from tourism spending include:

- how to continue to capture and grow their share of tourism spending, especially in the face of growing competition from other countries and *regions* (see Butler's Model Stage 4, Figure 2.39)
- how to diversify revenue sources away from tourism.

Not all income generated from tourism remains in the *region* where it was spent. Leakage, where revenue is paid to other countries for imported goods and services to operate tourism, is widespread. Leakages can be seen as an issue linked to ethical tourism. Tourists are using local resources such as water, food and land but are paying local communities little for these resources. In the Maldives and some Caribbean locations, leakages might be in excess of 90 per cent of receipts. In these locations enclave tourism exists. The tourists are encouraged to stay put in an all-inclusive resort complex. Accommodation, food, recreation facilities, shopping and entertainment are all provided. Payment for the holiday is made as a package deal, often to an international company and mostly in the tourists' home country. Tourists have no need to leave the resort and interact with the locals or to spend money outside of the resort.

It is estimated for every tourist dollar spent in Phuket, Thailand, 70 cents are lost to the global economy (for airline tickets, imported food and drink, repatriated incomes and loans, and tours booked in the home country). Another 24 cents goes into the national economy (for transport, workers' incomes, food and drink, and souvenirs made elsewhere in Thailand). This leaves just 6 cents for the local Phuket economy. Reducing leakages by encouraging stays with local families and buying locally made goods has become a policy for many local tourist authorities throughout the world.

Country/*region*	Percentage contribution
Macau	72.0
Maldives	66.1
Seychelles	65.8
Vanuatu	48.2
Fiji	40.0
Iceland	33.8
Cambodia	32.7
Mauritius	23.9
Thailand	21.9
Greece	21.2
Morocco	18.9
New Zealand	18.3
Mexico	17.3
Italy	13.3
Egypt	12.0
China	10.9
Australia	10.9
France	9.6
Vietnam	9.1
Indonesia	6.1

Figure 2.42 Tourism's contribution to Gross Domestic Product (GDP) in selected *places*, 2019

Infrastructure development

Without infrastructure development, tourism could not function or grow. It helps move a tourist destination from Stage 2 to Stage 3 of Butler's Model (see Figure 2.39). Tourism needs transport and communication networks, energy, water supply, and waste disposal and treatment. Construction of infrastructure employs local workers and can use local materials. Roads between airports, cities and tourist sites can be used by local people to access markets to sell agricultural produce, seek out jobs or access health and education services.

There are disadvantages to the development of infrastructure to meet specific tourist needs. Money spent on infrastructure means it is not being used for the local population's health, education and housing needs. Tourist infrastructure can occupy considerable amounts of land such as airports, like the one in Figure 2.43. Large-*scale* resorts with golf courses, swimming areas and extensive gardens have often replaced traditional land uses such as farming or coastal mangroves in *places* including Vietnam, Thailand, Malaysia, Bali and northern Queensland. Higher water use for tourist activities can result in conflict with other users such as farmers and manufacturers. Conflicts over water use have

▲ **Figure 2.43** Malé International Airport, Maldives, was built on coastal land which was partly used for farm land

developed in many tourist *regions* including Las Vegas, coastal Spain and southern Italy. Las Vegas is located in southern Nevada and receives an average of 10 centimetres of rainfall each year. Many of its 40 million annual domestic and international visitors expect luxury facilities in this entertainment city of two million residents. Inevitably, this means very high water consumption particularly from swimming pools, showers, linen changes and food preparation. Allocations of water from the Colorado River and Lake Mead are virtually the only water sources for the city, and continued growth may not be *sustainable*. These water sources are now stretched to their limit and Las Vegas' continued success and growth as a tourist destination is under threat. As the former head of the Water district stated in 2016 "one quality scare and the cancellations start coming in the front door". Recycling water, especially from hotels, has helped avert a tourism crisis, but future increases in water supplies will depend on more water diversions from further away and depriving water users in other *places*.

▶ ACTIVITIES

1. Refer to Butler's tourist development model, Figure 2.39.
   a. Suggest why the tourist site in Figure 2.40 is likely to be at Stage 4.
   b. What evidence would you be looking for at the site in Figure 2.40 to assess whether it was entering Stage 5?
   c. What can tourist developers and authorities do to ensure a destination does not reach Stage 5 and Stage 6?

2. a. Why can tourism be classified as labour intensive?
   b. Suggest two tourism-connected jobs that are low skilled and two that are highly skilled.
   c. Apart from skills, what could keep tourism workers' incomes low? Figure 2.41 can be part of your answer.
   d. The Malé International Airport (Figure 2.43) was built with money from the Maldives government and foreign loans. Was this direct or indirect tourism spending?

3. a. What links could there be between a government wanting to increase income from tourism and also to raise employment levels?
   b. What could make countries such as the Seychelles and Maldives vulnerable to a tourism downturn, such as Butler's Model Stage 5 or Stage 6?

4. a. What is meant by the term 'leakage'? In what ways is tourism leakage an issue?
   b. Explain the differences in leakage levels likely to be associated with enclave tourism and independent homestay tourism.
   c. Devise several strategies to reduce leakages from a tourist destination.

5. Outline the connection between infrastructure development and increasing tourist arrivals in a *region*.

Social and cultural impacts

Many tourists travel to see different *places* and experience different cultures, including an area's history. Preserved and restored historical and cultural sites, and buildings such as Egypt's pyramids (Figure 2.44), Cambodia's Angkor Wat complex and Peru's Machu Picchu, draw many millions of tourists every year. Entry fees to such sites help fund preservation and conservation efforts, including paying the cost of guides and tourist police. Without these fees and government funding, cultural sites can deteriorate as hundreds and thousands of tourists visit a site daily.

Development of historical and cultural sites with souvenir shops, parking areas for cars and buses, together with pathways and signposts, food outlets and rest rooms can degrade the ambience of a site. Some locals may see commercial opportunities in these developments while others see their lives disrupted by a frequent flow of tourists.

▲ **Figure 2.44** Uniformed tourist police help protect Egypt's ancient pyramids from vandalism and litter

Many *places* throughout the world have become dominated by tourists. These *places* may be small, picturesque villages on islands in the Mediterranean Sea, or in mountain valleys of Thailand and Nepal. In parts of large cities such as London, Paris, New York, Barcelona and Amsterdam, tourists have had a negative impact on the local population and its *environment*. This *process* is often referred to as overtourism.

Amsterdam, with approximately one million residents, attracts 18 million tourists each year. Amsterdam's popularity has been enhanced by *interconnecting* factors: its attractive canal scenery, historic buildings and galleries together with its liberal policies on drugs and extensive nightlife. Cheap weekend fares from Europe's major cities quickly swell central Amsterdam's foot and bike paths. At times even its canals seem overrun by tourists, as Figure 2.45 indicates. While tourism has brought prosperity and rising land values to central Amsterdam, residents are complaining:

"Tourists see our city as one big theme park."

"I've become a tourist attraction and I don't like it."

"They do things here they wouldn't do at home."

More specifically, the locals see the neighbourhood chemist, doctor, butcher, bookshop, hairdresser and café being replaced with more profitable souvenir sellers, an ice cream parlour, late-night bar, fast food outlet trip booking office and apartment rental office. Apartments are rented out for a few days or weeks at inflated prices, making it difficult for locals to rent or buy, and everyday goods bought by locals become dearer.

Many residents see their city being destroyed by the very thing that is enhancing its prosperity. The challenge for residents and authorities is to maintain its cultural history and community values. Amsterdam city authorities are now raising taxes on tourist rooms and restricting new hotels in its historic central area. Excessive tourist shops in neighbourhoods are banned.

Like other *places* in the world experiencing overtourism, Amsterdam's authorities and tourism entrepreneurs are encouraging tourists to visit newer sites within their immediate *region*. However, the success of such sites could mean the *process* of overtourism spreads even further.

More challenges exist in the way guest and host populations need to come to terms with the negative impacts brought about by tourism. Tourist values and customs may clash with those of the host community. For example, tourists may disregard dress codes for certain *places* such as temples and churches, and thereby offend local people. The consumption of alcohol may also be offensive to locals and even illegal. Local populations may lose some of their customs and identity as they adapt to tourism. The Kayan Lahwi women of northern Myanmar (Figure 2.46) and Thailand are part of a minority ethnic group with unique cultural traditions. In Myanmar they are often 'on display' for tourists to photograph and to sell their craft work. The significance of their appearance, and appreciation of it, can be easily lost as a result. Creating cultural events such as the one in Figure 2.47 may be seen as offensive to some of the local population, while proving to be a money-making enterprise for others.

▲ **Figure 2.45** Tourists on one of Amsterdam's many canals

▲ **Figure 2.46** Kayan Lahwi women pose for tourists in northern Myanmar

▲ **Figure 2.47** Tourists take a photo opportunity at a staged mock-traditional nomadic camp in the city of Dubai

A mix of tourists and local people can lead to higher crime levels. There are local people who may be considerably poorer than the visitors. Even backpackers travelling on a limited budget will carry goods such as watches, smartphones and clothes that may be desirable to others. Crime can deter tourists. South Africa, Rome and the Caribbean, for example, have poor reputations in regard to crimes such as pickpocketing and scams involving tourists. Government organisations and tourist websites commonly warn visitors to Jamaica to be very careful of their possessions and their personal safety. The country's record of murders, shootings, assaults, rapes and thefts negatively affect both locals and tourists.

Environmental impacts and *sustainability*

The *interconnection* of tourism activities with the *environment* raises issues and challenges. A major issue concerns the growing contribution tourism activities make to greenhouse gas emissions and therefore to climate *change*. The challenge is to find ways to minimise, or even eliminate, this contribution. The energy used by ships, planes, buses and cars together with the electricity that runs hotels and entertainment venues is largely derived from fossil fuels. Over 7 per cent of Australia's greenhouse gas emissions are produced by tourism activities. Tourists from Europe in particular are increasingly selecting their holiday destinations on the basis of reducing plane and car journeys, and water and electricity use. They hope to reduce damage to global *environments* and the specific *environments* they visit.

Climate *change* threatens further impacts to tourism sites and activities. Rising sea levels, perhaps by over 1 metre by 2100, threatens many coastal resorts. These resorts include Australia's Gold Coast, Mexico's Cancun *region*, Thailand's Phuket as well as the nations of Fiji and Maldives. The situation is further accentuated by the greater frequency and intensity of storms, including cyclones. Rising temperatures will see a reduction in aerial extent and depth of snowfields, particularly at lower altitudes. The Tasmanian and south-east Australian ones are particularly vulnerable to this *process*. The need for tourism authorities and organisations to react to these issues is evident. Strategies such as diversifying tourism activities, creating artificial snow, and rebuilding beaches need to be developed. In addition, strategies need to be formulated to handle potential investment losses, declining and *changing* employment opportunities and sourcing funding.

Tourism helps in the conservation of natural and human *environments* through the payment of entrance fees, local taxes and tours. The *processes* of careful conservation and restoration of *environments* mean maintaining heritage that can continue attracting tourists as well as satisfying local populations. For example, the world's largest stone Buddha at Leshan, western China (Figure 2.48). The 1200-year-old giant statue has been cleaned and made accessible

▲ **Figure 2.48** At 71 metres, the Leshan Giant Buddha is the world's tallest

CAREER PROFILE

Bruce Paton

Program Manager of Bush Blitz and TeachLive at Earthwatch Institute Australia

After studying Geography in high school, I majored in Geography and Geology at Monash University. I then began a career in environmental education, and have worked in amazing places such as Wilsons Promontory, Uluru–Kata Tjuta, Fraser Island and Freycinet National Park. In 2013 I commenced working at Earthwatch, the world's leading citizen science organisation. My role involves engaging people in science and nature, by connecting them with scientists to conduct research into biodiversity and the human impact on our environment.

My Geography studies have been invaluable in my work, as much of what I do involves helping people understand the relationship between people and the natural environment. I've worked alongside different environmental professionals who use their geographical skills in their jobs as park rangers, council GIS officers, environmental consultants and civil servants who develop government policy.

I was always interested in Geography, but my real inspiration came from some brilliant lecturers at university, who helped me to see the Australian landscape in an entirely new way. It also helped that my university Geography studies included a lot of fieldwork in beautiful locations!

When I arrived at my introductory lecture for first year Geography I never would have thought that 20 years' later I would be helping teachers conduct scientific research in remote corners of Australia – but I'm certainly glad that's where my life has led. There are lots of prospects for geographers in my field of work but, if I have one piece of advice for someone starting out on a geographical career, it's to keep an open mind.

by boat and walking paths for tourists and local visitors. During holiday periods, over 40,000 people each day have visited the statue. Its popularity, despite regulation, is contributing to its degradation. How authorities can limit visitor numbers is a challenge to be considered. However, the needs of tourists may be met at the expense of the local population and *environment*. Tourists are large consumers of water, sometimes at the expense of the local population (see pages 39–40).

Natural *environments* can generate considerable value from tourist spending for local and national populations. For example:

- more than $1 billion a year is spent by foreign tourists to see Australia's koalas
- there are over 14 million visits a year by domestic and international tourists to different parts of the Great Barrier Reef (see Chapter 3)
- an African elephant can generate tourist revenue worth $1 million in its lifetime; a herd can generate $600,000 a year
- Kenyan tourism authorities estimate each lion, over a ten-year period, can generate $3.5 million from tourist sightings
- China's giant pandas earn around $700 million a year from tourism and loaning out of animals to zoos.

Environments, both natural and human, can be 'loved to death' – with sites becoming so popular, and with many facilities built to accommodate tourists, that the original beauty and fascination of the *place* can become lost. The 300 million visitors a year to the Mediterranean Sea's coastal areas has seen loss of and damage to natural habitats, with picturesque villages converted into tourist shopping strips (see Figure 2.40). Waste, litter, vandalism and congestion are frequent and often serious consequences of tourist success in many parts of the world. Beaches and Islands in the Philippines and Thailand have been closed at times to allow for intensive cleaning and regeneration. Some types of sunscreen that prove toxic to coral and fish are banned in Palau and Hawaii. In this way, local authorities see tourists becoming part of the solution to *environmental* challenges. At local sites such as beaches, or larger *scale* sites of national parks or temple complexes, authorities implore visitors to be respectful of the *environment* and cultural relics. Signs like the one in Figure 2.49 are typical of the many thousands of examples of this strategy employed worldwide.

Figure 2.49 An anti-graffiti sign at a temple in Chengdu, China

Detrimental impacts can lead to a tourist destination becoming *unsustainable*. '*Sustainable* developments' are those sites where features attractive to tourists remain, and where, despite more tourists visiting and an increase in facilities for them, the quality of the site remains unspoilt for them and the tourists who will follow. Clearly, management personnel, planners and developers as well as a local population are critical decision-makers in determining developments that impact a site's *sustainability*.

ACTIVITIES

1. a. The remains of a magnificent ancient temple and town complex are being uncovered from dense vegetation in Central America. The government is keen to see the site opened up for tourism. Suggest who might be making each of the statements below and why. For each comment suggest what additional information you would like to have to be more certain if their comments are likely to be valid.

- It's our heritage. I am proud of this discovery.
- Who is going to pay for all this? We have no money.
- New roads and hotels are fine but we have no hospital or school for ourselves.
- Tourism will bring income and then we can afford health and education services.
- It will mean jobs for the local population as guides, cooks and hosts.
- The proposed airport and thousands of visitors will destroy our way of life, just as it has done in other parts of the country.
- The locals can dress up in period clothes. That will catch the tourists' attention.

b. Identify an issue and the associated challenge that could arise from the site described above. Which comment suggests tourism development will not be *sustainable*?

2. How could crime be linked to tourism?

3. What is *sustainability*? How is it significant to tourism drawcards such as Egypt's pyramids or Australia's koalas?

4. Debate the idea that airfares should be increased to provide help for the carbon emissions generated by travellers. Include in your debate the likely impact this strategy could have on carbon emissions and on the numbers travelling long *distances*.

5. If tourist numbers are restricted at Leshan Giant Buddha (Figure 2.48), who might lose out? Are there any alternatives to this?

6. "Signs are too soft. Penalties are needed." Debate this viewpoint as a way to protect and *sustain* tourist destinations.

3 Tourism in Tropical North Queensland

Natural *environments* have long been an attraction for tourists all over the world. Mountains, coasts, forests, lakes, deserts, volcanoes and many other natural features have been destinations for people wanting to pursue a range of activities including wildlife spotting, walking, adventure sports or just relaxation. In addition to the extreme diversity of Australia's natural *environments*, a wide range of appealing natural features has led to many *regions* of Australia becoming popular attractions for tourists.

In 2011 the CNN network in the United States of America ran a survey to find the new top seven wonders of nature. There were 259 nominations from 222 countries nominated by more than one million people across the globe. Thirteen in this list were from Australia. Two locations, the Great Barrier Reef and Uluru, made the shortlist of 28 finalists. No Australian natural wonder made the final top seven. Figure 3.1 lists the top 10 wonders of nature in Australia as identified by the CNN survey.

Seven of the 10 natural *environments* listed in Figure 3.1 are also World Heritage sites, so listed as they are *places* of outstanding universal value to humanity. Figure 3.2 shows Yellow Waters, part of one of Australia's listed sites in Kakadu National Park.

The seven wonders of nature competition sparked much debate as all the seven traditional natural wonders of the world listed by CNN in 1997 – namely the Great Barrier Reef, Grand Canyon, Harbour of Rio de Janeiro, Aurora Borealis, Victoria Falls, Paricutin volcano and Mount Everest – were replaced by new locations namely Iguazu Falls, Amazon Rainforest, Jeju Island, Komodo Island, Table Mountain, Puerto Princesa Underground River and Halong Bay.

▼ **Figure 3.1** The top ten natural wonders in Australia as identified by CNN

Ranking	Natural wonder	State	World Heritage listed	Date listed
1	Great Barrier Reef	Queensland	Yes	1981
2	Uluru	Northern Territory	Yes	1987
3	Shark Bay	Western Australia	Yes	1991
4	The Pinnacles	Western Australia	No	NA
5	Twelve Apostles	Victoria	No	NA
6	Grampians/Gariwerd	Victoria	No	NA
7	Fraser Island/K'Gari	Queensland	Yes	1992
8	Kakadu	Northern Territory	Yes	1981
9	Blue Mountains	New South Wales	Yes	2000
10	Bungle Bungles	Western Australia	Yes	2003

▼ **Figure 3.2** Jabirus and Egrets are birds commonly seen at Yellow Waters in Kakadu National Park

ACTIVITIES

1. To obtain World Heritage listing for a site is a complex procedure. Using the UNESCO website, explain how locations can become World Heritage listed.
2. The CNN listing of wonders of nature was obtained by an internet vote, compared to the list of the natural wonders of the world as agreed by a panel of experts. Why might both lists be disputed?
3. Divide the class into groups. Each group should use the internet and other sources to complete a brief report on one of the other Australian natural wonders shown in Figure 3.1 (excluding the Great Barrier Reef). In the report:
   a. describe the location of the Australian natural wonder
   b. find an iconic image that would encourage tourists to visit this location
   c. briefly outline the interesting aspects of the location that would attract tourists
   d. describe the infrastructure provided at this location for visitors.

Some characteristics of tourism to Tropical North Queensland

This chapter focuses on tourism in the Cairns *region* of Tropical North Queensland (TNQ) and considers the characteristics of tourism until the end of March 2020. After this time the impacts of the COVID-19 virus and associated travel restrictions have impacted visitation to TNQ in ways that are still to be fully determined at the time of writing and so will not be covered in any depth in this chapter.

This *region* is the fourth most popular *region* for international tourists visiting Australia after Sydney, Melbourne and Brisbane. Cairns is located 1390 kilometres north of Brisbane on the shoreline of Trinity Inlet and is found in the tropics at 16.55 degrees of latitude south of the equator. The location of Cairns within Queensland can be seen in Figure 3.3.

In 2020 the city of Cairns had a population of 154,230 people and had grown by over 36,000 people since 2002. Cairns is the largest *regional* centre in TNQ and its residents are employed in a range of occupations including agriculture, aquaculture, construction, government services, education, health, retail, mining and tourism. Over 3.3 million tourists visited TNQ in 2019 and just over 39 per cent of these visitors were from overseas, 23 per cent from interstate and 38 per cent were from other parts of Queensland. Most of the tourists came for holidays, while visiting friends and relatives was the second-most important reason for visiting the *region*. Visitors can easily reach Cairns using a number of transport options. Travelling by air and by car are the most popular, accounting for more than 80 per cent of visitors. Cairns has its own international airport receiving flights from all capitals in Australia as well as direct flights from China, Japan, South Korea, New Zealand and Hong Kong. Other visitors come by bus, and cruise ships are becoming more popular with five different companies regularly using the Trinity Inlet harbour. The *region* is also served by rail with the Spirit of Queensland making five trips per week between Brisbane and Cairns. During 2019 it was estimated over $2.4 billion was spent by tourists there on items such as accommodation, meals, transport and sightseeing.

There are many options for tourists staying in Cairns. TripAdvisor ranks 180 accommodation options in the Cairns city area from luxury five-star resorts to two-star budget options. This includes more than 50 apartments

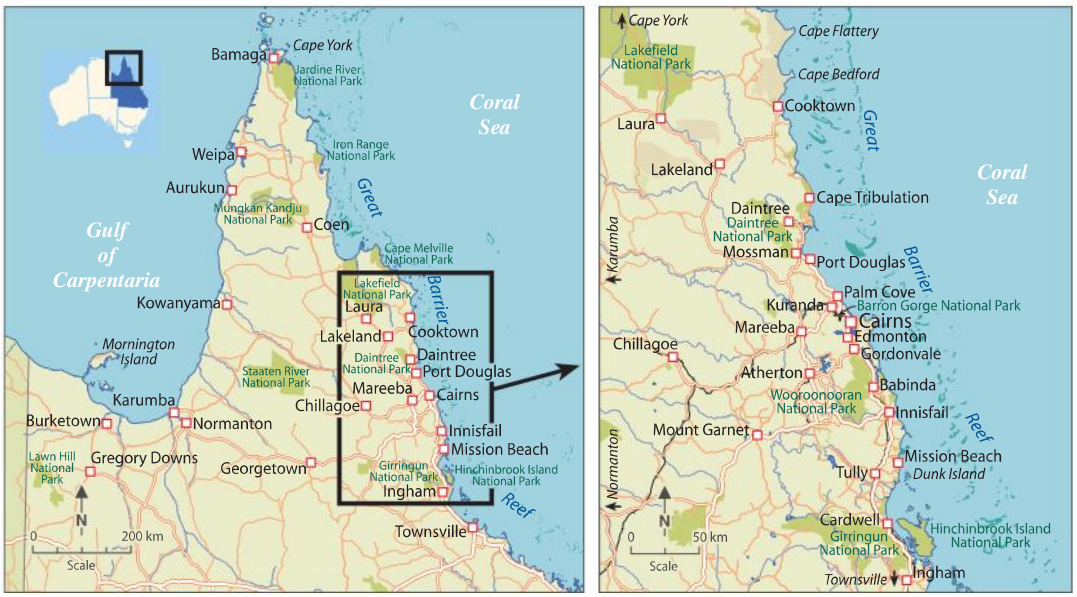


Figure 3.3 Location of Cairns within Tropical North Queensland

that can be rented and a number of backpacker hostels and caravan parks that also can accommodate tourists. It was estimated by the Queensland tourist industry body that there were over 14,000 rooms available for tourists in the Cairns *region*. More than 8000 of these are in the centre of Cairns. The number of rooms available for tourists is expected to rise in the future with some major developments in the *region* being completed. Resorts have been proposed at Yorkeys Knob to the north of Cairns and Caravonica to the west, whilst three new 5-star hotels are being built in the centre of Cairns. The Caravonica plan involves the creation of 1000 residences, a shopping centre and a 2.2-hectare lake for year-round water sports. A new aquarium and performing arts centre have been completed in the Cairns town centre.

Figure 3.4 Visitors to Tropical North Queensland in 2014, 2017 and 2019

Tourist type		Domestic	International	Total
Visitors	2014	1,648,000	715,000	2,363,000
	2017	1,819,000	897,000	2,716,000
	2019	2,183,000	727,000	2,910,000
Holiday	2014	878,000	665,000	1,543,000
	2017	946,000	825,000	1,771,000
	2019	1,174,000	664,000	1,839,000
Visiting friends and relatives	2014	433,000	33,000	466,000
	2017	491,000	18,000	509,000
	2019	504,000	43,000	547,000
Business	2014	337,000	17,000	354,000
	2017	382,000	54,000	436,000
	2019	447,000	14,000	461,000

An analysis of visitor statistics to the TNQ *region* can be seen in Figure 3.4.

Tourists are attracted to the Cairns *region* by its appealing tropical climate as well as by its spectacular and beautiful landscapes. The two most significant natural features are the Great Barrier Reef (GBR) and the Wet Tropics rainforest of which the Daintree Rainforest is the largest in size. Both the GBR and Wet Tropics rainforest are World Heritage listed and are biodiversity hot spots. This *region* is also the only location in the world where two natural World Heritage sites meet. In a survey of tourists conducted by the Cooperative Research Centre (CRC), a group based at James Cook University, 60.6 per cent of respondents thought it very important to visit the GBR while 50.4 per cent thought it very important to visit the rainforest. Figure 3.5 shows the results of the tourist survey collected by the CRC.

Figure 3.5 Reasons given by tourists for visiting Tropical North Queensland. (Figures are given in the form of percentages.)

Features	Very important	Important	Neither important/ unimportant	Unimportant	Not important at all
Visit the Great Barrier Reef	60.6	23.4	8.0	2.8	5.2
Visit the rainforest	50.4	37.0	8.6	1.1	2.9
Experience the natural *environment*	35.0	45.4	14.0	2.7	2.9
Rest and relax	39.1	38.2	15.2	5.1	2.4
See Australian wildlife	24.4	27.1	20.9	3.5	4.1
Climate	30.7	40.0	20.6	5.3	3.4
Visit islands and/or beaches	25.6	42.9	20.6	5.8	5.2
Snorkelling and diving	34.0	27.4	18.8	10.0	9.9
The price matched my budget	20.3	38.5	27.8	7.4	6.0
Experience Aboriginal culture	12.3	27.0	36.8	16.1	7.8
Experience the outback	14.2	29.1	30.7	11.6	14.5
Spend time with my family	28.2	17.6	17.7	10.1	26.3
Meet new people	9.7	28.3	36.9	13.4	11.7
Go shopping	6.1	16.3	32.0	20.4	25.2
Visiting friends and relatives	15.0	15.1	19.6	12.2	38.0
Special event	7.0	10.5	20.1	16.5	35.8
Business	4.0	3.1	29.4	14.5	58.1
Conference or meeting	3.7	3.1	17.5	13.6	61.9

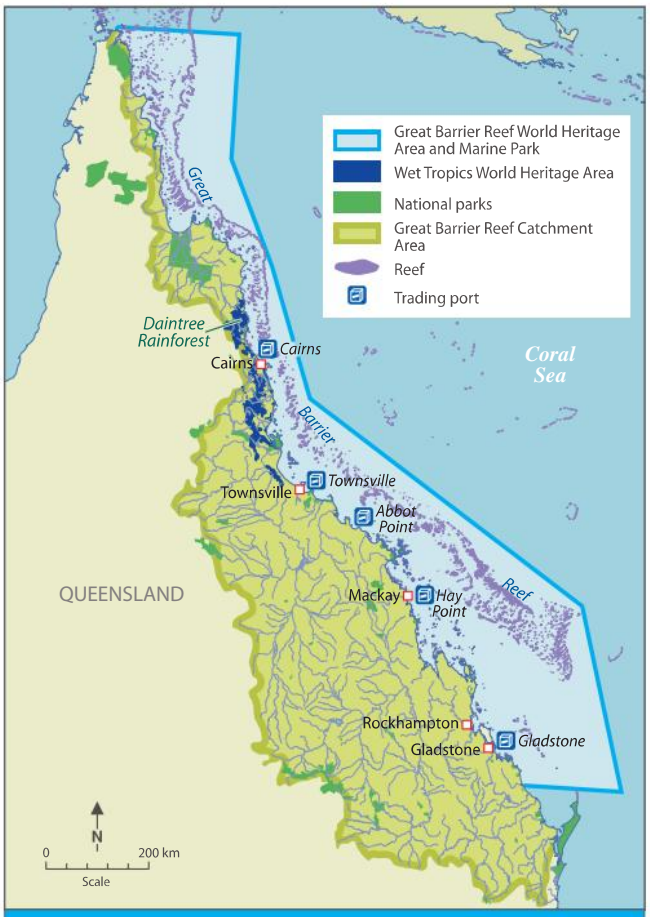
The Great Barrier Reef

The Great Barrier Reef (GBR) is one of the world's largest natural features. It spans a length of over 2300 kilometres from just north of Fraser Island/K'Gari in Queensland (the world's largest sand island) to a point just south of the mouth of the Fly River in Papua New Guinea. It is very old and enormous, and hosts thousands of different species that have developed over an extensive period of time. Scientists estimate the GBR could be as old as 20 million years. The location and extent of the GBR can be seen in Figure 3.6. Figure 3.7 shows a green sea turtle hiding amongst coral while a clownfish swims amongst anemones on the GBR in Figure 3.8. The International Union for Conservation of Nature considers the green sea turtle to be an endangered species.

The GBR is not one continuous reef but a complex maze of coral reefs, coral cays and continental islands. There are some 2900 individual reefs and 300 coral cays that are habitat to an estimated 1500 species of fish and more than 600 species of coral. Ten per cent of the world's total fish species are found within the GBR. The islands, cays and coastline are home to hundreds of different bird, mammal and other animal species. The reef is a breeding ground for many rare, threatened, and endangered species such as the dugong, six species of sea turtles, and many whale and shark species. Some of the most spectacular reefs in the GBR are easily accessed from Cairns.

These natural features are an attraction to visitors wanting to experience the wonders of the reef – to snorkel, scuba dive or use glass bottom boats to see the myriad of marine life found there. These activities can be accessed from Cairns, from islands such as Fitzroy or Green Island or even from live-aboard boats stationed on the outer reef.

▼ **Figure 3.6** The Great Barrier Reef and Wet Tropics rainforest



GREAT BARRIER REEF WORLD HERITAGE AREA

- It covers an area a little larger than Norway and a little smaller than Japan.
- It extends over 344,400 square kilometres.
- It has around 3000 coral reefs with 600 types of corals.

WET TROPICS WORLD HERITAGE AREA

- Covers 8940 square kilometres.
- Aboriginal people have lived here for at least 5000 years.
- Less than 1 million people live here today.
- It is home to one third of Australia's mammal species.

▲ **Figure 3.7** A green sea turtle on the GBR

▲ **Figure 3.8** Clownfish amongst anemones on the GBR

▲ **Figure 3.9** A view of the Daintree Rainforest from above

▲ **Figure 3.10** Creek running through Daintree Rainforest

Daintree Rainforest

The Daintree Rainforest is the largest tract of wet tropical rainforest left on the north-east coast of Queensland. The rainforests can be found between Townsville and Cooktown in small, isolated patches. These forests cover only 0.1 per cent of the Australian landmass yet contain 25 per cent of all Australian plant species, 62 per cent of all butterflies, 60 per cent of all bats, 30 per cent of all marsupials and 25 species that are rare or endangered. These rainforests are considered to be some of the oldest on Earth. Some plant species originated when Australia was still part of Gondwana over 120 million years ago. Thirteen of the world's 19 oldest flowering plant families are found in the Daintree. There are also many rare and unusual animal species such as the cassowary that are a focus for some visitors to the *region*. These rainforests can be easily accessed from Cairns (see Figure 3.6) and there is a strong *spatial association* between Daintree visitation and day trippers as accommodation options are limited. Figure 3.9 shows an aerial view of the canopy of the Daintree Rainforest, taken from the Daintree Rainforest canopy crane located at the James Cook University Rainforest Observatory. Figure 3.10 shows a small creek running through the Daintree Rainforest.

Visitors also come to this area to see other attractions such as the Atherton Tablelands and many of the attractive beaches to the north of Cairns including Trinity Beach, Ellis Beach and Palm Cove (Figure 3.11). The Skyrail Rainforest Cableway, a gondola traversing 7.5 kilometres over Wet Tropics rainforest between Kuranda and Cairns, is proving a popular attraction for tourists.

For many visitors the tropical climate of Cairns can be an attraction in its own right particularly during winter. The months of May to October are the best time to visit Cairns, with lower rainfall and average temperatures of between 25 and 30 degrees Celsius. Figure 3.12 shows a climate graph for Cairns.

January to March is considered cyclone season and the *region* has had a number of major category five cyclones since 2000, which caused significant damage in the *region*. Cyclone Yasi in February 2011 was the

▶ **Figure 3.11** Palm Cove

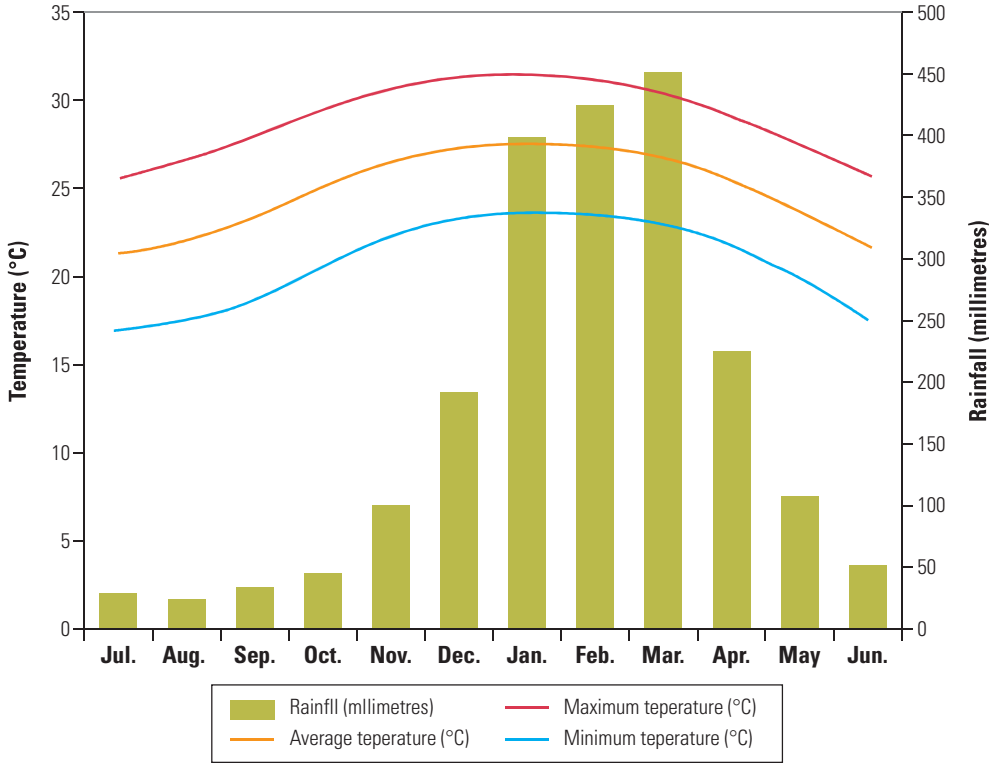


Figure 3.12 Climate graph for Cairns

most powerful cyclone to hit Australia in 100 years. The category five cyclone had 290 kilometres per hour winds, was 1450 kilometres wide, flattened banana and sugarcane crops, flooded low-lying coastal areas, caused $2.8 billion damage to the Cairns *region* and blasted a one-kilometre wide hole through the Great Barrier Reef. Thousands of residents of TNQ were evacuated, and many lost their homes. The floods created by this cyclone also caused masses of pollutants to wash onto the reef adversely affecting animals, particularly sea turtles. The Wet Tropics rainforest did not escape damage from Yasi. Upper canopy trees were blown over, while flowers, leaves and fruit were stripped from trees depriving wildlife of food, shade and shelter. Cassowary populations were hit particularly hard, and some scientists have estimated that at least one third of cassowaries living in cyclone-hit rainforests perished. Figure 3.13 shows the strength and frequency of cyclones that have hit the TNQ coast since 1980.

Figure 3.13 Cyclones in the Tropical North Queensland *region* since 1980

Cyclone	Year	Cyclone category
Niran	2021	Category 5
Nora	2018	Category 3
Ita	2014	Category 5
Yasi	2011	Category 5
Larry	2006	Category 4
Steve	2000	Category 3
Rona	1999	Category 3
Justin	1997	Category 2
Joy	1990	Category 4
Winifred	1986	Category 3

ACTIVITIES

1. Refer to Figure 3.3.
   a. Describe the location of Tropical North Queensland (TNQ) within Australia.
   b. Describe the *distribution* of settlements within TNQ.
2. a. Using Figure 3.4, describe the composition of the tourist market in TNQ.
   b. What *changes* have there been to the tourist market between 2014, 2017 and 2019?
3. Figure 3.5 shows the survey results of more than 800 tourist visits to TNQ. Using this information discuss the following statement:
   'Natural *environments* are the most important reason tourists visit Tropical North Queensland.'
4. With reference to Figure 3.6, describe the extent of the two World Heritage classified areas in TNQ.
5. From the information you have obtained about the Great Barrier Reef and Daintree Rainforest, what are the characteristics of these *places* that are a major drawcard for tourists?
6. a. Describe the climate of Cairns as shown in Figure 3.12.
   b. Use the Bureau of Meteorology website, to compare the climate of the town/city you live in (or nearest to you) with Cairns. What are the main similarities and differences?
   c. Why is TNQ an attractive destination for those in the southern states of Australia and New Zealand?
7. a. Using Figure 3.13, construct a graph that shows the strength and frequency of cyclones in TNQ.
   b. Describe the trends that are apparent in your graph.
   c. How might the trends you have identified affect tourism to the *region* into the future?
8. What are the main things that would attract you to this *region*? Create a 'top five' list and compare your list with those around you.

▼ **Figure 3.14** Average lengths of stay for visitors to Tropical North Queensland

Visitor type	Average length of stay (nights)			Percentage of total tourist market		
	2014	2017	2019	2014	2017	2019
Intrastate	4.1	3.7	3.6	48	44	49
Interstate	7.4	7.5	7.8	22	23	26
Overseas	8.7	7.2	9.0	30	33	25

Tropical North Queensland visitor profile

Over the past decade there have been many fluctuations in visitor numbers to TNQ.

Figure 3.14 shows the average length of stay of tourists. In 2019, intrastate visitors stayed on average 3.6 nights, interstate visitors stayed 7.8 nights and international visitors stayed 9.0 nights.

In 2019, visitors spent $3.51 billion in TNQ. On average, visitors spent $223 per night on accommodation and over $200 per day on activities, food and other items. It is thought that around 16 per cent of all spending in the *region* can be attributed to tourism and that more than 15,000 jobs or 19 per cent of the workforce in TNQ are reliant on tourism for a living. This statistic is three times higher than the average for other *regions* in Queensland. It is estimated that there are over 3600 businesses based around tourist activities in TNQ. Nearly 800 of these businesses employ between 5 and 19 employees, and over 200 businesses employ over 20 employees. Between 2012 and 2020, domestic visitors (who account for 75 per cent of the tourists to the *region*) steadily increased with a big increase in visitors in 2017 and further increases in 2019. Over the same period, international visitors also increased but at a lower rate. In 2012, 30 per cent of visitors to TNQ were international. By 2020 this figure had decreased to 25 per cent. Figure 3.15 shows these trends.

▼ **Figure 3.15** Visitation by domestic and international visitors to Tropical North Queensland between 2012 and 2020

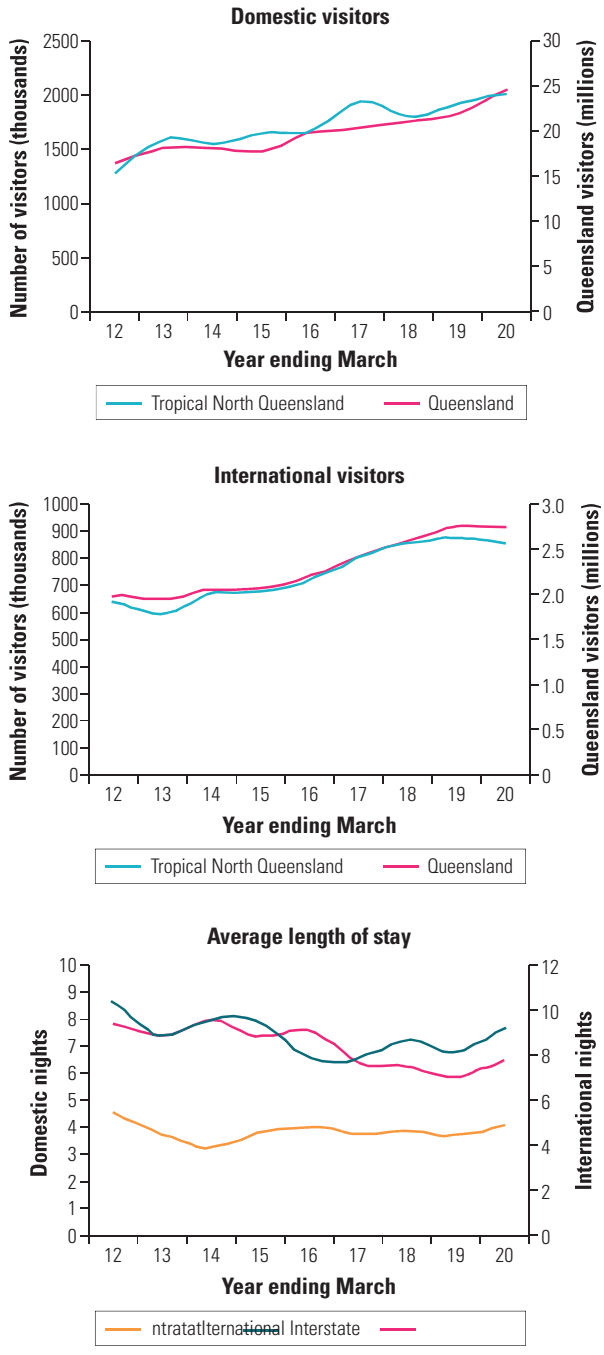
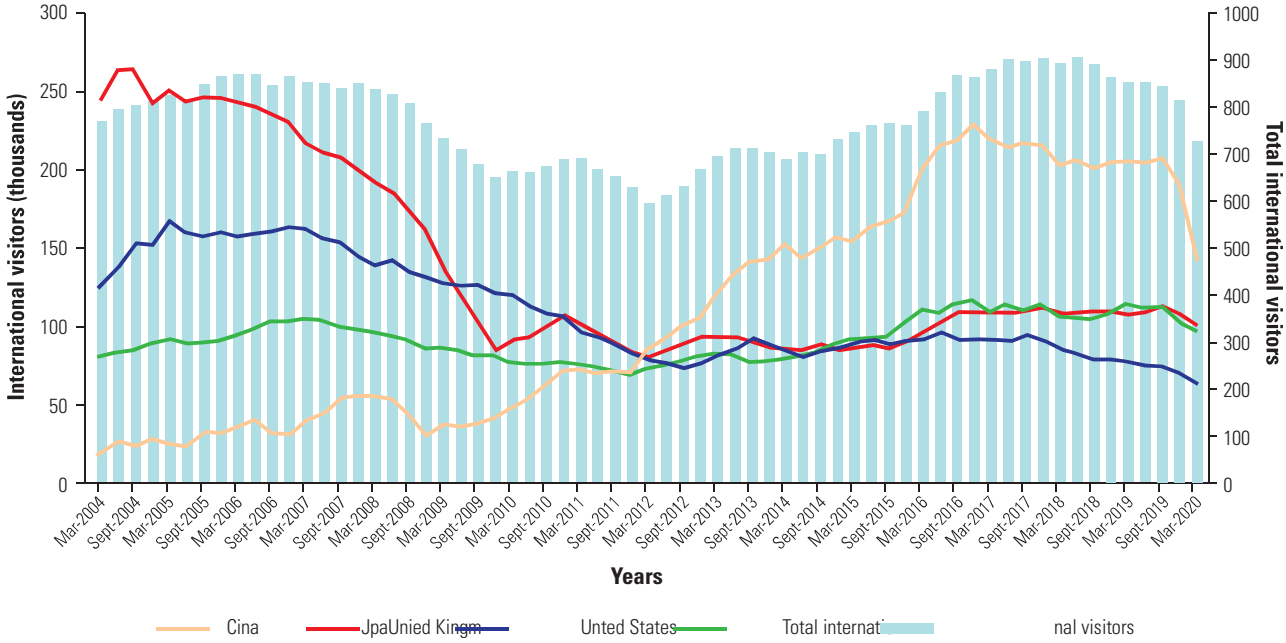


Figure 3.16 illustrates the trends in the numbers of overseas visitors to TNQ between March 2004 and March 2020. The four largest source *regions* for international visitors were China, USA, Japan and the UK. Although Chinese tourists are by far the greatest number, they only have short stays averaging about three nights per person. Independent travellers from the UK, New Zealand, France and Germany tend to stay the longest, averaging around 16 nights per person. Interestingly, 48 per cent of international visitors are between 20 and 35 years of age, whereas there are relatively few overseas visitors over 55 years of age. Differences such as these in nationality and age suggest variations in the choice of attractions and activities that appeal to different tourists and these factors will influence the marketing and provision of tourist facilities.

Visitation to the Cairns *region* is highly seasonal. Between the months of April to October there are on average more than 18,000 people being accommodated per night while for the months of January to March this figure decreases to just over 10,000. Of the more than 1.5 million holiday visitors to this *region* it is estimated that more than 55 per cent spend at least three hours in an activity on the GBR while just over 20 per cent will participate in an activity in a wet tropics rainforest.

Figure 3.16 International visitors to Tropical North Queensland between March 2004 and March 2020



ACTIVITIES

1. a. From the information on these pages, construct a profile of the typical Australian visitor and the typical international visitor to TNQ.
   b. How has the typical visitor to TNQ *changed* between 2014 and 2019?
2. Describe the trends over time shown in Figure 3.15. Is there any aspect of the data here that tourist operators should be concerned about?
3. Figure 3.16 shows trends in international visitors between March 2004 and March 2020.
   a. Describe the trends apparent in this graph specifically referring to the four *regions* named.
   b. On average, international visitors tend to stay between 8 and 10 nights per visit, yet Japanese and Chinese visitors only average 3 to 4 nights stay. What reasons could explain this pattern?

Marketing Tropical North Queensland as a *sustainable* destination for tourists

Tourism and Events Queensland (TEQ) promotes TNQ as the best *sustainable* tropical visitor destination in the world. Currently there is considerable competition for visitors to tropical locations from *places* such as Fiji, other Pacific Islands and a variety of South-East Asian locations. TEQ is a state government department that has the responsibility of creating initiatives to promote Queensland as a desirable destination for visitors from all over the world. TEQ collects statistics on all aspects of visitation to Queensland and develops marketing strategies that link all tourism operators in *regions* of Queensland together so that there are coordinated approaches between government and industry. TEQ also encourages and organises major events that can attract visitors to a *region*. Cairns has a large convention centre that has hosted major events with more than 3500 delegates, such as the world finance leaders meeting in 2014 and the 2018 Commonwealth Games basketball. More recently, the 2019 Amway China conference attracted over 6000 delegates.

TEQ advertises TNQ with the brand 'Adventurous by nature' and the marketing promise 'feel the natural exhilaration of an Australian tropical adventure' in all promotions. In the marketing strategy for 2012–16 TEQ makes the claim: 'Globally recognised for its World Heritage Great Barrier Reef and ancient rainforest, it is Australia's premier tropical destination, where the spirit of adventure comes alive in a world of natural and cultural wonders'. At the beginning of 2020, the marketing slogan for TNQ was *changed* to 'See Great, Leave Greater' and 'Adventurous by Nature' as advertising campaigns were reimagined to encourage increased local visitation with the onset of COVID-19. Figure 3.17 shows a sign informing visitors when they are in World Heritage-listed ancient rainforests.

Although all types of tourists are encouraged to visit the Cairns *region*, there are specific segments of the tourism market that TEQ is focusing its energies on attracting to TNQ. There is a strong *interconnection* with visitation and couples with

incomes above $100,000 as well as two other key demographics: baby boomers (50 to 69 years of age) and mid lifers (30 to 49 years of age). TEQ's marketing strategy has these segments as a key focus.

There is also a strong *spatial association* between the locations where money is spent on advertising and the origins of most overseas visitors. Considerable sums are spent advertising the *region* in China, Japan, UK, North America and New Zealand.

▶ **Figure 3.17**
Sign indicating the area's World Heritage listing

▲ **Figure 3.18** A SWJ group about to snorkel at Fitzroy Island

▶ CASE STUDY A tourist operator in Tropical North Queensland

Small World Journeys (SWJ) is an excellent example of a company offering tours around TNQ that are based in Cairns. Like many of the tourist operators in Cairns, they customise tours for particular segments of the market. In SWJ's case they create educational experiences for mainly senior secondary and tertiary students (both Australian and international) that develop knowledge and understanding of the unique *environments* found in TNQ.

SWJ runs a range of tours and trips focused on reef science, wildlife identification and protection, rainforest ecology, vegetation monitoring, botanical and avian studies, coral surveys and Aboriginal culture. It also offers opportunities to do more adventurous activities such as diving, snorkelling (Figure 3.18), hiking, ropes courses, rock climbing, sea kayaking and whitewater rafting. The SWJ website gives details of the programs they run together with their philosophy of why they favour ecotourism practices.

Like many tour operators, SWJ endeavours to minimise the ecological footprint that tourists create when visiting fragile locations like the Daintree Rainforest and coral reefs. This has involved introducing relevant ecotourism policies and actions and advocating for responsible tourist practices. These include minimising group sizes so that impacts are not concentrated at one site, minimising waste by giving customers reusable water bottles, using local guides who are familiar with the intricacies of *places* visited, ensuring visitors are educated about *sustainable* tourism practices and *environments* they explore, promoting local Indigenous culture, and using locally owned accommodation and restaurants where possible.

▼ **Figure 3.19** Mudcrabbing near Mossman with Indigenous guides

They also involve tourists in projects to restore landscapes such as planting native trees, collecting litter from mangrove areas and supporting organisations such as Rainforest Rescue and the Fitzroy Turtle Rehabilitation Centre. Figure 3.19 shows an SWJ group hunting for mudcrabs with an Indigenous guide from the Kuku Yalanji people.

Each year, SWJ offsets its carbon footprint through Australia-based not-for-profit organisation Carbon Neutral. When SWJ donates money to Carbon Neutral to offset its carbon footprint, this money goes to projects in Australia that reduce carbon emissions, like increasing carbon sinks by planting trees.

ACTIVITIES

1. Do you think the marketing strategies employed by TEQ align with the main reasons tourists come to TNQ?
2. How do you think TNQ should be marketed?
3. What is ecotourism? Should ecotourism be the predominant form of tourism in TNQ? What is your opinion?
4. Small World Journeys endeavours to minimise its ecological footprint. What is an ecological footprint? Should tourist operators in TNQ be encouraged to reduce their ecological footprint? Why or why not?
5. There are several tour companies that offer tours to TNQ with different themes. These include Billy Tea Safaris, AAT Kings, Sunlover, Terra Australis Tours, Adventure North Australia and others. Investigate at least three operators and create a table that compares some of the characteristics of these companies. Characteristics could include accommodation, transport, cost, locations visited, target markets and responsible practices.

Impacts of tourism on Tropical North Queensland

Ultimately, visitor numbers to TNQ are dependent on the ability of government and industry to manage to protect the remarkable of the coral reefs and tropical rainforest that are the main attraction for tourists to the *region*. Butler's model of the evolution of tourist *regions*, discussed in Chapter 2 (page 38), is one way to assess the current status of Cairns as a destination for tourists. With high tourist numbers, new and rejuvenated infrastructure, and world-famous attractions, the fragile ecosystems of TNQ must be carefully monitored to ensure that the range of issues associated with tourism are minimised. The combination of high visitor numbers and fragile ecosystems also provide major challenges for planners and managers to ensure that the quality of visitor experience is not compromised.

Impacts of tourism can be both positive and negative and have both short-term and long-term effects on the Wet Tropics rainforest and GBR.

The *environmental* impacts of tourism on Tropical North Queensland

Generally, the *environmental* impact of tourism on natural *environments* is negative and this is true for TNQ. These impacts are described below.

(a) Pollution

Tourists wanting to experience the full range of experiences can often leave unwanted evidence of their visit. Whether this is litter, increased congestion at particular locations or higher traffic flows the issues that result can be obvious. Sometimes the impacts are not so obvious. For example, in many tourist destinations infrastructure, including sewerage systems, is often inadequate and does not cope with high-demand periods. Problems with sewage can lead to nutrients and particulate matter contaminating water supplies. With increasing numbers of boats transporting tourists, there is considerable pressure on operators to ensure engines are not leaking oil and all waste is contained on boats. The increase in nutrients caused by sewage and agricultural run-off is thought to be a factor in larger phytoplankton populations, causing numbers of the coral polyp–eating crown of thorns starfish to expand. Figure 3.20 shows a crown of thorns starfish on a reef near Fitzroy Island. Plastic bags in water look like squid to turtles and this has caused the unnecessary deaths of many on the GBR.

Pollution of the waterways near Cape Tribulation has become a major issue as new infrastructure such as accommodation, roads and power lines is built to accommodate increasing numbers of tourists to the Daintree. This construction has caused soil erosion and other run-off to enter streams and may *change* hydrological patterns. The remoteness of the Daintree *region* means that many businesses and households still use generators to create electricity most often powered by fossil fuels. These generators do emit pollution and can be very noisy.

(b) Habitat clearance and disturbance

Providing access to natural *environments*, building accommodation and developing activities for visitors to participate in at a variety of locations can cause a range of issues to habitats. On the GBR, damage to the reef has been caused by building jetties on islands, locating pontoons, anchoring boats and diving. Permanent pontoons have been established in reef areas as a location to base visitor activities from. Figure 3.21 shows a pontoon, glass-bottomed boat and helipad provided for tourists on the outer GBR.

◀ **Figure 3.20** Crown of thorns starfish

▼ **Figure 3.21** A scene on the outer GBR. Pontoon, helipad and glass-bottomed boat

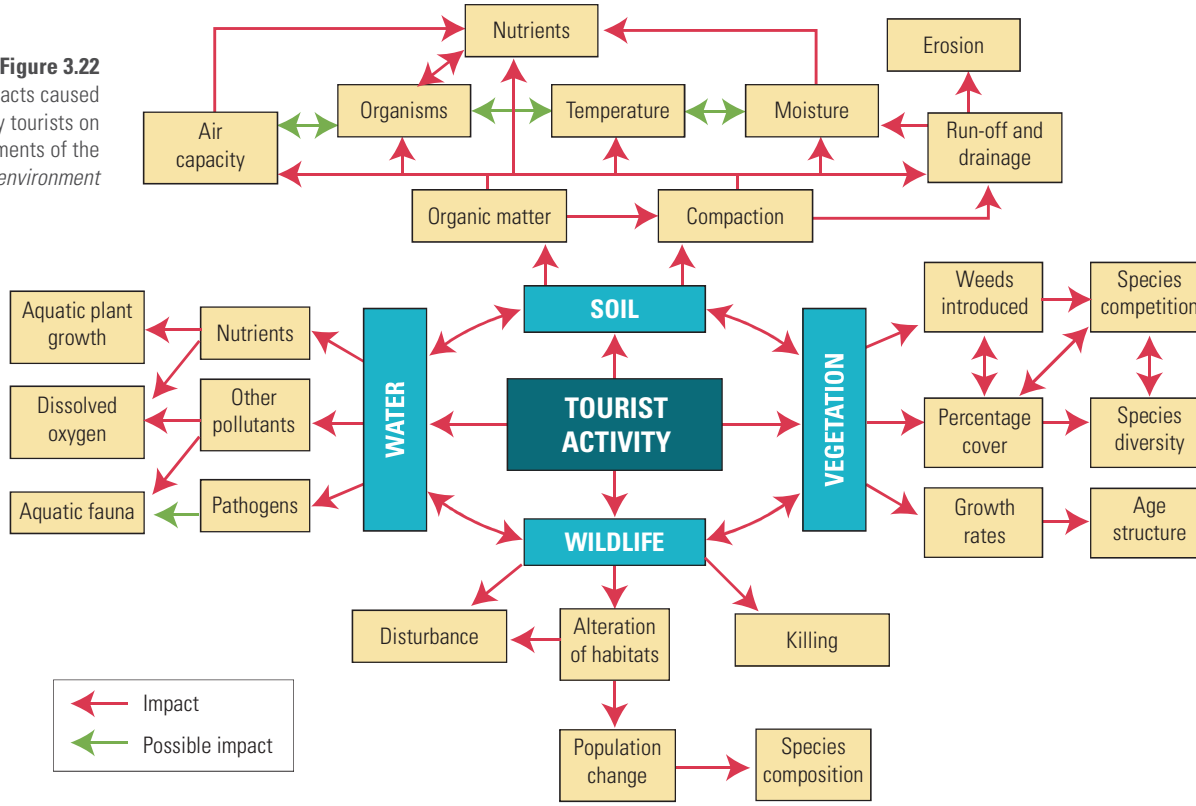


Figure 3.22 Impacts caused by tourists on elements of the natural *environment*

Anchors dropped from boats have the potential to break fragile coral colonies, and divers and snorkellers can break corals if swimming too close to reefs. There have been reports of damage to coral in sites that are easily accessible to snorkellers. Many tourists also participate in fish feeding and this can have negative impacts on fish behaviour and diet, as these creatures become dependent on the food provided by tourists. Tourists have also been known to illegally remove coral, shells and animals from the reef for souvenirs and for aquariums.

In the Daintree Rainforest the construction of roads, walking tracks, lookouts, carparks, camping grounds and picnic areas all have an impact including the removal of vegetation (particularly understorey species), *changes* in canopy cover, the addition of new surfaces and structures, the alteration of water flows, soil fertility, sedimentation and animal *movements*. Quite often the building of roads and tracks can reduce buffer zones around rare and threatened plant and animal habitats and can also provide access for feral species such as cats, foxes and pigs to go deeper into the forest. The flowchart in Figure 3.22 displays the *interconnection* between soil, water, vegetation and wildlife that can be affected by tourist activities.

Figure 3.23 A cassowary walking along a road. This photo was taken from a car window

The impact of tourism on habitats is heavily influenced by the number of users in a particular location. High use areas can become degraded quicker with increased trampling, soil compaction and vegetation disturbance. Topography can also influence the degree of impact. Walking tracks on steeper slopes can erode more quickly than walking tracks on gentle slopes. With more than 3500 millimetres of rain annually these type of impacts have become issues in the Daintree. Walking tracks can become creeks, carparks can concentrate water at particular points causing gully erosion, and the loss of canopy cover means more water directly hits the ground again increasing rates of erosion.

There are a number of animals that reside in the rainforest that can be dangerous to visitor safety. Saltwater crocodiles inhabit the Daintree River and have been seen at Cape Tribulation and other popular beaches on this section of coast. The cassowary, a vulnerable species of the Wet Tropics rainforest, is territorial and can charge at intruders in its path. Some cassowaries have been known to forage around picnic grounds and eat scraps left by visitors. Many visitors travel to Daintree Rainforest hoping to see a cassowary, like the one in Figure 3.23. Not only is it the world's third-largest bird, it has spectacular colouring and is regarded as a keystone species, responsible for the seed dispersal of 150 different plants. *Changing* a cassowary's diet could have severe repercussions on the regeneration of the Wet Tropics rainforest.

(c) Introduction of exotic pests, weeds and diseases

Tourists can unintentionally introduce a variety of pests and diseases when visiting the GBR. There are many species of mollusc, algae, worms and viruses that have been introduced accidentally. It is estimated that there are more than 250 exotic pests now living in the GBR. Many of these pests have entered the GBR by a variety of ships that tourists use to traverse the reef. Molluscs can be attached to the hulls of boats whether they are cruise ships or yachts; contaminated water released from holds of ships can contain a variety of exotic worms, starfish larvae and viruses; and the entry of turbid nutrient-rich water can lead to coral disease. There are seven types of coral disease identified on the GBR and most have been associated with *changes* in water quality and water temperature associated with climate *change*. Tourism can also imbalance populations of local plants and animals by providing habitats and additional food-sources more attractive to some species e.g. possums and seagulls.

Scientists have recently found that, as well as unusually high water temperatures, coral bleaching can also be caused by the effects of some cream-based sunscreens worn by tourists swimming in reef areas. Seven compounds commonly found in these sunscreen lotions have, in particular, been found to have an impact on hard corals. In some cases, it only took four days for corals to become completely bleached after contact with a sunscreen.

Economic impacts of tourism in Tropical North Queensland

Economically, the impacts of tourism on TNQ can have both benefits and costs. Tourists spend money on food, accommodation, tours, activities, transport, entertainment, souvenirs, and a range of other goods and services. The economic prosperity of TNQ is highly dependent on tourism. In 2019 tourists spent $3.51 billion in the *region* and this figure has grown every year for the last decade. This makes tourism the biggest industry in the *region* ahead of agriculture ($1.7 billion) and mining ($1 billion). Tourism's impact on the gross *regional* product (GRP) of TNQ is shown in Figure 3.24.

International visitors tended to spend approximately 30 per cent more than domestic visitors. This money flows into communities and provides employment for local people who also need housing, schools, medical facilities, recreation facilities and a range of other services. More than one-fifth of Cairns residents are employed in tourism-related employment and 51 per cent of businesses have interactions with tourists. Like many tourist destinations, TNQ is a seasonal destination which means, during peak season, there is often an influx of seasonal workers who also need accommodation. Quite often these workers have to stay in temporary accommodation such as caravans as all other accommodation is taken by tourists.

▼ **Figure 3.24** Estimated Direct Tourism GRP (Gross *Regional* Product), by Industry Groups, Tropical North Queensland Region, 2014–15

Industry group	TNQ tourism GRP (million dollars)	TNQ GRP (million dollars)	Tourism percentage
Agriculture, forestry and fishing	41	950	4.32
Mining	0	1480	0.00
Manufacturing	32	836	3.83
Electricity, gas and water	0	372	0.00
Construction	0	1281	0.00
Wholesale	31	476	6.51
Retail	148	780	18.97
Accommodation, food and drink	477	591	80.07
Transport	491	1104	44.48
Communications	9	220	4.09
Financial and property services	46	1115	4.13
Ownership of dwellings	56	1390	4.03
Professional services	0	554	0.00
Administrative support services and public administration	159	1139	13.96
Defence and safety	5	321	1.55
Education and training	101	745	13.56
Health and community services	16	770	2.08
Cultural, sport and recreation	90	155	58.06
Other services	11	328	3.35
Total GRP	**1715**	**14,607**	**11.74**

One in six people in TNQ is a tourist and surveys by Deloitte Access Economics have shown that the income of visitors to TNQ is often higher than local residents. This can lead to inflated prices for many goods and services that can have an impact on the wellbeing and lifestyles of local residents. People with higher incomes also tend to consume more resources, which can leave less for locals, and wealthier visitors tend to leave a bigger ecological footprint from their visit.

For tourism in a *region* to be *sustainable* there needs to be very good infrastructure. Roads, signage, maintenance of public facilities, waste disposal, parks and gardens all need to be of a high quality or repeat visitation will be limited. This all comes at a cost which is usually borne by the Australian taxpayer. In the current period of widespread social media, it is very easy for tourists to provide reviews on their experience on a variety of sites such as TripAdvisor that could encourage or discourage visitation.

In tourist areas it is important to note that not all money spent goes back to the local people or local economy. There is considerable leakage of this money into many areas as many hotels, cruise ships and tour companies are owned by overseas interests and money is transferred back to the parent company. For example, Novotel hotels are owned by a French company, Princess cruises by a British American group, and Green Island and Quicksilver by Japanese companies. Leakage also occurs when specialised goods and services have to be imported to cater for overseas tourists. Many of the boats, four-wheel drive vehicles and coaches used to transport tourists are built overseas, which again causes considerable amounts of money to move overseas. Figure 3.25 identifies the complexities related to the flow of tourist dollars into TNQ.

Social and cultural impacts of tourism to Tropical North Queensland

There are many aspects to examining the social and cultural impacts of tourism in a particular location. Tourism can have both positive and negative influences on people living in TNQ, their lifestyles and the values they hold. Generally, tourists and locals co-exist peacefully but there can be clashes when local and tourist values conflict. This could be because tourists are reducing local people's access to resources and facilities such as beaches, public libraries or even restaurants in peak periods. New tourist developments can also *change* the visual amenity of an area and create congested areas that can have a negative impact on locals who may have chosen to live in a *place* because of its views, peace or ease of access to key infrastructure. Insensitive behaviour of tourists can sometimes ignore cultural norms of different groups in the community such as Indigenous communities or the elderly.

Figure 3.25
The flow of tourist dollars into the Tropical North Queensland economy

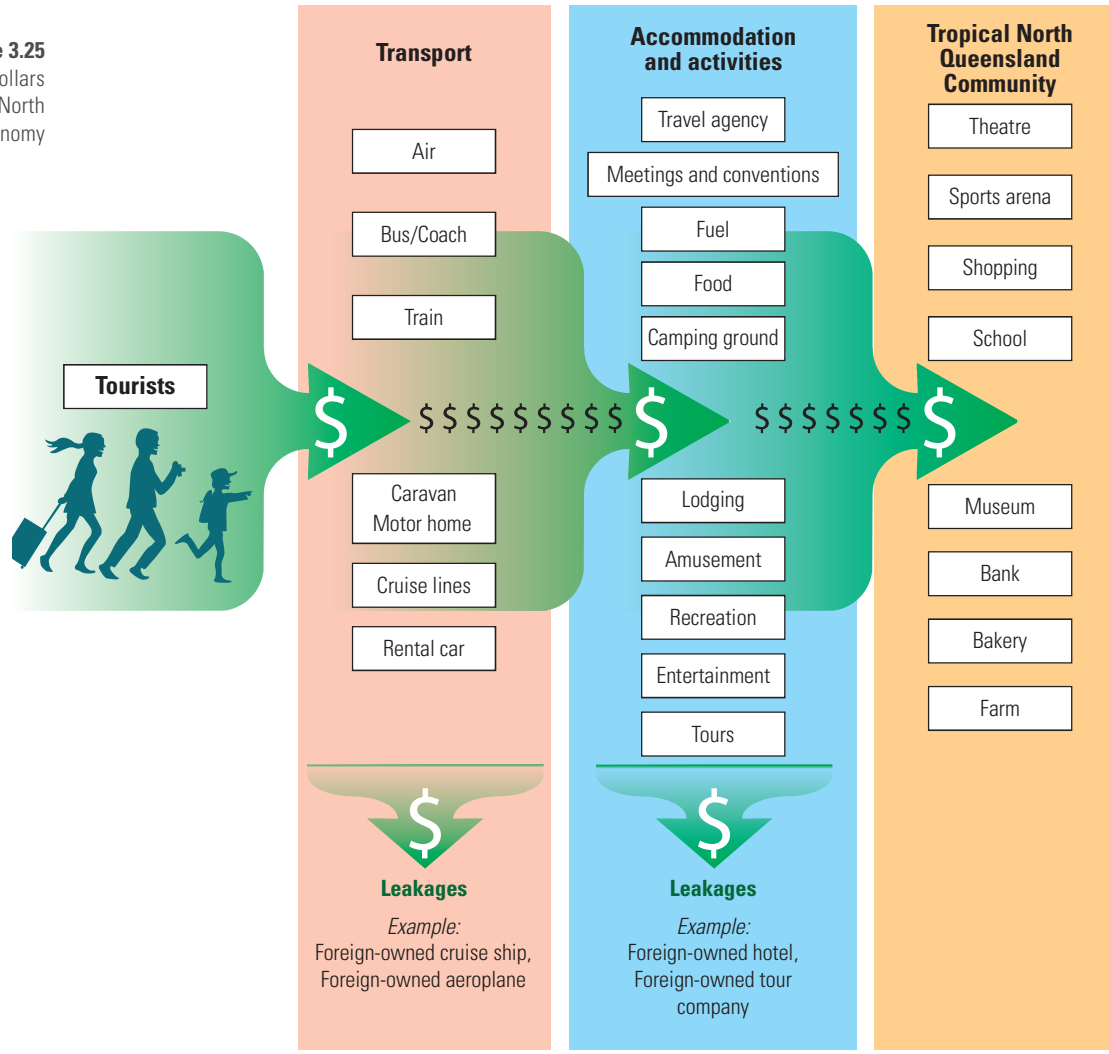


Figure 3.26
The Cairns Lagoon

The demographic profiles for TNQ are very different from those of the tourists who visit. The average resident of Cairns is between 30 and 44 years of age. Tourists from other parts of Australia are generally over 50 years of age while most international tourists are between 20 and 29 years of age. Tourists to TNQ generally have a higher level of educational qualification.

The difference in demographics, compared to Cairns, means that a greater range of activities and facilities need to be provided for visitors. In 2015, a $470 million upgrade to the Cairns Hospital was completed adding another 163 beds. In 2020 a further $52 million was committed to upgrade the emergency department, another operating theatre and create a university hospital linked to James Cook University. A boardwalk has also been constructed along the foreshore, the dock areas revitalised and a communal swimming pool called the Cairns Lagoon constructed close to the centre of Cairns. The Cairns Lagoon is shown in Figure 3.26. These *changes* benefit both tourists and locals.

The community of Cairns is also very different culturally from those who visit as tourists. The TNQ community is predominantly English speaking, with just over 10 per cent who are members of Aboriginal and Torres Strait Islander communities. About three per cent of residents of TNQ are from China and Japan. This mix provides a range of opportunities and challenges. Chinese and Japanese tourists are the most common international visitors yet there are relatively few Chinese and Japanese speakers in Cairns. Cairns State High School teaches Japanese but not Mandarin or Cantonese, so accessing multilingual guides for Chinese visitors has been difficult.

Often tourists can have belief systems, morals, traditions and expectations about behaviour that differ to local customs and norms. This can lead to some misunderstandings and stereotyping of particular groups by locals. A challenge for tourist operators in TNQ is to ensure visitors not only are aware of any dangers they may encounter, but are also familiar with behavioural expectations when up and close to these unique natural *environments*. Operators spend considerable time and effort in educating visitors, to ensure their visit is compatible with local regulations and the often strict license conditions operators must adhere to. There is multilingual signage in many locations and many restaurants have multilingual menus.

Tourist interest in Indigenous art and souvenirs with relevance to Far North Queensland (FNQ) has meant that this industry is becoming more profitable in Cairns. Responsible tourism can play a role in local Indigenous communities – to keep the ceremonies and traditions important to their culture and hand them down to younger generations, without commercialising them to conform them to tourist expectations. The Kuku Yalanji are the traditional owners of the land in the Daintree Rainforest. Members of this community run programs to educate visitors about their customs, and how they still live in their traditional lands. Tourists are taken on walks through Kuku Yalanji lands, introduced to bush foods and medicines, and are encouraged to join Kuku Yalanji members hunt for foods such as mussels, fish and crabs. Whatever is found or caught is cooked and shared in traditional ways with tourists. This type of experience immerses tourists into the culture of local Indigenous people.

▶ ACTIVITIES

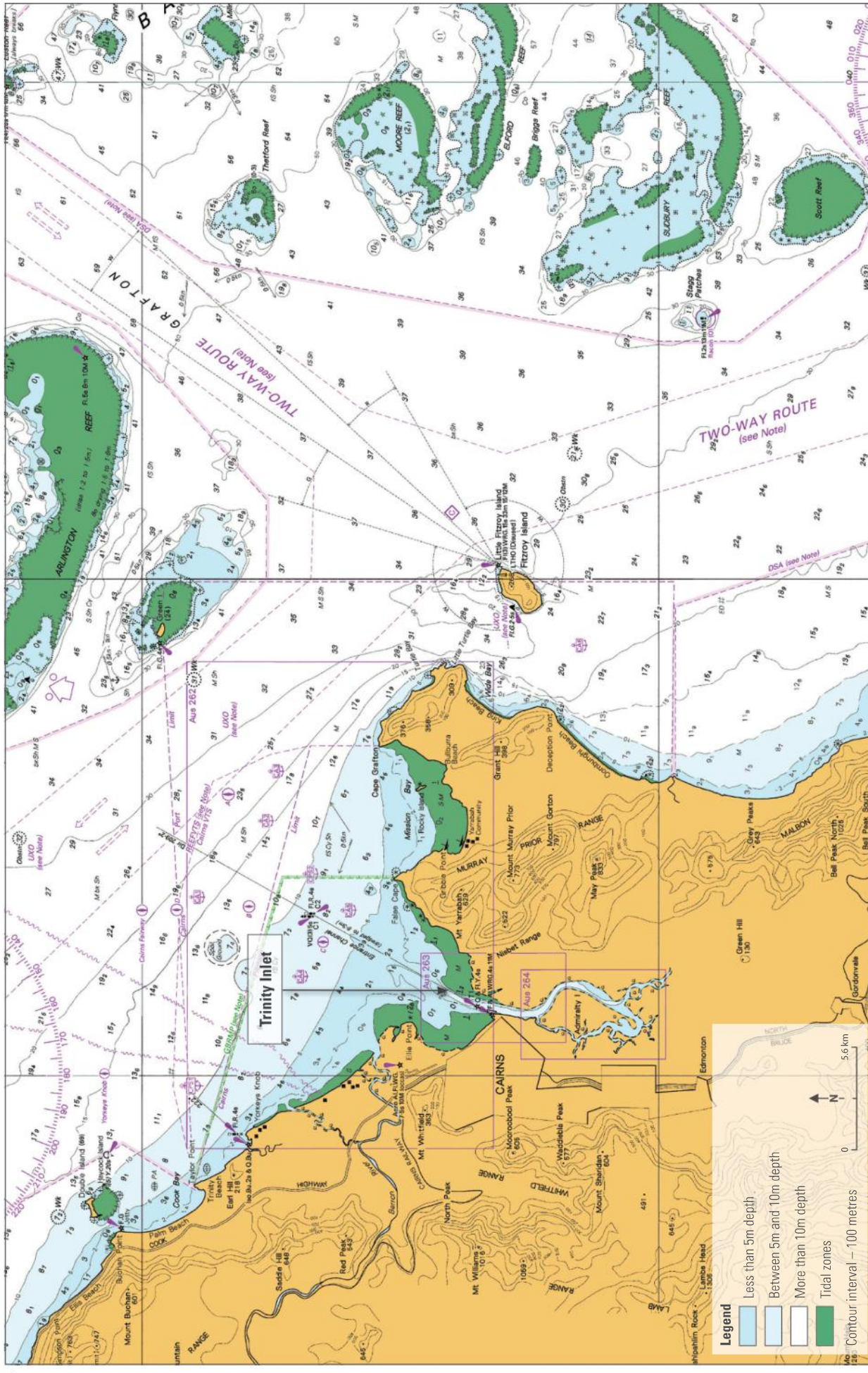
1. a. Create a table to summarise the impacts on tourism on the natural *environment* in TNQ.
   b. Rank these impacts from most important to least important.
   c. What criteria did you use to enable you to rank these impacts?
   d. Compare your criteria to others in the class. Comment on the difference in criteria you encountered.

2. a. Create a line graph from Figure 3.24 that shows the percentage that tourism contributes to TNQ's Gross Regional Product. Describe the trends apparent.
   b. Evaluate the following statement: 'Many industries in Tropical North Queensland are highly dependent on the tourism dollar'.

3. a. Imagine you are about to holiday in TNQ. Use Figure 3.25 to select the type of holiday you would like to have. Where will the dollars you spend flow to? Create your own flow chart to show this.
   b. On the flow chart you have created show where possible leakages will occur.

4. Are the social and cultural impacts of tourism to TNQ beneficial, detrimental, or neutral? Explain your point of view with supporting evidence.

5. In 2017, there were 109 cruise ships that docked in Cairns. Predict the impacts of this type of activity on the TNQ human and natural *environments*.



▲ **Figure 3.27** This Australian Nautical Chart shows coastal features near Cairns

The challenges of managing tourism in Tropical North Queensland

The fragile nature of the coral reefs that make up the GBR and the ancient rainforests of the Wet Tropics means that there are a number of management techniques that must be employed if the key attractions that tourists come to see are to be protected. Clearly there are many benefits of tourism to a *region* – as long as the carrying capacity of the natural *environments* is not exceeded. All managers of tourist attractions in FNQ aspire to an industry that is *environmentally sustainable*, economically viable and is socially and culturally positive. Having World Heritage sites in TNQ also adds a layer of responsibility and transparency to the management of such important globally recognised natural features. It is important to note that about 5 per cent of the coral reefs in the GBR are not protected and that about 11 per cent of the Wet Tropics rainforest are owned privately and consequently do not have to comply with the management strategies discussed here.

There are many strategies being used to manage the ways in which the GBR and Wet Tropics rainforest are being used by tourists. This includes: (a) controlling tourist access, (b) *environmental* education, (c) financial contributions and (d) controls on tourist developments.

(a) Controlling tourist access

Issues and challenges related to the impacts of unrestricted tourism, both on the GBR and in the Daintree Rainforest, have resulted in the development of a series of policies designed to regulate and control access to particular locations. The Great Barrier Reef Marine Park was declared in 1978 and a zoning plan was introduced in 1990. Most of the GBR is protected within the Marine Park legislation and this creates rules about what uses are approved for the GBR. Currently only about 7 per cent of the GBR is accessible to tourists for activities such as diving, fishing and snorkelling. These restrictions mean that any impacts of the tourist visit are concentrated on predetermined *places* and the rest of the marine park is protected from tourist impacts. Across the entire GBR there are 940 individual islands and only 27 of these have resorts on them. Two islands with resorts are about a 50-minute boat trip from Cairns. These are Green Island and Fitzroy Island. Figure 3.27 shows the location of Green Island and Fitzroy Island in relation to Cairns.

There has been only limited access to Daintree Rainforest for a considerable period, mainly due to the physical location of the rainforest. To get to the rainforest, visitors have to cross the Daintree River which does not have a bridge. A vehicle ferry with limited capacity crosses the river and can take cars, small trucks and mini buses. The biggest bus that can fit on the ferry can accommodate 22 people including driver and guide, preventing mass coach tourism. The barge carries about 700 vehicles a day in peak periods. Figure 3.28 shows the vehicle ferry in operation across the Daintree River. A major debate has erupted about whether a new bridge should be constructed across the Daintree River to reduce delays and congestion in peak periods. The Douglas Shire Council, recognising that the current system is inadequate, surveyed locals in 2020 about whether a $74 million bridge should be constructed or move to a solar powered dual ferry system. Many businesses lobbied for the bridge, but the local Council agreed with the 23,000 people who signed a petition against building a bridge and decided to improve ferry services instead.

The heavy summer rainfall also means many of the roads are not able to be traversed, restricting access; and the steepness of the topography in the *region* has restricted roads and other developments in the past. Figure 3.29 shows a road sign that describes how drivers should negotiate the roads within the rainforest.

▲ **Figure 3.28** The Daintree River vehicle ferry

▲ **Figure 3.29** Road sign in Daintree Rainforest

Figure 3.30 shows areas within Daintree National Park that have been reserved for particular activities. Areas in white are land that is privately owned within Daintree Rainforest.

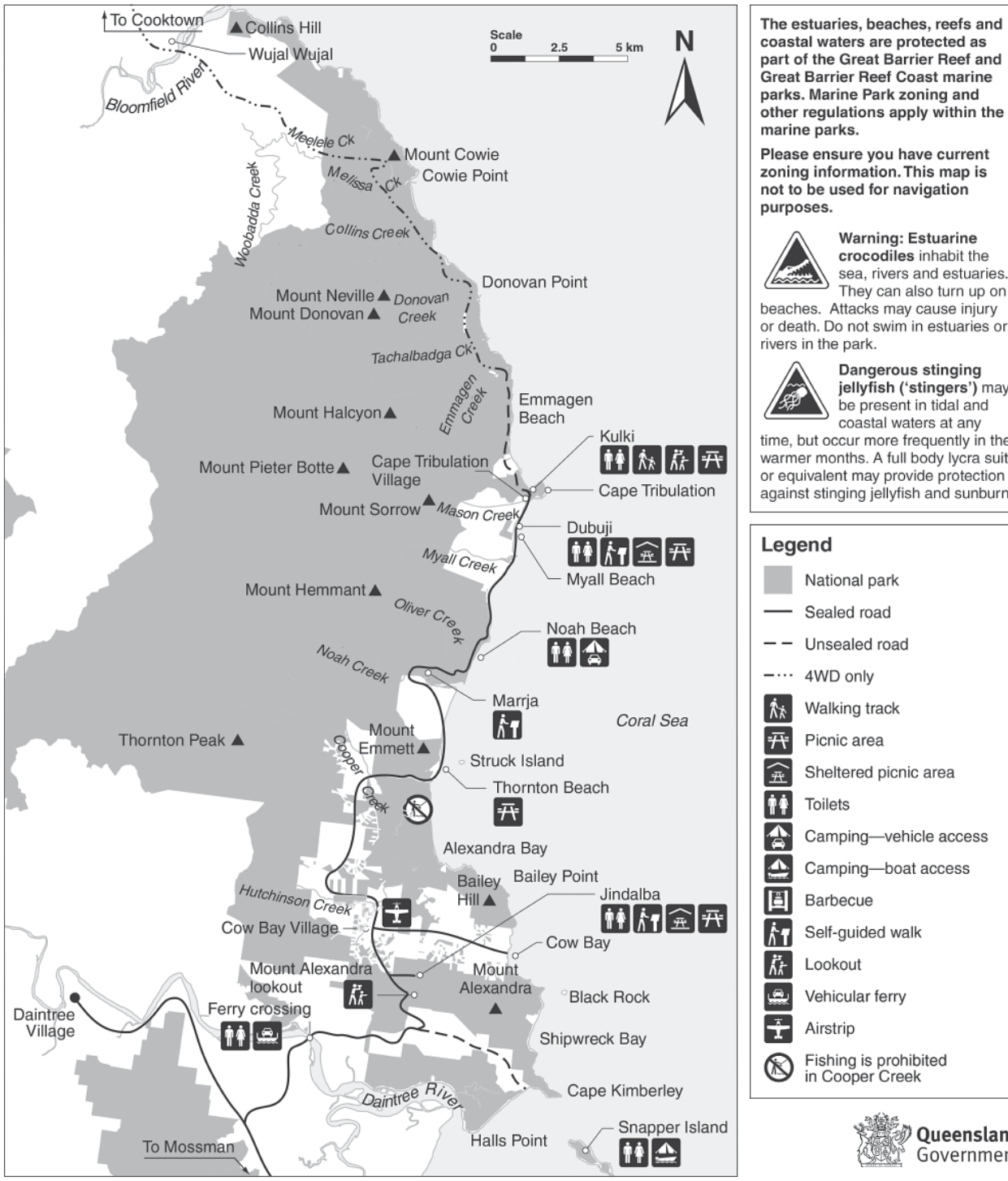
(b) *Environmental* education

Educating tourists about the significance of a *region* has long been regarded as a way of moderating tourist behaviours and enhancing their experience. Multilingual interpretation is provided at many destinations, brochures extol the *regon's* highlights and how to best prepare for excursions, and guides reinforce behaviours expected from all tourists. Figure 3.31 shows an interpretative sign at Mt Alexander lookout that highlights the features of land owned by the Eastern Kuku Yalanji.

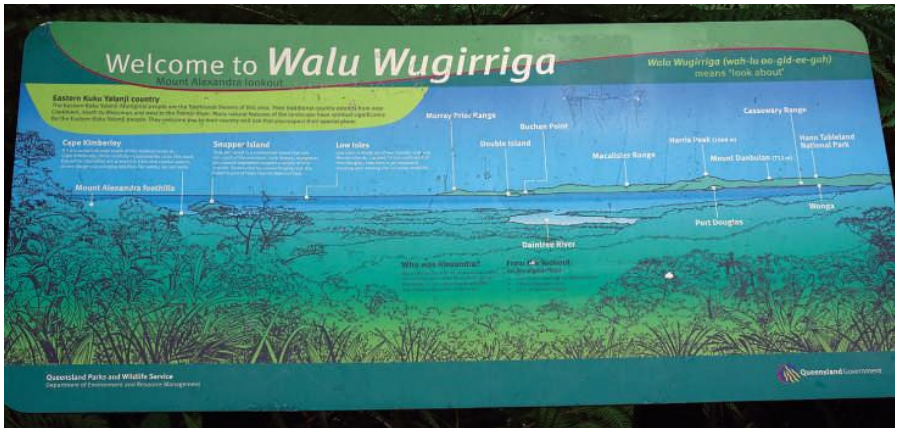
There does need to be a more extensive visitor information centre that covers the World Heritage areas. If built this could become an attraction in its own right.

(c) Financial contributions

Any visitor to the GBR or Daintree Rainforest must pay a fee. On the GBR a charge of $4 per visitor per day for *environment* management is collected by tourist operators. This fee is then allocated to many purposes by the GBR marine authority. It costs $32 for a car for a return trip on the vehicle barge across



▲ **Figure 3.30** Activities allowed in designated areas within Daintree Rainforest



◀ **Figure 3.31** Interpretative sign at Mt Alexandra lookout

the Daintree River. If participating in guided tours to Daintree, part of the fee will go towards permits to access various sites within the rainforest. Some areas of the rainforest are accessible only to operators with the correct permit. These areas are not open to the general public.

(d) Controls on tourist developments

Any proposed development in TNQ has strict controls regulating it. This ensures any development is appropriate to the area. Comprehensive *environmental* impact assessments (EIA) must be completed. These have specific requirements related to ensuring there are no discernible impacts on the reef or on rainforest plant and animal communities. The EIA must also consider social impacts and take into account the cumulative impact of multiple developments. Further, any resort development that is approved must have an extensive *environmental* monitoring system that is regularly audited by planning authorities. Any new development must also be visually sympathetic to the *environment* it is built in. Regulators will use a range of geospatial technologies to monitor tourist developments, particularly where they are located adjacent to natural *environments*. Geospatial technologies used include aerial and satellite photography and water monitoring using a range of sensors.

There are very strict controls on the placement of pontoons on the outer GBR. Pontoons, as shown in Figure 3.21, can only be placed over sandy sea floors and must be anchored away from coral. All waste must be contained on the pontoon and it is the pontoon owner's responsibility to ensure the reef around it is protected. Only one kilogram per day of fish food is allowed to be used to attract fish to a pontoon. Figure 3.32 shows a huge Maori Wrasse that swims with tourists near a pontoon on the outer GBR. This fish receives regular feeding and stays close to the pontoon.

During the 1970s and 1980s there was a huge battle to protect the Daintree Rainforest and prevent inappropriate development. Unfortunately, there were some decisions made at the time resulting in developments that were not sympathetic with the natural *environment*. Many of these developments are still evident today. Land acquisition programs initiated after 2000 were introduced to gradually buy back targeted areas of rainforest that were sold privately, and strict controls about waste, run-off and visual

▲ **Figure 3.32** Swimming with Maori Wrasse

◀ **Figure 3.33** Sign protesting the possibility of a Daintree bridge located next to the Daintree River ferry

impact have been gazetted. The *region* has a major feral pig problem and concern about disease spread by these pigs has resulted in the development of an eradication program.

Currently there is a cap on any development to Daintree. It is considered that the current population of 1400 local residents is enough to support tourism activities and also sufficient to fully support the approved capacity of tourist beds at 2281. It is considered that currently there are not enough commercial businesses: for example, restaurants to support this number of beds. There is also considerable controversy not just about the proposed bridge (see Figure 3.33) but also about provision of grid electricity to this *region*. Most properties north of the Daintree River are on generators and do not have a constant electricity supply. Since the building of the Skyrail Rainforest Cableway, near Cairns, organised tours to Daintree Rainforest have declined but independent visitation, such as using rental cars, has increased. Figure 3.34 shows the Skyrail which allows visitors to see the rainforest canopy from above. This makes the rainforest experience accessible for a greater range of tourist groups.

Another controversial proposal in this *region* is to dredge Trinity Inlet (see Figure 3.27) and make it deeper and wider to allow mega cruise ships to dock in Cairns. Currently the shallow nature of Trinity Inlet naturally prohibits the biggest of cruise ships docking. Widening and deepening Trinity Inlet would allow over 60 mega cruise ships to visit Cairns each year. A mega cruise ship is the height of a 10-storey building and can have over 5000 passengers. This proposal is creating much discussion and debate in the TNQ community around the maximum numbers of tourists TNQ can *sustainably* handle at any one time and the associated issues that this mass tourism would create in the *region*.

Figure 3.34
The Skyrail Rainforest Cableway traversing a section of wet tropical rainforest

CAREER PROFILE

Andrew Judd
Travel agent

I work at a travel agency in North Brighton, Victoria. After graduating from university, my first job was as a primary teacher. While teaching students about the fascinating people and places around the world, I became really interested in travel and completed a post-graduate diploma in tourism.

After six years in teaching, I left to join Flight Centre Australia. For the past 24 years I have been organising the travel arrangements for numerous individuals and groups to a variety of interesting places around the world.

Early on in I realised that, to be an effective travel agent, I needed to have a really good understanding of many important geographical skills and concepts. You need to be able to read a variety of maps, understand distance to build manageable itineraries, and be able to communicate to clients about geographic regions and their characteristics. Important geographic characteristics include weather and climate, time zones, modes of transport, places of interest, cultural expectations, exchange rates, political situations and any hazardous circumstances to be aware of.

On a day-to-day basis my job involves organising leisure and corporate travel for clients. There is considerable computer and administrative work that involves making flight, cruise, tour, hotel, hire car and train bookings. There is also the construction of itineraries as well as creating invoices and handling monies in and out. A travel agent must have strong communication skills – to deal with customer expectations and desires as well as liaising with wholesalers, airlines, hotels and tour operators. There are many aspects of this job that would appeal to anyone with an interest in studying Geography.

Research, conservation and monitoring programs

A significant amount of the money paid by tourists to visit the two World Heritage sites has been used to finance a range of programs designed to find out more about many aspects of the GBR and Daintree Rainforest. This includes investigating the breeding sites of vulnerable species, monitoring populations of a range of flora and fauna, developing guidelines about how to protect and conserve significant animal and plant species, water quality monitoring, visitor impact surveys and guidelines about wildlife encounters (for example, with whales, turtles and dugongs). This research work is critical to increasing knowledge about these fragile *environments* so that all future management policies in TNQ can be better prioritised towards the *places* that most need it. James Cook University in Cairns is a leader in this research.

The Cooperative Research Centre, a group made up of many important stakeholders with economic interests in the *region* and supported by the Australian government, has conducted significant research and written a number of technical reports about many aspects of tourism in TNQ. It has identified visitation trends, visitor impacts, visitor opinions on their experiences in TNQ and pinpointed areas where the tourism experience could be improved. This work is essential in assessing whether tourists have had a positive experience, and it is designed to encourage repeat visitation along with recommending the *region* to friends and family. All indications from these surveys show that visitor satisfaction about the quality of *environments* visited is very high and that there are significant numbers of tourists who return regularly. These trends have been present since 1996.

Reducing pollution

Consistent with the mission to make the *region* more *sustainable*, 75 tourist operators are using emissions calculators in an endeavour to make businesses carbon neutral. More businesses are being encouraged to follow this initiative. There are very strict pollution controls now on any new developments in relation to sewage and other waste disposal in TNQ. All operators are encouraged to take all waste from tourists with them. Residents of Daintree do not have sewerage and there can be some sewage effluent overflow risks in periods of high rainfall.

ACTIVITIES

1. a. There are many *environmental* issues facing the natural *environments* of TNQ. Create a list of what you think are the top 5 issues that have the potential to impact both the *environment* and tourism in TNQ.

b. Rank the 5 issues in the list you have just created, from most important to least important against their importance to both tourism and the *environment*. Justify your ranking.

c. Why is zoning considered to be one of the most important ways to manage impacts on the natural *environment*? Give examples in your answer.

2. a. Using Figure 3.27, construct a cross-section between Saddle Hill (highest point 648 metres above sea level) and Fitzroy Island (highest point 268 metres above sea level) labelling significant features along the way. (Note: The vertical *scale* should extend between 700 metres above sea level and 50 metres below sea level.)

b. Using information from this map, explain why the *movement* of watercraft is difficult around Cairns.

c. The boats carrying tourists need 8 metres depth to navigate the waters around Cairns safely. Describe the route from Cairns to Fitzroy Island.

d. The location of the city of Cairns has many advantages in terms of its site and situation. Using Figure 3.27 explain what these are.

3. a. Using Figure 3.27 as a guide, create a base map of the area shown on the map. Mark in creeks and rivers and use colour to show depth and elevation. Land between sea level and 200 metres above sea level should be yellow; land between 200 metres and 500 metres above sea level should be orange; and land above 500 metres should be brown. Areas between sea level and 10 metres below sea level should be light blue; areas between 10 and 20 metres below sea level should be coloured a darker blue.

b. Use the Cairns zoning map to develop an overlay of the base map you have just created. The Cairns zoning map (Map 5) is found at http://www.gbrmpa.gov.au/zoning-permits-and-plans/zoning/zoning-maps. On your overlay map mark in urban areas, national parks, and any marine park zones. Using Google maps will also help you create this overlay.

c. What *spatial associations* can be identified in the maps you have constructed?

d. Fitzroy Island is considered a preservation zone. Explain why this type of zoning is significant compared to the other marine park zones.

4. a. Refer to Figure 3.30. In the Daintree all facilities are located on the east side of the road, next to the coast. Why do you think this is the case?

b. Using Figure 3.30, describe the *distribution* of walking tracks in Daintree Rainforest.

5. Why do some people consider feeding wildlife to be inconsistent with protecting wildlife?

6. The decision to not connect Daintree to grid electricity has been a contentious one. What are the advantages and disadvantages of this decision in relation to tourism to Daintree?

7. What do you think are the advantages and disadvantages of building a bridge across the Daintree River? Why might so many people oppose its construction?

8. What are the costs and benefits associated with the proposal to dredge Trinity Inlet? Using the data presented in this chapter, what do you believe should occur? What criteria were important in your answer?

9. Why is educating visitors to World Heritage sites important in helping to conserve these *regions*?

10. Why is researching the areas visited by tourists to TNQ essential to the future management of this *region*?

Effectiveness of management strategies in Tropical North Queensland

To assess whether the management of tourists and the *places* they visit has been effective, it is often relevant to establish a set of criteria that can be easily measured to assess whether current management policies and strategies have created their intended result. Ineffective management can lead to stagnation or even a decline in visitation to a tourist destination, as demonstrated in Butler's Model (see page 38).

Numerous criteria could be established depending on the element of tourism being analysed. What follows are detailed questions that relate to a selection of some broader criteria. In this particular case study, questions 1, 2 and 5 relate to different aspects of *sustainability*, question 3 relates to equity and economics, and 4 relate to cultural and other impacts.

1. Have the numbers of tourists to Tropical North Queensland stayed at *sustainable* levels?

Although there have been some fluctuations over time, tourist numbers have steadily increased over the past decade. This shows that the quality of the tourist experience is high and the *region* is attractive to tourists. The proposal to bring mega cruise ships into Cairns if approved will severely test existing infrastructure.

2. Has the *environmental sustainability* of the Great Barrier Reef and Daintree Rainforest been negatively affected by tourists?

In many ways, the impact of tourism to this *region* has been positive due to the ecotourism model that prevails. Visitors to the *region* have contributed to its upkeep and have been responsible in their visitation. Rules and regulations have generally been effective in controlling negative impacts. The main threats to the *sustainability* of the GBR and Daintree come from other sources. Climate *change* is a considerable concern and episodes of coral bleaching (Figure 3.35) could have a negative impact on tourist numbers. Climate *change* is creating more intense weather events which can threaten the reef and the rainforest. Agricultural run-off and proposed coal mining could also cause huge concerns for the GBR. The development of the Abbot Point port has been particularly controversial with dredge spoil being dumped near coral reefs. The World Heritage Committee has expressed major concerns about this and are considering putting the GBR as a "site in danger".

▲ **Figure 3.35** Coral bleaching on the Great Barrier Reef, near Port Douglas

How developed Daintree becomes is still hotly debated, with the crux of the issue related to residents' standards of living and economic viability, versus protecting natural *environments*. It is thought that management has improved the aesthetics and amenity of the Daintree area since the year 2000.

3. Can the spending by tourists be retained in the local area?

This is hard to assess but, based on improvements to infrastructure and the significance of tourism to the local economy in terms of employment, considerable amounts of tourist dollars seem to be flowing into TNQ communities. The climate makes the *region* seasonal and this can be problematic, and due to the nature of the experience there are major income leakages as shown in Figure 3.25. Activities and events need to be continually refreshed and reinvented to encourage other visitor profiles and to attempt to prolong visitor stays.

4. Has tourism had a positive impact on local people?

In general, the answer is affirmative as infrastructure is being added for the benefit of all residents. Crime rates are low and Indigenous communities are benefiting from visitation. Congestion can be an issue in the town centre in peak periods and additional planning will need to occur to remedy this if tourist numbers continue to increase.

5. Have tourism practices ensured this *region* can be used *sustainably* for tourism in the future?

The answer to this criterion is currently affirmative as the condition of the natural *environment*, which is the biggest drawcard, is generally of a high quality. There are some aspects of tourism that could be handled better and increasing tourist numbers will place more pressure on popular attractions. TNQ lacks a good visitor centre that could give a more consistent and detailed interpretation of the reef and rainforest, and outside the coastal strip there are very few accommodation options. The infrastructure around the Daintree River ferry needs more planning as queues can be long and roads congested.

▶ ACTIVITIES

1. What other criteria could be used to assess the effectiveness of management to TNQ?
2. Are your opinions about the effectiveness of management similar to those expressed here? Explain your viewpoints.
3. How do you know when a tourist attraction is not being managed *sustainably*. What are the tell-tale signs?
4. The future of tourism to this *region* is threatened not by tourists but by other issues such as climate *change*. How can tourism and tourists help reduce the impact of these other issues?

▼ **Figure 3.36** CSIRO megatrends that could influence future tourism to Tropical North Queensland

Megatrends						
The Orient Express	**A Natural Advantage**	**Great Expectations**	**Bolts From The Blue**	**On The Move**	**Digital Whispers**	**The Lucky Country**
The world economy is shifting from west to east and north to south, creating new markets and new sources of competition.	In a world where ecological habitats are disappearing, the unique natural assets of Queensland will become a stronger drawcard.	Tourists of the future will have expectations for authentic and personalised experiences often involving social interaction.	Climate *change* and infectious disease outbreaks combined with safety concerns will have increased impact.	People are increasingly mobile – trade, business, events, education and health care are causing more people to travel further and more frequently.	People are *changing* the way they access and trust information in an online world.	Australia and Queensland are increasingly wealthy and have rich cultural and demographic diversity, but for many they are expensive destinations.

The future

The CSIRO (Commonwealth Scientific and Industrial Research Organisation) has identified a number of global megatrends that could impact on tourism to TNQ in the future. These megatrends are shown in Figure 3.36.

Any location that is listed as World Heritage is a major drawcard for tourists, wherever that site is found. The GBR in being inscribed onto the World Heritage List has been acknowledged as a *place* of global significance that is an outstanding example of complex reef ecosystems.

A serious future challenge about the *environmental* stability of the GBR has been raised by scientists working for UNESCO. UNESCO is the intergovernmental body made up of delegates from 21 countries that determines whether *places* can be listed as World Heritage. As seen in Figure 3.1 the GBR was placed on the World Heritage register as a site of global natural significance in 1981. At the 44th session of the World Heritage Commission held in Fuzhou China in July 2021, there was an investigation into the state of conservation of the GBR, with many delegates wanting to place the GBR as a "site in danger". Delegates noted increases in coral bleaching, targets in the GBR management plan in relation to the quality of water entering the GBR from land and rivers bordering the reef had not been met, and the Australian Federal Government had not taken appropriate action to reduce the impacts of climate *change* on the GBR. The Australian Government disputed UNESCO's findings and lobbied hard to avoid having the "site in danger" status placed on the GBR as this is the step prior to a site being delisted. The Australian Federal Government has until February 2022 to write a formal report to address the concerns raised by the World Heritage Commission.

It will be interesting to observe whether any *changes* in visitation to TNQ will result from the publicity related to UNESCO's concerns when Australia opens back up to international tourism in 2022. Currently there are 52 World Heritage listed "sites in danger" worldwide, and many of these have seen increases in tourism as people travel to see these sites before they deteriorate further. Some of the natural *places* where this trend has been observed are the Madagascan Rainforests and Florida Everglades.

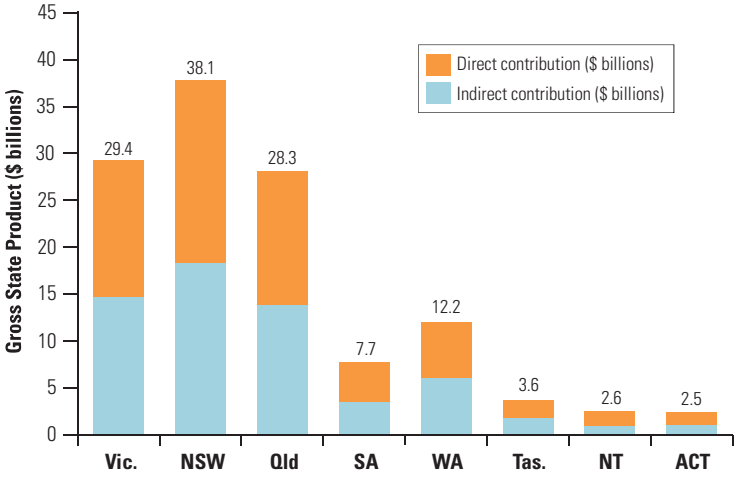
▶ ACTIVITIES

1. Refer to Figure 3.36. Which megatrends will lead to positive tourism impacts and which megatrends will lead to negative tourism trends for TNQ?
2. The category "Bolts from the Blue" has impacted tourism in the second half of 2020 and 2021 with the COVID-19 outbreak. The TNQ tourism data website found at https://tourism.tropicalnorthqueensland.org.au/tools-resources/research-and-statistics/ has the latest TNQ tourist data. Using this site, investigate how the COVID-19 outbreak has impacted tourism in TNQ.
3. The World Heritage "sites in danger" list can be found at: https://whc.unesco.org/en/danger/. Peruse this list, select one location and using the internet investigate:
   a. Why did UNESCO list it as a "site in danger"?
   b. What has happened to visitor numbers since the site was listed as "in danger"?
   c. How might you be able to explain any trends in visitor numbers that you have found?
   d. From what you now know about World Heritage "sites in danger", what needs to happen to ensure that the GBR stays on the World Heritage list?

4 The impact of tourism in Victoria's cities and towns

Tourism is a key industry in Australia. It makes a direct contribution to economic growth, influences culture and has an indirect impact on industries such as transport, construction, retail and hospitality. Tourism has many positive outcomes including job creation, increased cash flow, and investment in community infrastructure and facilities, which benefits both visitors and residents. Tourism affects both urban and rural *regions*.

Figure 4.1 A comparison of tourism's direct and indirect economic contribution measured as Gross State Product (GSP) during the 2018–19 period



But its impact is particularly significant in *regional* areas where tourism investment is often very important to economic development in local communities.

During 2019, tourism in Australia generated $126.1 billion in expenditure which directly contributed $60.8 billion to Australia's Gross Domestic Product (GDP). This revenue came from both the 9.4 million international tourists who each stayed an average of 32 nights and domestic tourists who together generated 92.0 million tourism nights. In the year ending June 2019, the Victorian tourism industry was worth $29.4 billion (Figure 4.1), an increase of 9.1 per cent from 2017–18. This contributed 6.5 per cent of Victoria's Gross State Product which is the second largest contribution in any state in Australia. During this period, 263,000 Victorians were employed in the tourism industry which is 7.8 per cent of all of the jobs in Victoria. The success of Victoria's tourism industry is largely due to the range of attractions it offers including international sporting and cultural events (Figures 4.2 and 4.3) and stunning natural features (Figure 4.4).

All Victorian *regions* experienced a significant decline in international visitors in the year ending June 2020 due to both the previous summer's bushfires season and the travel restrictions associated with the COVID-19 pandemic. This amounted to a significant

Figure 4.2 The Melbourne Cup and Spring Racing Carnival brings more than 100,000 Australian and international racing fans to Melbourne each year while hundreds of millions watch online

Figure 4.3 Bells Beach, near Torquay, is the home of the Rip Curl Pro – the world's longest-running surfing competition. It attracts a large number of domestic and international tourists each year

18 per cent decline in expenditure. International tourism was hit hardest with a 22 per cent decline, which is particularly important since the international market was projected to continue to grow.

The *distribution* of Victorian *places* visited by international tourists and the origin of these tourists varies considerably each year. This is heavily-influenced by advertising campaigns that are targeted to specific international markets. Figure 4.5 shows the trends in the number of overnight visits by international tourists for each of Victoria's tourism *regions* from June 2015 to June 2020. Much of the increase in *regions* such as the Grampians/Gariwerd is due to a growing market of Chinese and South-East Asian visitors. There has been a flow-on effect across the surrounding *region* with significant growth found in *places* like Sea Lake and Brim, which have recently become famous for their silo artwork (Figure 4.6) and photogenic landscapes. This growth has provided a significant boost to the local economy with tourism directly and indirectly contributing to 7.1 per cent of the *region's* Gross Regional Product (GRP).

▲ **Figure 4.4** The Twelve Apostles, Port Campbell National Park, one of Victoria's most iconic tourist attractions

	International overnight visitor estimates (000s) Year ending June					
	2015	**2016**	**2017**	**2018**	**2019**	**2020**
Daylesford and Macedon Ranges	11	12	18	19	20	18
Gippsland	61	68	79	71	83	58
Goldfields	38	45	48	46	49	37
Grampians/Gariwerd	38	53	51	51	56	41
Great Ocean Road	167	187	215	200	251	168
Mornington Peninsula	47	59	63	59	69	51
Murray	45	57	59	56	61	40
Phillip Island	38	46	53	48	64	42
Victoria's High Country	18	28	34	33	32	25
Yarra Valley and Dandenong Ranges	36	46	50	49	53	48
Melbourne	2155	2420	2599	2824	2936	2079
Total Victoria	**2267**	**2547**	**2748**	**2974**	**3101**	**2196**

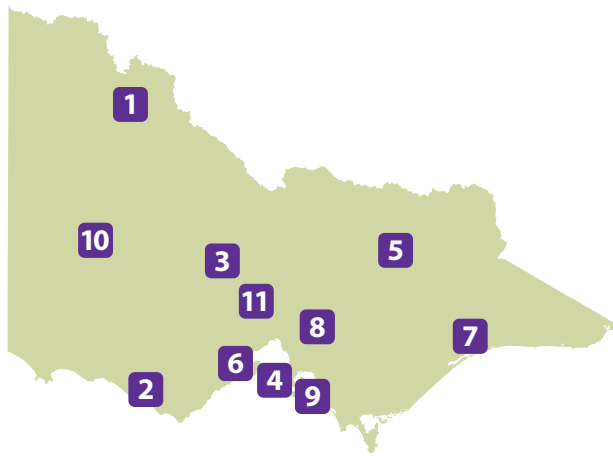
◀ **Figure 4.5** International overnight visitor estimates to Victorian *regions* from 2015 to 2020

◀ **Figure 4.6** The Brim silo painting by Guido van Helten and commissioned by Juddy Roller was the first of many painted as part of the Silo Art Trail which stretches 200 kilometres across rural Victoria. The mural portraits celebrate local people on historic grain silos built in the 1930s

Despite being a lucrative industry, there are a range of subsequent social, cultural and *environmental* impacts associated with tourism growth in Victoria as summarised in Figure 4.7. While an expanding tourism sector has the potential to alter the character of *places* considerably, management challenges involve finding a balance between making *places* and communities attractive for visitors and liveable for permanent residents.

▼ **Figure 4.7** Some positive and negative *enviromental* , economic, cultural and social impacts of tourism

	Positive impacts	Negative impacts
Economic	▶ Economic growth ▶ Employment opportunities ▶ Related industries prosper, such as hospitality ▶ Foreign investment in infrastructure and real estate	▶ A lack of permanent employment due to tourism seasonality ▶ Real estate and facilities unaffordable for locals ▶ Profits don't necessarily stay in local communities or cities
Social	▶ Increased standard of living in some cases ▶ Transport upgrades ▶ New attractions	▶ Overcrowding, traffic congestion ▶ Amenities *changed* to support tourists rather than locals
Cultural	▶ Enhancement of local cultures due to influences from tourists	▶ Loss of local culture as *places change* to appeal to tourists
Environmental	▶ Ecotourism ▶ Increased awareness of *environmental* issues	▶ Degradation of natural *environments* ▶ Vulnerability due to natural disasters such as bushfires



◀ **Figure 4.8**
Total tourism expenditure in Victoria's tourism *regions* in the year ending December 2019 and the growth since 2018

	Victoria's *regions*	Tourism spend (year ending Dec 2019)	Growth rate (year-on year)
1	Murray	$1.7 billion	▲ 12.8%
2	Great Ocean Road	$1.6 billion	▲ 16.1%
3	Goldfields	$1.4 billion	▲ 21.4%
4	Mornington Peninsula	$1.4 billion	▲ 21.2%
5	Victoria's High Country	$1.3 billion	▲ 2.9%
6	Geelong and the Bellarine	$1.1 billion	▲ 14.6%
7	Gippsland	$1.1 billion	▲ 17.0%
8	Yarra Valley and Dandenong Ranges	$911 million	▲ 25.8%*
9	Phillip Island	$578 million	▲ 18.5%
10	Grampians/Gariwerd	$481 million	▲ 15.7%*
11	Daylesford and the Macedon Ranges	$460 million	▲ 9.8%

* Figures noted with an asterisk should be interpreted with caution due to variability in the data (international component).

Sources: International Visitor Survey (IVS) and National Visitor Survey (NVS), Tourism Research Australia (TRA), year ending December 2019.

▼ **Figure 4.9** The number of international overnight visitors to Victoria in the year ending June 2019 by origin

Location	Visitors (000s)
China	666.6
New Zealand	346.1
United States	252.1
United Kingdom	224.6
India	173.1
Malaysia	139.1
Singapore	138.5
Hong Kong	103.9
Japan	89.9
Germany	82.6
Indonesia	81.6
Canada	61.3
Taiwan	59.0
France	51.5

ACTIVITIES

1. What is the difference between the direct and indirect impacts of tourism?
2. A key to Victoria's success as a tourism destination is the variety of sporting, cultural and *environmental* attractions, as shown in Figures 4.2, 4.3 and 4.4.
   a. Using the information in Figure 4.7, suggest some of the positive and negative *environmental*, social, cultural and economic impacts of tourism implied in these photos. What evidence would enable you to quantify the magnitude of these impacts?
   b. Rank the importance of these impacts from highest to lowest. Indicate whether they are long-term or short-term impacts.
   c. Suggest how these examples of tourism might be managed to reduce their negative impacts.
3. Refer to Figure 4.1. What factors might affect the economic contribution of tourism in each state and territory? Provide some specific examples of these factors, such as popular tourism destinations and infrastructure and represent them on a blank map of Australia.
4. Refer to Figure 4.8.
   a. Compare the ranking of Victoria's tourism *regions* based on total tourism spending in 2019 and the growth in spending since 2018.
   b. Suggest a factor that might explain any similarities and differences in the rankings.
5. Create line graphs for the data presented in Figure 4.5. Compare the trend in overnight visitors in each of the *regions* with the total. Suggest a reason for any similarities and differences.
6. On a blank map of the world, represent the origin of international visitors to Victoria in 2019 using the data in Figure 4.9. Annotate your map with arrows to represent the *movement* of visitors using arrow width to represent the number of visitors. Using the information on your map, discuss the cultural impact that international tourism might have on Victoria and the *interconnections* it creates between Australia and the rest of the world.
7. Choose a city or town in Australia or overseas that you have visited as a tourist or one that you would like to visit in the future.
   a. Describe its location.
   b. What features attracted you to this *place*?
   c. What impact might you have on this *place* by visiting?
   d. How do you think tourism may have had an impact on this *region* in the short and long term?

Elspeth Pike
Environmental Planner

CAREER PROFILE

Elspeth is an Environmental Planner who manages public land on Victoria's south-west coast. In 2015, she spent a year volunteering in the Philippines working on the protection and rehabilitation of mangroves.

Elspeth studied Environmental Management and completed an Honours degree in Human Geography. As an Environmental Planner, Elspeth has to assess projects, consider their impact on the local environment and community, and make sure they comply with legislation.

Geographical knowledge is crucial for this job because Geography is not just the study of landscapes and place but also how these shape human populations and environments.
Elspeth decided to study the environment because she cares about environmental problems and the impacts of climate change. From Elspeth's perspective, geographical studies form a core knowledge for a huge range of career options.

Figure 4.10 (a) Flinders Street railway station

Figure 4.10 (b) Bathing boxes at Brighton Beach

Figure 4.10 (c) Chinatown, Little Bourke Street

Figure 4.10 (d) Laneway dining in Centre Place

What are the impacts of tourism in Melbourne?

Tourism in Melbourne is a growing industry that provides essential business opportunities, employment and revenue. During 2019, domestic and international tourists spent $19 billion in Melbourne, a 10 per cent increase from 2018. There are several factors that have contributed to this financial success including Melbourne's scenic beauty, multicultural heritage, restaurants, cafés and major arts, cultural and sporting events, as represented in Figure 4.10. This extends beyond the CBD, including *regions* such as St. Kilda, Collingwood and Fitzroy. Part of Melbourne's appeal is its unique and thriving late-night culture catering for those who wish to eat a meal, hear a band and socialise at any hour of the night. Facilitating this nightlife has involved increasing police presence, improving public transport throughout the night and increasing the range of entertainment options to discourage antisocial behaviour.

Despite its successes, tourism in cities such as Melbourne is often blamed for social impacts such as overcrowding and an increased cost of living. The United Nations World Tourism Organization (UNWTO) conducted a survey in 2019 in which 68 per cent of Australians believed that they lived in cities with a large number of tourists. This is considerably higher than the 38 per cent in the United States and 44 per cent in the United Kingdom despite having proportionately fewer tourists. This suggests that perhaps Australian cities like Melbourne may have an inadequate range of attractions and associated infrastructure needed to support both tourists and local residents and that some of the financial success of the tourism industry comes at a social cost. Alternatively, Australians may have an unrealistic perception of the extent of tourism in other *places* around the world.

The impacts of large sporting and cultural events in Melbourne

Melbourne's growing number of internationally recognised cultural and sporting events are key contributors to its tourism sector. Visit Victoria, the primary tourism and events company for Victoria, ensures these events advertise Victoria as a tourism destination to key domestic and international markets. In the year ending December 2019, 4.9 million local and international tourists went to a sport and/or cultural event, contributing $4.8 billion to the Victorian economy. These major events are a key international marketing tool and have a positive impact on support industries such as hospitality and retail, both in Melbourne and *regional* Victoria. During 2019, Visit Victoria focused its marketing on China, North America, India, Singapore and Malaysia while maintaining strong links with the United Kingdom, Europe and New Zealand.

Melbourne's calendar of high-profile events is a major drawcard for international tourists. These events include the Australian Formula One Grand Prix (Figure 4.11), Australian Open Tennis Championship (page 72), Boxing Day Test, Melbourne International Comedy Festival, Melbourne Food and Wine Festival and the Spring Racing Carnival (Figure 4.2). Melbourne's sports precinct and strong attendances have been recognised internationally. In 2006, 2008 and 2010, Melbourne won the title of Ultimate Sports City at the Sport Accord Awards and in 2016 it won the Ultimate Sport City of the Decade at the 10-Year Anniversary Awards in Switzerland. In addition to the success in Melbourne, Visit Victoria wish to strengthen existing sporting and cultural events in *regional* areas such as the Wangaratta Festival of Jazz and Blues, the Queenscliff Music Festival and the Australian Motorcycle Grand Prix in Phillip Island. Visit Victoria's Regional Events Fund offers financial support for events that attract visitors from other *regions* with an aim to stimulate local economies. By 2020, more than 200 *regional* events had been supported through this fund, attracting a total of 1.7 million tourists.

ACTIVITIES

1. Four examples of Melbourne's culture are represented in Figure 4.10.
   a. Describe how these examples help make Melbourne a unique and successful tourist destination.
   b. Using these figures and your own experiences and research, discuss factors that make Melbourne appealing to domestic and international tourists.
2. What positive impacts does a growing tourism industry have on Melbourne and surrounding *regional* areas? What issues might eventuate from this growth and what might be some of the associated management challenges?
3. a. Why are major events such an important part of tourism in Melbourne?
   b. What is the significance of the advertising of Melbourne at events such as the Grand Prix as shown in Figure 4.11?
   c. Undertake research to help write a list of economic, social, cultural and *environmental* impacts of the Grand Prix in Melbourne. Summarise your findings in a table.
   d. The Grand Prix is often criticised by Melburnians for being too costly to taxpayers. Based on your findings in part c, discuss whether or not this criticism is justifiable.
4. Access the Visit Victoria website. Search the calendar of events in the "What's on" section or use the "Explore by region" section to select events within either Melbourne or one of the *regions* within Victoria. In small groups, choose one of these events to research as a case study. Find out the location of the event, how many people the event attracts, how much income it generates, whether the audience is predominantly domestic or international, and the event's economic, social, cultural and *environmental* impacts. Share your findings with the rest of your class.

▲ **Figure 4.11** Over 300,000 local, domestic and international visitors attend the Formula One Grand Prix in Melbourne each year

CASE STUDY Tourism at the Australian Open Tennis Championship

> "The Australian Open is not just a world class sport event, it's a culture brand taking on the responsibility and using its excellence to contribute to the national need."
>
> Paul Rees-Jones, Clemenger BBDO Melbourne executive planning director

The Australian Open Tennis Championship (Figure 4.12) is the Grand Slam of the Asia–Pacific *region*. It has been held in Melbourne every January since 1972, and during February in 2021. The other Grand Slams are the French Open in Paris, Wimbledon in London and the US Open in New York City. The Australian Open is an integral component of Melbourne's event calendar, essential for the business that it brings to a variety of sectors. Despite interest from China and Sydney, the Victorian state government has managed to secure the tournament until 2036 due to a pledge of nearly $1 billion to upgrade player, media and spectator facilities. This decision was justified by the projected economic return. The Australian Open contributed $388 million to the Victorian economy in 2020, a 12 per cent increase from 2019, and created 1775 full time equivalent jobs. These upgrades will benefit the wider community as the Melbourne Park precinct (Figures 4.13 and 4.14) is also used for concerts, conventions and other events throughout the year.

▼ **Figure 4.12** An increase in domestic and international visitors to the Australian Open each year provides a necessary boost to the hotel industry

Attendance at the Australian Open has been growing steadily, with 812,174 in 2020 beating the previous record of 796,435 in 2019. In 2020, more than half of the attendees came from outside of Melbourne and 13 per cent came from overseas. Combined, this generated 575,000 hotel nights and an average spend of $209 per visitor per day. Most international tourists came from USA, New Zealand, Japan, UK and China and stayed for an average of more than five nights. Each year, this event adds an economic boost for the hospitality industry in Melbourne which would otherwise suffer due to locals going on holiday elsewhere during this period. Hotels which are guaranteed business are able to charge higher prices to compensate for charging less during off-peak seasons.

The Australian Open is broadcast to over 200 countries, reaching almost two billion people in the Asia–Pacific *region*. A combined 193 million hours were viewed within China in 2020, an increase of 68 per cent from 2019. This success is utilised for the promotion of Victoria as a tourism destination to key interstate and international markets. In 2020, Tennis Australia partnered with marketing company Clemenger BBDO to launch the 'Australia is Open' campaign. It focussed on advertising that Australia was open for business and tourism following a devastating bushfire season.

▲ **Figure 4.13** The Australian Open is held at Melbourne Park in Melbourne's award-winning sports precinct, Olympic Boulevard

Celebrities such as Chris Hemsworth and several local and international tennis stars participated in advertising Australia's friendly and relaxed culture, stunning beaches and unique wildlife. The campaign included a rebranding of venues, digital screens, on-court markings and ticketing.

Despite its economic and promotional success, many have argued that the Australian Open, along with other large events, has negative consequences. Upgrades to sporting infrastructure are seen by some as a waste of taxpayers' money which could have otherwise been spent on schools and hospitals. Many argue there is also a large social cost of these events as they lead to traffic congestion, closed streets and inconvenience for residents. The travel to the event and transport throughout also contributes to *environmental* impacts.

▲ **Figure 4.14** The location of Melbourne Park

ACTIVITIES

1. List five reasons why the Australian Open is such an integral part of Melbourne's event calendar.
2. Describe the location of Melbourne Park (Figure 4.14) and the *distribution* of features within the precinct (Figure 4.13). Why is this location and layout effective in facilitating *movement* during the event?
3. China is one of Australia's biggest tourism markets and the biggest television audience of the Australian Open. Research the impact that Li Na had on Chinese tourism to Australia from 2012 to 2014. Find a current international tennis player who is having a similar impact in their country of origin.
4. Watch the 'Chris Hemsworth and the stars of tennis have a message: Australia is Open!' campaign video on the Australian Open YouTube channel.
   a. List the iconic features of Australian culture mentioned in the advertisement.
   b. Explain what Paul Rees-Jones means when he describes the Australian Open as a "culture brand" contributing to a "national need".
   c. Discuss the extent to which you think this sort of cultural branding could be successful in boosting Australian tourism.
5. Watch the short documentary and read the article 'Melbourne 2015 ready for return on its tennis investment' on the BBC business website. Discuss whether you think the economic benefits of the Australian Open outweigh any negative social or *environmental* impacts.
6. In November 2020, Tennis Australia announced that the Australian Open would be held in 2021 despite complications due to COVID-19. This involved a significant investment in biosecurity and mandatory quarantine for all competitors and support staff arriving from overseas. Research the positive and negative social and economic impacts of this event and the subsequent issues and challenges. Based on this evidence, discuss whether or not you think the event should have taken place.

Managing the *environmental sustainability* of Victoria's festivals and events

The *environmental* impact of tourism is significant. The tourism sector is the seventh highest contributor of greenhouse gases in Australia producing at least 4 per cent of the country's total carbon emissions. As a significant part of Victoria's tourism industry, festivals and events are often scrutinised in terms of the amount of waste that they generate, their degradation of local landscapes and the emissions associated with transport.

A survey of attendees at the 2019 Falls Festival in Lorne revealed that one-third of patrons treated the cheap tents they bought for the occasion as single-use items that they intended to either leave at the festival grounds or throw out upon returning home (Figure 4.15). Around half of all attendees believed that the rubbish generated throughout the festival was not going to end up in landfill despite a lack of recycling facilities while 55 per cent didn't believe that it was their responsibility to clean up after themselves. In addition to the waste generated, impacts include the *environmental* costs associated with resourcing, producing and *distributing* these products.

There has been a recent trend towards *sustainable* practices to reduce *environmental* impacts and to meet the demands of *environmentally*-conscious customers. Green Music Australia is an Australian organisation encouraging the music industry to improve its *environmental sustainability*. In 2019 they hosted the Cleaner Campsites Industry Roundtable with various industry groups and festival and event managers.

◀ **Figure 4.15** Fields of discarded tents, chairs and rubbish are a common sight following major festivals

Figure 4.16 A summary of the *enviromental* impacts of festivals and strategies and initiatives aiming to manage them

***Environmental* impacts**	**Management strategy or initiative**
Transport	Provision of shuttle buses and incentives for car pooling
Energy use during festivals	Bio-fuel generators (e.g. Peats Ridge Festival) Carbon offsets such as Greenfleet for an additional charge (e.g. Bluesfest, Grand Prix)
Sewage	Composting toilets (e.g. Falls Festival)
Waste	Recycling / waste management system (e.g. Australian Open, Rainbow Serpent Festival, Figure 4.17), repairing broken tents and chairs to stop them being disposed of (e.g. Splendour in the Grass), ban of single-use plastic cups (e.g. Folk, Rhythm and Life)
Land degradation	Revegetation, weeding and wildlife management (e.g. Woodford Folk Festival, Figure 4.18)

ACTIVITIES

1. Discuss your reaction to the Falls Festival survey data with a classmate. Consider how you would behave at a similar event and whether or not your actions would lead to negative *environmental* or social impacts.
2. Do you think the strategies implemented by Green Music Australia or those listed in Figure 4.16 are likely to help festivals and events to achieve *environmental sustainability*?
3. Research more about Woodford Folk Festival's *environmental* stewardship. Discuss whether or not you would classify attendance at this festival as ethical tourism.
4. Watch 'Inside Rainbow Serpent Festival – Waste & Sustainability' on YouTube.
   a. List three strategies that have been implemented to reduce the festival's *environmental* impact.
   b. Rank these strategies based on which you think will be the most to least effective. Justify your choice.
   c. Read the yearly Rubbish Report on the Rainbow Serpent Festival's website. Based on this information, discuss whether or not you think the strategies have been successful.
   d. The video shows footage of discarded broken tents, mattresses and chairs and suggests that attendees should take everything away with them when they leave. If attendees dispose of rubbish at home rather than littering at the campsite, does this reduce their impact? Discuss reasons for your viewpoint.
5. As a class, brainstorm a list of festivals and events in Melbourne and *regional* Victoria.
   a. In groups, choose a festival and research the *scale* of the event, why it is popular and the *environmental*, social, cultural and economic impacts it is having on the *region* in which it is held as well as its impact on local residents.
   c. Produce a brief report including a location map, images, impacts, issues and challenges and associated management strategies.
   d. Based on this information, discuss whether this event could be considered *sustainable*.

Figure 4.17 Volunteers at the Rainbow Serpent Festival, Lexton, sort waste at a recycling station in an attempt to reduce the festival's *enviromental* impact

Figure 4.18 Organisers of Queensland's Woodford Folk Festival have spent the last twenty years regenerating their festival property through yearly tree planting and weed eradication weekends

Strategies set up to reduce the *environmental* cost of future festivals and events included:

- marketing campaigns focusing on issues related to waste disposal
- a ban on the use of cheap tents to discourage their disposal and a push for attendees to borrow or hire equipment as an alternative
- facilities at festivals to repair tents, marquees and chairs
- providing financial subsidies or incentives for attendees who carpool or use public transport to travel to and from festival sites
- the BYO Bottle Campaign which encourages artists, venues and tourists to use refill stations to fill reusable water bottles during events.

Many other strategies that have recently been put in place to manage *environmental* impacts are summarised in Figure 4.16.

Many festivals around Victoria are looking to Queensland's Woodford Folk Festival as a best-practice example. Woodford have eliminated all single-use plastic by using biodegradable options which are composted on site. This compost is then used at the yearly tree planting event which has transformed the festival's 200-hectare site from a degraded paddock in 1994 to what is now a thriving habitat containing 600 different plant species. The revegetation has involved the planting of 110,000 wet rainforest trees from stock that is propagated on site. Forested areas are used for *environmental* education workshops throughout the festival.

What are the impacts of seasonal tourism in Victoria's *regional* areas?

Seasonal tourism refers to the repeated fluctuation in tourist numbers in a destination occurring periodically each year. It extends beyond the tourism industry itself, leading to variations in income and employment in tourism-related industries. Seasonal tourism does not include irregular fluctuations due to isolated incidents such as natural disasters or *changes* to fuel prices which might only temporarily affect tourism for a specific period.

Seasonality is influenced by physical and cultural factors. The climate of a *place*, such as seasonal variations in temperature, sunlight, rainfall or snowfall, will influence the periods in which people choose to visit a *region*. Physical factors affect tourism where outdoor activities are dominant. In Victoria, thousands flock to the High Country from June to September each year for the ski season including workers who fill casual positions at alpine resorts. Cultural influences are more complex, based on the timing and availabilities of holidays, travel choices and the timing of major events. For example, Western Victoria has taken advantage of the Easter weekend each year since 1878 to host the Stawell Gift.

All tourism locations experience seasonality to some degree although Victoria's coastline experiences the largest *movement* of visitors each summer. The population staying overnight at the coast can increase by over 400,000 during the busiest weeks of summer while daily visitors contribute even more. Larger *regions* such as the Mornington Peninsula experience an influx of 100,000 tourists during peak weeks while the population of smaller *places* such as Lorne in summer can be more than ten times the population in winter (see Figure 4.19). Major events such as Torquay's Rip Curl Pro (Figure 4.3) and Lorne's annual Pier to Pub swim (Figure 4.20) intensify this phenomenon. Around 20,000 tourists travel to Lorne for this event each year, a *place* that has a local population of just over 1000. This is twice as many people as what is considered Lorne's peak population limit in terms of the availability of infrastructure, services and facilities.

Many businesses in Victoria's *regional* areas rely on peak season tourism for the majority of their annual income. For example, tourists in the Mornington Peninsula inject more than $1 billion into the local economy each summer. However, seasonal tourism also leads to negative impacts for these *regions*, their local permanent population, local culture and the tourists themselves. Some of these impacts are summarised in Figure 4.21.

Due to seasonality, some *regions* have difficulty accommodating large numbers of tourists during peak periods, while at other times there are not enough tourists, threatening the viability of local businesses. Tourism operators and supporting industries, such as restaurants and accommodation providers, struggle with large swings in seasonal demand and associated income risks while their staff face variability of employment. In these cases, the quality of tourism

▼ **Figure 4.19** The difference between permanent and peak summer populations along Victoria's coastline based on the 2016 census

Location	Permanent	Peak summer
Mornington Peninsula	154,999	250,000
Torquay	16,929	29,200
Anglesea	2545	14,700
Lorne	1114	16,200
Queenscliff	1315	6900
Portarlington	3619	16,700
Ocean Grove	14,165	30,800
Venus Bay	944	4000
Apollo Bay	1598	15,000
Warrnambool	34,618	49,000
Peterborough	247	1000
Port Fairy	3340	10,000
Lakes Entrance	4810	25,000
Mallacoota	1063	4000

▲ **Figure 4.20** **(a)** Lorne's annual Pier to Pub swim provides a large boost to tourism in the Surf Coast *region* which is **(b)** significantly quieter during the off-peak season

▼ **Figure 4.21** The negative impacts of seasonal tourism

Impact on the local *region*	Impact on local people	Impact on tourists
Income instability, risk and budget management issues for businesses	More expensive housing due to investment and higher living costs	High prices during peak season to make up for off-peak season
Difficulty in employing additional skilled and experienced labour during peak seasons	Difficulty in finding reliable and consistent employment in tourism or related industries	Reduced availability of accommodation
Pressure on infrastructure such as transport and other services and degradation of the surrounding human and natural *environment*	Overcrowding and a lack of available services during peak season	Overcrowding of tourist hotspots, services and transport affecting enjoyment and increasing safety risk

▶ ACTIVITIES

1. Using the summary in Figure 4.21, undertake online research of an example of a *place* on Victoria's coastline or alpine *region* and describe the negative impacts that it might face due to seasonal tourism. Outline the benefits that seasonal tourism may bring to these *regions* and discuss whether or not these outweigh the negatives.

2. Refer to Figure 4.19.

a. Calculate the increase in the number of people for each *region*.

b. Calculate the percentage by which each *region* increases each summer.

c. Represent your answers to parts (a) and (b) using bar graphs for each location.

d. Rank the *regions* based on increased population number and increased percentage.

e. Are the rankings similar? Suggest possible reasons for correlations or differences.

f. Label each location on a map of Victoria and represent seasonal population fluctuations using appropriate symbols or shading.

g. Using this information, describe the *distribution* of seasonal tourism along Victoria's coastline.

h. Suggest a factor that might influence the extent of seasonal tourism in a particular *region*.

3. a. Discuss which of the four strategies outlined to the right would be the most successful in reducing the effects of seasonal tourism in somewhere like Lorne.

b. Outline a criterion that could be used to assess the success of this strategy.

c. Suggest whether or not this strategy could lead to any additional adverse effects.

4. If January temperatures are cooler one year than in previous years, what impact might this have on local businesses on the Mornington Peninsula or an event such as the Lorne Pier to Pub ocean swimming race? Suggest the types of businesses that might be most affected. Use this scenario to discuss the economic issues and challenges associated with seasonal tourism.

5. As a class, brainstorm a list of *places* overseas which are heavily affected by seasonal tourism due to physical or cultural factors. Choose one of these and describe the impacts due to this seasonality and the strategies used to manage these impacts.

6. Prepare a case study discussing the range of impacts that an event such as the 2020 bushfires in Mallacoota or the COVID-19 travel restrictions had on tourism in one of Victoria's coastal locations. Evaluate the effectiveness of strategies that were put in place to help regenerate tourism following these impacts.

services can suffer as businesses struggle to attract qualified workers for temporary employment. Large influxes of visitors during peak periods also influence the liveability of local residents as they battle temporary overcrowding, increased traffic and increases in the prices of goods and services.

The extent of the impact and the *scale* of the population fluctuation are linked. Many smaller *regional* areas are particularly vulnerable. They lack significant infrastructure such as roads, water supply, sewerage, power and an available and experienced workforce to deal with the influxes of visitors during peak periods. The location and remoteness of tourism centres also determines the magnitude of these impacts. Isolated tourism enterprises are less likely to be able to find qualified temporary staff during peak periods, making them more vulnerable to seasonal tourism than businesses in more populated areas. Tourists are often attracted to *places* based on their aesthetics, *environmental* values and local culture. However, large influxes of seasonal tourists often threaten these characteristics due to increased pollution, degradation of vulnerable ecosystems during peak periods and a loss of cultural identity in an attempt to cater for tourists. If seasonal tourism adversely affects these features then it can threaten the *sustainability* of the industry.

The predictability of seasonal patterns means it is possible to anticipate and manage impacts. A study by Lee *et al.* (2008) identified four main strategies for managing seasonal tourism:

1. Differential pricing: charging more during peak seasons to increase profits and lowering prices during off-peak season to encourage visitors
2. Diversified attraction: introducing festivals and other events throughout the year to encourage visitation during low periods
3. Marketing: targeting different markets for different seasons
4. Government support: initiatives to encourage labour force flexibility, support of off-season community initiatives and festivals and improved *regional* infrastructure.

▼ **Figure 4.22** Port Fairy's rich history and coastal location make it an ideal tourist destination

CASE STUDY Tourism in Port Fairy

"The jewel of the Great Ocean Road."
Liz Foreman, Port Fairy Tourism Association

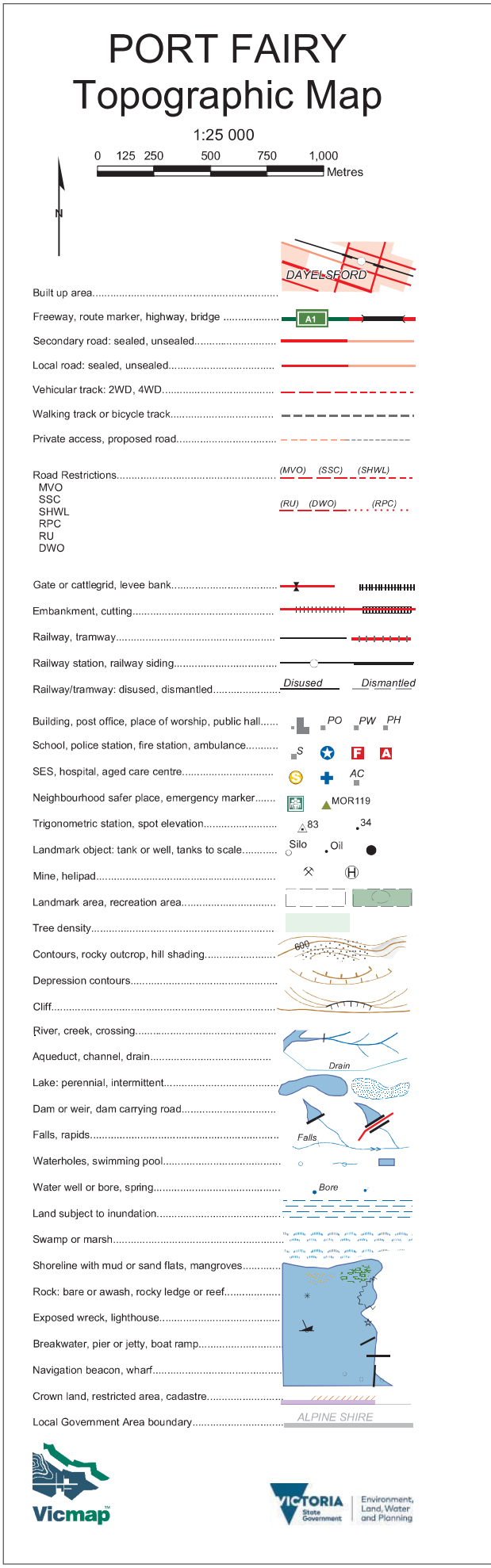
Port Fairy is a historic seaside village (Figure 4.22) located in the Moyne Shire approximately 290 kilometres south-west of Melbourne at the western end of the Great Ocean Road (Figure 4.23). Its history is based on a once-thriving fishing and agricultural industry due to its location on the eastern headland of Portland Bay surrounded by volcanic plains of fertile soil. Its natural features, coastal attributes (Figure 4.22), heritage architecture (Figure 4.24) and diverse arts and cultural sector have led to tourism becoming Port Fairy's dominant industry especially since the early 1970s.

Port Fairy has a permanent population of 3340 with the population rising to 10,000 during the peak summer period (see Figure 4.19). In total, approximately 200,000 people visit the area each year making it one of Victoria's most popular tourist destinations. In 2012, Port Fairy won the LivCom award for the world's most liveable small community for its success in strategic planning, *environmental* practices, lifestyle and heritage. This national and international recognition helped the Moyne Shire's tourism industry to continue to expand. Port Fairy's success as a tourism destination was celebrated further in July 2021 when it was announced the gold award winner of the Victoria Tourism Industry Council's 'Victoria's Top Small Tourism Town'. Moyne Shire Mayor, Cr Daniel Meade, said the award recognised the positive way in which Port Fairy's tourism operators, local businesses and community rebounded from the COVID-19 pandemic and will raise the profile of the whole *region*.

▲ **Figure 4.23** The location of Port Fairy relative to Melbourne

▲ **Figure 4.24** Sackville Street, Port Fairy, provides a unique shopping experience amongst historic buildings

▶ Figure 4.25
Topographic map extract of Port Fairy



What are the *environmental*, social, cultural and economic impacts of tourism in Port Fairy?

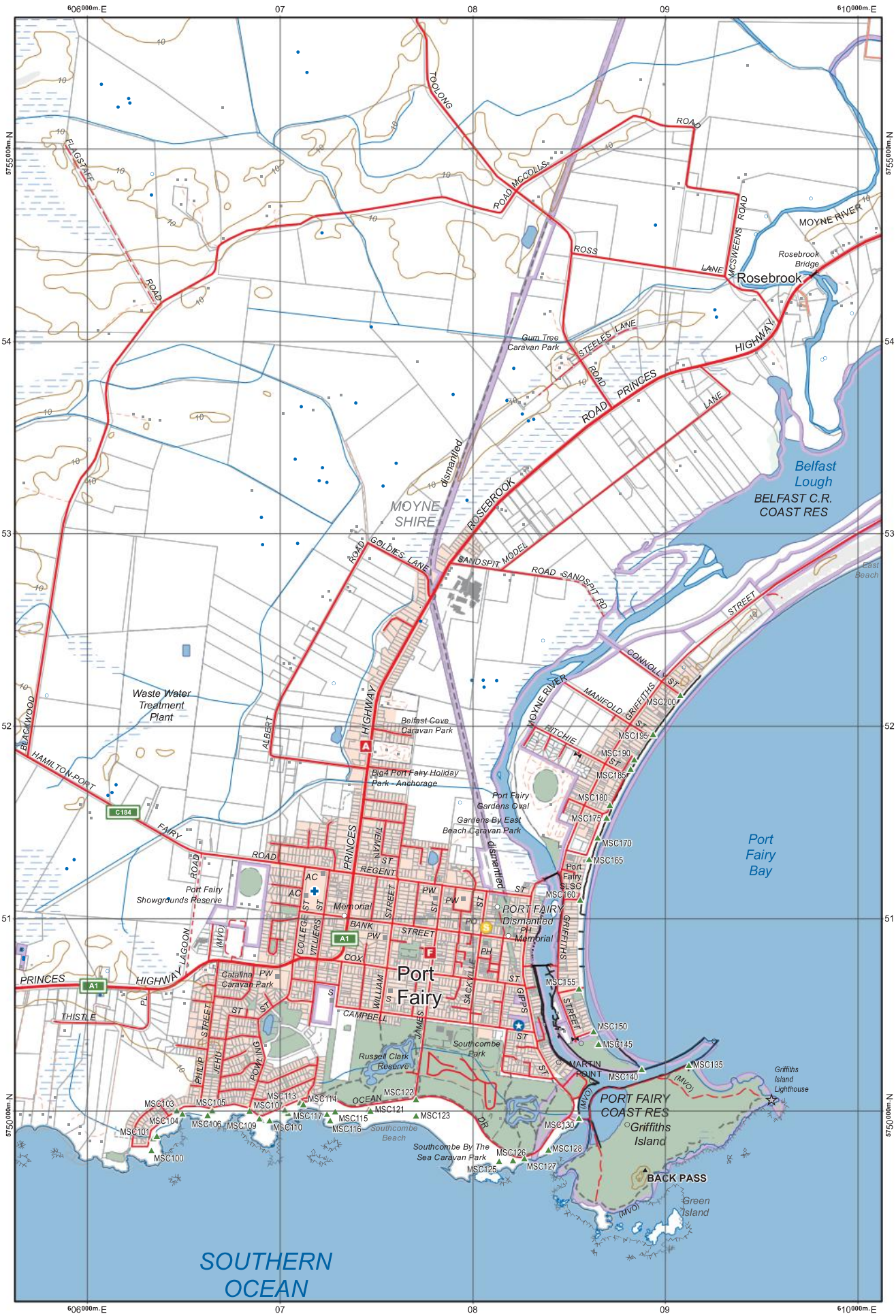
Port Fairy (Figure 4.25) has managed to successfully transform from a fishing and agricultural village into a high-profile tourist and residential destination. Investment in infrastructure and real estate has brought economic growth to the *region*. Maintenance of its iconic bluestone buildings has enabled Port Fairy to retain its heritage character and unique culture. This contrasts with many other Victorian coastal communities where suburban development has led to homogenisation, a *process* where the distinguishing characteristics and diversity of *places* have been lost and are often replaced by a single dominant culture or architectural style.

Despite experiencing an influx of visitors during the summer, Port Fairy has managed to reduce the negative impacts of seasonal tourism that have plagued many Victorian coastal *regions*. Record growth in the nearby *regional* centre of Warrnambool has provided a range of permanent employment opportunities for Port Fairy's residents (Figure 4.26).

▼ Figure 4.26 The proportion of full-time and part-time workers (not including unemployed) for Port Fairy, surrounding areas and other Victorian coastal *regions* in 2016

Location	Full-time (%)	Part-time (%)
Port Fairy	53	46
Mortlake	62	36
Koroit	56	42
Rye	52	46
Portsea	48	51
Dromana	55	43
Lorne	50	47
Anglesea	53	45
Geelong	57	41
Frankston	62	36

Port Fairy has managed to diversify its attraction and maintain a more consistent tourism industry by hosting a wide range of festivals and events throughout the year. Port Fairy Folk Festival (Figure 4.27) is a four-day, internationally acclaimed event, attracting over 30,000 visitors to the town each March. Tourism Research Australia has labelled it a high-profile event, contributing to an increase in Victoria's cultural tourists by gaining extensive national and international exposure. It has contributed to millions of dollars being spent on new facilities, amenities and infrastructure to cope with the yearly influx of visitors. It has also contributed significantly to the local and *regional* economy through direct expenditure by visitors throughout the *region* and the sourcing of local expertise and services.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TOOLONG ROAD
FLAGSTAFF ROAD
ROAD MCCOLLS
ROSS LANE
MCSWEENS ROAD
MOYNE RIVER
Rosebrook Bridge
Rosebrook
Gum Tree Caravan Park
STEELES LANE
HIGHWAY
PRINCES ROAD
LANE
dismantled
ROSEBROOK
MOYNE SHIRE
Belfast Lough
BELFAST C.R.
COAST RES
GOLDIES LANE
SANDSPIT MODEL ROAD
SANDSPIT RD
East Beach
STREET
CONNOLLY ST
MANIFOLD ST
GRIFFITHS ST
MSC200
MSC195
MSC190
MSC185
MSC180
MSC175
MSC170
MSC165
MSC160
MSC155
MSC150
MSC145
MSC140
MSC135
FITCHIE ST
MOYNE RIVER
Waste Water Treatment Plant
BLACKWOOD ROAD
HAMILTON-PORT ROAD
C184
FAIRY ROAD
ALBERT HIGHWAY
Belfast Cove Caravan Park
Big4 Port Fairy Holiday Park - Anchorage
Port Fairy Gardens Oval
Gardens By East Beach Caravan Park
Port Fairy Showgrounds Reserve
PRINCES HIGHWAY
A1
LAGOON (MVO)
Catalina Caravan Park
PW
AC
Memorial
PORT FAIRY
Dismantled
PH
Memorial
Port Fairy SLSC
Port Fairy
Port Fairy Bay
REGENT ST
STREET
BANK
COX
COLLEGE ST
VILLIERS ST
WILLIAM ST
SACKVILLE ST
GRIFFITHS ST
JAMES ST
CAMPBELL ST
THISTLE ST
PHILIP ST
JEHU ST
POWLING ST
Russell Clark Reserve
Southcombe Park
MARTIN POINT
PORT FAIRY COAST RES
Griffiths Island
Griffiths Island Lighthouse
BACK PASS
Green Island
Southcombe Beach
Southcombe By The Sea Caravan Park
MSC103
MSC105
MSC107
MSC113
MSC114
MSC122
MSC121
MSC123
MSC104
MSC106
MSC109
MSC110
MSC117
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MSC125
SOUTHERN OCEAN

Additional annual festivals and events include Moyneyana Festival in January, the Port Fairy Jazz Festival in February, Winter Weekends in June and July and a variety of regular community and farmers' markets throughout the year.

Many of the festivals, including the 45th Port Fairy Folk Festival, were postponed during 2020 and 2021 due to the COVID-19 pandemic. This had a devastating effect on the *region's* economy. The estimated loss is $9.6 million which includes money that would have been spent on tickets, accommodation, meals, travel and retail.

Figure 4.27
The Port Fairy Folk Festival brings large crowds to the *region* each year

ACTIVITIES

1. Explain how historic factors have contributed to Port Fairy's expanding tourism industry.

2. Identify the main tourist features of Port Fairy on 'I am Port Fairy' website. List the features that make it an attractive tourist destination.

3. Create a tourist map of Port Fairy using Google My Maps or a virtual tour of Port Fairy's attractions using Google Tour Builder or ArcGIS Story Maps.

4. Discuss the relative importance of three factors that contribute to the seasonality of tourism in Port Fairy. Outline one way in which Port Fairy is aiming to reduce the negative impacts of seasonal tourism.

5. Visit the Tourism Research Australia website and open the Local Government Area Profiles page under the research tab.

a. In a table, record data on the number of international and domestic visitors, visitor nights, expenditure, tourism businesses and top international markets for the Moyne Shire and three other *regions* in Victoria.

b. Analyse this data to draw conclusions about the *scale* of the tourism industry in Port Fairy compared to at least two other Victorian areas such as the Goldfields or Murray *region*.

6. Use Google Streetview to explore Bank Street or Sackville Street, Port Fairy.

a. Describe the architecture in terms of its style, building material, age and attractiveness. Discuss whether Port Fairy has managed to maintain its unique historic culture.

b. Compare these streets with a retail precinct in another Victorian coastal town such as Ocean Beach Road in Sorrento or Phillip Island Road, Cowes by listing similarities and differences.

c. Suggest three issues that other Victorian coastal towns might face due to homogenisation as a result of increasing suburban development.

7. Refer to Figure 4.26.

a. Discuss whether or not Port Fairy has managed to reduce the negative impacts of seasonal tourism on employment compared to other Victorian coastal *regions*. Use statistical evidence in your answer.

b. What factors may have influenced the differences in employment status between these *places*?

8. Undertake research to find a list of Port Fairy's events throughout the year. Outline how the *distribution* of festivals and events throughout the year helps Port Fairy to maintain a *sustainable* tourism industry.

9. Visit the Port Fairy Folk Festival website and browse the program and photo gallery.

a. In a table, list the positive and negative economic, social, cultural and *environmental* impacts that this festival might have on the town, its locals and the surrounding *region*.

b. Rank these impacts from most to least significant and write a justification for your choice using appropriate criteria.

c. What factors would you consider if you were to host a festival of this size in your local area?

10. Refer to the topographic map extract (Figure 4.25).

a. Describe the human and natural characteristics of the area by referring to specific sites. Explain how these characteristics have made Port Fairy an ideal location for tourism.

b. Explain why you think this particular location might have been chosen for Port Fairy instead of further along the coastline.

c. What is the name of the major highway running through Port Fairy? Explain its importance in terms of *interconnection* with the surrounding *region*.

d. Undertake research to find the location of the Port Fairy Folk Festival. Locate this on the topographic map and write down the six-figure grid reference.

e. Describe a route you could take from the festival site to the hospital. Calculate this *distance* using the *scale*.

f. Identify the broken grey line running north to south ending at 082512. What is this? What was it once used for?

g. Explain why Port Fairy is prone to flooding in terms of its location and surrounding physical features.

h. What is located at grid reference 095501? Describe its historic and current significance.

What are the issues and challenges of Port Fairy's tourism industry?

Despite the positive impact that tourism has had on Port Fairy's local economy and infrastructure development, there are a number of issues and associated management challenges facing the industry, threatening its *sustainability*:

- a lack of sufficient telecommunications infrastructure; regular power outages are a major concern for local businesses
- one-third of private residences are being used only for tourism and weekender purposes rather than permanent residency (see Figure 4.28) contributing to a loss of local culture
- investment in local real estate has led to a rise in house prices (Figure 4.29) which has benefited investors but reduced the affordability for locals and potential permanent residents
- further development to support increasing tourist numbers may lead to a loss of Port Fairy's iconic culture, aesthetics and natural features. This threatens the *sustainability* of the tourism industry which relies on these authentic experiences and features to attract visitors
- a *change* in the style of shops towards tourist-focused boutiques has meant many residents have started to travel to Warrnambool to purchase basic goods
- as visitor numbers grow during peak seasons and festivals, there is a risk that overcrowding and associated impacts will reduce the quality of life of local residents
- climate *change* is expected to increase vulnerability to flooding, storm surges and coastal erosion in the *region* due to rising sea levels. This hazard threatens the safety of locals, the health of the fragile natural *environment* and prosperity of recreational and tourism industries
- despite opportunities for employment in Warrnambool, a high proportion of Port Fairy's labour force work in seasonal, tourism-related industries (14 per cent) compared to the surrounding *region* (5 per cent) leading to a high proportion (46 per cent) working part-time or casual hours. An issue associated with this employment pattern is a large proportion of lower-income earners
- a lack of full-time and permanent employment (Figure 4.26) and higher real estate prices has led to concerns regarding the emigration of young people and subsequent difficulty in attracting a young labour force, which is of particular concern given Port Fairy's ageing population.

The impacts of climate *change* are a growing issue in the *region*. Hazard modelling projects sea level rises in Port Fairy of up to 0.40 metres by 2050 and 1.20 metres by 2100. The frequency and intensity of storms is also expected to increase. This will bring strong winds,

Figure 4.28 The *distribution* of unoccupied dwellings along Victoria's coastline

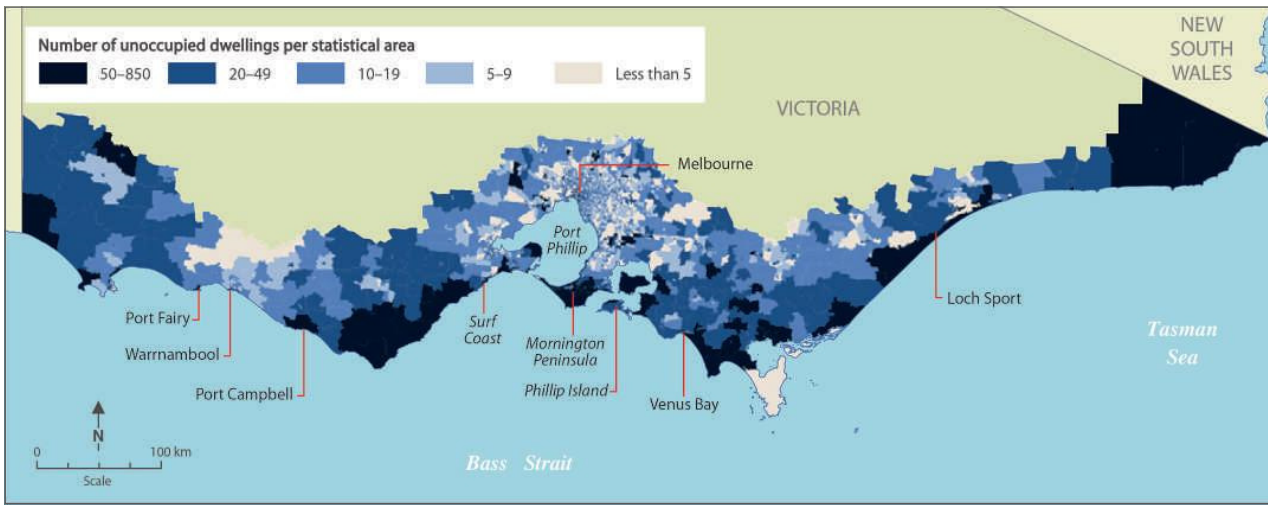
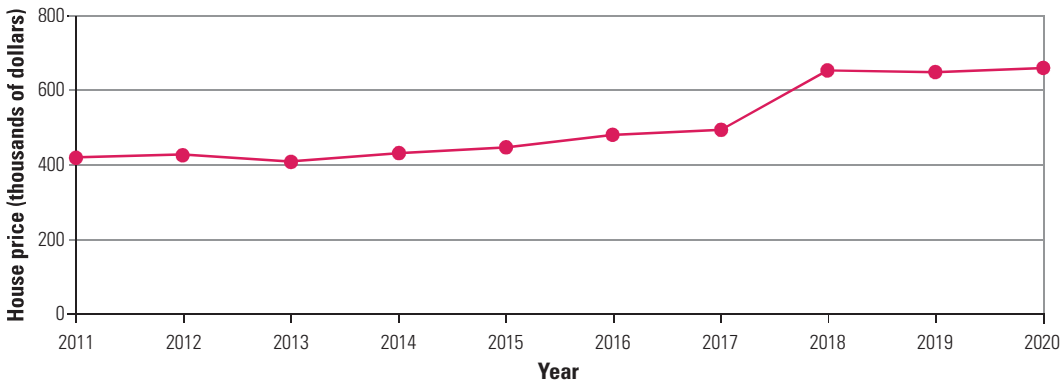


Figure 4.29 Port Fairy's median house price, 2011–2020



▼ **Figure 4.30** The erosion at East Beach is removing the sand and risking the destruction of adjacent houses

▼ **Figure 4.31** The erosion of dunes covering two closed landfill sites in the northeast of East Beach are posing a land contamination risk

▼ **Figure 4.32** The existing rock seawall on East Beach has been repaired and upgraded to protect the dunes from erosion

waves and run-off which will cause erosion and flooding that will inundate low-lying areas. Erosion at East Beach (Figure 4.30) has removed beaches once enjoyed by holiday makers and is threatening the foundations of 200 holiday homes. An added risk is the potential for land contamination due to the proximity of two landfill sites which are located underneath sand dunes where erosion is currently occurring (Figure 4.31). This has the potential to severely damage both local ecosystems and the reliant tourism industry.

How should Port Fairy's tourism industry be managed?

The Port Fairy Tourism Association and Moyne Shire acknowledge the importance of tourism growth due to its flow-on effect to local businesses and upgrades to local infrastructure. However, they also understand the importance of preserving local character and the natural *environment* while attracting a young workforce and maintaining a high quality of life for permanent residents. The Moyne Planning Scheme highlights several key areas that need to be managed in relation to the tourism industry:

- Port Fairy should continue to be promoted as an important tourist destination
- appropriate tourist infrastructure should be developed and maintained without affecting heritage values
- small-*scale* tourist facilities and services should be encouraged, ensuring they are consistent with the character and traditional design elements of heritage building
- the economic base of the town and *region* should be strengthened to provide employment and wealth generation
- the unique coastal, river and harbour attributes of the Port Fairy *region* should be utilised to develop low-impact tourist activities
- the *scale* and force of the *regon's* natural *environment* must be understood and incorporated into planning
- population growth and visitation must be managed to ensure it does not have an adverse impact on the coastal *environment* or the unique character of the *region*
- local residents, property owners and community groups must be involved in strategic planning decisions
- the number of events and visitors must be balanced to ensure the community's culture is maintained.

Climate *change* will continue to threaten tourism in Port Fairy and the viability of the town itself. The Port Fairy Coastal Climate Change Adaptation Plan outlines several strategies aimed at adapting to these issues. To prevent further wind erosion, revegetation of local sand dunes has begun in *places* that are bare due to cattle grazing in the early 1900s. Trees such as Norfolk Island pines have been planted to provide protection from the wind while introduced grasses such as Marram Grass, that trap and bind wind-blown sand particles, have been planted to stabilise dunes. This vegetation will also reduce the infiltration of water into the landfill sites to reduce the potential for contamination while increasing local biodiversity.

Defense structures such as breakwaters and rock seawalls (Figure 4.32) were built in the 1950s to protect the coastline from erosion. However, many of these artificial structures are failing while others have severely altered the natural *processes* that transport and deposit sand, causing impacts in other areas. As a response, an additional 10 new rock seawalls were constructed along the Great Ocean Road during the 2018–19 period. Artificial reefs made of concrete have also been installed at South Beach to protect the dunes from strong waves while having the added benefit of providing a new habitat for fish and an associated diving attraction. Large-*scale* renourishment of the East Beach has also been considered, which would involve the artificial dredging, transportation and deposition of up to 300,000 m^3 of sand. Although this would promote the recreational use of the beach and add value to seafront properties, it comes at a significant economic cost and is only a temporary solution. In contrast, many argue the most *sustainable* option is to relocate Port Fairy further inland, leaving nature to continue its *processes* without being impeded by artificial structures. While this would likely be a benefit to the local *environment*, it would have a disastrous effect on the tourism industry.

ACTIVITIES

1. a. In pairs, arrange the issues facing Port Fairy using a diamond ranking template based on what you think should be the highest and lowest management priorities. Justify your highest and lowest rankings.
   b. Outline an associated challenge linked to one the most significant issues.
   c. Suggest how this challenge could be managed successfully.
2. Compare Port Fairy's median house price (Figure 4.29) with median prices in other coastal towns such as Portsea and Lorne, and some inner and outer suburbs of Melbourne. Is Port Fairy's growth high or low relative to these other *regions* and why might this be the case?
3. Gentrification is defined as the buying and renovation of real estate by high-income earners causing a rise in real estate prices and displacing and excluding low-income families and small businesses from the market. Suggest how this might occur in a *place* like Port Fairy and list the potential associated impacts.
4. In pairs, discuss the relative importance of the key management areas highlighted in the Moyne Planning Scheme. Rank these areas in order of priority and justify your ranking.
5. Write a paragraph discussing why a balance needs to exist between tourism-related development, the natural *environment* and Port Fairy's heritage character in order to ensure the *sustainable* growth of the tourism industry in the future.
6. a. Outline the reasons why climate *change* is a significant issue in Port Fairy and list some of the associated challenges.
   b. Choose one of the climate *change* adaptation strategies presented and undertake further research to summarise the details of this management technique.
   c. Using this information, discuss the likely effectiveness of your chosen strategy in both reducing the negative impacts of climate *change* and ensuring the tourism industry is not adversely affected.
7. Discuss the extent to which you agree with the following statements:
   - Tourism in Port Fairy has had a predominantly positive impact on locals as they have benefitted from improved facilities, infrastructure and economic growth.
   - The Victorian state government should spend more money on promoting tourism along Victoria's coastline.
   - Tourism in Port Fairy has been managed appropriately to maximise profits and minimise *environmental* degradation and sociocultural impacts.
   - Tourism in Port Fairy has reduced the capacity of the town to provide a high quality of life for its local residents.
   - The benefits of tourism in Port Fairy outweigh the costs and growth should be encouraged.

What are the impacts of short-term rentals on urban and *regional* tourism in Australia?

Advancements in technology have revolutionised Australia's tourism industry. Advertising and promotion to international audiences is now very cost-effective while online booking systems have added efficiency for small operators. Technology has also facilitated the development of peer-to-peer home sharing platforms, such as Airbnb, which has given rise to the availability of short-term rentals. While this new form of tourism is benefitting many travellers and small-*scale* operators, the impacts on Australia's tourism industry are mixed.

Airbnb is an online business allowing people to list their spare rooms, apartments or entire houses for rent by tourists, providing an alternative to traditional licensed accommodation such as hotels. The company was founded in 2008 in San Francisco, California, and by 2020 it already had accommodation options listed in over 81,000 cities within 191 countries. As of 2020, there were nearly 350,000 Australian properties listed, a significant increase from just 90,000 in 2017. This includes nearly 23,000 listings in metropolitan Melbourne alone, excluding the Mornington Peninsula (Figure 4.33). Airbnb contributes a significant proportion of Australia's tourism income with each listing earning an average of $916 per month.

By allowing locals to rent out their spare rooms and houses, short-term rentals are leading to a *change* in

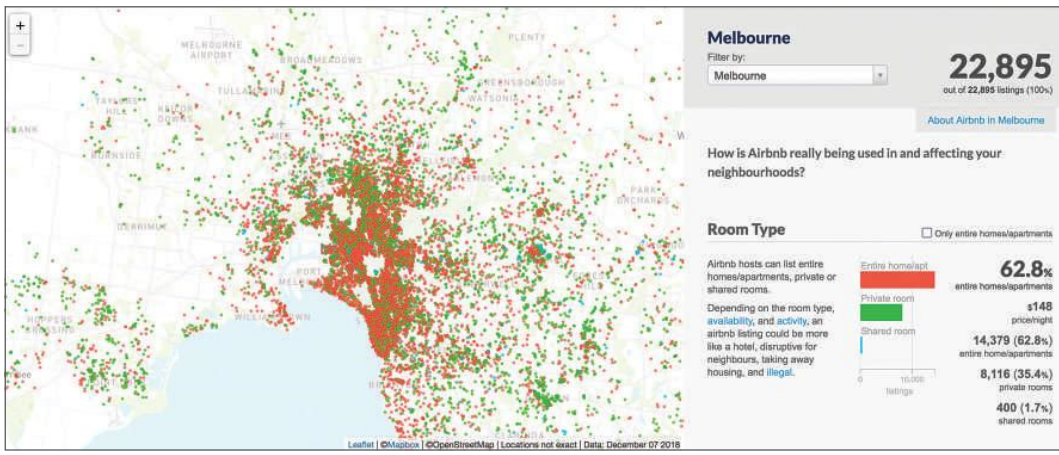


Figure 4.33 Inside Airbnb is a spatial data source that uses GIS to assist with analysing the use of Airbnb in cities around the world

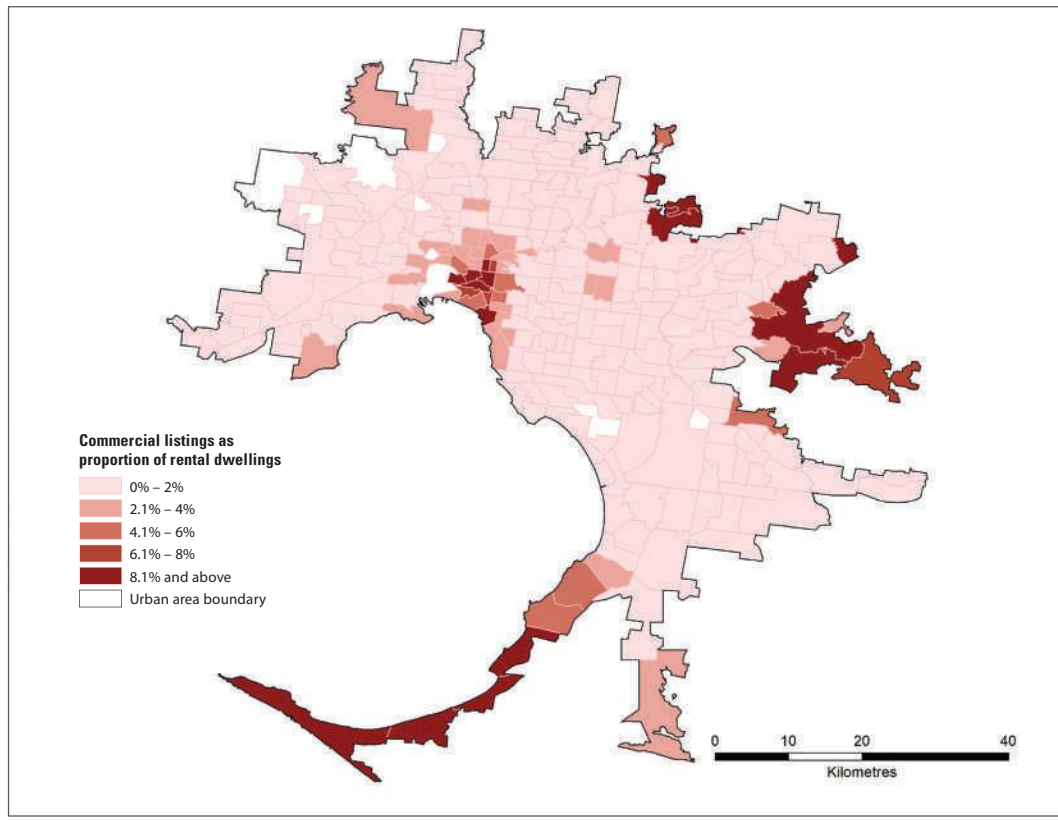
the *distribution* of tourist accommodation. With many listings occurring outside traditional tourist locations, visitors are staying in lesser-known suburbs and using local knowledge to financially support local businesses such as restaurants and shops. An economic study has shown that 80 per cent of Airbnb listings in Sydney are located outside traditional tourist zones and that 46 per cent of tourist spending occurs in local suburban areas. However, the growth of short-term rentals has led to conflict within the tourism industry. The managing director of Tourist Accommodation Australia has argued that staying in someone's home does not necessarily meet industry safety regulations or employ staff. This enables "mum and dad investors" to offer cheaper rates. Competition due to a saturation of the market is driving down prices, threatening the economic *sustainability* of many licensed operators.

While tourists are attracted to short-term rentals due to cheaper rates and a wider range of amenities, increased tourism in residential areas is leading to complaints from local residents due to noise, antisocial behaviour, illegal parking and rubbish dumping. In an attempt to reduce conflict, many councils are considering fining residents who rent out their homes without abiding by local regulations or purchasing appropriate permits. Meanwhile, many hotel operators are experimenting with the design of apartment-style hotels that feature communal spaces, the provision for families and pets and kitchen amenities to try to keep up with *changing* demand.

There is a growing concern regarding the impact of short-term rentals on the long-term rental market. Many property owners are choosing to use platforms such as Airbnb to attract tourists rather than long-term tenants due to the possibility of greater profitability. A study by the Australian Housing and Urban Research Institute claims that as many as one in seven rental homes in Australia's inner-city and beachside suburbs are being converted to commercial rentals, defined as those that are available for more than 90 days per year. This is reducing the availability and affordability of long-term rental options in inner-city locations and forcing local residents outwards into *places* with less services, amenities and employment opportunities, thereby impacting the liveability of cities and towns. This has occurred in some inner-city suburbs of Melbourne such as Docklands, Southbank, Fitzroy and St. Kilda (see Figure 4.34) where Airbnb accommodation comprises up to 15 per cent of the rental market. The proportion is much lower in outer suburbs with Airbnb accounting for only 2 per cent of total rentals across Melbourne. Other popular tourist destinations on the outskirts of Metropolitan Melbourne, such as the Mornington Peninsula, also have a very high concentration of commercial rentals. Many locals have claimed that even if they can find a long-term rental in these *regions*, they are often only given a six month lease and are evicted in the lead up to summer to make way for more profitable holiday renters.

During 2020 in the midst of the COVID-19 pandemic, Airbnb cofounder Brian Chesky stated that Airbnb needed to *change*. The company received over $1 billion of cancellations and had to cut 1900 jobs. As part of a shift to go "back to basics", Chesky stated that a balance was needed between the city, hosts and customers to ensure that Airbnb does not contribute to over-tourism or reduce the stock of long-term rentals.

▼ **Figure 4.34** The spatial *distribution* of commercial listings as a proportion of rental dwellings in Melbourne based on 2016 census data



ACTIVITIES

1. Discuss with another student whether or not you would consider staying in Airbnb accommodation and write down the advantages and disadvantages of doing so.
2. Using a table, summarise the positive and negative impacts of short-term rental platforms such as Airbnb at a local and *regional scale*. Include information from the media and the economic studies on the Airbnb website.
3. Suggest how peer-to-peer home sharing platforms may have *changed* the tourism industry in Port Fairy. What issues and challenge may have developed as a result?
4. 'Airbnb is threatening the economic viability and *sustainability* of the tourism industry by creating an uneven playing field.' Discuss to what extent you agree or disagree with this statement.
5. The 2019–20 bushfire season and COVID-19 pandemic had a disastrous impact on tourism revenue. Suggest the different ways in which these disasters would have affected short-term holiday rentals, long-term rentals and the hotel industry.
6. Refer to Figure 4.34.
   a. Describe the spatial *distribution* of commercial listings as a proportion of rental dwellings in Melbourne. Include the names of the various *regions* that have a high concentration of commercial dwellings.
   b. Airbnb claim that short-term rentals spreads tourism so that more *places* benefit economically. In contrast, a study from Monash University claims that the *distribution* of Airbnb listings is *spatially associated* with the *distribution* of hotels and other licensed accommodation. Using the information from Figure 4.34, discuss which claim is likely to be the most accurate. What additional information would help you to strengthen your argument?
7. Visit the 'Inside Airbnb' website and click on a location such as Melbourne to access the GIS map and location data (Figure 4.33).
   a. Compare the *distributions* of entire home and private room listings.
   b. Hover your mouse over the map to get information for individual listings. Using this information, discuss whether location has an impact on the income and occupancy rate of a listing.
   c. Discuss whether or not this data supports the idea that many Airbnb listings are located outside of traditional tourist locations.
   d. Using 'Inside Airbnb' as an example, explain how geospatial technology, such as GIS, can be used to analyse and manage the tourism industry.
8. Design a proposal that would manage the use of short-term rentals to ensure the *sustainability* of the tourism industry for both licensed accommodation providers and those using home sharing platforms such as Airbnb.

5 Ecotourism

Characteristics of ecotourism

According to The International Ecotourism Society (TIES), ecotourism is defined as 'responsible travel to natural areas that conserves the *environment*, *sustains* the wellbeing of the local people, and involves interpretation and education' (TIES, 2015). As seen in Chapter 2, although other definitions may vary, ecotourism contains three essential components:

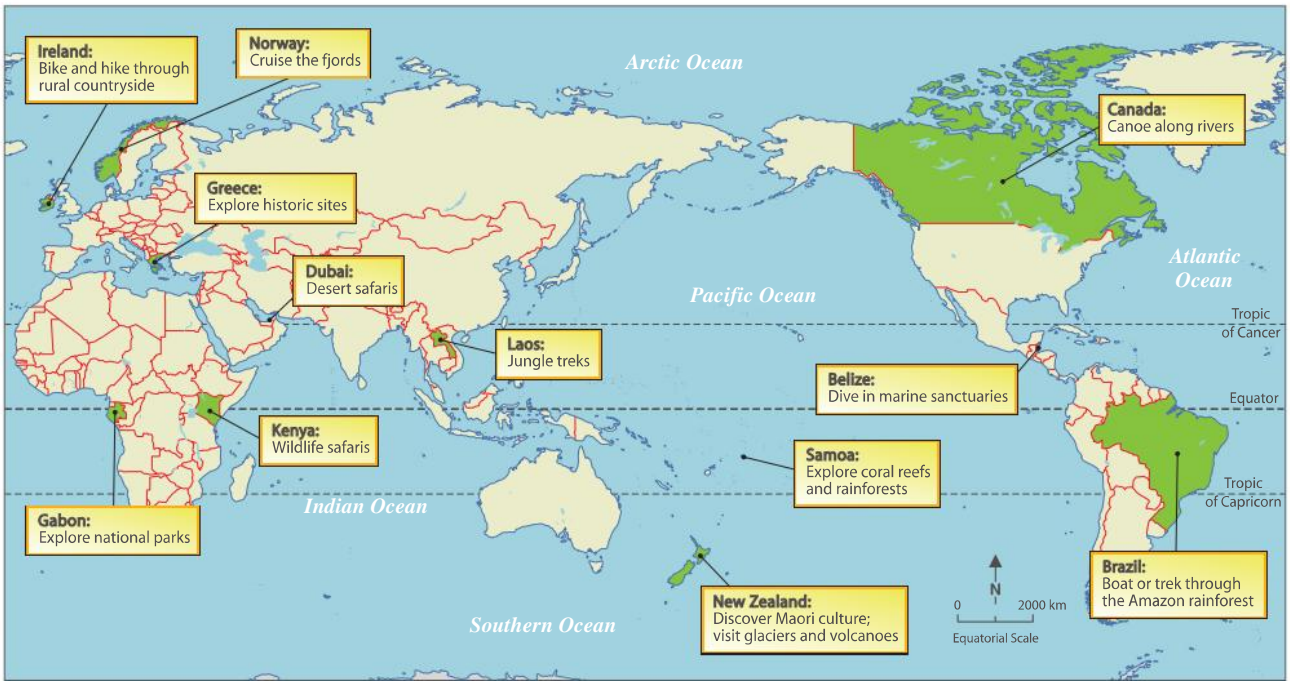
1. It is nature-based – a natural resource usually attracts people to the *region*.
2. It aims to be *sustainable* – both in terms of the impacts on the *environment* and on people. It focuses on conserving the *environment* and cultural heritage.
3. It involves interpretation and education – the latter in regard to both staff and guests.

TIES has also adopted the following principles which should be applied to ecotourism activities:

- minimise physical, social, behavioural and psychological impacts
- build *environmental* and cultural awareness and respect
- provide positive experiences for both visitors and hosts
- provide direct financial benefits for conservation
- generate financial benefits for both local people and private industry
- deliver memorable interpretative experiences to visitors that help raise sensitivity to host countries' political, *environmental*, and social climates
- design, construct and operate low-impact facilities
- recognise the rights and spiritual beliefs of the Indigenous people in your community and work in partnership with them to create empowerment.

This chapter will examine two contrasting ecotourism destinations and assess the extent to which these principles are actually followed in regard to conservation, communities and interpretation. Some of the world's popular ecotourism destinations are shown in Figure 5.1.

▼ **Figure 5.1** The *distribution* of some of the world's popular ecotourist destinations



Despite its early origins, ecotourism has particularly increased since the 1980s. In 2018–2019 ecotourism grew at an approximate rate of 10 to 12 per cent per year, generated US$800 billion in 2019 and directly employed 11 million people. A 2019 survey by Booking.com found that 73 per cent of global travellers intended to make more *sustainable* travel choices in the year ahead. More people are selecting ecotourism holidays because they do not want only to travel to beautiful destinations – they also want to encounter cultural diversity; they are mindful of their carbon footprint; and they hope to make a positive contribution to the societies they visit. Therefore, ecotourism may take a cultural focus, a wildlife focus or an adventure focus – or a combination of these as shown in Figures 5.2 (a) and 5.2 (b).

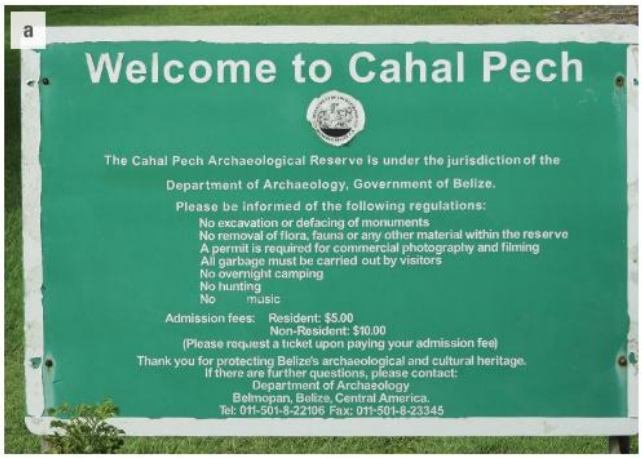
Who are the ecotourists?

The main source countries for ecotourism are *spatially associated* with the Western, relatively affluent nations such as the USA, Germany, Sweden, Canada and Australia. The increasing number of baby boomer retirees with relatively high disposable income and leisure time is a major source. Global *scale* research shows that the typical ecotourist is 13 per cent more likely to have tertiary qualifications than the population of tourists as a whole. Ecotourists are also willing to spend an average of 8.5 per cent more than general tourists, using *environmentally* responsible suppliers and purchasing ethically produced products. They have a preference for small groups and personalised service; 61 per cent travel as couples and 15 per cent with family compared to 59 per cent and 26 per cent respectively for general tourists. Ecotourists are usually experienced travellers with a love of the outdoors and are likely to be more accepting of restrictions on their behaviour such as in Figure 5.3 (a), and conditions that are different from home (as in Figure 5.3 (b)). Luxury accommodation, food and nightlife are less important to them than experiencing local conditions. They place a priority on gaining information, in contrast to mainstream tourists who tend to emphasise the need for relaxation.

▼ **Figure 5.2 (a)** Tourists exploring Ko Talabeng Cave, Krabi, Thailand. Almost 40 per cent of ecotourists include visits to caves or archaeological ruins as part of their activities

▼ **Figure 5.2 (b)** Local guide in the Waipoua Forest, in New Zealand's North Island, during the 'Footprints' ecotour, which explains the significance of the 2500–3000-year-old kauri trees to the Maori people

▼ **Figure 5.3 (a)** The popularity of some ecotourism locations has resulted in the need to provide clear instructions to respond to visitor behaviour



▼ **Figure 5.3 (b)** Ecotour accommodation in Ilimanac, western Greenland. This village aims to attract hikers and whale watchers by providing 15 solar powered cabins, accessible only by boat. The village had over 80 inhabitants in 2010, which today has fallen to 52. They hope this tourism project can help provide jobs and prevent further depopulation

Finally, while for mainstream tourists relationships within a tour group may be highly important, for the ecotourist more importance is placed on their interaction with the destination. Ecotourists will seek out destinations that encourage visitors to enjoy the experience of protecting the *environment* that has attracted them to the location (Figure 5.4).

Market research suggests that Australian ecotourists are likely to be young, with 25 per cent under 25 years and over 70 per cent under 45 years. Almost a third are likely to have a tertiary qualification. They are keen to try new experiences in quiet locations with preferred activities likely to be bushwalking and camping.

▲ **Figure 5.4** A coral cay located in the southernmost of the Great Barrier Reef, Lady Elliot Island Eco Resort is a ECO Certified tourism destination dedicated to preserving the natural *environment*

Dr Seabourne Rust

Palaeontologist and eco/educational tour guide, New Zealand

CAREER PROFILE

I studied Geography through high school, university entrance and during undergraduate years at university where I majored in Geology.

I am a trained geologist and an active researcher in palaeontology (the study of fossils and the history of life on earth). I convey scientific knowledge to the public by leading and communicating with tour groups in the Northland region of New Zealand.

I rely on my understanding of topography and landscape evolution in geology, as well as comparing present-day environmental changes with those having occurred in the past. The history of how humankind has interacted with the local environment is also relevant in extrapolating into the future. Practical skills in mapping and deciphering spatial/distributional data are helpful, as is the ability to communicate what this data tell us about the landscapes we see.

Geography has helped shape my understanding of the world around me. I have always been observant, and interested in the patterns and processes in nature and culture. Growing up in the changing weather, diverse landscapes and unique ecosystems of New Zealand inspired me to read books about the Earth and my studies naturally followed.

Geographers are well suited to work in the growing ecotourism industry, as they have an understanding of the interconnectedness of human impacts and environmental issues. We play an important role in planning for sustainability, identification of hazards, tourism establishment and development, and – as tour guides – educating visitors about our chosen area(s) and local attractions, within a global and ecological context.

ACTIVITIES

1. 'Ecotourism is ecologically *sustainable* tourism with a primary focus on experiencing natural areas that fosters *environmental* and cultural understanding, appreciation and conservation.' Compare this definition by Tourism Australia to the one from The International Ecotourism Society (TIES).
2. Briefly explain why not all nature-based tourism is the same as ecotourism. (Nature-based tourism is explored in Chapter 7).
3. Analyse the difference in characteristics of ecotourists as a whole compared to those from Australia.
4. Refer to Figures 5.1 and 5.2. Which of the destinations named do you think would be most popular? Justify your answer.
5. a. Have you and/or your family members undertaken an activity or holiday which might be considered ecotourism (remember day trips can be included here)? If so, where was it and what did it involve?
   b. Collate the class results. Write a paragraph summarising the nature and *scale* of ecotourism for your class.

CASE STUDY

Ecotourism in Malaysian Borneo

Borneo is a large island located in the *region* of South-East Asia. As shown in Figure 5.5, the island is divided among three countries: in the south, Indonesia makes up 73 per cent of the island as Kalimantan, with Malaysia and Brunei in the north having 26 per cent and 1 per cent respectively. The Malaysian part of Borneo is divided into the two states of Sarawak in the south and Sabah in the north. The majority of tourists to Borneo visit these latter *regions* as they are easily accessible from the Malaysian capital, Kuala Lumpur.

Tourism is an important sector in the Malaysian economy. The country ranks in the top 15 tourist destinations globally, with 26.1 million visitors in 2019. This compared with 25.8 million in the previous year (although numbers more than halved in 2020).

The majority of visitors are *spatially associated* with neighbouring countries – 39 per cent of these visitors were from Singapore, followed by 14 per cent from Indonesia and 12 per cent from China. Australian visitors made up under 2 per cent. Tourism is the third-largest foreign exchange earner for Malaysia after manufactured goods and commodities, and direct and indirect employment in the tourism sector provides over 3.5 million jobs or 23.5 per cent of total employment as well as contributing 5.9 per cent of Gross Domestic Product (GDP). While most tourists visit peninsular Malaysia, the states of Sarawak and Sabah in Borneo are gaining in popularity through ecotourism. Prior to COVID-19, ecotourism was the fastest-growing form of tourism in Malaysia.

▼ **Figure 5.5** A map of Malaysia including the location of Borneo

Natural and human characteristics attracting tourists to Borneo

Borneo is a significant destination for ecotourism largely due to its unique natural *environment*. It contains extensive areas of one of the oldest rainforests in the world (estimated to be 140 million years old) and a huge number of plant and animal species – 15,000 flowering plants, 3000 trees, 221 land mammals, 440 freshwater fish and 420 bird species. The most well-known animal of Borneo is the endangered species the orang-utan, pictured in Figure 5.6, which is the focus for many tourist itineraries. A number of national parks shown in Figure 5.9 provide visitors with a chance of seeing this animal in the wild. In addition, there are rehabilitation centres such as Sepilok which care for injured orang-utans or those displaced by human activities involving rainforest clearing.

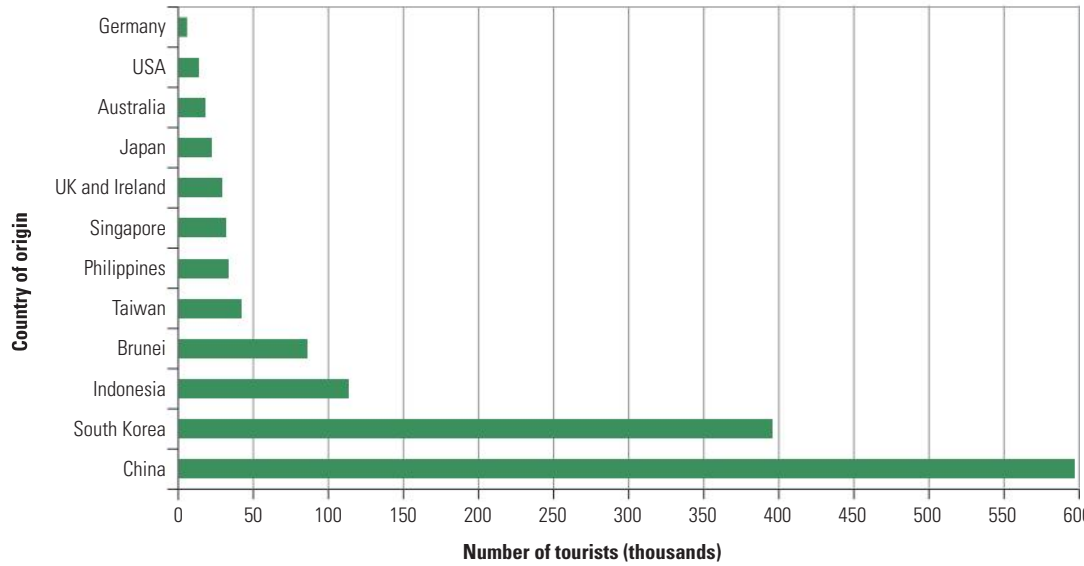
Figure 5.6 The orang-utan – an endangered species which is the focus of many ecotours in Borneo

Other major attractions include:

- Turtle Island north of Sandakan, a breeding ground for endangered green and hawksbill turtles (see Figure 5.7 (a))
- Poring Hot Springs within the Kinabalu National Park where visitors can soak in steaming hot pools of water (see Figure 5.7 (b))
- Bako National Park containing isolated beaches, jungles, waterfalls, rock formations and walking trails
- Mount Kinabalu – undertaking this strenuous climb up South-East Asia's third-highest mountain rewards visitors with a breath-taking view from the summit (see Figure 5.13)
- an opportunity for interaction with some of the local tribal people such as the Iban, via home stays in a traditional longhouse.

Figure 5.7 Two other main attractions of Borneo – **(a)** Turtle Island and **(b)** the Poring Hot Springs

Figure 5.8 Major sources of international tourists to Sabah, 2019



The number of tourists visiting Sabah in 2019 was 4.1 million, with 4.6 million visiting Sarawak. Consistent with the figures for Malaysia as a whole, the majority of these were domestic tourists. However, as shown in Figure 5.8, international tourists to Sabah came from many different countries.

Based on an itinerary from a UK company, Responsible Travel, a typical tour of Sabah and Sarawak could include the following (the sites referred to are indicated in Figure 5.9):

Day 1: Travel from home city to Kota Kinabalu via Kuala Lumpur.

Day 2: Travel to Sandakan; afternoon free.

Days 3 and 4: Visit Selingan Island. River cruise to Pitas Lake to view wildlife such as proboscis monkeys, pygmy elephants and bird life. Opportunity to take part in the tree-planting project followed by lunch with the local Abai villagers.

Day 5: Visit the Central Market in Sandakan. Transfer to Sepilok. View the afternoon feeding of orang-utans at the rehabilitation centre. Canopy walk through the forest.

Day 6: Visit the Rainforest Discovery Centre to learn about Borneo's flora and fauna. Visit the Conservation Centre where you can study sun bears, the world's smallest bears.

Day 7: Fly to Kuching in the Sarawak *region* via Kota Kinabalu. Undertake a day trip to Bako National Park to see a wide range of tropical vegetation and wildlife such as long-tailed macaques, monitor lizards, many birds and the proboscis monkeys.

Day 8: Travel inland to Batang Ai passing pepper gardens, cocoa and rubber plantations. Overnight accommodation is in a jungle lodge close to a traditional longhouse. Spend time with the locals and learn about their culture.

▲ **Figure 5.9** Typical tour route and major sites visited in Sabah and Sarawak

Day 9: Explore Batang Ai. A full day is spent exploring the surrounds and spending time with the local tribal people. Learn how to fish on a river cruise.

Days 10 and 11: Return to Kuching and transfer to your beach hotel to spend time relaxing on the beach or enjoying optional excursions.

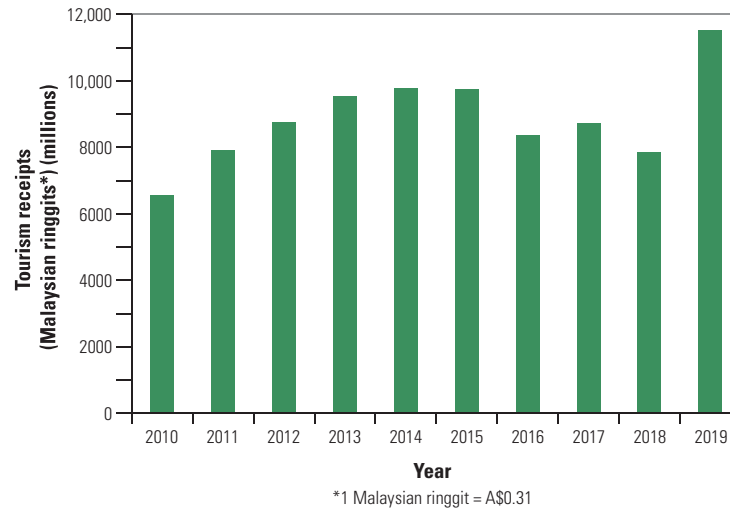
Day 12: Fly to Kota Kinabalu and onwards to your home city.

What impacts has ecotourism had in Borneo?

Economic impacts

The data in Figure 5.10 shows that ecotourism has provided a significant and valuable source of revenue for Sabah and Sarawak. Sabah recorded a total of over A$2.73 billion in tourism receipts in 2019 while the figure for Sarawak, with its higher visitor numbers, was approximately A$3.79 billion. However, one issue is that not all of this income remains in Borneo due to the *process* of leakage of tourism receipts internationally as well as within Malaysia. The destination of tourism receipts is influenced by the ownership of the tour operating company, hotels and other facilities. The challenge is to encourage tourists to stay in small-*scale*, locally-owned establishments, so that more of the economic benefits of ecotourism remain in Borneo. Although there are 607 registered homestay operators in Sarawak, less than one-third of tourists stay in these, indicating that most tourists prefer to stay in one of the 226 larger-*scale* hotel establishments. Foreign tourists spend an average of A$800 per person while visiting Borneo compared with domestic tourists

▼ **Figure 5.10** Tourism receipts for Sarawak, 2010–2019



*1 Malaysian ringgit = A$0.31

▲ **Figure 5.11** Staged authenticity – **(a)** an Iban warrior demonstrating the use of a traditional poison-dart blowpipe at the Sarawak Cultural Village in Kuching and **(b)** interacting with tourists

who each spend approximately A$690. Increasing the number of foreign tourists is therefore a key focus for future tourism developments; but the *scale* and ownership of such developments has a large influence on their economic contribution to the local community. Ecotourism projects in villages can create local jobs – such as tour guiding or making and selling crafts – allowing the traditional way of life to be supplemented and reducing the need for young people to leave home to look for work in the cities. Ecotourism may also bring a better standard of living through improved facilities, such as clinics, drinkable water sources, new roads and electricity. For example, income from tourists has paid for septic tanks for the Iban community living in Gunnung Mulu National Park. Tourism numbers, and therefore income, were severely impacted by COVID-19 with fewer than half the number of international arrivals in 2020.

Social and cultural impacts

As ecotourists aim to have greater interaction with local people than mainstream tourists, homestays and ecolodges allow visitors to experience local lifestyles and customs first-hand. Borneo's Indigenous people, collectively known as Dayak, comprise over 200 tribes, each with their distinct customs and beliefs. Interest in their way of life has helped to preserve the *region's* heritage. Many of these tribes continue to face the issue of their traditional lifestyles being threatened by the *processes* of deforestation and urbanisation. Ecotourism can meet the challenge of revitalising dying arts and crafts, allowing traditional festivals and ceremonies to be sustained. Opportunities to stay in longhouses with communities such as the Iban of Sarawak and the Rungus of Sabah not only provide the opportunity for the development of intercultural understanding but can also have a positive and affirming effect on the people involved. In particular, it can help ensure that the younger generation views their traditions as worthy of preservation.

On the negative side, however, traditional cultural symbols may lose their intrinsic value and simply become commodities to sell to visitors. Traditional ceremonies may be adapted to suit visitors' time schedules via the *process* of staged authenticity as shown in Figure 5.11. However, such impacts are less likely to occur with ecotourism, as the key aim for such tourists is for a genuine local-*scale* experience.

▼ **Figure 5.12** Visitor arrivals to national parks in Sarawak 2006–2019

Year	Domestic visitors	Foreign visitors	Total
2006	108,522	36,046	144,368
2007	114,514	35,161	149,675
2008	255,188	92,647	347,835
2009	279,924	106,606	383,530
2010	302,579	111,855	414,434
2011	365,039	122,550	487,589
2012	311,645	119,860	431,505
2013	301,493	107,919	409,412
2014	301,536	107,877	409,413
2015	399,527	106,312	505,839
2016	463,845	115,791	579,636
2017	475,496	124,717	600,213
2018	398,635	142,996	541,631
2019	338,826	139,559	478,385

Souce: Ministry of Tourism, Sarawak

Note: Whilst visitor arrival to national parks decreased 2017 onwards, more tourists, especially foreigners, visited cultural centres.

Environmental impacts

As the natural *environment* is a key drawcard for ecotourists, a major benefit of ecotourism is its contribution to preserving the natural *environment*. Ecotourism helps create a better appreciation of the world's natural resources, and the landscapes and wildlife in Borneo are no exception. Although the natural *environment* of Borneo is undergoing considerable *change*, particularly due to the *process* of deforestation for palm oil plantations, the increasing importance of tourism as a source of income has helped to protect some *regions*. There are a large number of national parks in Borneo (30 alone in Sarawak), and associated tourism to these provides alternative sources of employment and helps to limit the need to earn income through forest clearing.

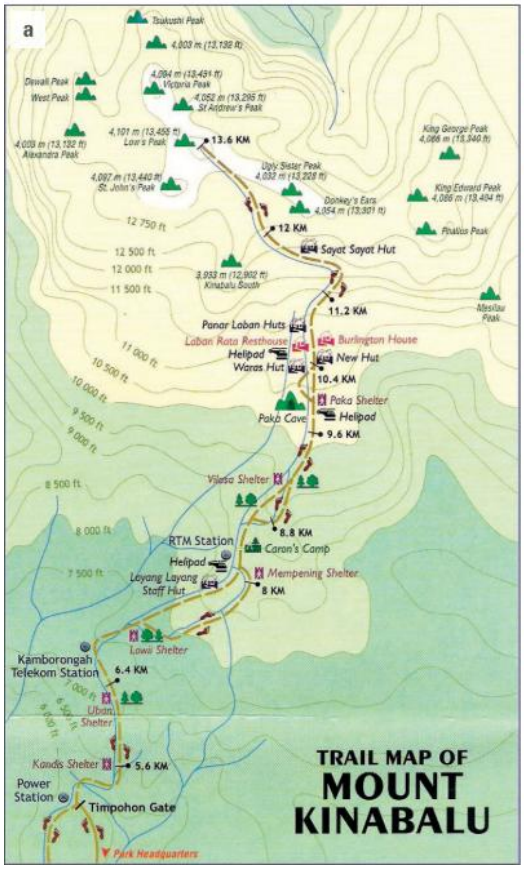
On the other hand, the issue of increasing visitor numbers to national parks, as shown in Figure 5.12, can place pressure on the natural *environment*, creating a challenge in terms of management. The very

environment tourists come to see may be negatively affected if its carrying capacity is exceeded. There is an *interconnection* and *spatial association* between tourist numbers and *environmental* impacts. Pollution, trampling vegetation and spreading diseases to plants and animals are just some potential impacts. Wild animals such as orang-utans can be stressed by tourists coming in close proximity to them; visitors to Turtle Island in Sabah have sometimes outnumbered the hawksbill turtles as they come in to lay their eggs – hardly conducive to successful reproduction of this critically endangered species. Many of the corals on the island of Pulau Payar were damaged when the travel operators allowed between 600 and 700 tourists on the island at one time before the state government intervened. Fish-feeding activities conducted in most of the marine parks may also disturb normal feeding patterns and cause stress as the food may not be part of the normal diet. Uneaten fish food can also pollute marine ecosystems by adding too many nutrients. The inefficient sewerage treatment systems on many of the islands have also contributed to *environmental* degradation of surrounding reefs.

There are also impacts on the built *environment* as facilities are built for ecotourists. While most villages run basic homestay operations, increasingly companies marketing 'ecolodges' are providing additional facilities such as swimming pools and day spas. Income earned from tourism has led to modernisation: traditional housing made from rattan and palm leaves is being replaced by houses made of wood with zinc roofs. This obviously has further impacts in terms of reducing the *sustainability* of the resources used.

ACTIVITIES

1. Refer to the tour itinerary provided on page 91.
   a. Identify the elements of this tour that fit the definition of ecotourism in question 1.
   b. What aspects of the tour could possibly not be considered ecotourism? Justify your answer.
2. Refer to Figure 5.8. To what extent is there a *spatial association* between visitor numbers and the proximity of countries of origin to Sabah?
3. Draw up a table to show the positive and negative impacts of ecotourism on both people and the *environment*.
4. a. Use the statistics provided in Figure 5.12 to produce a line graph showing the *changing* number of domestic and foreign visitors to Sarawak's national parks.
   b. Write a paragraph analysing the information shown.
   c. Imagine you are the government minister responsible for overseeing the management of national parks in Sarawak. Suggest two implications that these statistics have in terms of your future management.
   d. Go to the website for the Sarawak Tourism Board. Using the information provided in the most recent annual report, what factors are suggested to account for these *changing* statistics?
5. Refer to Figure 5.13 (a), the topographic map of Mount Kinabalu.
   a. Draw a cross-section north–south through the summit.
   b. With reference to the map and your cross-section, suggest why this route was selected.
   c. Use the internet to find the following information on the Mount Kinabalu trail:
      i. the expected time taken for the climb
      ii. rules which you must abide by if you are climbing this mountain
      iii. precautionary advice given to climbers to ensure their safety
6. Considering the impacts of ecotourism in Borneo, evaluate the extent to which ecotourism in that *region* is likely to be ethical.



◀ **Figure 5.13 (a)** Topographic map of Mount Kinabalu showing the access trail. **(b)** Example of a pitcher plant in rainforest in the lower reaches of Mount Kinabalu. **(c)** Ascent to the summit of Mount Kinabalu is assisted by ropes

Management strategies in response to ecotourism in Borneo

Global *scale* responses

The United Nations Educational, Scientific and Cultural Organization (UNESCO) undertook a report on the state of this World Heritage *region* in 2016. The report found that the site was in 'good condition' and that tourism activities do not threaten the natural *environment*. It noted that all species, with the exception of some species of deer, were stable in number and at a *sustainable* level. Further study is being conducted in relation to the deer. The World Heritage Committee noted the strengthening of protection against poaching via expansion of year-round and seasonal patrols.

The International Ecotourism Society (TIES) (Figure 5.14) is a not-for-profit organisation for travel companies and professionals in the industry, which currently has members from 190 countries. It aims to promote responsible tourism practices that benefit conservation and communities. It provides clear guidelines for accreditation of ecotourism activities so that genuinely responsible companies, products or services can be identified.

National *scale* responses

The Malaysian government established the Tourist Development Corporation of Malaysia in 1972, renaming it the Malaysia Tourism Promotion Board in 1992. Today, under the Malaysia Tourism Transformation Plan (MTTP), it aims to promote Malaysia as an outstanding tourist destination by showcasing its unique wonders, attractions and cultures. It had aimed to increase the number of foreign tourists to the country to 30 million in 2020 and increase tourism revenue to over A$32 billion. The slogan 'Malaysia, Truly Asia' campaign was launched in 1999 and focused on diversity, while 2014 was proclaimed 'Visit Malaysia' year. Another 'Visit Malaysia' year was planned for 2020, however COVID-19 meant this was cancelled. Signs such as that shown in Figure 5.15 greet visitors on arrival to Malaysia.

There are a few agencies and ministries involved in the development of ecotourism in Malaysia but the major one is the Ministry of Tourism and Culture Malaysia (MOTC). Recognising the potential of the ecotourism and adventure tourism market, it launched the first National Ecotourism Plan in 1996, revising this in 2005. These plans were intended to provide a general framework to assist the government in developing the country's ecotourism potential. This led to many new destinations being promoted as ecotourism destinations such as the Langkawi Island, Taman Negara Pahang, Kinabalu Park and Gua Niah in Sarawak. Many of these have been gazetted as terrestrial- or marine-protected areas. In the revised plan, more emphasis was put on the preservation of the natural attractions as well as preservation of historical sites, buildings and artefacts. The plans involved various levels of government, the private sector and the local communities.

Malaysia has over 500 land and marine protected areas nationwide – including 271 in the peninsula, 173 in Sabah, 66 in Sarawak – totalling 4.6 million hectares, or about 14 per cent of the country. Due to the rich diversity of its tropical plant species, Kinabalu Park was declared Malaysia's first UNESCO World Heritage site in 2000.

At a legislative level, the Malaysian Wildlife Law regulates all interactions with wildlife, controlling hunting and banning the commercialisation of wildlife. This law gives rangers the power to arrest those who break it. The Aboriginal Peoples Act is another piece of legislation that has a positive impact in regard to ecotourism. This law helps ensure that the Indigenous people of the country will not be displaced from their cultural lands by other activities, including tourism developments.

Local *scale* responses

National parks in Malaysia are managed by the relevant state government authorities such as the Sabah Parks Authority and the Sabah Wildlife Department. The former aims to leave these *regions* in their natural condition without significant human *change*. Rules are in place to protect wildlife as shown in Figure 5.16 for example. Others include prohibiting the collection of plants or animals, restricting campfires and other damaging activities, and allowing only low-impact camping and excursions. However, during peak visiting periods, marine parks in particular face staff shortages, making it difficult to enforce these laws.

Local *scale* management strategies by some non-government organisations

A number of ecotour companies include volunteering options in their itineraries whereby tourists can take part in activities that help local communities and/or wildlife conservation. For example, people can volunteer at an orang-utan rehabilitation centre or help restore the forest *environment* with the organisation The Great Projects. Alternatively, a portion of a tour payment may go directly towards financing conservation projects. The Intrepid Foundation works jointly with a local community-run organisation, HUTAN, in eastern Sabah to protect orang-utans via improved land management.

▲ **Figure 5.14** Membership of The International Ecotourism Society (TIES) can help distinguish ecotour operations and activities

▲ **Figure 5.15** Tourism Malaysia welcome sign

▲ **Figure 5.16** Management sign at Bako National Park, Sarawak. The 'naughty monkeys' referred to are grey macaques

Borneo Eco Tours, a Malaysian ecotourism company, constructed Sukau Rainforest Lodge in Kinabatangan, Sabah, in 1995. Considered to be an example of best practice in ecotourism, the lodge is built of Borneo hardwood and is self-sufficient – rainwater is collected as a source of water and solar energy is used to generate electricity for hot water. The majority of staff working at the lodge are from the local Orang Sungai community. In addition, the company donates the equivalent of A$1.30 for every international guest staying overnight. This is donated to projects contributing to *environmental* and social wellbeing of the *region*.

For the individual ecotourist, the tour company Intrepid Travel provides suggestions for minimising personal impacts on the *environment* and broader community.

1. Be considerate of Borneo's customs, traditions, religion and culture.
2. Dress modestly and respectfully. Shoulders to knees should be covered, especially when entering *places* of worship.
3. For *environmental* reasons, try to avoid buying bottled water. Instead, fill a reusable water bottle or canteen with filtered water.
4. Always dispose of litter thoughtfully, including cigarette butts.
5. When bargaining at markets, stay calm, be reasonable and keep a smile on your face. It's meant to be fun!
6. Learn some local language and don't be afraid to use it – simple greetings will help break the ice.
7. Shop for locally made products. Supporting local artisans helps keep traditional crafts alive.
8. Refrain from supporting businesses that exploit or abuse endangered animals.
9. Please ask and receive permission before taking photos of people, including children.
10. When on community visits or homestays, refrain from giving gifts or money to locals.

Application of geospatial technologies for ecotourism

Geographic Information Systems (GIS) can be particularly useful in providing information to tourists such as details on particular sites, including visualisation of destinations, routes to attractions, details of accommodation and special events, as well as cartographic data. For the organisations responsible for the management of ecotourism sites, the use of GIS can provide an inventory of recreational capacities, data on visitor numbers and impacts, and by examining *spatial associations* allow analysis and prediction of possible conflicts between recreational use and its effects on the *environment*. This is particularly important in regard to tourism in protected area sites that are often the focus of ecotourism. The ability of GIS to store and use multiple layers of data enables the *interconnection* of information about the desirability of ecotourism in a specific area taking into account natural characteristics such as forest cover and wildlife, accessibility (for example, *distance* from road infrastructure) and the density of attractions and other infrastructure in the area. For example, one geographic study to demonstrate the value of GIS for *sustainable* forms of tourism in protected areas, determined locations for paths in a protected area. Its mapping layers showed the possibilities for visitors and the carrying capacity of the area so that *movement* of tourists had minimal impact. Being relatively low cost and easy to use, local managers in these remote areas can use the GIS programs to assist their management policies and practices. This can be done by uploading, and reacting to, data such as observations about amenities, wildlife, *environmental* disturbance and natural hazards into the GIS layers from mobile electronic smart-devices or fixed data-loggers in the field and at park headquarters.

The International Ecotourism Society has used geospatial technology to assess the biodiversity footprint of nature-based lodges at a national and local *scale* in developing countries. It combined survey results from lodges with information from guidebooks to develop a series of maps in GIS in order to assist with the monitoring and evaluation of the impacts of nature-based lodges. It plans to use this data to establish better criteria for future funding of small to medium sized ecotourism projects.

Ecotourists themselves can also assist with the use of geospatial technologies for management purposes. For example, a citizen science approach was used to research wildlife tourism interactions with endangered Borneo pygmy elephants in Sabah, Malaysia. Guests and guides were encouraged to share geotagged photographs of the animals' locations which were plotted against vegetation in order to make recommendations for a conservation zone for the elephants.

ACTIVITIES

1. Compare the responses to ecotourism at global, national and local *scales*.
2. Of these responses from question 1, which do you consider to be the most effective? Justify your response by referring to economic, social or cultural criteria and/or evaluating the effectiveness of specific policies over time.
3. Use the internet to find additional information on either the global *scale* 10YFP Sustainable Tourism Programme or Malaysia's national *scale* National Ecotourism Plan. Evaluate the likely effectiveness of this response using similar criteria as in question 2.
4. Use the internet or visit your local travel agent to find a brochure on a Borneo ecotour (one that is different from the companies referred to in this chapter).
   a. What guidelines are provided by the tour company in terms of responsible ecotourist behaviour?
   b. Do you consider that these guidelines are sufficient? Justify your response.
5. In 2017, the Malaysian government introduced a tourism tax of RM10 (approximately A$3.30) per room per night for foreign visitors. What positive and negative impacts might this response have at both a national and local *scale*?

CASE STUDY Ecotourism in Kamchatka, Russia

The Kamchatka Peninsula is located in the far-eastern *region* of Russia. Kamchatka (Figure 5.17) is also located on the boundary of the Pacific tectonic Plate and the Okhotsk tectonic Plate where the former is being pushed under (subducted). This *process* has resulted in the creation of a particularly active seismic zone. Earthquakes are relatively common and Kamchatka contains over 1000 volcanoes, 29 of which are currently active. It is a remote part of Russia with a population of roughly 313,000, more than half of whom live in the capital city of Petropavlovsk-Kamchatsky. There are few roads elsewhere. It experiences a relatively harsh climate (it is snow-covered from October to May) and it is a considerable *distance* from the more densely populated western part of Russia. These factors have contributed to the preservation of the natural *environment* in this *region*. Kamchatka was a closed military zone – it was not accessible to the general Russian population and was closed to foreigners until 1990. Known colloquially as 'the land of fire and ice' due to its combination of volcanoes and snow, Kamchatka is an increasingly popular ecotourism destination for those seeking a different experience.

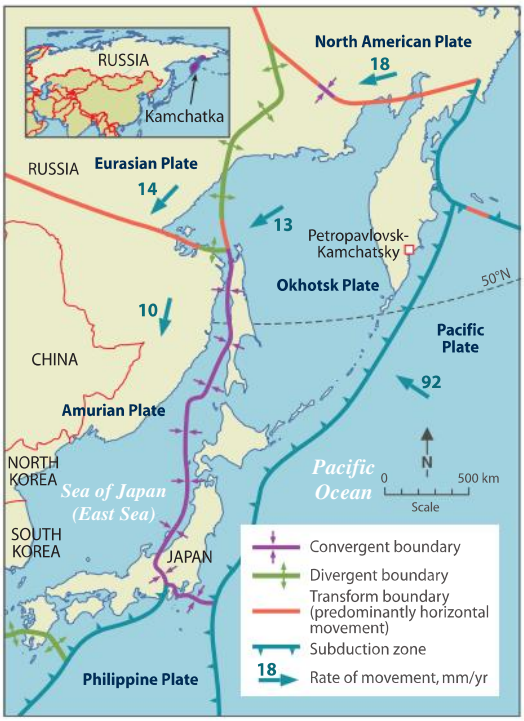


Figure 5.17 The location of Kamchatka

Tourism characteristics in Kamchatka

Tourists who visit Kamchatka are primarily attracted by the opportunity to go to wilderness areas. Kamchatka has an abundance of wildlife including brown bears (Figure 5.18), the tundra wolf and the Arctic fox. The *region* contains the world's greatest diversity of salmon species, and Kuril Lake in the south of the peninsula is recognised as the biggest spawning ground for sockeye salmon in the Eurasian *region*. Ecotourists are thus drawn to Kamchatka for the opportunity to see this fauna in its natural habitat. There are also extensive opportunities to engage in many recreational activities such as hiking, rafting, angling and diving in summer, and snowmobiling, dog sledding and skiing in winter. Bathing in the volcanic hot springs is a year-round favourite. Most tourists visit in the summer months when the temperatures are typically 15°C to 20°C but there is a growing trend to visit and take part in winter sports. In addition, members of the Indigenous populations, such as the Even and Koryak, conduct forest walks and open native festivals to visitors.

Figure 5.18 Typical scenery of the southern Kamchatka Peninsula in summer: brown bear and volcano

Figure 5.19 Tourists cross a glacier as they begin their ascent of the Mutnovsky volcano

Below is a typical tourist itinerary, based on one from Kamchatka travel company, The Lost World:

Day 1: Arrive Petropavlovsk; attend a tour and safety briefing at your hotel with your group members; visit the local fish market.

Day 2: Travel by helicopter via Ksudach volcano to Kuril Lake. Basic lodge accommodation.

Days 3 and 4: Activities at Kuril Lake: a day's hiking to view bears catching salmon at the lake's edge and eating berries in the meadows; take a small boat trip across the lake to view bird-nesting sites such as those of Steller's sea eagle.

Day 5: Travel by helicopter to tented camp on the Mutnovsky volcano plateau. Stop en route at hot springs for a swim.

Day 6: Day trek up Mutnovsky volcano (Figure 5.19). Overnight in tents.

Day 7: Day trek up Gorely volcano. Transport by six-wheel drive vehicle back to city hotel.

Day 8: Boat cruise on Avacha Bay viewing marine life; late afternoon visit to the Geology Museum.

Day 9: Day in Petropavlovsk, or optional helicopter day trip to Valley of the Geysers and the caldera of the Uzon volcano (subject to weather suitability).

Day 10: Tour ends at Petropavlovsk.

As shown in Figure 5.20, approximately 85 per cent of the people entering the *region* are domestic tourists from within Russia, many of whom combine a holiday with business. The majority of international tourists are from a wide range of European countries but primarily from Germany, France and the United Kingdom. Outside Europe, visitors from the USA

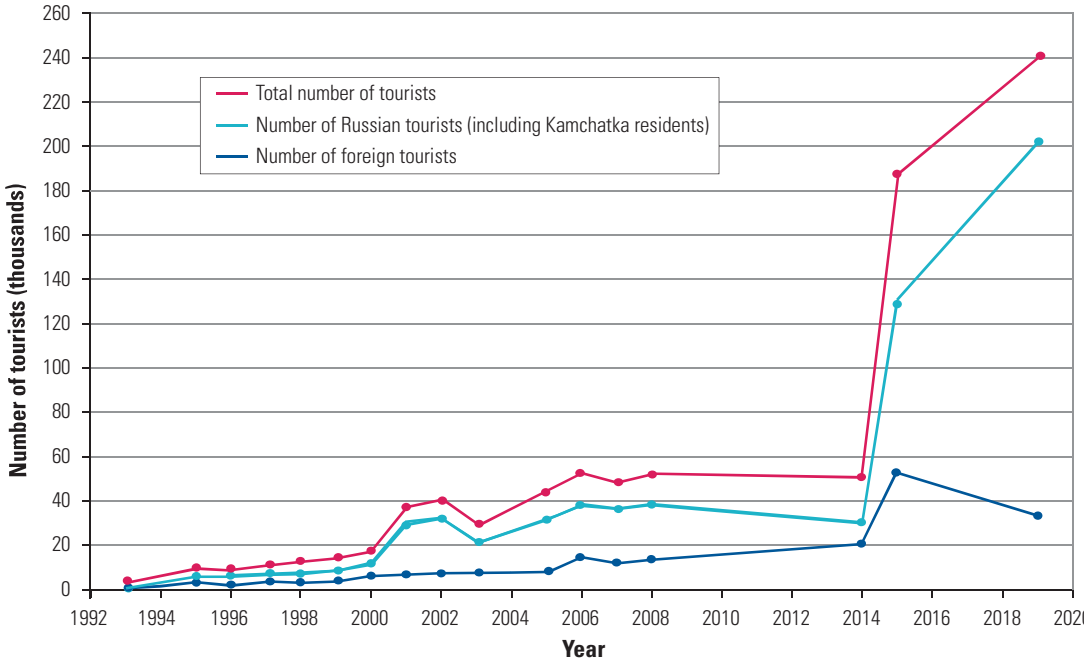


Figure 5.20 *Changing* tourist numbers to Kamchatka

dominate with a small number from Canada, Japan and Australia. It is estimated that all visitors go to at least one of Kamchatka's wilderness areas, with over one-third travelling either by tour bus, six-wheel drive or helicopter. Such methods are necessary due to difficulties with accessibility to major sites. Only about one-quarter of those visiting have been to this *region* previously, and visitors surveyed have nominated their favourite recreational activities as fishing, photography and hiking. Independent travel is difficult in this *environment* so most tourism takes place in small groups ranging in size from 12 to 16 people with a tour guide.

▲ **Figure 5.21** Topographic map of a section of the Southern Kamchatka Wildlife Reserve

▶ ACTIVITIES

1. Use the internet (or your knowledge from Unit 1: Hazards and disasters) to investigate the causes of tectonic plate *movement* and how this leads to the formation of volcanoes such as those in Kamchatka.
2. a. Suggest likely hazards posed by the natural *environment* for tourists visiting this *region*.
   b. Use the internet to determine when the most recent example/s of these hazards occurred in the *region*.
   c. Debate as a class: Should tourists be allowed to visit hazard zones?
3. Refer to the information provided on the typical activities undertaken by tourists in Kamchatka. Could any of these not be considered ecotourism? Justify your response.
4. Describe and account for the trends shown in Figure 5.20.
5. Refer to the topographic map Figure 5.21.
   a. Identify two volcanoes in this *region* and give their heights.
   b. Draw a cross-section from west to east through the summit of the southernmost of these volcanoes.
   c. Salmon *move* between the river and the lake to breed. Use the *scale* provided to calculate the *distance* they travel for this journey.

Impacts of ecotourism in Kamchatka

The number of tourists to Kamchatka is currently limited, not only due to the short summer season and problems with accessibility, but also because of insufficient hotel capacity in the major city. So far, hotel development has been at a relatively small *scale* and localised – due to the focus of tourism on the natural *environment* and the protection of these assets. The facilities provided for tourists when visiting Kamchatka's national parks have been restricted, largely due to lack of funding. The educational component of ecotourism has mainly been provided through tour guides rather than interpretative signs, so the quality of this has varied widely. While tourist numbers to Kamchatka have increased, there has not been a corresponding increase in other businesses such as souvenir shops and rental services; therefore, the economic benefit has been less than that experienced in other remote harsh *environments*. Most of the income is made from the selling of fishing and hunting licences, which is not strictly ecotourism (although most angling is on a catch-and-release basis). The high cost of transport in Kamchatka is a barrier to extending markets. For example, the Valley of the Geysers (which contains features such as geysers, mud-pots and fumaroles as well as brown bears) is accessible only by helicopter – in 2020, a day trip cost approximately A$1500 per person (helicopters cost approximately A$2250 per flying hour to operate).

The small-*scale* tourism industry and its seasonal nature have meant fewer negative impacts on the *environment*. However, problems still remain. These have included:

- trampling vegetation along hiking trails and campsites. A 2011 study in the Valley of the Geysers found that 42 per cent of trails were heavily or severely affected (expansion of boardwalks along sensitive areas has since alleviated some of this pressure)
- clearing of sites for helipads
- high energy use – helicopters are a very energy-intensive form of transport
- lodges constructed in national parks generally depend on diesel generators, the fuel for which must also be flown in
- possible problems with waste disposal – simple pit toilets are common at campsites, but lodges may release partially treated sewage into waterways causing pollution and possible spread of disease to salmon.

Management strategies in response to ecotourism in Kamchatka

Global *scale* response

UNESCO inscribed the Volcanoes of Kamchatka as a World Heritage site in 1996, with an extension made to this in 2001. There are six sites included in this group which total some 3.38 million hectares in area. The *region* was inscribed due to the diversity of volcanic features and the high biodiversity. This inscription affords the peninsula long-term protection of this unique wilderness.

The Sustainable Development Goals (SDGs), are a collection of 17 global goals set by the United Nations operating from 2016 to 2030. They cover a broad range of social and economic development issues aiming to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. Each goal has a number of targets of which there are 169 in total. Tourism is referred to specifically in three of these goals:

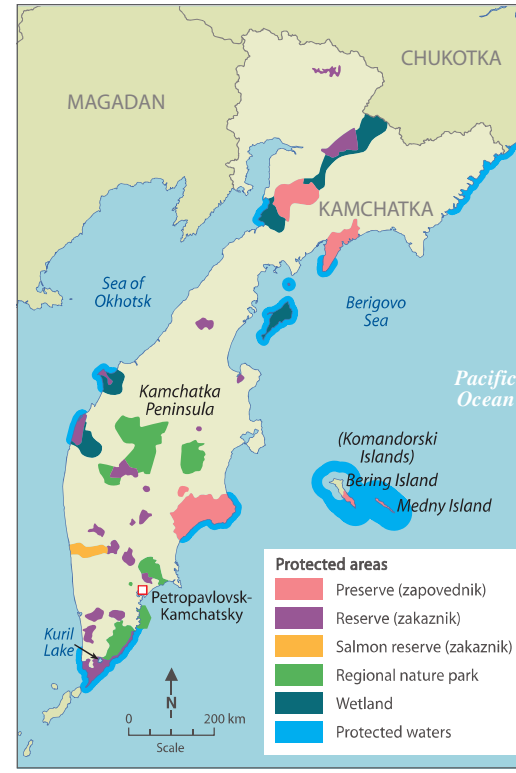
- Goal 8, 'Decent Work and Economic Growth', target 8.9: By 2030, devise and implement policies to promote *sustainable* tourism that creates jobs and promotes local culture and products
- Goal 12, 'Responsible Consumption and Production', target 12.b: Develop and implement tools to monitor *sustainable* development impacts for *sustainable* tourism that creates jobs and promotes local culture and products
- Goal 14, 'Life Below Water', target 14.7: By 2030, increase the economic benefits to Small Island Developing States and least developed countries from the *sustainable* use of marine resources, including through *sustainable* management of fisheries, aquaculture and tourism.

With this emphasis on *sustainability*, these goals highlight the key role that ecotourism can play in helping attain improvements in the quality of life across *environmental*, economic, social and cultural components. As a step towards these goals, the United Nations declared 2017 as the International Year of Sustainable Tourism Development. During that year the United Nations World Tourism Organization (UNWTO) worked with stakeholders to foster *change* in policies, practices and consumer behaviour. This was in addition to the 2015 launch by the United Nations Environment Programme (UNEP) of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP) which includes the 10YFP Sustainable Tourism Programme.

National *scale* responses

There are three main categories of protected areas in Russia. The most common are the nature reserves (*zapovedniks*) such as the Kronotsky Nature Reserve in the north of the peninsula, one of five reserves. The aim is to keep these as wild as possible and free of economic and human activity except for park rangers and scientists. Limited access is allowed in their buffer zones. Secondly there are protected areas (*zakazniks*) which allow some economic activities such as grazing and hunting. National parks form the third tier. These were designed to encourage visitors from the general public and were only established in 1981.

The protected areas of Kamchatka cover 27 per cent of the *region* and are shown in Figure 5.22. Effective management of these protected areas is hindered by federal budgetary constraints and staffing issues so poaching of wildlife is problematic. In Kamchatka, total staffing numbers for the national parks have increased from 36 in 2014 to 145 in 2017 but have since remained stagnant, despite increased visitor numbers. Therefore, these staffing numbers remain insufficient for the extent of these protected areas and they have been difficult to fill because of poor salary and conditions. There are camping grounds and hiking trails near the main roads, and an extensive network of forest roads that are accessible by all-terrain vehicles – but not all activity can be monitored. Plans for the construction of the Kronotskaya Hydropower Station just outside the northern part of the reserve is also a potential *environmental* threat.



▲ **Figure 5.22** The protected areas of Kamchatka

Local *scale* responses

The Valley of the Geysers site provides an example of highly regulated, local-*scale* management. The number of visitors is limited to 6000 per year – the maximum capacity anticipated. Tourists pay fees to visit for a limited period of time and they are only allowed to visit if accompanied by a guide. All litter is flown out by helicopter and simple pit toilets are all that are provided for visitor use. Boardwalks have been constructed to avoid disturbance of the fragile vegetation and ecosystem. Although only one group is supposed to visit the site at a time, there have been instances of two helicopters at the site at once, which meant one had to land away from the helipad.

At Kuril Lake, a major salmon-breeding site and hence a focus for *distribution* of brown bears in the spawning season, visitor numbers are carefully controlled and limited to 4000 per year. Access for tourists is possible only by helicopter (Figure 5.23); furthermore, the only lodge in that location accommodates a maximum of 16tourists plusa cook and a guide. A small hut nearby houses two rangers who live permanently at the site. The lodge is surrounded by an electric fence to ensure visitors are safe from the bears (a Japanese tourist was killed prior to this construction). Visitors may only venture out of the compound with at least one ranger. During group hikes, tourist safety is of prime concern – one ranger leads, the other is at the rear and each ranger carries a loaded rifle. The hikes provide tourists with an opportunity to have some close encounters with bears and other wildlife, but it is not without risk (Figure 5.24). Some key locations have a 'hide' constructed so ecotour groups, particularly keen photographers, can observe bears catching salmon without risk of attack.

▲ **Figure 5.23** *Movement* of tourists to remote *regions* in Kamchatka such as Kuril Lake, pictured here, is by Mi8 helicopter. The *chaneable* weather can result in tour groups being stranded in such locations for several days longer than planned. Note the small area cleared for the helipad and the boardwalks placed across the fragile marsh vegetation to reduce the potential for trampling and erosion

In order to reduce stress on bears during the mating season a 'month of silence' has been implemented in the nature reserves. From May to mid-July the number of helicopters accessing the peninsula is severely restricted from 15 flights per day in peak season to only two flights per day.

▲ **Figure 5.24** One of the armed rangers who help ensure the safety of ecotour groups during their hikes in the wilderness

The town of Esso to the north of the capital city is located near Bystrinsky Nature Park. This small town of approximately 2000 people has responded to the increase in ecotourism by providing opportunities for visitors to experience aspects of their Indigenous culture, such as reindeer herding. Forty per cent of the inhabitants are the Even people. With the assistance from the United Nations Development Programme (UNDP), several small-*scale* tourism enterprises, such as craft shops and a camp site, were started. Tourism is now an important source of income and employment for the local community.

In order to reduce poaching by creating economic alternatives, from 2016 to 2017 the villages of Ozernovskiy, located close to the Kronotsky Reserve, implemented a 'School of Tourism' project. It aimed to stimulate entrepreneurial activity linked to tourism and train guides and tour operators. Funds for the project were provided by a grant from the Russian government.

The European Union facilitates a number of volunteer programs for young people under the European Voluntary Service program. This program, which began in 2006, enables volunteers to work in Bystrinsky Nature Park. They assist the eight park employees in construction work and visitor information, as well as providing language lessons for local people in Esso. This program has been hailed a great success not only in enhancing the ecotourism experience but also in developing intercultural understanding.

The future of ecotourism in Kamchatka

The local government in Kamchatka hopes to increase the number of tourists visiting the *region* particularly those from overseas. It aims to increase the number of tourists to Kamchatka to 800,000 per year in the next ten years by building a new airport and expanding cruise ship facilities. It sees potential income particularly from the nearby Asian market with flights from Seoul, Beijing and Tokyo set to be increased. It hopes to expand its tourism away from simple ecotourism by developing facilities such as ski resorts, for example the Paratunka thermal spring and ski resort complex located 40 kilometres from Petropavlovsk–Kamchatsky at a cost of US$200 million. In addition, a new large resort on the south-eastern part of the peninsula is set to open in 2025.
The Three Volcanoes resort is planned to cost US$205 million with contributions of US$330 million for infrastructure from federal and local governments. Such developments raise questions as to the carrying capacity of the *region*. However, authorities are mindful that any such developments must be carefully planned if they do not wish to destroy the area's intrinsic long-term selling point: its natural *environment*.

All communities, but especially in remote *regions* where vaccination rates are low and populations may be susceptible to exotic diseases such as COVID-19, will need to manage the reintroduction of foreign tourists wisely in a post-COVID world and carefully balance the risks, costs and benefits.

▶ ACTIVITIES

1. Why would tourists visit Kamchatka? Would you wish to visit this *region*? Explain why or why not.
2. a. List the issues associated with ecotourism in Kamchatka.
   b. Suggest what challenges each of these issues might cause and suggest appropriate strategies meet these challenges.
3. Refer to Figure 5.22. Compare the *distribution* of any two of the categories of protected areas shown.
4. Rangers carry rifles to protect ecotourists from possible bear attacks. Discuss as a class: 'Should wildlife be harmed to protect tourists?'
5. Analyse the potential advantages and disadvantages associated with the development of ski resorts in Kamchatka.

6 Tourism at a national and local scale: Italy and Vietnam

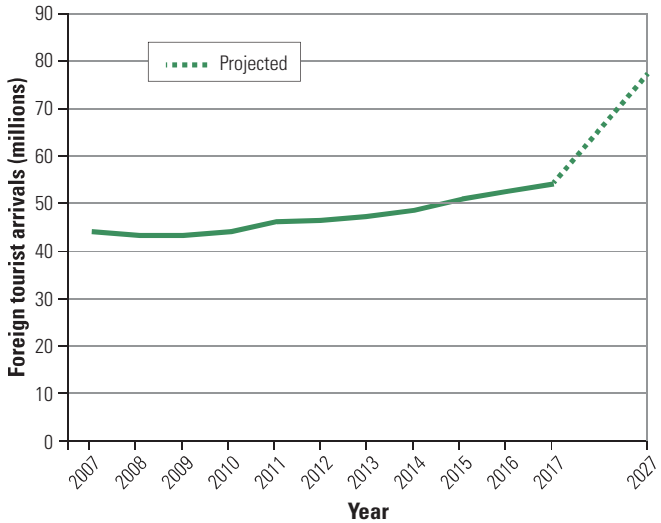
▶ CASE STUDY TOURISM IN ITALY

Factors influencing *changing* tourism characteristics

As seen in Chapter 2, the *region* of Europe is dominant in terms of tourist numbers – it received 745.2 million international tourists in 2019, which was 50 per cent of all international tourists in that year. The *region* contains six of the world's 10 most visited countries. Italy has consistently been one of these countries and, according to the United Nations World Tourism Organization (UNWTO), in 2019 it was ranked in fifth position with over 62 million visitors. Figure 6.1 shows the *changing* visitor numbers to Italy between 2007 and 2017 and a pre-COVID-19 predicted growth rate for the decade thereafter.

Italy has long been a favoured destination for tourists. Between the 16th and 18th Centuries, members of the aristocratic upper class typically undertook a 'grand tour' across the European continent. Travels from England, the Netherlands and Germany usually lasted one to three years and included visits to Italy and France. The prime purpose of these tours was to broaden a person's education, particularly in terms of appreciating the classical arts, as well as developing social contacts. Historic and artistic *places* such as Paris and Florence were therefore a particular focus.

▼ **Figure 6.1** *Changing* international tourist numbers to Italy



In the 19th Century, additional forms of transport, firstly via steam ships and then by railways, increased the mobility of the population, enabling trips of shorter duration and allowing increased *movement* of those in the upper middle class. Englishman Thomas Cook pioneered the idea of all-inclusive holidays in 1841, developing a system of pre-paid rail tickets, hotel accommodation and meal vouchers. He led his first package tour to Italy in 1864 – a ten-day tour for fifty people. His tours became very popular and within 10 years his company operated daily departures from Britain to Italy to meet demand. Typical Italian destinations included the Lake Como *region*, Florence, Pisa, Genoa, Rome, the Amalfi coast, Naples and Pompeii, Milan and Venice (refer to Figure 6.2). Such tours stimulated construction of tourist infrastructure for large tour groups along established routes – mass tourism had developed. By the late-19th Century seaside, mountain and spa holidays were also popular, particularly for domestic tourists in Italy.

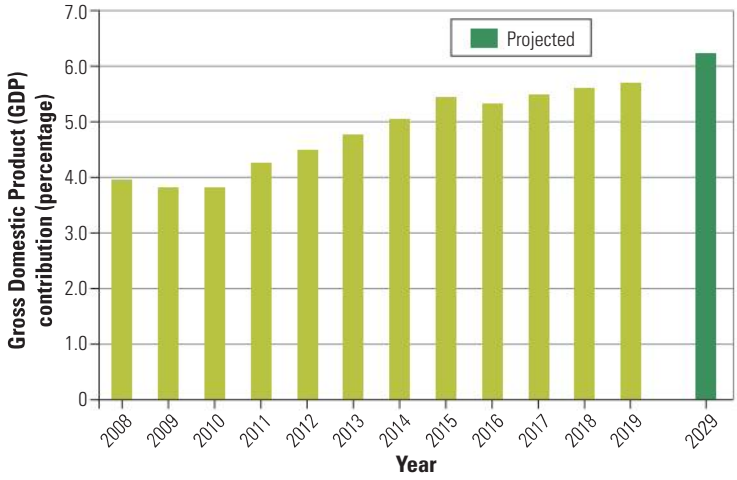
By the mid-20th Century, widespread ownership of motor vehicles led to the development of motels, the first opening in Italy in 1954. Car ownership and low-cost bus tours extended tourism options for the working classes, with many staying at all-inclusive holiday resorts. Motor vehicles allowed the wider *distribution* of tourist facilities beyond the early geographic focus of accommodation in ports and near railway stations. Since the 1990s, low-cost air travel has seen an increase in independent travel to Italy. By 2018, budget carrier Ryanair (an Irish airline) flew to 25 Italian cities and British carrier EasyJet to 18. While the numbers of tourists to Italy have continued to grow until the COVID-19 disruptions of 2020, the typical European visitor has replaced a longer trip with several shorter visits. Italy's cultural and artistic heritage continues to make it a particularly popular tourist destination. It has 50 World Heritage sites listed as culturally significant by UNESCO – more than any other country – including specific locations in Rome, Florence and Venice which are easily accessible for a weekend away from nearby countries in the *region*.

ITALY'S MAIN TOURIST LOCATIONS

- **1 Rome:** Capital city; sites such as the Colosseum and the Pantheon
- **2 Siena:** This city contains a great medieval square, the Piazza del Campo
- **3 Cinque Terre:** Five 'lands' or villages on the Mediterranean coast
- **4 Pisa:** Home of the famous Leaning Tower, built in 1173
- **5 Milan:** The fashion capital of Italy and a major focus for shopping-oriented tourists
- **6 Venice:** The 'city of water', dissected by canals; riding gondolas along these canals is a favourite tourist pastime

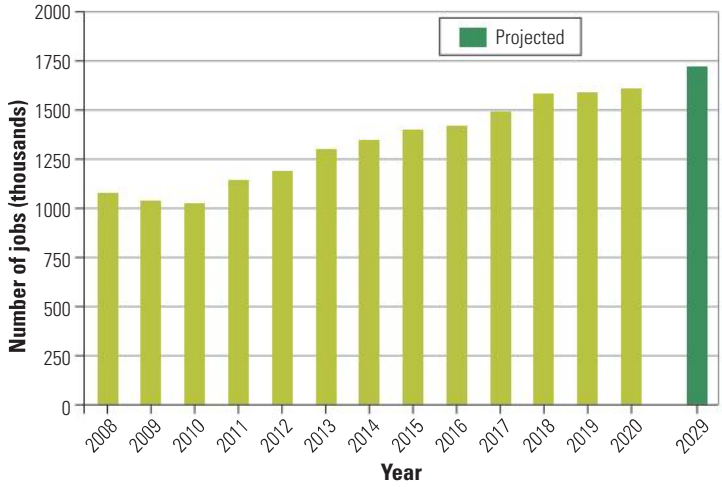
Figure 6.2
Map of some of Italy's major tourist destinations, and neighbouring countries. Below, images of popular tourist locations: **(a)** Venice; **(b)** Florence; **(c)** Pompeii; **(d)** Positano (Amalfi Coast); **(e)** Lake Como

Figure 6.3 The direct contribution of the travel and tourism sector to Italy's GDP



NOTE: estimation of projected figure done without consideration of the impact of COVID-19.

Figure 6.4 The direct contribution of the travel and tourism sector to Italy's employment



NOTE: estimation of projected figure done without consideration of the impact of COVID-19.

Economic impacts of tourism in Italy

As shown in Figure 6.3, tourism makes a significant contribution to Italy's Gross Domestic Product (GDP). The direct contribution of the sector to GDP in 2019 was €232.9 billion or 5.7 per cent of its GDP. The direct contribution is the money generated by industries that deal directly with tourists including hotels, travel agents, airlines, restaurants and leisure industries. This was forecast to rise to over 6 per cent of GDP by 2029. As shown in Figure 1.12, there is an uneven *distribution* of tourists in Italy. Consequently, half of the tourism expenditure is absorbed by six locations: Rome, Milan, Venice, Florence, Verona and Naples. There is an *interconnection* between income and tourist nights spent. The Italian economy was extremely hard hit by the 2020 pandemic with an estimated €100 million a day being lost due to a massive decline in tourists.

In terms of employment, the direct part of the contribution which is shown in Figure 6.4, tourism generated 3,475,900 jobs in direct and indirect employment in 2019, representing 14.9 per cent of total employment. Indirect employment includes jobs generated by other industries on specific tourism assets such as building new visitor accommodation.

ACTIVITIES

1. Classify the factors responsible for Italy's long-standing popularity as a tourist destination.
2. Describe the trend in visitor numbers shown in Figure 6.1.
3. To what extent is there an *interconnection* between the information shown in Figure 6.3 (the direct contribution of the travel and tourism sector to Italy's GDP) and that in Figure 6.4 (the direct contribution of the travel and tourism sector to Italy's employment)? Use relevant statistics from the graphs to support your answer.

Tourism characteristics: Rome

Rome, with a population of 4.2 million people, is Italy's largest city. It has been a historically significant *place* for an extensive period of time dating back to its establishment around the 8th Century BC and later as the centre of the Roman Empire between 27 BC and 393 AD. It has been the seat of the Papacy since the 1st Century AD and after the abolition of the monarchy in 1946 it became the capital of the Italian Republic.

With its many ancient ruins and museums (Figure 6.5), Rome is the most popular Italian tourist destination. In 2019 there were approximately 15 million tourists to Rome, of whom one-third were domestic tourists and two-thirds were international tourists. The main source countries for the latter were from the *region* of Europe (54 per cent) namely Germany, France, United Kingdom, Spain and Russia. Tourists from the *region* of North America, mainly USA, made up 22 per cent of arrivals in 2019, with those from the Asian *region*, particularly China and Japan, comprising almost 11 per cent. Tourists from European Union countries tend to stay slightly longer, generally three nights compared to a statistical average stay of 2.5 nights for non-European residents.

Rome's two most popular tourist destinations are the Colosseum and the Vatican Museums, both of which receive close to seven million tourists per year. A typical tourist itinerary over a three-day visit to Rome would include visits to the following sites (refer to Figure 6.5 to view their locations):

- The Colosseum – a sporting arena, built 72–80 AD, which held 80,000 spectators. The Colosseum was used for theatrical performances, festivals and games including gladiatorial combats (Figure 6.6).
- Vatican City – a walled, sovereign city-state within Rome which covers 44 hectares. It is the headquarters of the Roman Catholic Church and the home of the Pope. The museums of Vatican City hold works by artists such as da Vinci, Titian, Bernini and Raphael. A highlight is Michelangelo's Sistine Chapel ceiling.
- The Roman Forum – the centre of the ancient city with remains of columns, arches, walls and marketplaces which were excavated in the 18th and 19th Centuries.

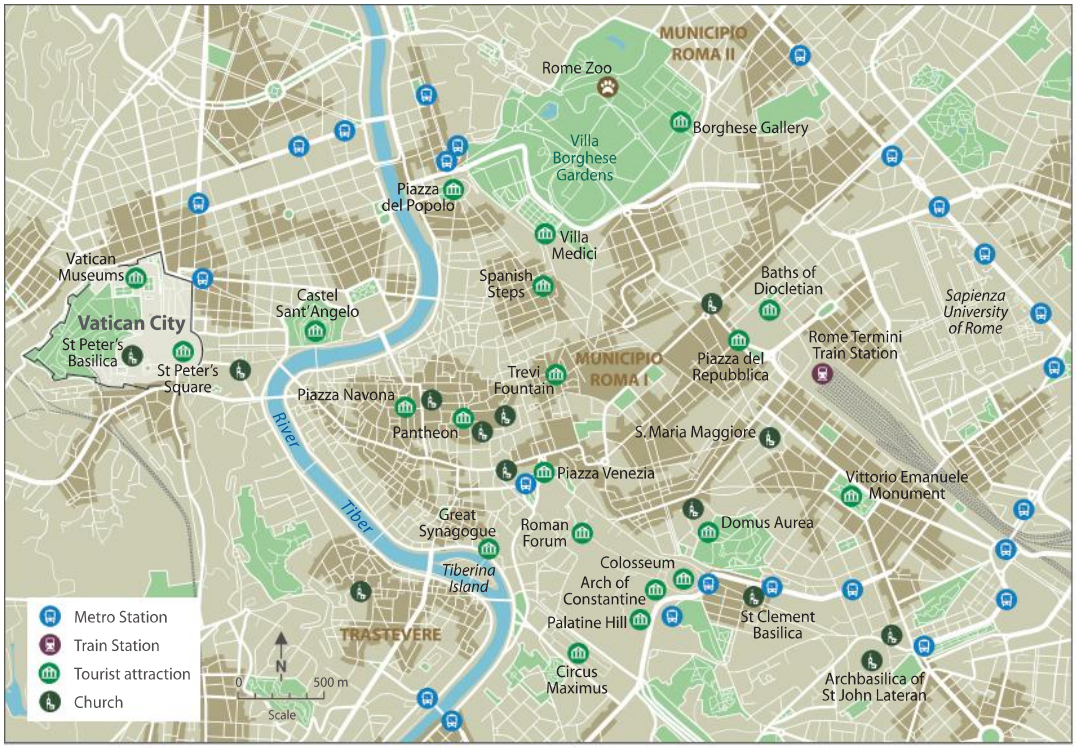


Figure 6.5 *Distribution* of major tourist attractions in Rome

- The Pantheon – a temple dedicated to the worship of all gods, built by the Emperor Hadrian between 118 and 125 AD. (Figure 6.7).
- The Trevi Fountain – Rome's largest fountain was built between 1732 and 1751 and is supplied by an aqueduct originally constructed in the 1st Century BC.
- The Spanish Steps – a flight of irregular stairs and landings built in the 18th Century. They take their name from the plaza at their base which is one of Rome's most typical squares, the Piazza di Spagna.
- Villa Borghese – Rome's largest park with fountains, monuments, statues, a lake, temples and museums. It covers almost 60 hectares.

Figure 6.6 The Colosseum, one of the main tourist attractions in Rome

ACTIVITIES

1. Use the internet to visit a website specifically describing tourist attractions in Rome, such as the official City of Rome tourism website.
   a. What types of information does it provide?
   b. Make note of any special events which are indicated. Would any of these be things that would attract you as a tourist? Why?
   c. How might the suitable attractions for families and young people differ?
2. Use Street View on Google Maps to do a virtual tour of the Colosseum.
   a. What impressions do you get of this structure?
   b. Identify any *changes* evident to the structure and any management strategies visible to accommodate tourists.

Figure 6.7 The Pantheon and novelty transport available for tourists

Figure 6.8
Queues for entry into St Peter's Basilica and Vatican City

The impact of tourism on Rome

Economic impacts

The high number of tourists to Rome has a positive economic impact, providing a major source of revenue. Rome's tourist board reported that approximately 60 per cent of international tourists stay in four- or five-star accommodation. However, hotels face increased competition from Airbnb listing; at the end of 2019, almost 29,500 *places* were listed in Rome. Accommodation expenses account for the largest proportion of a tourist's expenditure at 26.5 per cent. Other major tourist expenditure is on restaurants and bars (17.2 per cent) and clothes shopping (20.2 per cent). Although tourist spending on museums and galleries is typically less than 15 per cent of total spending, this component has increased since 2013.

The City of Rome government introduced a tourist tax in 2011 in order to provide an additional source of revenue to help meet its large debt. Collected from the guests of hotels, holiday homes, rented rooms and camping grounds in Rome (hostels are exempt), the tax is charged for each night spent up to a maximum of 10 nights. The tax currently ranges from A$5 to A$11 per night. The amount is determined by the type of accommodation and the standard of hotels (based on their number of stars). Some exemptions apply including tour leaders, coach drivers and children under 10 years of age. The tax provided approximately A$210 million in 2019 forming a vital part of the municipality's general budget. Some of the municipal services supplemented by this income are beneficial not only for local residents but also for tourists, such as public transport, street cleaning, and improving archaeological sites and museums. The tax proved unpopular with hoteliers who feared it could deter tourists and affect their competition with other cities (although other major cities such as Venice and Florence have since also implemented tourist taxes). The tourism sector contributes half of Rome's GDP and is a major employer; in 2019, most employees in this industry worked in hospitality, with over 48,800 employees.

Social and cultural impacts

Despite the tourist tax revenue, Rome's infrastructure is considered by locals to be in a poor condition. The large influx of tourists, especially in the summer months, places additional strain on resources, especially public transport. Tourist coaches added considerably to the issue of traffic congestion, which was already a major problem in Rome. It was estimated that tourist buses circulating the centre of Rome would stretch the equivalent of 12 kilometres on a typical day. City authorities responded to the challenge to manage traffic flow and air and noise pollution by banning tourist buses from the city centre as of January 2019.

About 6.9 million people visited Vatican City in 2019. Local people, especially those living near the central city close to the major cluster of historic sites, may therefore feel like strangers in their own city. As shown in Figure 6.8, large queues occur at attractions such as the Vatican.

A 2010 study by one of Rome's universities found that cultural 'Disneyfication' was transforming the city. The typical short stay in Rome means tourists *move* quickly from one historic attraction to another having taken the obligatory photo. At sites such as the Colosseum, young men dressed as ancient Roman centurions urge tourists to pose with them for a fee. Beyond the sightseeing of Rome's historic sites, mass tourism has a focus on fast food, chain hotels and mall-style shopping leading to the issue of local small businesses not being supported. Tourism can help develop cultural understanding and reduce negative stereotypes, but the challenge is to provide for opportunities for direct *interconnection* between local people and tourists to enhance this.

The large number of tourists to Rome makes it a beacon for petty criminals. According to TripAdvisor, Rome is the second-worst city in the world for pickpockets. A high degree of crime is *spatially associated* with the major tourist areas such as

Termini (the central train station), the Colosseum and *places* near St. Peter's Basilica as well as bus route 64 which links the major historic sites. Negative publicity about pickpockets has been reported internationally (refer to Figure 6.9).

Environmental impacts

On the positive side, tourism revenue helps improve Rome's built *environment* via its contribution to the provision of services. However, there are also a number of negative *environmental* impacts:

- The large number of tourists at historic sites is contributing to the *process* of physical deterioration. The feet of tourists wear away stone and vibrations contribute to fragments of masonry falling at sites such as the Colosseum.
- The Sistine Chapel, a highlight of a tour of the Vatican Museums, is affected by the body heat and humidity generated by its 20,000 visitors per day in the summer months. Warm moist air rises towards the ceiling damaging the paintwork. In addition, the large visitor numbers mean the *environment* in the Chapel is anything but the *place* of quiet contemplation for which it was intended.
- The Trevi Fountain (Figure 6.10) is being damaged by coins thrown into it. Traditionally, coins are thrown to ensure good luck and a fast return to the city. Approximately $A4800 is collected daily by the Catholic charity Caritas to help the needy both locally and overseas. However, the throwing of so many coins is chipping the marble structure and was especially problematic when the fountain was emptied for restoration in mid–2014.
- Litter, particularly rubbish from takeaway food, is a concern around the *places* tourists frequent.
- Cases of vandalism have occurred. In 2020 two tourists, aged 61 and 44, from Germany and Slovakia were caught carving their names into the Trevi Fountain.

Beware of pickpockets

One of the hazards of international travel is the inevitable exposure to a particular form of theft, the art of the pickpocket. This very old crime, one that is being continually updated, is uncomfortably 'up close and personal'.

Pickpockets can appropriate your hard-earned disposable income in inventive and highly skilled ways. They can work alone or in small, highly organised teams. A pickpocket can look like anyone else — a well-dressed middle-aged woman listening attentively to a tour guide in the Sistine Chapel; a friendly young hipster on a crowded train who accidentally 'bumps' against you; a young mother and her engaging toddler at a bus station; an old man outside a popular restaurant needing 'assistance'.

In Rome, the level of pickpocketing has risen to unprecedented levels, so much so that the British Foreign Office issued a warning to travellers — to be especially vigilant around popular areas such as the main Termini railway station, Rome's Fiumicino airport, on public transport and at those tourist hotspots that attract high numbers of visitors.

The Foreign Office warning prompted a sharp response, however, from Rome's mayor, Ignazio Marino, who called the warnings 'an insult' to the local people. Not only were they 'misleading and false', he claimed, but 'proven international statistics show that London is much more dangerous than Rome in terms of criminality'.

Nevertheless, these warnings have had a positive outcome for tourists, with improved measures to protect them, including increased police activity and the erection of barriers to prevent thieves from boarding trains before their departure.

▲ **Figure 6.9** Pickpocket warnings upset Rome's mayor

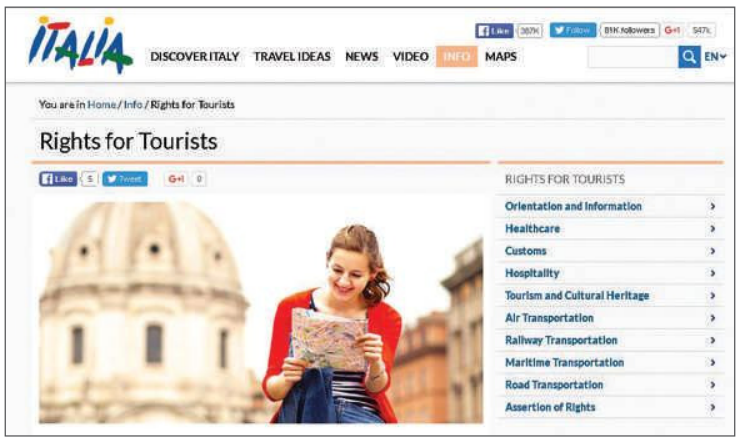
◀ **Figure 6.10** Tourists at the Trevi Fountain, many of whom throw coins over their shoulders for good fortune

Management strategies in response to tourism

National *scale* strategies

On a national *scale*, the Italian Ministry of Culture and Tourism implemented a Charter of Rights for Tourists in 2010. The aim is to provide tourists with information on laws and regulations to improve their travel experience in Italy. As indicated by Figure 6.11, this information is made available via its website and includes information on customs regulations, health care, tourists' entitlement in regard to pricing of hotels, driving regulations and how tourists should deal with any issues they face. Obviously, the government recognises the importance of tourism to its economy and is willing to spend money assisting tourists to have an enjoyable holiday in Italy.

Recognising the importance of the tourism industry for the country, and the need for a coherent national approach to tourism promotion, Italy's Ministry for Culture and Tourism introduced its Strategic Plan for Tourism 2017–2022. The plan was developed in consultation with a range of stakeholders in the tourism industry including government departments and economic associations across a range of *scales*.



▲ **Figure 6.11** The Italian government tourism website includes a section called Rights for Tourists

▲ **Figure 6.12** The renovation of the Spanish Steps, paid for by jewellery company Bulgari

The vision of this response is to 'Revive Italy's leadership in the tourism market and boost its contribution to the economic, social and *sustainable* development of its local areas.' To do this, it set four broad targets which each have their own specific goals to:

- innovate, specialise and integrate the country's amenities
- boost the tourism system's competitiveness
- create effective and innovative marketing
- achieve efficient and participatory governance when drawing up and establishing the plan.

Overlying the whole plan are three guiding principles:

- *sustainability*: from both an *environmental* and economic perspective to help to maintain the natural resources, landscape and cultural heritage and attract investment for their protection
- innovation: improving marketing and communication in particular to ensure Italy's competitiveness
- accessibility: giving all people and locations the chance to benefit from tourism.

This plan is intended to be flexible so that *changes* can be made as necessary. Further details of this response are available online.

Local *scale* strategies in response to tourism in Rome

A number of local regulations have been implemented in response to the negative *environmental* impacts associated with tourism. In October 2012, in an attempt to reduce rubbish and raucous behaviour, the mayor of Rome introduced a ban on people picnicking or sitting in *regions* of the city which have a particular historic or architectural value. The fines now range from A$400 to A$600 and are enforced by local police officers. The law initially caused some confusion among tourists as there were few signs indicating this rule and numerous food carts are *distributed* in close proximity to such attractions, especially during summer. Snack vendors have also been unhappy as this has affected their income. Fines of approximately A$700 are imposed for people who swim or paddle in fountains.

Fines on a much larger *scale* are applied to those who deface or wilfully damage historic sites. In 2020, a 32-year-old Irish tourist was caught carving his name onto a pillar in the Colosseum. In Italy, damaging a historical or artistic landmark is a crime that could result in up to one year in prison or a minimum fine of A$3100. This raises the potential ethical issue: would it be better to educate tourists prior to their visits of such sites or is punishment a more effective deterrent?

Overtourism has become an issue in Rome. Some sites have implemented their own policies to manage the large number of tourists. Since 2019, the Colosseum has had a limit of 3000 visitors at a time with their *movement* controlled by electronic turnstiles at the entrance and exit. The Borghese Galleries require reservations and set time limits on how long visitors can spend inside. However, most sites are reluctant

to control visitor numbers due to potential loss of revenue. The Vatican Museum uses air conditioning to help reduce the impact of body heat and humidity on its paintings from its many visitors, and air vents extract pollen and dandruff.

The City of Rome lacks sufficient funds to maintain its historic sites and the central government is also not in a financial position to provide the millions of dollars necessary. Funds have therefore been sought from private companies to restore monuments in return for advertising rights. The A$4 million needed to restore the Trevi Fountain was provided by the Italian fashion house Fendi. Luxury shoe manufacturer Tod's is providing A$44 million to clean the Colosseum masonry, repair cracks and build a new visitor centre, while the Spanish Steps are being maintained by the jewellery company Bulgari (Figure 6.12). Such corporate sponsorship has not been without controversy, raising questions concerning commodification of historic sites and whether such *places* should be used by private companies for commercial gain.

Application of geospatial technology to manage tourism in Rome

Geopatial technology has been used to help manage tourist flows. The company Vox developed 'POPGuide', an interactive destination, mapping and audio app that allows tourist businesses, such as St Peter's Basilica, to communicate with visitors in any one of 11 languages for a small fee. In addition to commentary, it can re-route visitors away from high volume areas. Most importantly, it provides the site with spatial data on the *movements* of more than 2000 visitors per day which can be mapped and used to help increase the effectiveness of management strategies.

ACTIVITIES

1. Classify the impacts of tourism in Rome as either positive or negative and whether they affect people or the *environment*.
2. In your opinion, do the benefits of tourism for Rome outweigh the disadvantages? Justify your answer using your information from the previous question.
3. Imagine you are planning to visit Rome for a holiday. Go to the official Italian tourism website.
   a. What information provided here would you find useful?
   b. What additional information would you like to have that is not provided?
4. The imposition of fines is one strategy used by the City of Rome in an attempt to manage some of the negative impacts of tourism. Evaluate the effectiveness of such a strategy.
5. As a class, discuss the arguments for and against using corporate sponsorship to maintain Rome's historic sites.
6. A former mayor of Rome suggested building replicas of some monuments at a *place* outside the congested city centre to take pressure off some sites and to encourage tourism outside this *region*. Is such a response likely to be effective? Justify your answer.
7. Which stage of Butler's model of tourism (see Figure 2.39, page 38) do you consider Rome to be in? Justify your answer with reference to the data provided.
8. a. Use the internet to investigate the specific targets set down in Italy's Strategic Plan for Tourism.
   b. How effective do you think this response is likely to be in meeting its aims? Include consideration of the impact of COVID-19.

Tourism characteristics: Cinque Terre

Cinque Terre, meaning five lands, refers to a collection of five historic villages located on the Italian coastline in the *region* of Liguria (see Figure 6.13) between the cities of Genoa and Pisa. The five villages – Monterosso, Vernazza, Corniglia, Manarola and Riomaggiore (Figure 6.14) – and the surrounding rural *environment* have great appeal to tourists. They are attracted by the dramatic scenery of the rocky coastline, and the vineyards and olive groves on the terraced hills that rise beyond the villages (see Figure 6.15). The rural landscape is linked by footpaths that traverse the *region* and these are popular with hikers. Main *movement* to this *region* is by train or boat as there is limited motor vehicle access possible between or within the villages. The five villages and surrounding landscape are incorporated in a national park which is also a UNESCO World Heritage site.

Thought to have been settled between 900 and 1000 AD, traditionally this *region* was dominated by subsistence farming (grapes, olives and fruit) supplemented by fishing. The steep hills were terraced in the 13th Century, supported by dry stone walls (see Figure 6.15). There was also a complex drainage system which ensured soil conservation and reduced the *process* of erosion caused by surface run-off. These communities were subject to progressive depopulation until the *region* gained popularity as an unspoilt tourist destination in the 1970s. Since then, small hotels and family-run bed and breakfast apartments have become widely *distributed* and now, tourism is a major activity.

Figure 6.13 The location of Cinque Terre

▲ **Figure 6.14** Riomaggiore, the largest of the Cinque Terre villages

▲ **Figure 6.15** The village of Manarola and terraced hillsides. The left-hand side of the photo shows part of the Via dell'Amore, the Path of Lovers, that connects Riomaggiore to Manarola

▲ **Figure 6.16** The beach at Monterosso in summer highlighting the concentrated *distribution* of tourists

Approximately three million tourists visit the Cinque Terre annually. Of these, the majority are domestic tourists (58 per cent) who visit primarily in the summer months of June, July and August when the average temperature is 27°C. An estimated 50,000 to 85,000 tourists per year stay overnight; the rest are day trippers. As many as 4000 people pass through a village every day – a large *scale*, especially considering the size of the five villages which range from 1700 people in Riomaggiore to 245 in Corniglia. Given the total population of 5000 in the *region* there is an estimated ratio of one resident for every 250 to 400 visitors annually.

Typical activities for the day visitors to the Cinque Terre include shopping for homemade goods and crafts, taking a historical tour or a scenic boat ride, swimming at the beaches (quite small and rocky), dining out on a terrace overlooking the sea as well as hiking the hillsides in close proximity to the villages. The settlements are linked by frequent train services making them only minutes apart, as well as a passenger ferry service. Those tourists who stay longer are more likely to hike trails further from the villages although they may base their stay in one *place* due to the short *distance* between towns and the readily accessible transport.

The following is a typical itinerary for three nights:

Day 1: Arrive by train and check in to your hotel at Riomaggiore (Figure 6.14). Explore the village and visit the Via dell'Amore (Figure 6.15), a close walk from the town. Sample the local wines and have dinner overlooking the harbour.

Day 2: After breakfast in a local café enjoy a morning swim at the beach near the marina. In the afternoon take the train to Manarola (Figure 6.15). Explore the village, swim at the harbour and cliff jump. Walk north of the village for great views. Visit the small village of Groppo, a short trip further up the hill, for dinner. There are opportunities to sample plenty of local produce. Train or walk back to Riomaggiore.

Day 3: A one-day hike on trails between Monterosso and Vernazza. Take the train from Riomaggiore to Monterosso, visit the village of Monterosso, and then walk the trail to the next village of Vernazza. In Monterosso you can swim at the beach (pictured in Figure 6.16) and visit the old and new town. Explore the village of Vernazza which has had extensive repairs after a landslide in 2011. Enjoy a seafood dinner near the harbour before taking the train back to your hotel.

Day 4: Depart by train. If travelling via La Spezia or Levanto, visit their market for clothes and shoes.

Impacts of tourism in Cinque Terre

As this section of coastline has become more popular, increasing numbers of tourists have visited the *region*. The opening of the new cruise ship berth in the nearby city of La Spezia in 2013 has been a major influence in recent years. The ports of Genoa, Portofino and Savona also generate day visitors to the *region*. In 2019 an estimated 750,000 cruise ship passengers took a day trip to the Cinque Terre. Most tourists arrive via the scenic train line that runs along Italy's north-west coast since access by car is strictly limited. However, these small stations find it difficult to cope when a train load of 300 to 400 passengers disembark at once. For example, *moving* from Manarola's tiny train station to its picturesque harbour involves walking through a short tunnel, which at peak times can take tourists up to 30 minutes to make the 100 metre crossing, The increasing volume of tourists has been positive for the economy but such numbers can overwhelm the villages and congest streets. The highly seasonal nature of tourism in the *region* is problematic. The population of the villages can more than double on a typical summer's day pushing sewerage systems and water treatment plants to capacity. Litter is also an issue. Day visitors are unevenly *distributed,* concentrated near the coast rather than venturing far into the surrounding rural areas. Overtourism has caused hiking trails close to the townships to be affected by the *processes* of soil compaction and erosion due to heavy use. During winter when there are far fewer tourists many businesses (such as restaurants and hotels) close, thereby limiting options for visitors as well as affecting the income flow for locals.

While tourism has provided an alternative source of income to those living in the Cinque Terre, it has contributed to the abandonment of traditional agriculture and associated terrace maintenance, particularly since the 1970s, in favour of the relatively easier physical work linked to tourism. According to officials, the amount of land cultivated decreased from 1400 hectares in 1951 to 111 hectares in 2012. Figure 6.17 illustrates this *change* in the landscape. A consequence of this has been an increase in the *process* of erosion of the hillsides, generating landslides. The large-*scale* landslide and flash flooding of Vernazza and Monterosso in October 2011, which killed 13 people, was partially attributed to poor maintenance of terraces located above that village. The surrounding paths were not fully reopened until 2014, having a major impact on income for the town. In addition, abandonment of vineyards has led to an increase in the wild boar population and a *change* in vegetation cover in favour of shrubs rather than woodland.

Local authorities face a constant struggle with careless visitors who wear thongs instead of appropriate shoes for the Alpine trails, resulting in rescue missions at the expense of the government. In 2019, Italian officials announced that anyone attempting to hike the rugged trails in such footwear could face fines of up to A$3700. Rescuing ill-equipped tourists from the narrow paths, sometimes via helicopter, costs about A$8000 per hour.

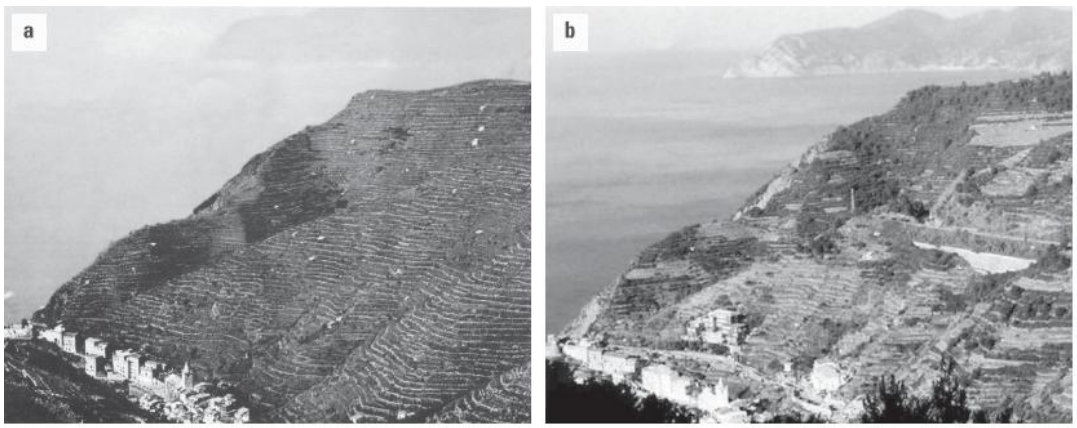


Figure 6.17 *Environmental change* between **(a)** 1958 and **(b)** 2000 due to abandonment of farming in Cinque Terre

Strategies to manage tourism in Cinque Terre

The Cinque Terre villages together with the surrounding hillsides and coastline were listed as a UNESCO World Heritage site in 1997. The landscape was recognised as a unique cultural landscape representing harmonious *interconnection* between people and the *environment*. The Cinque Terre National Park was created in 1999 to protect this *region*. It aims to preserve and maintain the landscape while promoting *sustainable* tourism which is necessary for the economy of the area. The Protected Marine Area, also founded in 1997, manages the surrounding coastal waters. The National Park authority maintains information centres at train stations as well as a website providing information for tourists including maps, trail information, hiking guidelines and hospitality venues. Community involvement is central to management of the park and occurs with residents via five cooperatives. There is a network of interventions aimed at the protection and preservation of this cultural and historical heritage such as restoration of drystone walls, as shown in Figure 6.18, and arresting the decline of traditional agricultural practices which are essential to maintaining this *environment*.

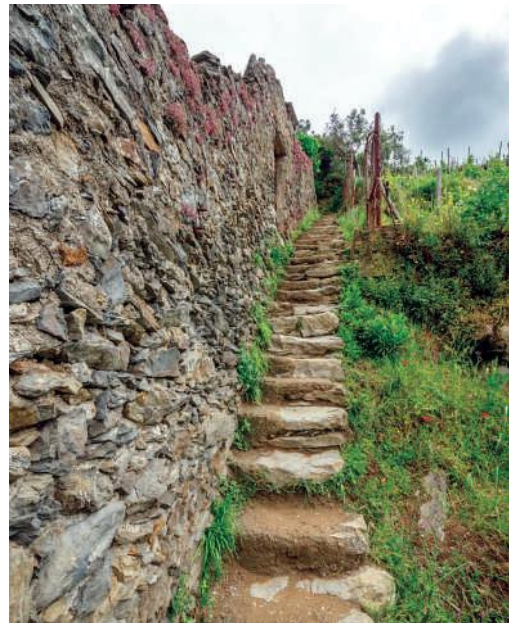


Figure 6.18 Part of the Monterosso–Vernazza trail showing the restored stone walls

Strategies have included:

- Returning unused terraces to vineyards under the 'Uncultivated Lands' LIFE Project founded in 2001. Five hectares of terraces and 4000 square metres of drystone walls have been recovered and returned to long-term *sustainable* agricultural use with improved soil surfaces and a further 40 hectares of drystone wall terraces have been identified for replication interventions.
- Ensuring culturally-appropriate tourism – chain hotels or fast food outlets, for example, are not permitted. Authentic customs, food and wine are promoted, such as the sardines of Monterosso and sciacchetrà (a liqueur), which has helped revitalise interest in traditional agriculture.
- The introduction of the Cinque Terre Card in 2001 (essentially a ticket permitting tourists access to transport, trails and guided tours) – funds from the card are used towards park maintenance as well as to provide transport services within the park. More than half the revenue from the card is used to support agricultural activity, which is the essential component in maintaining the landscape which attracts tourists.
- Encouraging restaurants to use and sell local produce.
- Establishing a label for *environmental* quality – a tool of voluntary certification granted to accommodation venues that choose to improve their services according to the aims of quality and *environmental* impact identified by the park. In exchange, they receive free promotion on the official website of the park.
- Endeavouring to repair damage from landslides quickly – repairs are costly, but loss of tourist revenue is too. For example, a landslide closed Via dell'Amore in September 2012, injuring four Australian tourists. Repairs did not begin until 2019 and it is not scheduled to reopen until 2023 at a cost of A$19 million.
- Working with non-government organisations, particularly for tree planting and street repairs. An example is the non-profit organisation Save Vernazza (established after the 2011 landslide and flood). Companies such as Costa Cruises have also been involved in olive tree planting.
- Consideration of limiting tourist arrivals from large tour groups – although this has not yet been implemented.

ACTIVITIES

1. Classify the impacts of tourism in Cinque Terre according to *environmental*, economic, social or cultural impacts.
2. Identify the positive impact of tourism in Cinque Terre you consider to be of greatest relative importance. Justify your answer.
3. Identify the negative impact of tourism in Cinque Terre you consider to be of greatest relative importance. Justify your answer.
4. Explain why a major focus of tourist management is linked to maintaining the rural landscape of Cinque Terre. Include reference to natural hazards in your response.
5. Visit the website for Cinque Terre National Park. What is the current cost of the Cinque Terre card? Explain whether this is an appropriate price for the various services and access it provides.
6. One suggestion to improve tourist management in this *region* is to impose a quota of tourists during the peak summer months. Suggest the advantages and disadvantages of such a strategy for both the *region* and the tourist.
7. Download the free Cinque Terre app. Explore the sites of the *region* using this app. How effective do you think the data shown will be in managing tourism at that location?
8. Identify an Australian tourism site which may experience an overwhelming number of tourists in one season. Consider how you could investigate the impacts of tourism on this *place*.

Application of geospatial technology to manage tourism in Cinque Terre

Geospatial technology in the form of apps is increasingly being used to help manage tourism in this *region*. Park authorities have developed a free app 'Cinque Terre & Beyond' for tourists. It not only contains information to help tourists navigate areas of interest such as restaurants, shopping and events, but it also includes an augmented reality function. This enables tourists to see, superimposed on the reality around them, the icons of the surrounding attractions and get details on what they are looking at. In addition, to more *sustainably distribute* tourists and deal with overcrowding, the app shows the number of people on the hiking routes in real time so visitors can make informed choices in terms of trail selection.

Another app is 'Cinque Terre Hiking Guide Plus'. This app provides access to topographic maps of the area with trails, streets and contour lines. It has detailed up-to-date information on the condition of the various trails – particularly important in terms of *processes* such as landslides and other possible hazards that can occur. It allows hikers to record their routes and add satellite images as overlays to their maps as well as photos.

CASE STUDY

TOURISM IN VIETNAM

Factors influencing *changing* tourism characteristics

Unlike Italy which has a long history of tourism, the tourism industry has developed relatively recently in Vietnam. Vietnam is a rapidly *changing* country located in the *region* of South-East Asia (Figure 6.19). With a Gross National Income (GNI) per capita of US$2540 in 2019 and a Human Development Index (HDI) ranking of 117 out of 189 in 2019, Vietnam has made considerable progress in improving the living standards of its people since its reunification in 1975 following almost 80 years of conflict. The development of a tourism industry in Vietnam has been one *process* that has contributed to this progress.

Understandably, tourism was not an initial priority for the communist Vietnamese government in the immediate post-war years. However, after the 1986 economic reforms known as 'doi moi', which allowed the establishment of privately owned enterprises, tourism expanded. Until this time, the Vietnamese government owned and controlled all tourism sectors, and the majority of tourists were visitors from the communist economic bloc who typically stayed at state-run hotels of moderate standards. The opening of Vietnam to foreign investment following doi moi facilitated the rise of joint venture tourism enterprises. The first of these was the five-star Saigon Floating Hotel which opened in 1989, a joint venture between Australian and Filipino partners and the Vietnamese. It was the first international-standard hotel in the country. By 1999, Ho Chi Minh City and Hanoi each had seven international joint venture hotels. The number of small-*scale* private hotels also increased rapidly. Private hotels are dominant today, accounting for 60 per cent of all hotels, with joint venture hotels around 10 per cent and state-owned hotels accounting for approximately 30 per cent.

Many less-developed countries, including Vietnam, see considerable advantages in developing their tourist attractions. These advantages include:

- foreign investment in infrastructure such as airports, roads and hotels
- training and employment of locals for tourist services
- a commercial market for goods and services ranging from souvenirs and food to transport and banking
- reducing poverty in undeveloped *regions*
- providing an added incentive to preserve cultural icons and areas of natural beauty
- developing friendly relations with people from other parts of the globe
- substantial inflow from international tourists of foreign currency that can be used to pay foreign debts or buy imports.

▲ **Figure 6.19** The *distribution* of major tourist destinations in Vietnam

Vietnam has a rich variety of rural- and urban-*environments* that attract tourists, as shown in Figure 6.19. Some of these include:

- spectacular coastal scenery and striking limestone features including Ha Long Bay (Figure 6.20 (a))
- historic cities such as Hoi An and Hue, both of which are also World Heritage sites
- legacies of the 1954–75 war such as the Cu Chi Tunnels and the War Remnants Museum in Ho Chi Minh City
- coastal resorts such as Nha Trang (Figure 6.20 (c)) and Phan Thiet
- natural *environments* offering a range of activities from cruising the Mekong Delta in the south (Figure 6.20 (d)) to trekking the inland mountainous *regions*
- peoples of diverse ethnic backgrounds such as the hill tribes in Sapa in the north-west (Figure 6.20 (b))
- shopping opportunities particularly in the cities of Ho Chi Minh City and Hanoi.

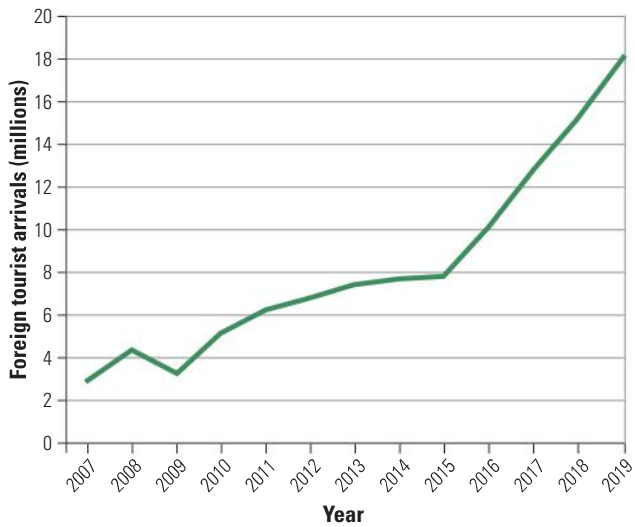
Figure 6.20 Some common tourist destinations in Vietnam **(a)** Ha Long Bay **(b)** The *region* near the town of Sapa **(c)** A resort beach, Nha Trang **(d)** Tourists cruise in the Mekong delta *region*. Small-*scale* operations such as this provide opportunities for *ntercnnections* to be made between tourists and local people. The Mekong delta received 22.4 million tourists in 2017

Who visits Vietnam?

The tourism industry in Vietnam has grown at an exponential rate as Figure 6.21 indicates. Considering that Vietnam received only around 300,000 visitors in 1991 and did not hit the million mark for international arrivals until 1994, the *scale* of growth is even more remarkable. Vietnam welcomed 18 million international arrivals in 2019, an increase of 15 per cent over the previous year (although tourist numbers for 2020 were estimated to be down approximately 60 per cent). This compares to over 39 million tourists received by Thailand, a neighbouring country in the same *region*.

The largest sources of international visitors are shown in Figure 6.22. By far the largest source market is China which provided over one third of international tourists in 2019, followed by South Korea and Taiwan with 28 per cent and 5 per cent respectively. The typical holiday for these groups is a seven- to fifteen-day journey across the country, the most popular route being from Ho Chi Minh City to Hanoi as these pre-organised, all-inclusive packages offer good value for money. Australia accounted for 2 per cent of visitors in 2019 with many of these being young backpackers. Russia is an increasingly important source market, with a particular emphasis on holidays to beach resorts.

Figure 6.21 Foreign tourist arrivals in Vietnam 2007–2019



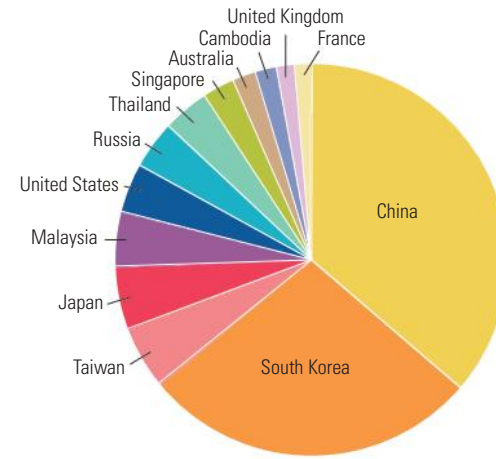
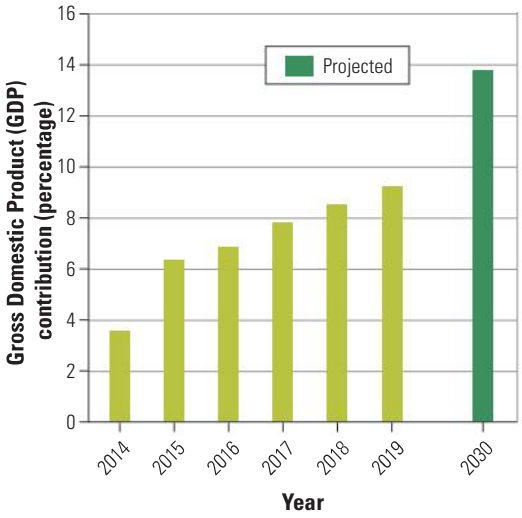


Figure 6.22 Major sources of international visitors to Vietnam, 2019

Economic impacts of tourism in Vietnam

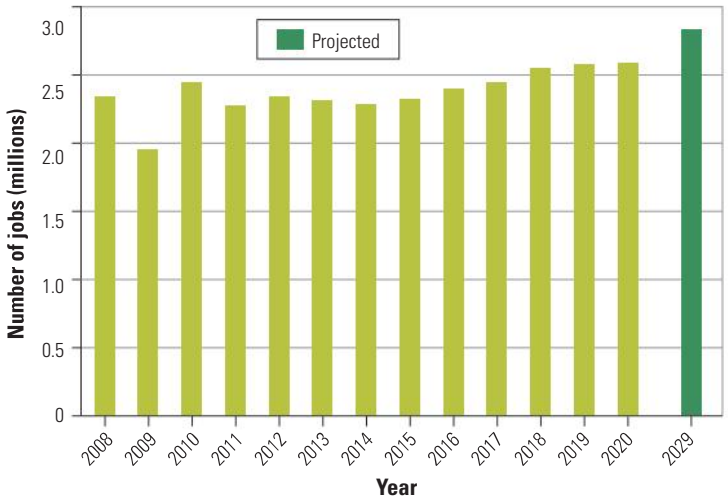
Figure 6.23 shows that the direct contribution of travel and tourism to Italy's GDP between 2014 and 2019 more than doubles – increasing from 3.7 to 8.8 per cent. In 2019 that direct contribution amounted to A$42 billion. The direct contribution to GDP was expected to grow by over 6 per cent per year to 2030 prior to the downturn in 2020–2021. Figure 6.24 indicates that the tourism sector directly generated over 2.5 million jobs (over 4 per cent of total employment) in 2019 and was predicted to grow to 2.8 million jobs by 2029 (providing approximately 4.9 per cent of total employment). At this stage it is unclear if those targets will be met. It should also be noted that many jobs of an informal nature such as operating small street stalls will not be counted in these official statistics even though they may depend on tourists for much of their trade.

▼ **Figure 6.23** Direct contribution of travel and tourism to Vietnam's GDP



NOTE: estimation of projected figure done without consideration of the impact of COVID-19.

▼ **Figure 6.24** Direct employment in the travel and tourism industry in Vietnam



NOTE: estimation of projected figure done without consideration of the impact of COVID-19.

Barrie Jones

Cruise and Group Tours Specialist at Extragreen Holidays

Having completed a Bachelor of Arts degree with majors in Geography and History and a Diploma in Education at Monash University in the 1960s, I went on to teach Geography and History in Victorian state secondary schools for 33 years. I travelled overseas on many occasions in the 1970s and during the 1980s I decided to complete a Certificate of Business Studies in Travel and Tourism, with the view to leaving teaching and establishing my own travel agency. However, I decided to continue my career in teaching.

During this time, I organised and escorted GTAV Study Tours to Zimbabwe, Kenya, South America, Turkey and Jordan, Samoa and Vietnam before taking an early retirement package from teaching. During a GTAV Study Tour to China in April 2000, I was approached by Extragreen Holidays to work four days a week in the company's Group Tours Department, giving me the career change I had dreamed of for many years. I have continued working on a part-time basis for Extragreen Holidays since that time.

The best thing about working in the travel industry is the fringe benefits on offer, which include familiarisation trips, provided by tour wholesalers for travel agents to experience at first hand some of the destinations that they sell to clients; regular fully catered functions provided by tour wholesalers and tourism boards, to keep travel agents up to date with the latest travel offerings – not to mention discounted personal travel through travel agents membership organisations. I have continued my association with the GTAV and have organised GTAV Study Tours to Indo-China, India, South America, Mexico and Cuba, Borneo, Vanuatu, Kenya and Tanzania, Burma and Sri Lanka and South India. I have found that my university studies in Geography and the teaching of Geography in secondary schools have proven invaluable in my successful new career in the travel industry.

Additional impacts of tourism in Vietnam

The impacts of tourism can be wide-ranging, affecting a country's urban and rural *environments*. Issues such as waste disposal, potential exploitation of local tourist workers and the need for industry training have to be managed by both the government and local authorities. The table in Figure 6.25 summarises the impacts of tourism and the ways they are being managed in Vietnam.

▼ **Figure 6.25** Additional impacts of tourism in Vietnam

Other impacts of tourism in Vietnam	Management strategies
Major *changes* to rural and urban *environments* with the building of tourist facilities. The resort town of Nha Trang (Figure 6.26) for example has grown from a small service centre based on fishing to a large coastal resort city of approximately 530,000 people. A three-kilometre-long cable car crosses over to nearby Hòn Tre Island and the Vinpearl Resort, complete with a golf course, water park and theme park. The May 2019 Sea Festival, a four-day biennial event, attracted over 143,000 visitors placing major stress on both the natural and built *environments*.	The Ministry of Culture, Sports and Tourism's Vietnam tourism strategy to 2030 aims to attract 50 million international tourists and 160 million domestic tourists with a focus on sea-based activities (these currently account for 70 per cent of tourism activities).
Waste from tourism has posed major issues, particularly in relation to boating activities in Ha Long Bay and Nha Trang. Prior to 2014, sewage and litter from tourist cruise boats was typically disposed of straight into the ocean. However, tourists commonly report on beautiful *environments* being spoilt by rubbish such as plastic bottles, plastic bags and packaging floating past them when swimming.	In Nha Trang, local authorities now require that boats which carry at least 40 people must have septic tanks fitted. The Institute of Oceanography in Nha Trang monitors the bay. Local authorities in Ha Long Bay spend over A$250,000 a year collecting rubbish. In December 2019 a national action plan on ocean plastic waste was launched. The plan aims to have all marine protected areas free of plastic waste by 2030 and that all coastal tourist service providers will not use disposable plastic products.
Exploitation of workers in the garment industry. One of the main attractions of Hoi An is its many tailors and the option for tourists to have a made-to-measure garment created for them in a short period of time. Tight tourist itineraries may mean that workers are up all night to complete orders, often for low rates of pay.	Bartering should be done fairly, treating the highly skilled tailors with respect. Responsible tourists should allow two to three days for such work. The International Labour Organization (ILO) operates the Better Work programme in Vietnam. It aims to improve working conditions in the garment industry, especially for women who make up 80 per cent of this workforce.
Child sex tourism – an estimated 15 per cent of female sex workers are under 18 years of age. Rural poverty is a major contributor to this issue but sadly there are plenty of tourists who are happy to overlook their legal and moral obligations to child safety.	Child Help International runs a Vietnam Child Helpline where suspicious activity involving local children can be reported. Private businesses such as Crazy Kim's Bar in Nha Trang provide free English and computer classes run by tourist volunteers for children to provide them with additional skills to gain employment.
Relatively wealthy tourists may be regarded as a source of extra income. Taxi drivers in Hanoi, for example, have a reputation for charging inflated prices. One driver reportedly charged over A$60 when the usual fare was under A$9. Begging may increase. Tourists may be regarded as 'walking ATMs'.	The Vietnam National Administration of Tourism presents annual awards for outstanding travel services. Officials have urged Vietnamese citizens to smile and leave good impressions on foreigners to help boost tourism (especially return visits). The government can issue fines for those who cheat or harass foreigners.
The development of tourism in the country's ethnic minority areas has provided alternative sources of income and helped with the preservation of their cultural identity. Women in particular have benefitted. For example, the Hmong women of Sapa comprise 80 per cent of the *regon's* tour guides. In Quang Nam province in central Vietnam, households in three Co Tu villages make a significant profit from the sale of handcrafts and tourism services.	The International Labour Organization (ILO) manages Toolkit on Poverty Reduction projects such as these in eight provinces. It is based on a *sustainable* approach to connecting poor and isolated villages to the booming tourism industry. It has developed training materials for guest houses and tour guides as well as offering opportunities to sell handcrafts.

Figure 6.26
The city of Nha Trang, a coastal resort that has undergone major *change* due to tourism. It is known for its beaches, scuba diving and offshore islands

ACTIVITIES

1. Describe the *change* in Vietnam's tourist numbers as shown in Figure 6.21.
2. Suggest reasons to account for the variation in tourist numbers.
3. Refer to Figure 6.22. To what extent is there a *spatial association* between the main sources of international visitors and the *distance* of these source countries from Vietnam?
4. The USA maintained economic sanctions against Vietnam until 1994. Suggest what impacts the lifting of these might have had on tourism in Vietnam.
5. a. Use Figures 6.23 and 6.24 to compare the relative importance of the economic contribution of tourism in Vietnam to that in Italy (refer to Figures 6.3 and 6.4).
   b. What factors might account for the similarities and/or differences you observe?
6. Refer to Figure 6.25.
   a. Classify these impacts according to *environmental*, economic, social or cultural impacts.
   b. Based on the information in the table, which tourism impacts do you consider are being successfully managed? Justify your response.
7. Many tourists have to obtain a visa to visit Vietnam. Tourists from 24 countries including those from ASEAN (Association of South-East Asian Nations) countries and those from Korea, Japan and a number of European countries do not need a visa for short term stays. With reference to the data provided, predict the likely impact of this policy on tourism to Vietnam.

Tourism characteristics: Phu Quoc, Vietnam

Local *scale* tourism in Phu Quoc

Phu Quoc is an island *region* located in the Gulf of Thailand in Kien Giang Province in the south-west of Vietnam (Figure 6.27). With an area of 574 square kilometres, Phu Quoc Island is the largest in this archipelago of approximately 28 islands and, as such, is a popular tourist area. Phu Quoc is part of the Kien Giang Biosphere Reserve designated by UNESCO in 2006. The reserve covers 1.2 million hectares across marine areas and 105 islands, including Phu Quoc Island. Over 50 per cent of Phu Quoc Island is national park.

Previously an economy based predominantly on fishing, the tourism industry has developed over the last 20 years. Tourists were initially attracted to Phu Quoc because of its reputation for white, sandy beaches (Figure 6.28), coral reefs, rainforests and wildlife, together with a constant, warm temperature of around 27°C most of the year. Provision of facilities such as luxury resorts, golf courses, an animal safari and casinos have provided added attractions.

Figure 6.27
Location and features of Phu Quoc

Figure 6.28
A key marketing attraction of Phu Quoc – unspoilt, white sandy beaches

In 2019 the island received 4.4 million visitors, of whom approximately 540,000 were foreigners. Although these are relatively small numbers, total visitor numbers more than doubled in a two-year period. Tourist source countries are *spatially associated* with neighbouring countries with China and South Korea being most significant, followed by Thailand, Singapore and Cambodia. European visitors, notably from Sweden, Russia, the UK and Italy, also feature. The majority of visitors stay for three to four days.

A major stimulus for the development of the tourism industry at this location was the implementation of master plans approved by the Vietnamese government. The aim is to turn Phu Quoc into a special economic zone and a major tourism destination welcoming seven million a year by 2030. Phu Quoc will have three main towns, with Duong Dong (see Figure 6.27) to be developed into a city of 240,000 residents, an increase from the current 60,000, acting as a focus for administration and commercial activity. In order to attract investment, the Vietnamese government provides a 15-year waiver on land rent for companies as well as a 50 per cent reduction in personal income tax.

A new international airport was opened in early 2012 as a key component of the master plan, providing essential *interconnections* with source markets. Approximately 41 flights per day operate, the most frequent of which are routes from domestic flights from Ho Chi Minh City and Hanoi. These two routes make up for 87 per cent of all arrivals. To facilitate the *movement* of tourists, in 2014 the Vietnamese government introduced a 30-day visa waiver for all foreign passport holders visiting Phu Quoc (a doubling of the visa free period approved in 2005).

Impacts and responses to tourism in Phu Quoc

As reported by Phu Quoc Economic Zone Authority in 2018, 197 projects were approved with the aim of providing a focus for trade and tourism services. These covered a total area of 7235 hectares and involved a capital investment of US$9.6 billion. In 2019 there were an additional 300 projects worth over A$20 million operating on the island, the majority for tourist accommodation, services and food processing. Hotel rooms number 20,000 of which 12,000 have a five-star rating. Five-star resorts are typically large *scale* such as the 80-hectare resort and villa complex operated by CEO Group or the 1000-room Sun Group operation which includes a cable car linking An Thoi town and the island of Hon Thom.

Approximately 66 per cent of the Phu Quoc *region's* economy is based on tourism. The booming tourist industry has provided many employment opportunities, but hotels report a shortage of trained workers. More people are *moving* from the mainland in search of jobs and some hotels are providing staff accommodation to attract workers. Others are making links with vocational colleges and schools to provide training courses to meet the rising demand for workers.

The rapid pace of *change* in Phu Quoc Island has raised a number of issues. The negative *environmental* impact has been the greatest concern. Infrastructure development, primarily treatment of waste water sewage, has struggled to keep pace with the increased tourism. An estimated 300 tonnes of waste per day was discharged into the surrounding waters in 2017. Whilst new treatment plants are being built, damage to marine ecosystems is of concern. In addition, rubbish is contaminating beaches and forests – the very features attracting tourists to the island. Litter, primarily in the form of plastics such as bags, straws and food packaging often used by tourists is prevalent along streets and can easily be washed into waterways (see Figure 6.29). Although the larger towns on the island have a public waste collection system, others do not and open burning and burying are common practices. Seaside hotels usually employ a beach cleaning team as shown in Figure 6.30. In addition, local government agencies organise community clean ups and awareness events but this does not provide a *sustainable* solution.

Although Phu Quoc Island has significant cultural attractions such as a Cao Dai temple, fishing villages and traditional handicraft villages, a 2017 survey found that 98 per cent of domestic tourists are not interested in 'cultural tourism'. Ninety-five per cent of foreign tourists expressed interest in expanding their understanding of Vietnamese culture but most of the tourism development to date has not focussed on this but on large-*scale* recreational facilities instead. Local people therefore may be missing out on some of the potential benefits of tourism.

The local government authority submitted a master plan for Phu Quoc Island until 2040 to the Vietnamese Prime Minister in mid–2020 for approval. The master plan focuses on building a comprehensive infrastructure system. It seeks to "promote *sustainable* development, culture, *environmental* protection, security, and harmonisation of economic growth with the conservation of historical and cultural relics". It will also prioritise the development of coastal and riverine areas and public green spaces to improve the quality of life for locals.

▲ **Figure 6.29** Rubbish contaminating waters surrounding Phu Quoc

▲ **Figure 6.30** A team removing rubbish from a beach on Phu Quoc

Application of geospatial technology to manage Vietnam's tourism

Vietnam's Ministry of Natural Resources and Environment first invested US$6 million to obtain Geographical Information Systems (GIS) software and aerial photos for its land administration system in 1995. After the data base was established in 2004, all survey, observation and cartographic data was converted into digital format with the aim of full automation by 2020. Vietnam launched its first satellite, VINSAT-1 in 2008. The Vietnam National Remote Sensing Centre is responsible for receiving, processing and supplying these satellite images. It also develops applications of remote sensing, LiDAR and GPS in assessment and monitoring of natural resources. Such natural resources include land and water resources which are obviously linked to tourism. Land use patterns such as *changes* from agricultural use to tourism development is also monitored.

GIS has been used to identify potential *regions* for ecotourism development such as Ba Vi District in Ha Tay Province located 60 kilometres west of Hanoi. Data was collected from the field and by satellite to plot natural and cultural resources in the district such as mountains, rivers, springs, falls, lakes, reservoirs, national park, forests, gardens, road network, schools and existing ecotourism sites. This enabled specific activities or products to be planned such as lodges, freshwater fishing, wildlife viewing and visiting an ethnic minority village. Another application of geospatial technology by Vietnamese university researchers was the use of GIS to map and analyse the *distribution* of residents' attitudes towards tourism and their perceived impact of it on aspects such as employment opportunities, living standards and crime. They found that urban communities had more negative attitudes toward tourism development than rural communities, therefore it is essential that appropriate information is provided to different communities.

▶ ACTIVITIES

1. a. Discuss the factors accounting for the development of tourism in Phu Quoc.
   b. Which factor do you consider has greatest relative importance? Justify your answer.
2. Examine Figures 6.28 and 6.29. Predict the potential impact on return visitation based on the contrast in conditions shown.
3. Use Google Maps satellite view to examine the *scale* and *distribution* of the built *environment* for tourism on the island. Annotate an image of part of the island to highlight these key patterns.
4. Evaluate the economic, *environmental* and social *sustainability* of tourism in Phu Quoc.
5. What additional information would be useful to enable you to more effectively evaluate the *sustainability* of tourism at sites such as Phu Quoc?
6. Suggest how geospatial technology might be used to help manage the impacts of tourism in Phu Quoc.

7 Nature-based tourism: fieldwork investigation

Tourism is one of the largest industries in the world. In relation to employment and expenditures it accounts for 330 million jobs and 10 per cent of the global Gross Domestic Product (GDP) worth $80 trillion USD. The fastest growing sector of tourism is 'nature-based' tourism. Nature-based tourism can be defined as one where people enjoy the natural attractions of a *place* and engage in nature-based activities. This could include going to the beach. bushwalking, fishing, camping or simply admiring the scenery – like the activities in Figure 7.1. Nature-based tourism establishes and builds on the link between people and nature.

Australia is renowned for its unusual and intriguing landscapes together with its unique flora and fauna. These characteristics attract international and domestic tourists and support an Australian tourism industry worth over $60 billion annually. According to visitor surveys more than 60 per cent of international tourists visited Australian beaches, state and national parks and botanic gardens on their trips. Seventy-seven per cent of international visitors undertake some form of nature-based tourism, compared to 37 per cent of domestic tourists.

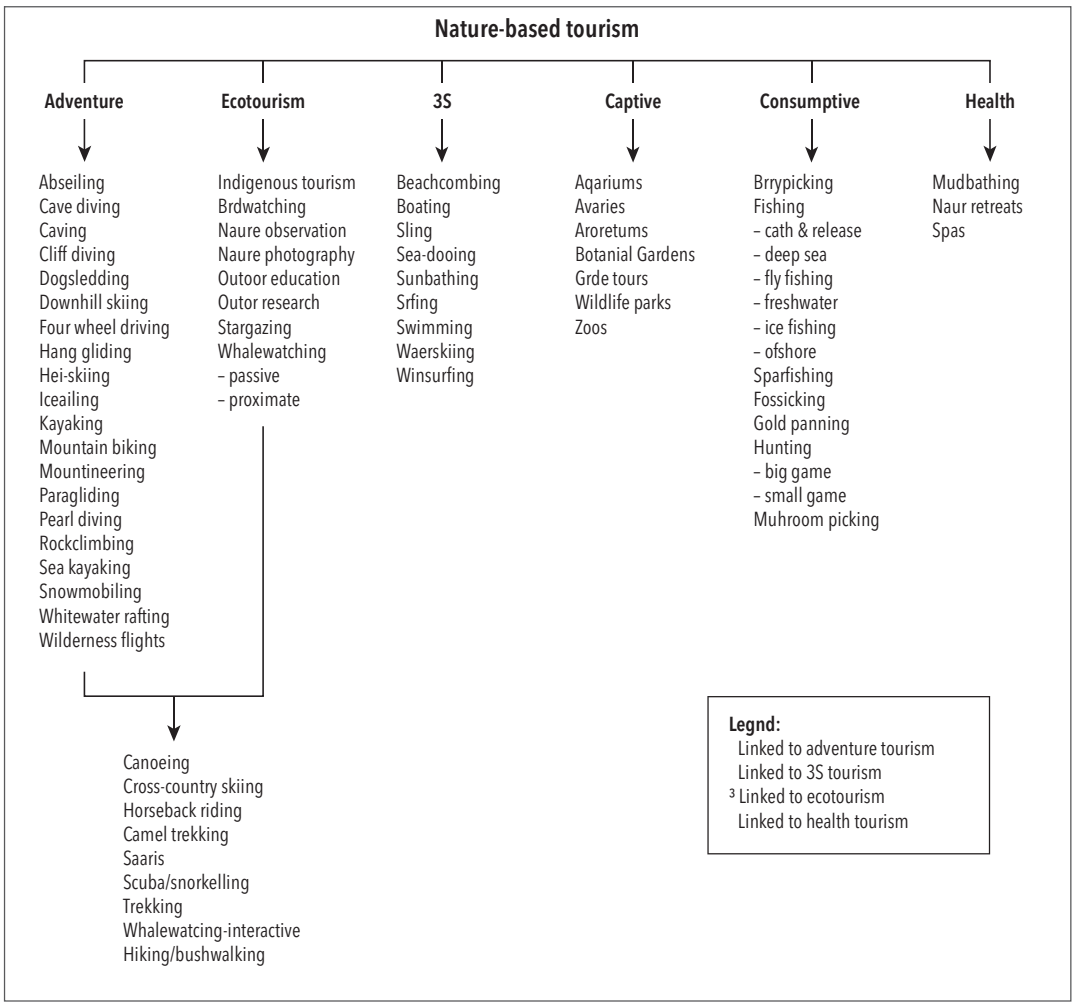


Figure 7.1 Specific nature-based tourism activities. This taxonomy of specific tourism activities includes 3S tourism which is 'sun, sand and sea' tourism. These specific activities overlap with a variety of other forms of tourism

Figure 7.2 Nature-based tourism activities in Victoria: **(a)** Phillip Island and **(b)** the Grampians/Gariwerd

The trends in the nature-based tourism markets reveal that people are seeking authentic experiences in unique locations that are memorable, engaging and intimate. Additionally, tourists seek experiences and locations that actively reduce their impact on the *environment* through biodiversity conservation, carbon reduction initiatives and engaging in *sustainable* practices. Nature-based tourism relies on experiences directly related to natural attractions and includes a range of other types of tourism such as ecotourism (see Chapter 5), adventure tourism, wildlife tourism and nature retreats.

Victoria hosts a number of sites that are major nature-based tourism attractions, including the Great Ocean Road, Phillip Island (Figure 7.2 (a)), the Grampians/Gariwerd (Figure 7.2 (b)), Gippsland and the Victorian High Country, as well as the captive nature-based sites such as Zoos Victoria, Museum Victoria and the Royal Botanic Gardens Victoria. There is an increasing need for Victorians to protect and utilise its *environmental* assets to deliver co-benefits to the economy and *environment*, and to help communities become more liveable, resilient and adaptable to *changing* climates.

This chapter focuses on the Melbourne Royal Botanic Gardens but can also be used as a framework to analyse any tourist attraction. Natural spaces and gardens are numerous in Victoria and help form the unique character of our liveable state and provide an accessible site for investigating nature-based tourism. There are over 1800 botanic gardens and arboreta globally, 140 nationally and 29 in Victoria alone. Victoria has more than two dozen botanic gardens located across the state, including those at Ballarat, Creswick, Shepparton and Bendigo. Botanic gardens are establishments where plants are grown for scientific study and display to the public and arboreta are botanic gardens dedicated solely to trees. Such gardens typically have been developed on natural sites such as around water or on sloping or steep land. Their development over time may be so extensive that the original appearance of the site has been transformed. They appear natural and function in natural ways but are maintained and modified regularly by people.

Fieldwork investigations are composed of qualitative and quantitative data collected in the field or archive (primary data) and remotely at your desk or in a library (secondary data). Using these types of data to answer the key research question is what makes geographic inquiry authentic and challenges geographers to develop skills in writing, analysing and presenting the results. The in-depth fieldwork inquiry is an organised team effort where data and observations can be shared and discussed among the group as part of the analytical *process*. The presentation and communication of the findings is a combination of graphical and written expression that addresses the key research question.

ACTIVITIES

1. What do you see as the difference between nature-based tourism and ecotourism?
2. Where are the nearest nature-based sites to your school or home that you could reach within an hour by car or bus?
3. Suggest why botanic gardens have been developed close to major population centres?

CASE STUDY

Royal Botanic Gardens, Melbourne as a fieldwork site

Introduction to the Royal Botanic Gardens, Melbourne

For over 175 years the Royal Botanic Gardens has attracted visitors including domestic and international tourists each year. In 2019 these gardens, together with the Cranbourne Gardens in Melbourne's south-east, attracted 1.9 million people. These two sites are among Victoria's most valued cultural assets and make for a dynamic VCE fieldwork location for investigating Unit 2: Tourism: Issues and challenges.

One of Victoria's great tourist attractions, the Royal Botanic Gardens is situated along the Yarra River, and just south of the city's Central Business District (CBD) – see Figure 7.3. Adjacent to the Gardens are major tourist and entertainment sites: the National Gallery of Victoria, Arts Centre, Southbank, the Sports and Entertainment Precinct, the Shrine of Remembrance as well as the attractions of the CBD. This *spatial association* allows visitors a variety of choices and experiences within a short *distance* of eac other.

The Gardens occupy 38 hectares and house a collectin of 50,000 plans representing 8000 speci es from around th orld. The site is also home to the National Herbarium of Victoria, which holds a 500-year-old collection of preserved plants, algae and fungi, cataloguing over 1.5 million specimens. This collection includes specimens collected by Joseph Banks in 1770 as well as by Charles Darwin in the late 19th Century. It is the oldest scientific institution in Victoria. In addition, the gardens include the Melbourne Observatory and the Ian Potter Foundation Children's Garden which comprise the forthcoming 'Nature and Science Precinct'. There is a combined value of cultural, *environmental*, economic, educational and recreational activities available and therefore a multifaceted opportunity to investigate the role of tourism.

History of the Royal Botanic Gardens sites

The pre-European language of the Melbourne area includes three dialects, Daung wurrung, Woi wurrung, and Boon wurrung. These are part of a group of related Indigenous languages collectively known as th Kulin group f languages belonging to the Kulin ation. The site of the Gardens has long beena signficant meeting *place* for the Kulin, paticularly the oi wurrung speaking clans and the Boon wurung speaing clans that occupied the

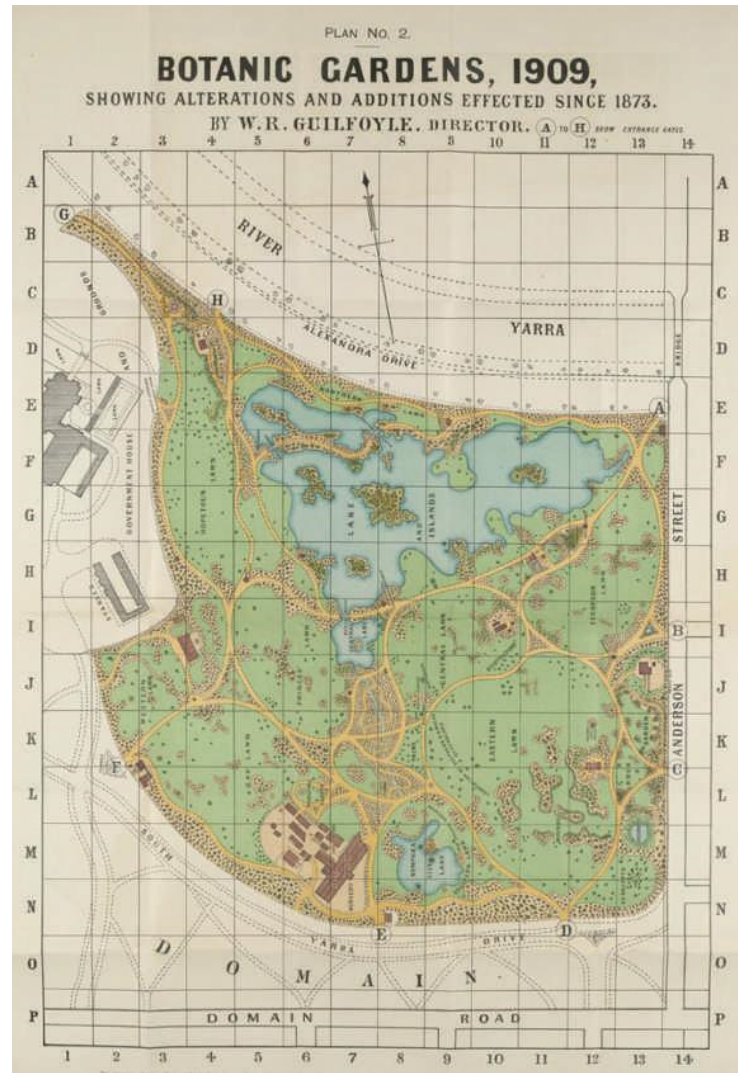
Figure 7.3 Location of Royal Botanic Gardens and surrounding area

▲ **Figure 7.4** The ornamental lake (shown here) near the Yarra River is the historical lagoon near the Yarra River, known as Tromgin by the local Indigenous communities. Today it offers punting tours of the wetlands

Melbourne area. The site was a meeting *place* and corroboree ground that included fertile wetlands along Birrarung or the Yarra River. The lagoon along the river was originally called 'Tromgin' in the Woi wurrung language. Today this lagoon has been transformed into the Ornamental Lake shown in Figure 7.4.

In 1836 the Governor of New South Wales, Sir Richard Bourke, requested that William Lonsdale assist George Langhorne with establishing the first Government Aboriginal Mission at the present day Botanic Gardens site on 362 hectares. The Yarra Mission was short-lived and eventually the land was set aside for the development of botanic gardens, to serve both a scientific and recreational purpose.

By 1846, Melbourne's Royal Botanic Gardens were established by Lieutenant Governor Charles La Trobe. Planning and development passed through multiple directors but was heavily influenced by founding director the Victorian Government Botanist Dr, and later Baron Sir, Ferdinand von Mueller. For 16 years, Mueller saw the development as predominantly a scientific exercise, but it was his successor William Guilfoyle who managed to integrate its scientific purposes with aesthetic beauty. Widely regarded as the architect of the Gardens, William Guilfoyle was appointed director of the Gardens in 1873 and in his 36-year tenure he crafted much of today's landscape. Guilfoyle is credited with creating the picturesque landscapes using vistas, meandering paths, ornamental lakes, archways and pavilions throughout the garden. The impacts of his efforts are clear in Figure 7.5, a map completed on Guilfoyle's retirement in 1909, and photographs of the gardens today (see Figure 7.6).



▲ **Figure 7.5** Guilfoyle's Garden Plan. This map, completed on Guilfoyle's retirement in 1909, still forms the basis of the Garden's management today. Courtesy of State Botanical Collection

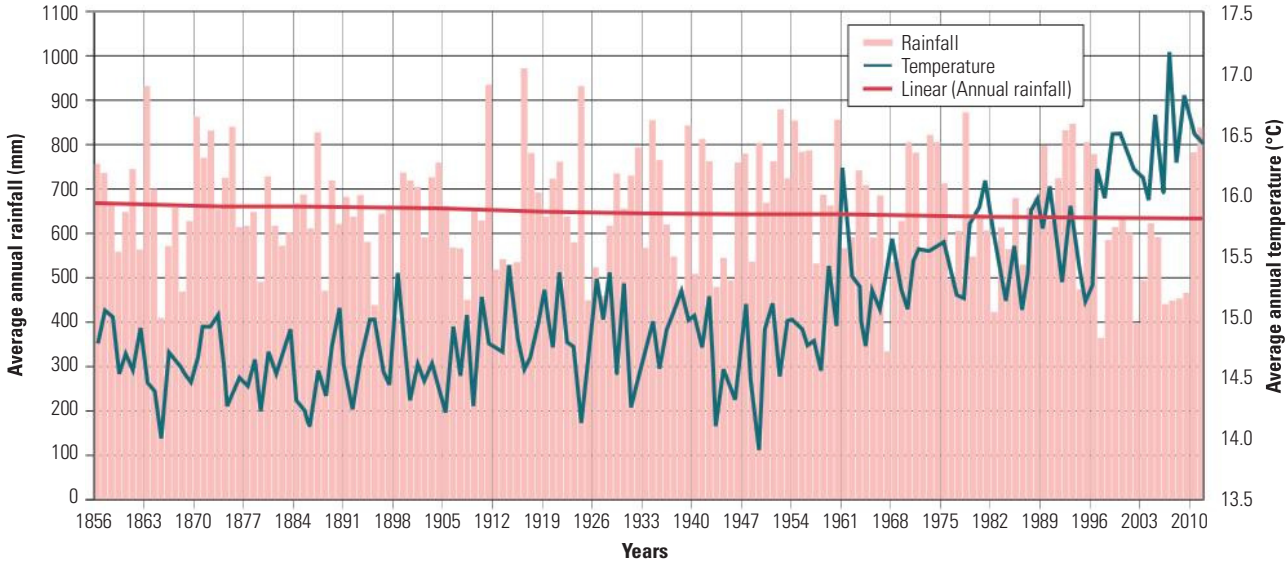
In 1970, the Royal Botanic Gardens Victoria expanded its holdings by developing a site of 363 hectares for the Cranbourne Gardens. The Cranbourne Gardens are located 40 kilometres south-east of the Melbourne Gardens. It is home to wetlands, woodlands and the contemporary Australian Garden that houses 100,000 native plants. This successful site has been open to the public since 1989 attracting around 250,000 visitors yearly.

Tourism overview

The Royal Botanic Gardens Victoria is governed by five executive directors and one chief executive. The Executive Director of Engagement and Impact oversees programming and audience development, visitor experience, access, philanthropic fundraising, marketing, communications, business development, retail and tourism.

▼ **Figure 7.6** Exploring the Gardens: **(a)** people resting on Tennyson Lawn; **(b)** photographers capturing close-up images of the arid garden collection; **(c)** Guilfoyle's Volcano planted with water plants and succulents

Figure 7.7 Melbourne City rainfall and temperature data, 1856 to 2012



The Royal Botanic Gardens Victoria – Melbourne Gardens Master Plan 2020–2040 integrates with the State of Victoria's Biodiversity 2037 plan that supports nature-based tourism in Victorian Parks and generates 14,000 jobs and $1.4 billion annually. The potential to maintain and increase the Gardens' attraction is obvious: more than 1.4 million international nature-based tourism visitors travel to Victoria each year, accounting for more than 35 million overnight stays. Domestically there were 4.3 million day trips by nature-based tourists to the Gardens. In addition, there are many thousands of people visiting every week who simply spend an hour or so before passing through the Gardens on their way to work or to shop or to meet up with friends, perhaps at one of the nearby attractions.

The Gardens focuses on visitor experience by providing a range of spaces where people can gain knowledge of *environmental* issues, as well as reconnect with nature. The Gardens offer nature-based experiences through sensory gardens, canopy gazing, guided meditations and forest bathing, all of which promote wellbeing for participants. This nature-focused approach is linked to what is known in *environmental* psychology as the biophilia hypothesis, stating that the natural world is important for wellbeing. The health benefits of connecting with nature through visits to parks is estimated to save Victoria up to $200 million per year by mitigating disease, mortality and lost productivity.

Indigenous cultural tourism is expanding to meet the growing international demand for Indigenous cultural experiences. The nature-based approach of today's Melbourne Gardens focuses on the spirituality and traditional connection Aboriginal and Torres Strait Islander people have with the land and the uniqueness of Australian native plants. Visitors can take guided Aboriginal heritage walks, virtual tours and participate in cultural ceremonies in both Melbourne and Cranbourne Gardens.

The *changing* climate poses a challenge to the Gardens and nature-based tourism in general. The Landscape Succession Strategy seeks to adapt the landscape to the likely impacts of future climate *change* in the south-east of Australia. Prolonged and more severe droughts, warmer and drier summers are emerging. This is posing real issues to the Gardens' management: dwindling water supplies, ageing plant populations and threats to plant health. The strategy aims to diversify the plant collections to ensure the gardens thrive in a warmer climate while continuing to provide shade and *environmental* cooling for visitors. The Gardens have many micro-climates. On days when much of inner Melbourne experiences over 30°C degrees, locations such as Fern Gully and Oak Lawn can be 6 degrees cooler.

The trends in annual rainfall and temperature shown in Figure 7.7 are clear indications that species need to be replanted to keep pace with the *changing* climate. The linear trend line for rainfall has decreased by approximately 40mm, while the average temperature has risen by nearly 2°C between 1856 and 2012. These *changes* are driving the Garden's scientists to modify their plant collection.

Royal Botanic Gardens Victoria ranks in the top 5 per cent of the world's leading botanic gardens based on the rare and unique species in its collection and remains a centre of excellence for horticulture, science and education. In 2019, it received the highest award in the state for Tourism Achievement (Figure 7.8), which indicates the value and growth of nature-based tourism in the marketplace.

Figure 7.8 The Royal Botanic Gardens was the winner of the Major Tourist Attraction Award in 2019


Category
01. Major Tourist Attractions

Winner
Royal Botanic Gardens Victoria
Visit Victoria

Delivering exceptional tourism experiences across two iconic locations, the Royal Botanic Gardens is one of Victoria's most prized natural attractions. Targeting visitor growth, the garden spaces were brought to life in 2019 with an expanded program of tourism-arts events. Enhanced by a range of quality hospitality and retail services, the Garden's signature guided tours showcase award-winning design and an incredible natural heritage. Visitors soon discover the story of Australia's enduring love affair with botany and landscapes, from the time of the Kulin nation, Australia's first settlement, modern Australia and into the future.

Fieldwork Report

Starting the fieldwork report

The fieldwork report is a cumulative product that draws on a range of statistical data and other information. In the VCE classroom best practice is that the class cohort uses the same site so there is a combined effort to understand the multiple *interconnecting* factors at play and to share information. At each step of the *process* students explore deeper into the data and find connections between characteristics, issues and impacts. The final individual reports should reflect this and explicitly demonstrate an understanding of geographic concepts, skills and knowledge, as well as following the VCAA Study Design formatting standards.

The following workflow is a stepwise approach to commencing the investigation:

1. Select an accessible and interesting *place* to be investigated with your teacher and classmates.
2. Determine a timeframe to work that aligns with the sequence of the unit.
3. Conduct preliminary reading and research into the site activities to help develop a central theme.
4. Develop the research question. This is critical step that should drive the inquiry and focus each section of the report.
5. Consider likely answers to the research question by developing a hypothesis.
6. Explore ethical and logical problems that data collection may pose before committing to specific data gathering techniques.

Research question and hypothesis

After thinking about the topic, the location and the basic information on the site, students can explore the research questions and related hypotheses. You may need to revise the key research question over the course of a project. However, the revision should be minimal since the key research question will determine data collection techniques. Use these questions to guide your development of the key research question:

- Is the research question geographical in nature?
- Has the question been answered already?
- Is the question too broad, too narrow, or too complex?
- Is the question one that can be answered given the time and resources set aside for the study?
- Will the data collection methods produce sufficient and accurate information?
- Can the question be answered within ethical guidelines so as to not impact negatively on any participants?
- Can the data be *processed* and analysed to align with the key research themes?

Examples of possible key research questions and hypotheses are shown in Figure 7.9.

Site-specific research begins once the planning and groundwork has been explored and drafted. Research is generally classified as primary or secondary. Secondary data is gathered from external sources such as books, articles, the Internet, publications, masterplans and annual reports. This secondary research is typically conducted at your 'desktop' or in a library and forms the broader information that guides your data collection techniques in the field.

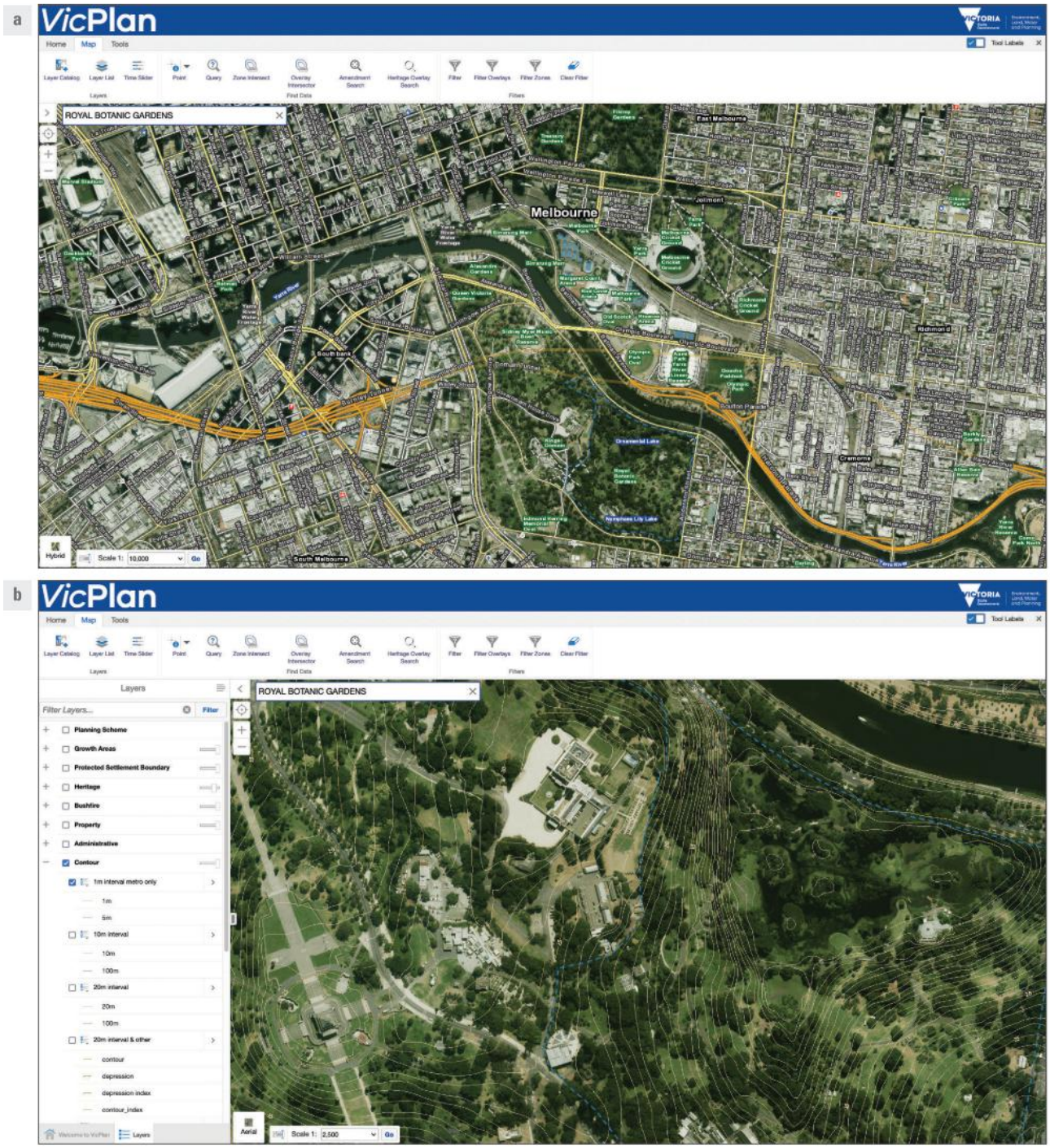
Figure 7.9 Possible key research questions and hypotheses

Key research questions	Hypotheses
What are the busiest areas of the Gardens and what impact is this having on the *environment* of these areas?	The lake and kiosk areas are the busiest leading to crowding, more litter and damage to planted areas including lawns.
What part of the Melbourne tourist experience is the Royal Botanic Gardens, Melbourne?	Less than 20 per cent of users make the Gardens their prime destination and use of time.
What micro-climates exist in the Gardens and how do these affect their use on a particular weather day?	There will be considerable variations in temperature and light values within the Gardens with shady but warmer areas being most used.
What proportion of visitors are passing through the Gardens and not looking at its features?	The majority of visitors stay less than 30 minutes and aim to go to other destinations in the *region*.
What are the main issues facing the Gardens? Does it involve climate *change*?	Issues of vandalism and litter are immediate issues while climate *change* is a longer term issue.

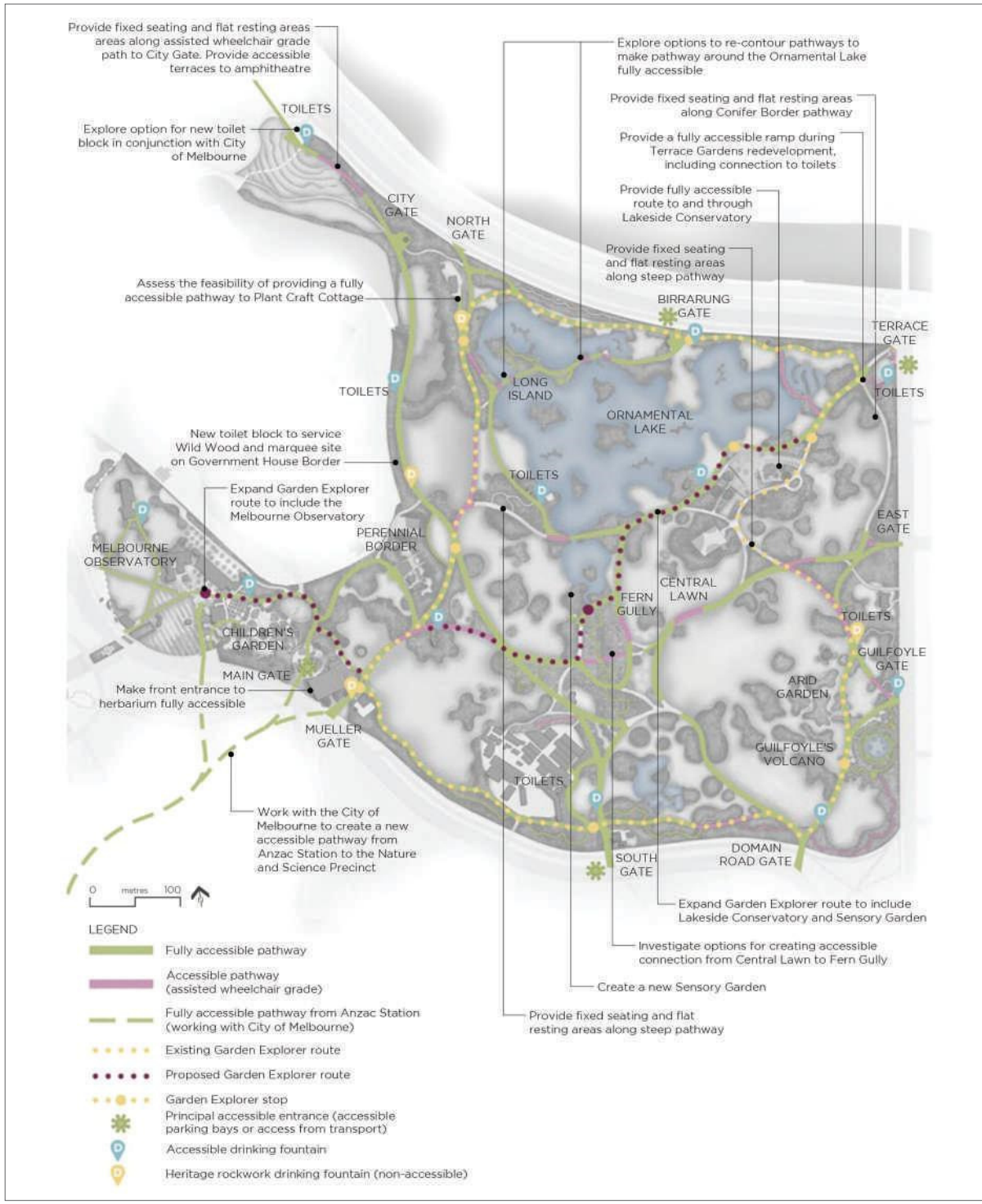
An example of web-based secondary data collection is shown in Figures 7.10 (a) and 7.10 (b). Interactive maps hosted by the Victorian government help researchers generate authentic and up-to-date Geographic Information System (GIS) maps. GIS are computer systems that generate layers of digitial spatial information that can be visualized in map form such as transport corridors, satellite images, flood maps, thermal imaging and contour maps superimposed onto one image. Much of this information is gathered through remote sensing instruments on satellites and aircraft and can be accessed through databases such as the interactive maps hosted by mapshare.vic.gov.au. This type of database allows for the export of legends, maps and accurate *scale* bars, resulting in professional quality data sets.

Figure 7.11 is an excerpt from the *Royal Botanic Gardens Victoria – Melbourne Gardens Master Plan 2020–2040*, which is a document with valuable information that should be read before going into the field. This is a critical point where students can check if their research questions are specific enough by searching through detailed publications about the fieldwork site.

Figure 7.10 VicPlan (MapShare) interaction maps allow for multiple overlays to be added to create a GIS map of specific sites: **(a)** shows the Royal Botanic Gardens in the *regional* context of the CBD and **(b)** shows topographic data with contours at 1 metre intervals laid over the satellite imagery



▼ **Figure 7.11** Accessibility Plan from the *Royal Botanic Gardens Victoria – Melbourne Gardens Mastr Plan 2020–2040* .
The annotated *movement* plan seeks to facilitate as many users as possible through a curated experience of the botanical collection. Note the similarities and differences from the 1909 Guilfolye Plan



Primary data and fieldwork techniques

One of the most critical parts of the research *process* is primary data collection. This includes interviews, photography, participation in tours and gathering empirical data using all the senses. Planning for this includes pre-writing questions, organising meetings, printing surveys as well as gathering other materials and instruments. Equipment in the field may include clipboards, infrared cameras, sketching materials, audio recording equipment and measuring devices such as a pedometer or AR (augmented reality) distance-measuring devices built into many smart phones.

Having a variety of data is important for the *processing* of the data later and shows that the researcher is comprehensively observing the *environment* using multiple inputs.

Justification of the data collection techniques can be a statement of how the data is appropriate to the research question and how it is collected ethically. There should be a logical connection between the type of data collected and the key research question. Other factors in the justification may include limitations around the fieldwork site. Figure 7.12 is a summary of useful fieldwork techniques that can be adapted to many different sites.

▼ **Figure 7.12** Fieldwork techniques and their application

Technique	How to conduct	Useful for
Field sketches	Sketch a landscape or detail of an area focusing on the main features. Sketching from a photo taken on your phone is a viable approach.	Identifying vistas, highlighting focal points, documenting multiple interacting features.
Transects	Record specific information along a designated route through an area.	Analysing the frequency of amenities, services or functions of a built-up *environment* to demonstrate the character of a *place*.
Land use surveys	A RICEPOTS analysis can be used in a transect or aerial map. This classifies land uses as residential, industrial, commercial, entertainment, public building, open space, transport and services.	Showing patterns of use, infrastructure and investment. This data can be analysed to show past, present and future uses.
Geographic Information Systems (GIS)	In the field, smart phones can geotag locations simply taking a photo. The resulting metadata can be extracted later for use in overlays.	Smart phones constantly use satellites to record location, even when out of data range. This metadata is stored in images and can be accessed on a computer to show orientation, coordinates, time, *distance* and *movement*.
Maps	Bringing blank base maps into the field will allow for data to be added on the spot as annotations, colour coding and route tracing. These maps can be redrawn later for clarity.	This data can accurately document *movement* through a site, vistas, activity hotspots, observations and features not otherwise shown on conventional maps.
Traffic counting	Pedestrians, bicycles, public transport, freight and private vehicles can be counted in designated locations for a period of time.	This data will show the rate of flow at specific locations to be extrapolated to make estimates for longer periods of time. This data can be mapped and graphed.
Parking analysis	Bike racks, parking meters and car parks can be quantified along with the hourly cost and time restrictions signposted.	This information will show patterns of use beyond the observation period and indicate the type of access that is encouraged by local authorities.
Environmental Quality Surveys	Use your judgement to assess the quality of an *environment* against multiple indicators and weights. For example: building condition, litter, sidewalks, street furniture, vegetation and air pollution can be given scores.	This observer-based assessment will focus the researcher's attention to specific details in the *environment* and add to the evidence that can be used in answering the research question.
Questionnaires	A brief set of questions to be handed out to willing participants can act as a quick assessment of how people use an area, where they travelled from or why they chose the area.	This data can be quantitative or qualitative based on how the questions are structured. Quantitative data for example might use a numbered (Likert) *scale* to gauge a participant's agreement with a question. This can be graphed later and quotes can be used in the write up.
Interviews	Brief chats with people where the researcher records basic information about the interview and the question responses. Questions can be open-ended or closed. Consider your ethical obligations in conducting interviews e.g. introducing the purpose and length of interview, use of data, seeking permission, etc.	Interview data can be quantified based on question types, but more often than not this will give the researcher an instinct as to how a location is used, appreciated, invested in and interacted with by the participants. Your sample size is a factor in the validity of your findings.
Observations	General observations are taken through the senses. Smells, sounds, sights, temperature, wind, textures, colours and openness of areas can be recorded.	This qualitative data is valuable in judging a site and noticing small details. This information is just as valuable as other types of data collected as long as it is appropriate to the research question.
Annotated photos	Select key photos for use in the report and annotate these using text boxes and arrows. Take images as evidence for your research question response. Details in photos will be valuable after the fieldwork is over.	Identify key features in the annotation, caption the images and even number the images on a map. The photos selected should identify evidence relevant to your research question.
Re-photography	Seek out historic photos of a site. In the field try to re-create the image from the same vantage point.	Side by side comparisons of images can show *changes* over time, such as *changes* in technology and land use.

Collecting data from surveys and interviews

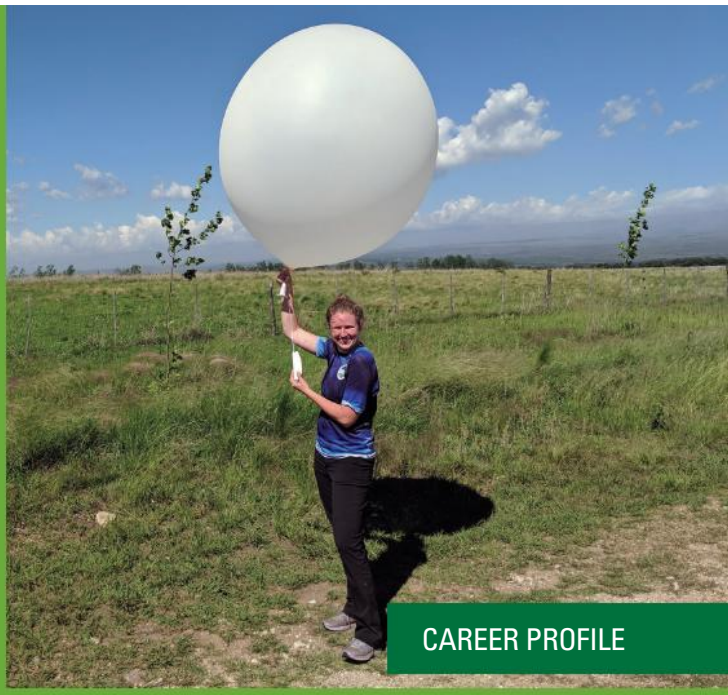
Your fieldwork site may be used by many or few people. If many use the site, you can only sample some of them. If few people use the site, it may be possible to question all or many of them. The size of your sample is critical because it influences how representative the responses are. Follow these points about sampling:

- The fewer persons sampled, the less reliable your conclusions will become. Aim for at least 50 persons at a large or busy site.
- You need to avoid bias: do not only question people of the same age or gender or ethnicity, and to ensure a variety of visitors avoid only interviewing at the same time of day or day of the week.
- Too many questions can result in a lot of data to *process*. Keep the number of your questions to around four or five. Remember that five questions asked to 50 people will produce 250 pieces of data to *process*.
- Avoid personal questions. Ones regarding age, gender, ethnicity may be too personal and most answers might be obvious without the need for a specific question.
- The *place* where people live can be ascertained by asking something along this line: "where have you come from this morning/afternoon?" A further question could relate to where else they have visited or intend to visit.

The questions asked in your survey should relate to your key question and hypothesis developed earlier – otherwise you will be collecting data that may be of little use. Develop your questions as a group and try them out on other class members. Adjust the wording of your questions to avoid possible vague or ambiguous responses. Some possible questions that could be used to test some of the hypotheses in Figure 7.9 are:

- Which parts of the Gardens have you used or visited today?
- How long are you likely to spend here?
- Is this your first visit here?
- If yes to the above question: what attracted you to the Gardens?
- If no to the question: how often have you visited here?
- What do you think could be done to improve the experience of your visit or visits?

Dr Stacey Hitchcock
Atmospheric Scientist/ Meteorologist



CAREER PROFILE

As a child growing up in the US, I was terrified of thunderstorms. At some point, my fear turned to fascination, and I've been trying to understand how thunderstorms work ever since. As a student, I studied meteorology with emphasis on mathematics and physics. Now, most of my work focuses on how storms grow to become larger and last for a long time, which is called storm organization. The organization of thunderstorms determines how they impact people – from essential rainfall for communities to damaging flash floods, hail, wind, tornadoes, and turbulence experienced by aircraft passengers. Better understanding of the environments and the physics of these organized storms can help us to improve both short-term prediction of thunderstorm hazards and long-term prediction of how they might change in the future. Many of my projects have included fieldwork, including several projects where we've launched radiosondes (instruments that measure temperature, pressure, humidity and wind) attached to weather balloons in and around storms to better understand them.

In some of my recent work with colleagues from the University of Melbourne and the Bureau of Meteorology, we looked at how frequently Melbourne storms occur in lines – for example, the kind you might see with a cold front. We also looked at how those 'linear systems' contribute to extreme rainfall in the region, and what characteristics (size, speed, intensity) defined more extreme events. One of the unique aspects of Melbourne is that we are surrounded by terrain in three directions, and the Southern Ocean to the south, all of which interact with the atmosphere and influence how local storms behave!

Expect that some people being interviewed may be able to give a wealth of additional material. This information could add valuable depth and insights to your final report.

Ethical data collection statement

Collecting data in the field can pose ethical risks. A clear statement demonstrating the purpose of your research and how data will be ethically collected is a standard practice in report writing. Examples of how data can be unethically collected may include whether participants are informed and consent to their images (Figure 7.13) or statements being recorded, whether photography is permitted in the location such as on public transport or via an Unmanned Aerial Vehicle (UAV) or drone, and whether the collection of data disrupts the normal *movement* of people or takes away from the experience of visitors in general. Once these are taken into account a harm minimisation statement can be written according to the specific site showing that researchers understand ways to manage the risks involved.

Processing and analysing the data

After the initial visit to the site, the recorded data needs to be reviewed and analysed for patterns, features, themes and *interconnections* that emerge. Field sketches and photographs should be *processed* to include information about the subject matter as well as the experience of taking the image, such as the temperature, the *movement* and the direction or time of day. Annotations of photographs to show key characteristics will aid your analysis of the fieldwork site. Figure 7.14 is one example.

▲ **Figure 7.13** Wide angle photography is less invasive whereas close-up photography of people without prior consent can negatively impact on visitor and staff experiences

▼ **Figure 7.14** Photographs can be *processed* to show multiple layers of data through annotations. An example of an annotated photograph showing the metadata and comments about the subjects in the image

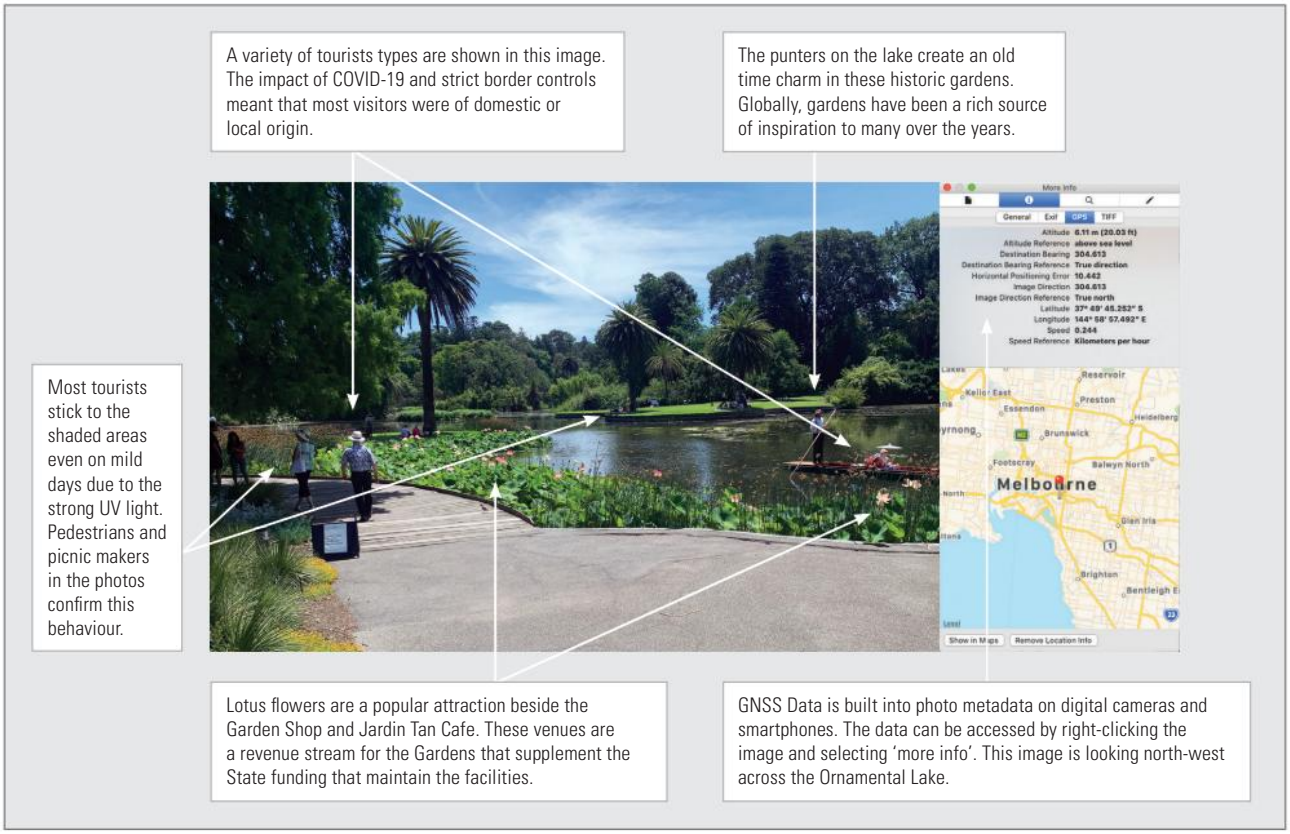


Figure 7.15 Paths and bridges allow visitors to wander through the Fern Gully of the Royal Botanic Gardens

Metadata can be extracted by searching for file information on the computer. Quotes can be extracted from interviews and surveys, and tables used to summarise the data in a succinct way.

Both the secondary desktop research and fieldwork data are *processed* accordingly to give context and meaning. At every step the research question should be revisited to ensure the data and the analysis is helping answer the question. Reports will be more authentic if they show evidence of a rigorous and reflective approach.

Geography is a unique field that attempts to utilise visual, graphical and text-based representations of the lived experience. Value is added to the report by clearly and logically developing the research question as well as explaining the multiple interacting phenomena involved in what is being studied. This is the most important aspect of the report as it lays out the data clearly and sets the reader up for the conclusion.

Concluding

The conclusion is a chance to summarise the findings briefly and discuss the value of the research. This overview of the investigation summarises information briefly and discusses the wider applications of the findings by situating the study within the context of tourism issues and challenges. It directly answers the research question in a statement of findings and can reflect on the merits of the study and whether the hypothesis was confirmed or rejected.

Evaluating methods and fieldwork techniques

The final written element of the report is the evaluation. The key areas to reflect on are the research question, the research design, the fieldwork techniques, harm minimisation steps put in place and the reliability of the data. The evaluation is a self-assessment of the *processes* and findings from an impartial, critical and objective view. How could the investigation and reporting be improved if they were done again? The weaknesses and limitations of fieldwork may include limited resources, errors in data collection, population sampling problems, equipment limitations as well as new questions that emerged or new opportunities for research.

Formatting the report

Formatting follows the formal standards of presenting academic information. Unit 2 Geography Fieldwork reports should be 1500–2000 words in length, have headings that signpost for the reader, pages that are numbered, with all illustrative material numbered, captioned and integrated into the body text. Finally, all outside information is referenced to a standardised format such as the Harvard Australian format. Australian Government Publishing Service (AGPS) Harvard is an author-date style meant to be included as in-text citations. The details of these citations are then included in a reference list, organised alphabetically, at the end of your report. An example would be:

In-text reference: (Howe, et al., 2005)

Detailed Reference:

Howe C, Jones RN, Maheepala S, Rhodes B (2005) *Implications of Potential Climate Change for Melbourne's Water Resources*. CSIRO Urban Water and CSIRO Atmospheric Research and Melbourne Water.

ACTIVITIES

1. Create a diagram outlining the key features and functions of the Royal Botanic Gardens, Melbourne.
2. "*Change* is an on-going major feature of the Royal Botanic Gardens, Melbourne site." To what extent do you agree with this statement? Be sure to document your answer with specific reference to maps and strategic plans.
3. You are taking a friend from interstate through the Gardens. You plan to enter at the Main Gate and exit through the Guilfoyle Gate. You both want to visit the Fern Gully (Figure 7.15) and walk around the Ornamental Lake. Work out and present a route for your visit.

CLASS ACTIVITIES

1. In a group, research the climate *change* adaption strategies that are in place for the Melbourne Gardens. What current towns in Australia does the Bureau of Meteorology say Melbourne's climate will be similar to by 2090? What are botanists at the Royal Botanic Gardens doing to prepare the plants for the *changes*? What challenges are involved in this *process*? Which types of plants will be most affected by the *changes*? What plants more suited to predicted climates are now being suggested for planting in future?
2. In pairs, write three to five questions that would be suitable to ask a visitor to a botanic garden and a brief statement of how you might ask for the interview on the spot. Role play the scenario in class. Evaluate their likely use in the field and afterwards in analysing data.
3. Organise a virtual incursion for the class. Select a key contributor to the Protecting Victoria's Environment – Biodiversity 2037 plan and reach out to them with a request to give a 15-minute virtual presentation to the class on a specific topic, such as nature-based tourism.

ONLINE ACTIVITIES

1. Strava is an internet service for tracking human exercise, mainly used for cycling and running using GPS data. Use the Strava heat map function to see the routes that people use most frequently for recreation around the Royal Botanic Gardens, commonly referred to as 'the Tan'. How do the Gardens facilitate recreation?
2. Using Google Scholar online, search for references to nature-based tourism in Australia as well as other countries. In what ways is Australia considered a leader or follower in this field?
3. Since the COVID-19 pandemic, the Royal Botanic Gardens Victoria has created multiple virtual tours which are hosted on their YouTube channel. Explore the Gardens by viewing the videos.
4. Use one other botanic garden site within Victoria, or elsewhere in the world, and make a comparison of its main features with the Royal Botanic Gardens, Melbourne. Decide on around six to eight features to compare and contrast.

Glossary

airbnb: an online commercial service in which individual homeowners rent out rooms or entire properties to tourists for a few days, weeks or longer periods

backpackers: travellers carrying nearly all their holiday needs, such as clothing, toiletries and camera in a backpack. Associated with low-cost, mobile and independent travel.

budget airlines travel: low-cost air travel, usually without optional services such as in-flight catering, music and films

carbon footprint: amount of greenhouse gases generated by activities involving the use of fossil fuels and impacting on global warming. Measured in tonnes, or parts per million of the atmosphere, per year; the footprint can refer directly to carbon dioxide and/or the carbon dioxide warming equivalent of other greenhouse gases such as methane or nitrous oxide

carrying capacity: the maximum level of *sustainable* visitor use possible in a *region* before that *environment* degrades

cartography: the art and science of graphically representing a geographical area, traditionally on a flat paper surface such as a map or chart, and more recently includes digital mapping for mobile electronic devices

charity tourism: travelling to a *place* and carrying out voluntary work to improve the wellbeing of local people and or the *environment*

coastal resorts: facilities developed for tourists in coastal areas. They include accommodation, recreation facilities and shopping centres.

commodification: using the culture of a *place* and cultural artefacts as commodities to sell for profit

conservation: management and use of resources to ensure they are not depleted or damaged

coral reef: a large underwater living structure formed by the accumulation of colonies of coral polyps and held together by calcium carbonate. Coral reefs are considered to be the "rainforests of the seas" due to their remarkably high biodiversity with so many species living on or near the coral.

coral cay: an island usually formed from the accumulation of reef sediments on top of a coral reef

continental island: unsubmerged parts of the continental shelf that are entirely surrounded by water

cruising: travelling on ocean-going vessels as part of a holiday experience, beyond a primary focus of going from one *place* to another; mainly occurs on specially-designed cruise ships

cultural tourism: travelling to experience the history and present culture of a society

dark tourism: travelling to sites associated with tragedy and death

degradation: a decline to a lower condition or quality

direct impact: in the tourism industry, direct impact refers to the immediate revenue generated due to expenditure by tourists in exchange for goods and services; may also refer to a direct response from a *change* such as a direct *enviromental* impact from tourists' pollution

disposable income: the amount of money available to a person after taxes and ongoing expenses have been met

domestic tourism: tourism by inhabitants touring within their own country

dredging: the removal of silt, sand or other material from the bottom of a body of water

ecotourism: 'responsible travel to natural areas that conserves the *environment*, *sustains* the wellbeing of the local people, and involves interpretation and education' (The International Ecotourism Society, 2015)

educational tourism: travelling with the purpose of learning about *places* or gaining a skill or specialist knowledge, usually through an organised course of study

enclave tourism: tourism within a resort complex with minimal interaction with the outside *region* including its *environment*, population and culture

ethical tourism: aims to minimise the negative impacts of tourism on people and the *environment*, including travelling to and from destinations

ethically-produced products: products and services produced in a way that minimises social and/or *enviromental* harm

expenditure: the amount of money spent

foreign exchange: money earned from other countries in foreign currencies such as Euros or US$ when tourists purchase local goods and services

gap year: a break taken from studies by students to allow travelling and or work periods

gentrification: the buying and renovation of real estate by high-income earners causing a rise in real estate prices and displacing and excluding low-income families and small businesses from the housing market

Geographic Information Systems (GIS): a computer-based system used to collate, analyse, produce and present digital data in a spatial form. It includes, but is much more than, a highly sophisticated way of quickly, cheaply and accurately conducting research into *spatial associations*, and of mapping.

geospatial technology: a range of integrated systems and their components (GNSS, GPS, GIS, etc) that use digital geographical data to collect, analyse, compare and display information; also known as spatial technology

Global Navigation Satellite System (GNSS): systems of multiple satellites providing global coverage that transmit position and time data to Earth-bound GNSS receivers for use in navigation and the analysis of geographic data. The GNSS's individual networks include Galileo, BeiDou, NAVSTAR, and GLONASS.

Global Positioning System (GPS): a computer-based system that allows accurate positioning (usually in latitude and longitude) of a receiver anywhere on, or near, the surface of the Earth. It uses a range of satellite-based receivers for triangulation of electronic signals transmitted from a GPS-unit. It does this by automatically calculating the time differences that the signal reaches the two or more different satellites of known location and returning that information to the receiver. Initially developed with high accuracy, great privacy and stability for military operations in the 1970s, it has been expanded to civilian applications for governments, businesses and private citizens. Cost, accuracy, and ease of use have all dramatically improved. It can be used for many applications wherever precise knowledge of real-time geographical location is valuable including navigation, mapping, *enviromental* monitoring and management, remotely-operating mobile machinery, and inventory-tracking.

grey nomads: retirees travelling in mobile homes over extended periods of time mainly for leisure and sometimes supplemented by casual seasonal employment in the destinations they travel to

Gross Domestic Product (GDP): the monetary value of all the goods and services produced in a specific time period (usually a year) within a country's borders

Gross State Product (GST): the monetary value of all the goods and services produced in a specific time period (usually a year) within a state's borders

health tourism: travelling to a *place* to maintain, enhance or restore mind and or body

heritage tourism: travelling to a *place* to experience different cultures and history, includes viewing heritage-listed sites, artefacts and old buildings

homestay: holiday accommodation with local people rather than at hotels or resorts

homogenisation: the *process* and result of people, products, cultures and *places* becoming the same

indirect impact: the flow-on effect of the tourism industry, leading to economic activity in other related industries through economic links; may also refer to an indirect response from a *change* such as an indirect *enviromental* impact from tourists' *unsustainable* demand for local water used on golf courses

informal sector: economic activities that are not recorded by the government so they are rarely reflected in official statistics on economic activity (for example, Gross Domestic Product) e.g. work by street vendors

infrastructure: the basic physical and organisational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise

infrastructure development: construction of transport and communication networks, energy and water supplies and waste disposal and treatment plants

international tourism: tourism outside a tourist's own country

leakages: the loss of tourism revenue from an area due to the need to import goods and provide services from outside the area; it also occurs when profits are sent back to foreign-owners of local tourist resorts or foreign airlines

long-term rentals: unfurnished properties that are leased for a period of at least six months

media tourism: travelling to see *places* featured in films and television, experience concerts and performances

medical tourism: travelling to a destination to undergo medical procedures such as hip replacement

MICE: an acronym for Meetings, Incentives, Conventions and Events that create specialised facilities such as conference centres, mostly for business travellers

overtourism: occurs where the number of tourists visiting a site or *place* has a negative, and often *unsustainable*, impact on the local population and its *environment*

pilgrimage tourism: travelling to a sacred *place* or shrine for religious observance or spiritual renewal

precinct: any of the sections into which a town or city is divided for a particular purpose (e.g. for voting, tourism services or police protection)

primary research: collecting original primary data by the researcher, from subjects, experiments or other fieldwork, e.g. photographs or interview responses

qualitative research: gathering information that is not in numerical form. Qualitative data is typically descriptive data and is harder to analyse than quantitative data. Examples are open-ended questions, opinion polls and behavioural observations.

quantitative research: gathering information or data in numerical form which can be put into categories, or in rank order, or measured in units of measurement. This type of data can be used to construct graphs and tables of raw data. Data collected is either discrete (e.g. number of cars) or continuous (e.g. *distance*).

***regional* area:** an area outside of a major city or metropolitan centre

remote sensing: collecting data from above the Earth's surface from satellites in space as well as aerial photographs from aircraft and drones

renourishment: the artificial replacement of sand that has been lost due to erosion or longshore drift

revenue: the amount of income received from business activity

seasonality: a predictable seasonal variation or *change* over time that recurs during each calendar year; often associated with seasonal *changes* in climate attractive to tourists such as the skiing or swimming season, or cultural seasons such as when festivals are staged

secondary research: involving the summary, collation and/or synthesis of existing research (also known as desktop research), such as articles, newspapers and videos

short-term rentals: furnished accommodation that is rented for short periods of time such as a series of nights or by the month

sociocultural: relating to the combination or interaction of social and cultural factors

spatial technology: see geospatial technology

sport tourism: travelling to a *place* to take part in, or view, a sports event

staged authenticity: a *process* whereby traditional ceremonies or artefacts may be adapted to suit the needs of tourists, often as a commercial venture

terracing: the *process* whereby sloping land is *changed* into a number of level flat areas resembling a series of steps, mainly to reduce erosion and runoff and to provide more flat land for building or agriculture

topography: the configuration of a surface including its relief and the position of its natural and human features

tourist: a person who travels to, and stays in, a *place* outside their usual *environment* for more than 24 hours, but for less than one year

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3rd Edition

UNIT 2

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AUTHORS

Andrew Chisholm, Adrian De Fanti, Trish Douglas, Lynne Griffiths, Theodore Hartman, Stephen Matthews and **Ray Pask**

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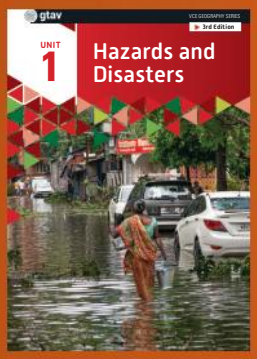

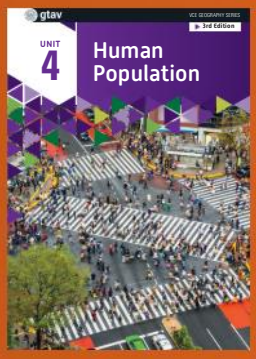

SERIES AUTHORS

Adriana Abels
Andrew Chisholm
Adrian De Fanti
Andrew Dodson
Trish Douglas
Lynne Griffiths
Theodore Hartman
Jenne King
Jeana Kriewaldt
Anne Maher
Stephen Matthews
Cathie Meyenn
Ray Pask
Jill Price
Susy Puszka
Micah Wilkins