

Global Connections 3rd Edition
NEW Digital Sampler

global connections

investigating world issues

THIRD EDITION

Coming May 2020!



Sampler includes:

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Does globalization benefit all countries in the same ways?

Where should sustainability be the greater priority: in MEDCs or LEDCs?

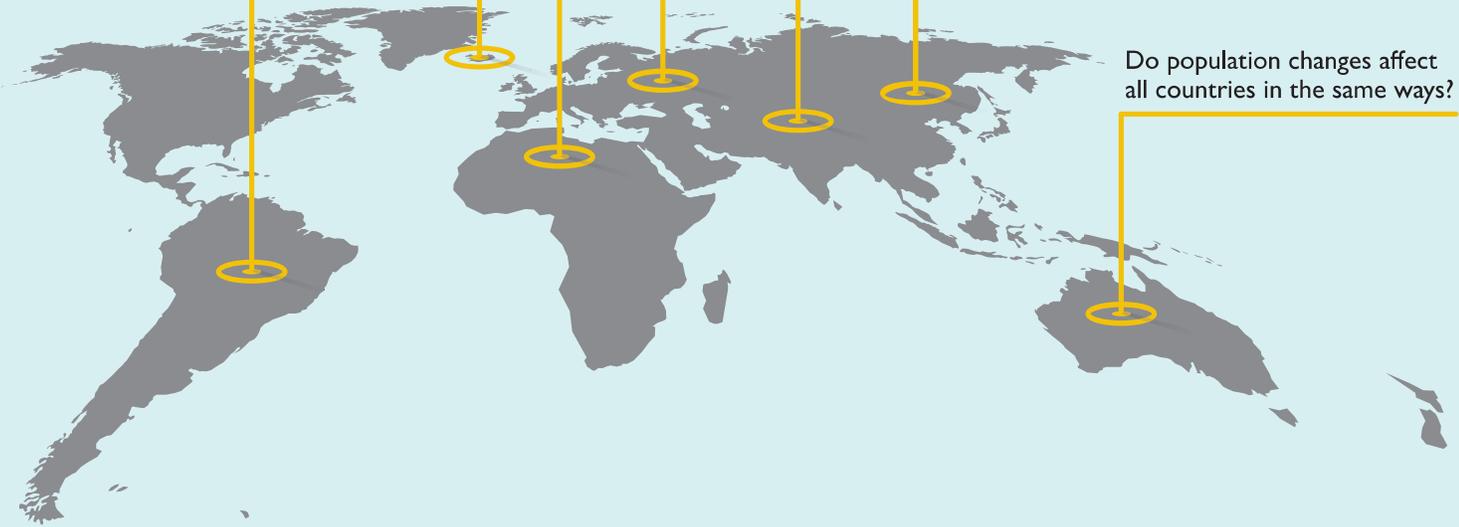
How does quality of life in Canada compare to that of other countries?

Is economic disparity a greater issue in some countries than others?

What is the best measure to use when comparing countries?

How might democracies and authoritarian states be similar or different?

Do population changes affect all countries in the same ways?



Fast Facts

Unclean water and poor sanitation are the leading cause of child mortality.

Approximately 10 people a day are killed by landmines and other explosives.

More than 780 million people live below the international poverty line of US\$1.90/day.

Polio cases have decreased by more than 99% because of immunization against the disease worldwide.

UNIT 1 LOOKING AT THE WORLD

In your study of global issues, you will come to understand changes happening in the world today by using the ideas of quality of life, globalization, and sustainability as organizing principles. We will examine and practise using various statistical tools useful for comparing countries and analyzing these complex issues.

What Are Global Issues?

Key Terms

- world view
- socio-economic status
- lived experiences
- issue
- media
- mainstream media sources
- social media
- alternative media sources
- opinions
- values
- subjective
- facts
- objective
- bias
- United Nations Sustainable Development Goals (SDGs)

Where do you get information?
How do you know it is accurate?

UNITED STATES MAY WITHDRAW FROM TREATY

Human Rights Abuse

Migrants Face

Dangerous Journeys

Solar Energy Transfo

Can Or

Sustainable Development

Sea-levels Rising

#climatest

Thousands of C

AGRO-TECH OFFERS

ANSWERS FOR

AFRICAN FARMERS

#indigenoustris

Huma

Crises

Drone Attacks

Drought Refugees Number in the Thousands

Ho

VIOLENCE STOPS

ELECTION EFFORTS

ilitary Targeted Journalists



Chapter Focus Questions

- How does my world view influence my opinion on a particular issue?
- What methods can I use to recognize sources of inaccurate or biased information?
- How can I distinguish between fact and opinion?
- What strategies can I use to analyze global issues?
- How can I respond to a global issue?

1.1 Introduction

You will be asked to explore issues, seek out information through research and statistical analysis, examine and weigh facts, and develop ideas through reading and discussion. Before you begin, however, you should think about your **world view** as a Canadian student, and how it might influence your thoughts on the variety of issues you will encounter here, and in your life going forward.

In addition to considering your world view, in this chapter you will also have the opportunity to explore these questions:

- What is an issue?
- How do we evaluate bias?
- How do we know if something is fact or opinion?
- How can opinions about facts affect our behaviour?
- How should we use media?
- What are analytic thinking skills and why are they are valuable?

1.2 What Is a World View?

On the evening news, there is a report on the discovery of a large quantity of diamonds in Canada's North. People listening to the report might have very different reactions or opinions, depending on who they are and what interests them. To someone who lives where the diamonds have been found, the discovery might mean the prospect of a well-paying job and economic security; to someone concerned about the environment, it might raise concerns about the effects of diamond mining on the environment. Someone on Bay Street, in Toronto (where Canada's stock market is located), may see an investment opportunity. That is, your reaction, or opinion, depends on your world view.

A world view is how you see the world and everything in it. Many factors affect your world view, such as your **socio-economic status** (a measure of an individual's or group's position in a community) and your **lived experiences** (knowledge of the world gained through first-hand involvement in everyday events rather than knowledge of the world passed on by other people).

World view shapes how we interpret and understand the world. It can be influenced by our own personal preferences and opinions, or the opinions we share with a group. Whether or not you are aware of it, this can also include bias.

It is important to remember that a world view can change over time. When we experience new things or



Figure 1-1 Protestors in Hong Kong, 2019. Why might people protest and risk being jailed?

become aware of the perspectives of other people, we can increase our understanding of the world.

Your world view may influence your opinions and how you view the issues presented in this textbook. Consider Figure 1-1. What do you see in this photo? Is it police maintaining law and order, or citizens fighting for their rights? What you see depends on your world view. It is important to remember that other people will have world views different from yours; it is critical that you understand and respect these.

1.3 What Is An Issue?

This textbook looks at global issues. But what exactly is an **issue**? Is it only a problem for debate or discussion, or something that deeply affects the lives of people in your community, your country, or around the world? The issues we will be discussing in this textbook are complex

and interconnected. They can affect both Canadians and people in other countries. It is not easy to find solutions to these issues, but we will also study the different ways that individuals, organizations, and governments might respond to these issues.

WORKING IT OUT

IDENTIFYING ISSUES

SIGNIFICANCE

By completing the following activity, you should gain a better understanding of what is meant by the term *issue*, as well as which issues are primarily Canadian in nature, which are primarily global, and which span both geographical perspectives.

Defining an Issue

1. As part of a small group, discuss the question “What is an issue?” Write down your group’s definition of *issue*.
2. Choose a representative from your group to read your definition to the class.
3. As a class, examine each group’s definition, and then arrive at a consensus in answering the question “What is an issue?”

What Are Today’s Major Issues?

4. In your group, make a list of at least six major issues facing humanity today.
5. Your teacher will now help you combine the group lists to create a class master list of issues facing humanity. How many issues in total has your class identified?

6. As a class, create four or five headings under which the issues may be categorized (for example, economic issues, environmental issues, political issues, and social issues). With the help of your teacher, place each issue under the appropriate heading.
7. Work together to determine the three most significant issues in each category. Use the criteria of *magnitude*, *scope*, and *duration* to determine the significance of each issue.

Which Issues Are Local, National, or Global?

8. Refer to the class master list of issues categorized under the headings in question 6. With your group, identify which are local, national, global, or a combination of two or more.
9. In your group, draw a flow chart or mind map to illustrate how one issue in the class master list may be related to other issues in the list.

The complex nature of global issues means that people will have very different perspectives, explanations, and solutions for them. To understand such complex issues you will need to identify the issue, research information,

compile the facts, evaluate various perspectives, draw conclusions, and recommend responses. These forms of analysis (Figure 1–2) are an important part of the inquiry process, which is shown in Figure 1–3.

Forms of Analysis	
Evidence	When we study an issue where a position is being taken, we have to ask ourselves whether enough evidence has been provided to support that position. We have to ask whether we have enough evidence to support our own positions. We also have to consider the quality of the information. For example, is the source reputable?
Comparison	One of the best ways to understand something is to compare it to other things. We look at something to see if it is like or unlike something else we know. We also consider whether or not it is part of a pattern or trend that we have already identified.
Cause and Consequence	To understand an issue deeply, we should know not only what caused the issue, but the consequences that issue may have. If we know how issues are caused, we can find solutions to remove these causes. If we think about the effects of an issue, we can try to minimize negative consequences. This also helps us understand the interrelationships between people or environments. For example, we could consider the consequences human activities have on an ecosystem.
Significance	In order to determine if an issue is significant we need to use three criteria: <i>magnitude</i> , <i>scope</i> , and <i>duration</i> . In other words, an issue is significant if it has deep consequences for many people over a long period of time. Determining significance helps us better understand the relationship between people and place. We can also determine the spatial significance of a place for humans, animals, and plants. For example, what kind of environment is suited for hydropower generation?
Perspective	In order to consider all aspects of an issue we must consider the positions of all <i>stakeholders</i> (the people with an interest or concern about an issue). Geographic perspective allows us to consider different economic, environmental, political, and social implications of an issue. For example, how the use of resources influences people's quality of life.
Judgments	All positions on issues are rooted in values. We should also think about the underlying assumptions of the positions we take. Are they in keeping with our values? What values should guide the decision-making process when responding to an issue?

Figure 1–2 The forms of analysis shown here will allow you to “think like a geographer” and better understand the relationship between people and place.

How to Analyze and Respond to an Issue

Steps to Follow	Questions to Ask	Possible Strategies
FORMULATE QUESTIONS		
1. Identify the issue.	<ul style="list-style-type: none"> • What is this issue about? • Is it an economic, environmental, political, or social issue? • Is this issue local, national, or global in scope? 	<ul style="list-style-type: none"> • Ask clarifying questions so that the issue can be summarized in one sentence, or as a question.
2. Identify prior knowledge.	<ul style="list-style-type: none"> • What do you already know about this issue? 	<ul style="list-style-type: none"> • Use a web diagram such as the following to help you write down what you know.
		
GATHER AND ORGANIZE		
3. Conduct research to add to your knowledge of the issue.	<ul style="list-style-type: none"> • What information is missing from my current knowledge? • What sources do I need to consult to fill in missing information? • Should I conduct my own primary research? 	<ul style="list-style-type: none"> • Analyze your web diagram and identify where there may be gaps in your knowledge. • Examine various types of media (newspapers, magazines, websites, social media, blogs, TV, and radio). • Look at information from the United Nations (UN) and government sources, as well as information from NGOs (non-governmental organizations, such as Amnesty International, and other organizations).
4. Organize your information.	<ul style="list-style-type: none"> • What are the cultural, economic, environmental, political, and social aspects of the issue? 	<ul style="list-style-type: none"> • Organize the information you currently have about the issue under the headings listed in the previous column. • Use a graphic organizer, chart, or other organizational structure.

Figure 1-3 This framework will help you investigate and analyze issues. You may modify the questions and their order, or leave out a step (or steps) to best meet your needs. Social scientists, such as economists and geographers, use the same basic framework to guide their research. This approach helps to ensure that our understanding of an issue is based on facts and not simply unsubstantiated opinions. You can use these steps in your own life to help you reach better conclusions about things that are important to you.

Steps to Follow	Questions to Ask	Possible Strategies
INTERPRET AND ANALYZE		
5. Analyze your information using the forms of analysis (see Figure 1–2).	<ul style="list-style-type: none"> • <i>Evidence</i>: Are the sources credible? • <i>Comparison</i>: Can I make comparisons to understand the differences and similarities in the countries affected? What patterns and trends can I find? • <i>Cause and Consequence</i>: What might be the short-term or long-term effects of this issue? What interrelationships are affected? • <i>Significance</i>: How will this issue influence people in terms of magnitude, scope, and duration? What is the spatial significance of the issue—is place significant? • <i>Perspective</i>: What individuals or groups are involved, and why? What geographic perspectives should be considered? • <i>Judgment</i>: What would be a preferred outcome that would help resolve the issue? 	<ul style="list-style-type: none"> • Be open-minded and receptive to new ideas and arguments. • Be fair-minded and recognize your own bias. • Acknowledge that data may be interpreted to support more than one conclusion. • Wait for all the facts before drawing conclusions. • If necessary, modify your organizational structure based on new insights from your analysis.
EVALUATE AND DRAW CONCLUSIONS		
6. Draw conclusions.	<ul style="list-style-type: none"> • What conclusions can I reach about this issue, based on my analysis and evaluation? 	<ul style="list-style-type: none"> • Draw rational conclusions from your research based on a review of all of the evidence.
DEVELOP POSSIBLE RESPONSES AND SELECT A RESPONSE		
7. Explore and assess various options to respond to the issue.	<ul style="list-style-type: none"> • What is already being done about this issue? • What possible actions could I adopt to successfully address this issue? • What are the possible obstacles to my preferred course of action? 	<ul style="list-style-type: none"> • Propose a way to respond to the issue (it may be at the local, national, or international level). • Create a statement with a call to action (for government, humanity, the UN, etc.).
COMMUNICATE YOUR CONCLUSIONS WITH SUPPORTING EVIDENCE		
8. Share your ideas.	<ul style="list-style-type: none"> • What is the best way to present my conclusions? 	<ul style="list-style-type: none"> • Select a form and style of presentation. • Prepare and present your conclusions/response with the supporting evidence you have gathered.

Figure 1–3 continued

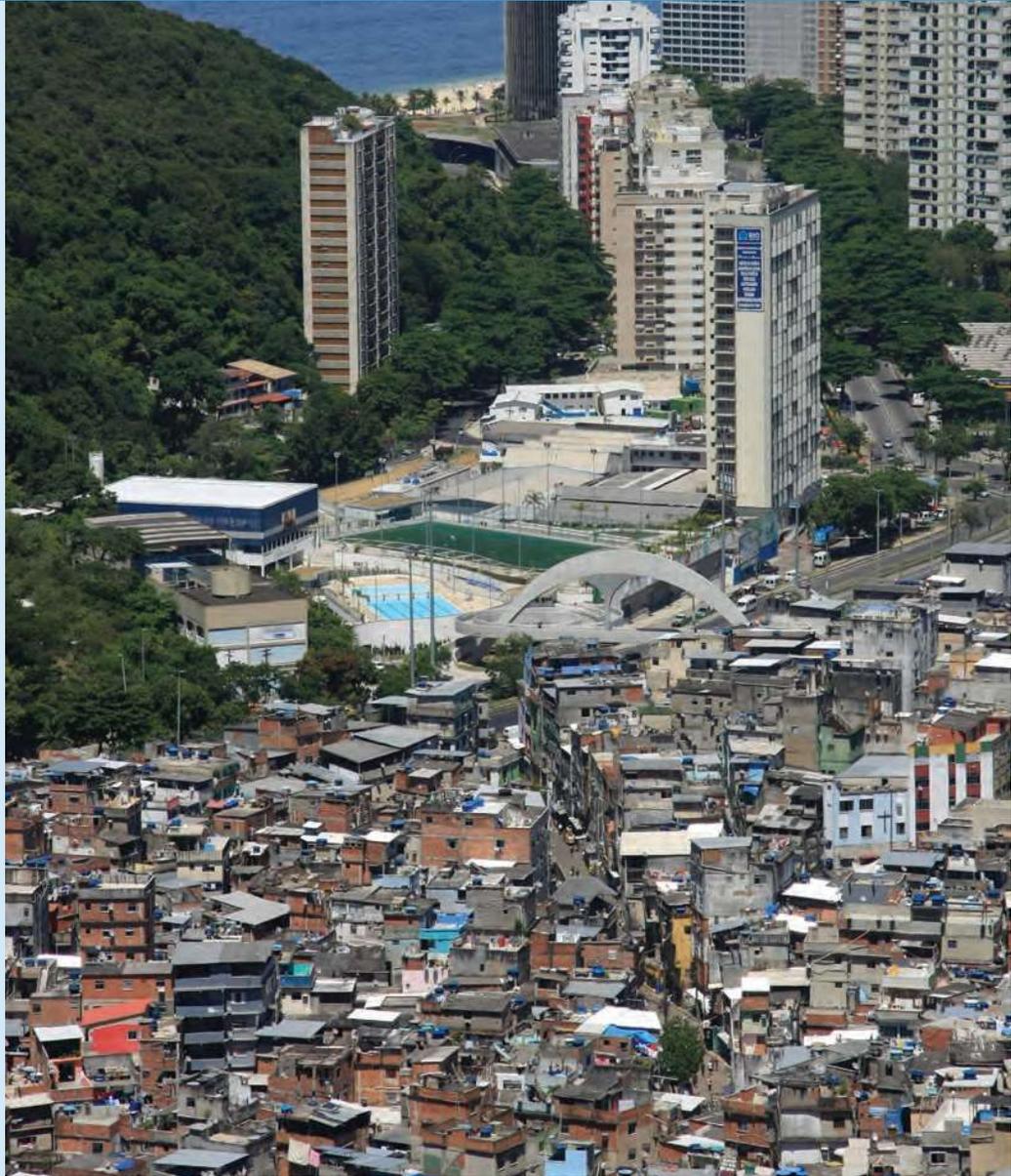
CHAPTER 2

What Are Quality of Life, Globalization, and Sustainability?

Key Terms

quality of life
globalization
sustainability
wealth
gross domestic product (GDP)
per capita
human rights
global village
anthropocentric world view
biocentric world view
conceptual model
carrying capacity
resources
renewable resources
non-renewable resources

In Rio de Janeiro, Brazil, over 1.3 million people live in *favelas* like this one (right). Not all *favela* residents would call their home a slum; in 2013 a survey revealed that 80 percent of residents were proud of where they lived. Why might that be so? In Singapore, the Supertree Grove (below) features artificial trees over 50 metres high. The trees are solar-powered, rain-water collecting vertical gardens. Why might a densely built city like Singapore dedicate space to these gardens?



Chapter Focus Questions

- Why are quality of life, globalization, and sustainability useful themes for the study of world issues?
- Why is quality of life difficult to define and measure?
- What implications does globalization have for the world and for our future?
- Why is sustainability such an important goal for the future?

2.1 An Introduction to the Three Themes

When examining Canadian and global issues, it is possible to become overwhelmed by the enormity of the issues and the apparent difficulty of responding to them. As the world becomes increasingly connected, new issues arise and existing ones become more complex.

In this book, we will approach our discussion of these issues using three themes: quality of life, globalization, and sustainability.

Quality of life is an individual's perception of their position in life and their well-being. It includes everything from a person's health to their happiness, social relationships, and economic standing. Individuals tend to have different perspectives on what a good quality of life includes.

Globalization is the term used to describe the connections between economies, cultures, and populations around the world. Countries become increasingly dependent on each other through trade, technology, the movement of people, and the exchange of information.

Sustainability involves meeting our needs while also ensuring that future generations can meet their needs. There are three types of sustainability. These are sometimes also called the Three Pillars of Sustainability: economic, political, and social.

As we study the relationships between these themes—how each can affect the others in both positive and negative ways—we can better understand the issues facing the world today. Let's look at the production of smartphones as an example (Figure 2–1).

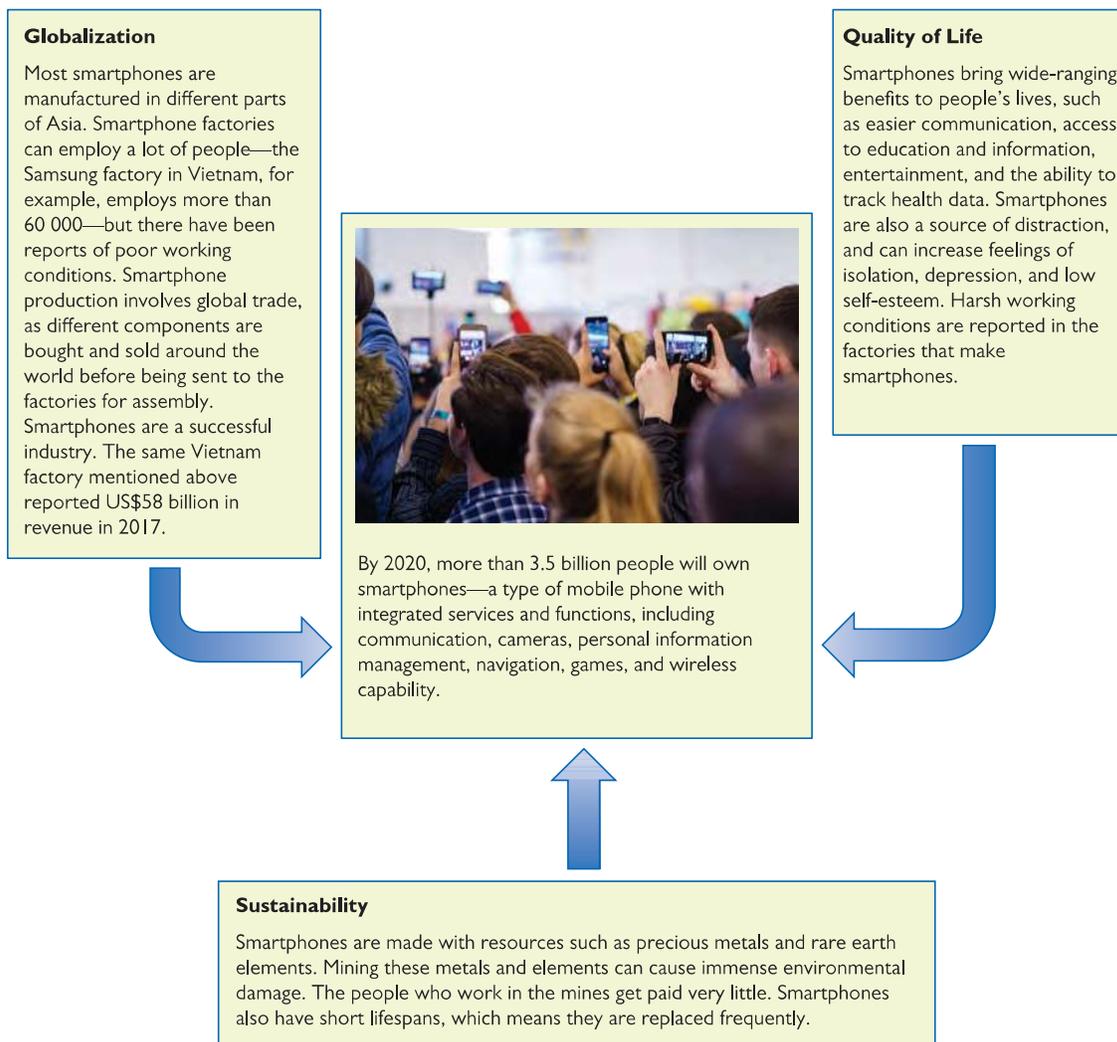


Figure 2–1 In your own words, describe the connections between quality of life, globalization, and sustainability in this example. Can you talk about any of the themes without involving at least one of the others in this example? Explain.

2.2 What Is Quality of Life?

As you proceed in this textbook, you will go through the process of defining quality of life in the way that makes most sense to you. Often when we talk about quality of life, we think about **wealth**. For example, a commonly used measure of wealth is **gross domestic product (GDP) per capita**. This is calculated by taking the value of goods and services produced in a country (the GDP) and dividing by the population.

In order to make accurate comparisons between countries, GDP per capita can be adjusted to take into account the cost of living in a country. This is referred to as purchasing power parity (PPP). The United Arab Emirates' GDP (PPP) in 2018 was about US\$62641. In contrast, Canada's was US\$46210. Does this mean that the quality of life in Dubai is higher than in Canada?

What about happiness? Does a happy person have a high quality of life? Bhutan, a tiny country sandwiched between China and India, calculates its annual gross national happiness (GNH). The government of Bhutan regards this measure to be more important than its GDP per capita (Figure 2–2). As a result, the government of Bhutan considers the happiness of its people when making economic, environmental, and social policies. Is quality of life the same as happiness? Can one exist without the other?



Figure 2–2 Bhutan considers gross national happiness to be the country's "compass toward a just and harmonious society." How can happiness within the population increase quality of life in a country?

Defining Quality of Life

So far we have looked at quality of life in terms of wealth and happiness. However, there are countless other factors that affect quality of life. Some of these factors can be measured, while others cannot be given numerical values. This can make defining quality of life a challenge.

- Evaluating quality of life is *subjective*. Your evaluation of a person's or a country's quality of life may vary considerably from your neighbour's. This happens because you may not share the same values as that person.
- Evaluating quality of life is *multi-dimensional*. Many factors contribute to the quality of life for a person, a family, or a country. When we try to evaluate quality of life, we need to decide what factors to include in our definition. We also need to decide how to evaluate each factor, and whether all factors are equally important in our analysis.
- Some of the factors that contribute to quality of life can be measured objectively (they are *quantitative* in nature). For example, it is possible to determine average income in one country and compare it to average income in another.
- Other factors used to measure quality of life are *qualitative* in nature. It is difficult to give numerical values that allow for easy comparisons. This does not mean that these factors are less important—they are just harder to work with. An example of a qualitative factor key in quality of life is happiness (Figure 2–2). Various attempts to measure happiness have been made, but none of these is regarded as a complete success.

📍 QUALITY OF LIFE

According to the 2019 World Happiness Report, Finland is the happiest country in the world.

What economic, environmental, political, and social factors might contribute to a higher rate of happiness? A lower rate? Why?



Read the World Happiness Report through the link on our website.

Factors That Contribute to Quality of Life

Social scientists have identified many factors that contribute to the quality of life. When you look at Figure 2–3, try to determine how significant each factor is in determining overall quality of life. For example, the Human Development Index (HDI) uses three of these factors (education, health, and wealth) to measure how well a country is doing in terms of social

and economic development. Would any one of these factors give the same result? Would you include any other factors?

When looking at quality of life, we must also consider the difference between what people need and what they want. The latest smartphone may be a want that would be on many people’s list of desired possessions, but it is certainly not a need in the same sense as adequate shelter.

Quality of Life Factors	
Education	People with more education tend to have a higher quality of life than those with less education. Studies show that this is not just the result of better jobs and more wealth, since education can also lead to greater personal growth, creativity, and a wider social life. However, quality of life cannot be measured by only one factor—many people with less education have a good quality of life.
Employment	Some jobs contribute to a higher quality of life, while others severely reduce quality of life. This has less to do with income level, and more to do with safety, health, fulfillment, and personal growth.
Family	Having a supportive immediate and extended family contributes to a better quality of life. This is a particularly interesting factor considering that, as you will see in Unit 2, there is a dramatic worldwide trend toward smaller families, with some couples choosing to have no children at all.
Freedom	Freedom is about the ability to choose. People who have more freedom to choose where they live, where they work, what they buy, and who governs them experience greater quality of life.
Health	Having serious health issues, or inadequate access to health care, reduces quality of life for most people.
Natural environment	People who live in a more pristine environment have a better quality of life than those who live in crowded or polluted areas. Looking at Figure 2–4, this is easily understood.
Respect and equality	This factor includes universal human rights —the rights that every individual should have regardless of race, sex, nationality, ethnicity, language, or religion.
Safety and security	This factor involves the <i>reality</i> of things such as crime (quantitative) and the <i>perception</i> that one is not safe because of crime (qualitative).
Values and beliefs	Holding strong values contributes to one’s quality of life. For many people, these beliefs are reflected in their membership and participation in various organizations. Values and beliefs are factors that are largely qualitative.
Wealth	Money is necessary to pay for many things that contribute to quality of life, such as adequate food supplies, housing, educational opportunities, health care, and more. Money increases quality of life, but only to a certain point. Beyond that point, extra wealth does not necessarily increase quality of life.

Figure 2–3 How might these factors interconnect?

2.3 What Is Globalization?

To some people, the mention of globalization inspires visions of the **global village**. This is a world where every person is linked by high-technology communications and can participate in a globalized marketplace. To others, globalization is the reason a local factory shuts down, only to reopen thousands of kilometres away in another country. To critics, globalization means the destruction of local cultures and the weakening of traditional beliefs.

Why are there such wildly varying views of the same concept? First, globalization is an ongoing, evolving process. Its ultimate impacts are, as yet, unclear. Second, there is not just one form of globalization; there are at least five types that can occur separately, or in a wide variety of combinations.

Cultural Globalization

This type of globalization refers to the gradual harmonization of the world's cultures at the expense of distinctly different local cultures. Eventually, most people in the world will watch the same television shows and movies, listen to the same music, eat the same foods, have the same values, and so on. If this makes you think of someone in Argentina (or South Africa or India) eating tacos (or pizza) while they play Minecraft (or watch *anime* [Figure 2–6] or the Toronto Raptors), you are on the right track.

However, cultural globalization goes far beyond popular culture. It can be seen in the growing belief that certain ideas and practices should exist in every country. This is an interesting issue. If a cultural practice is acceptable in some countries, but not others, should the practice be stopped everywhere? Or permitted



Figure 2–6 *Anime*, or Japanese animation, is popular around the world. What other examples of cultural globalization can you think of?

everywhere? For example, in Canada the legal age to drink alcohol is 19, while in France the age is lower (18) and in the United States the age is higher (21). Other countries such as Saudi Arabia prohibit alcohol for all ages.

Critics suggest that cultural globalization can happen only with the loss of the world's cultural diversity, and that the global culture that develops will be primarily driven by the world's largest and richest countries. For many people, the most important aspect of culture is religion, and for significant numbers of these people, globalization is seen as a great threat. An online article written by an American-Pakistani journalist, Ramzy Baroud, addresses this issue (Figure 2–7).

HOME	Cultural interactions are historically responsible for much of the great advancements and evolution in art, science, language, even food and much more. But, prior to globalization, cultural influences were introduced at much slower speed. It allowed societies, big and small, to reflect, consider, and adjust to these unique notions over time. But the globalization of the media is unfair. It gives no chance for mulling anything over, for determining the benefits or the harms, for any sort of value analysis. News, music and even pornography are beamed directly to all sorts of screens and gadgets. When Beyonce sings she is a “single lady,” the whole world must know, instantly. This may sound like a harmless act, but the cultural contradictions eventually morph into conflicts and clashes, in figurative and real senses.
NATIONAL	
OPINION	
POLITICS	
BUSINESS	
ARTS & ENTERTAINMENT	
TECHNOLOGY	

Figure 2–7 This opinion piece from 2009 suggests that globalization can be harmful. Do you agree? Explain.

2.4 What Is Sustainability?

How humans have interacted with the environment has changed over time. Throughout most of human history, people survived by hunting animals and gathering plant materials. People living this way had relatively little impact on the environment. However, as agriculture developed and urban civilizations became more widespread, humans began to have a greater impact on their environment. Pollution, species extinction, and loss of habitats are some of the global environmental issues facing humanity today. How might we respond to such issues?

Sustainability is concerned with meeting people’s needs today without compromising the ability of future generations to meet their needs. It is shaped by two ways of looking at the environment and its role in human survival: **anthropocentric** and **biocentric** world views (Figure 2–13).

Anthropocentric World View

The anthropocentric world view is human-centred. Humans are considered to be the controllers of nature. The value of the planet and its resources is determined only by how useful it is to humans.

Part of the anthropocentric world view is the perspective that the exploitation of resources is justified because it enables the accumulation of wealth and promotes the growth of economies. This is also

called an *expansionist world view*. The Industrial Revolution, which began in England in the 1700s, gave rise to mechanization and factories. New machines and processes meant products could be made at a lower cost and much faster. This created many jobs, as more people were needed to run the machines. Rural inhabitants flocked to booming cities. As people lost their direct contact with the land, their knowledge of and respect for nature diminished. Merchants and business owners believed they were justified in exploiting nature because wealth and progress were worthwhile goals.

By the end of the 1700s, Europeans had explored and colonized parts of the Americas, Australia, Africa, and Asia. Colonization resulted in more intensive use of resources, as products such as cotton, tobacco, and sugar became sources of great wealth for European business owners. This resulted in deforestation, soil erosion, and the destruction of wildlife. Colonization also had a significant impact on the Indigenous peoples of these lands, in many ways.

Why were Europeans so destructive of the lands they used overseas? They saw their colonies as having limitless natural resources and space.

Biocentric World View

A biocentric world view is centred on the environment. Humans are considered to be just one species without any greater intrinsic value than any others. This is similar to the Indigenous perspective that everyone and everything in nature is interconnected. This world view emphasizes the importance of protecting ecosystems in order to protect all species.

Another perspective, the *ecological world view*, developed as a response to the destruction of the environment caused by industrialization. Writers and activists began to argue for the protection of wild places in the 1800s. For example, Canada established Banff National Park in 1885 (Figure 2–14). The ecological world view has also seen growth in recent years as people have become more concerned with issues related to global warming and climate change.

When considering these world views, it is important to remember two things:

- World views can change over time.
- A person can value different things. For example, a person may recycle and take transit wherever possible, but they may also support the use of natural resources to create jobs.

Anthropocentric World View	Biocentric World View
Nature is a resource to be used, not preserved	All parts of nature are interconnected
Conservation must not work against the values of a society	The environment must be protected and held in greatest value, no matter what other values a society holds
The primary value of natural areas is its value to humans	Natural areas have value in themselves
Developing societies can practise conservation, but only to prevent waste and allow for further exploitation	All human activities must work within the limits of the planet’s ecosystem

Figure 2–13 A comparison of environmental world views. Which world view do you hold? Explain.

Dubai (Figure 2–20) may be the most globalized place in the world. In less than 40 years it has transformed itself from a small port city to a major global business and tourism centre, attracting the world's attention with gigantic building projects and a reputation for luxury.

Dubai has achieved a remarkable amount in quite a short period of time, but at what cost? When we look at Dubai's success, three things come to mind. First, the immense wealth and prosperity in Dubai may indicate a high quality of life, but perhaps not for everyone. Second, many remarkable achievements have been accomplished very quickly. Third, Dubai's development is being pursued with little regard for environmental sustainability.

What can we learn from the example of Dubai, and how can we apply this learning to our study of global issues?



Figure 2–20 Dubai is part of the United Arab Emirates (UAE). The UAE was created in 1971, when seven previously separate *emirates* (Arab states ruled by an emir, a sheikh [as in Dubai], or other ruler) joined together. This occurred after the United Kingdom, the area's colonial power, left the Persian Gulf.

Quality of Life in Dubai

Dubai's embrace of its identity as a global city has led to massive changes in quality of life for those who live there. In fact, Dubai uses an image of high quality of life as a way to attract more visitors, investors, and companies. From the perspective of Dubai's government, high quality of life includes "a cosmopolitan lifestyle," "mild winters," and "clean, palm-fringed beaches." The 2019 Mercer Quality of Living City Ranking placed Dubai at the top for cities in the Middle East.

QUALITY OF LIFE

The government promotes Dubai as a diverse, interesting city full of opportunities for entertainment and employment.

Why might a high quality of life be a selling point for any city?

Let's look at Dubai in terms of three of the factors that can be used to measure quality of life.

- **Wealth:** Dubai, as part of the United Arab Emirates, enjoys one of the highest GDPs in the world (UAE's per capita PPP was US\$66 600 in 2018). This would suggest that it has a high quality of life. But it is not quite so simple. About 85 percent of the population of Dubai are foreign workers, or *expatriates*. They are not citizens, but live temporarily in Dubai in order to work. The expatriate population is made up of two groups: low-skilled and high-skilled workers. Low-skilled workers are the largest group, and include construction and domestic workers. These workers are housed in labour camps. High-skilled workers are employed in information technology, finance, or management. These workers rent or own apartments and houses. Income levels between these two groups vary widely (Figure 2–21).
- **Freedom:** Expression is limited in Dubai, sometimes severely. Anyone who speaks out against the government, or criticizes its leaders, faces arrest and fines. In 2018, Ahmed Mansoor, a human rights activist, was arrested for posts he made on social media. He was sentenced to 10 years in prison. Amnesty International and the European Parliament are among the organizations calling for the release of Mansoor and other activists imprisoned by the UAE.

Average Expenditures in Dubai

Group	Expenditures
Local households	35 930 AED/month
Expatriate households (skilled)	16 910 AED/month
Labour camp residents	1 877 AED/month

Figure 2–21 Monthly expenditures for locals, skilled expatriates, and labour camp workers in 2014. The sums are shown in AED, or United Arab Emirate dirhams. In 2019, one Canadian dollar was worth 2.8 dirhams. Suggest two reasons why expenditures by labour camp residents are much lower than those by the other groups.

Chapter Questions

Knowledge and Understanding

- In your own words, describe the meaning of each type of globalization (cultural, economic, environmental, political, and technological).
 - For each type, give a specific way in which it might be a positive and negative development for the world. Include issues related to quality of life and sustainability in your answer.
- Does globalization have a positive or negative influence on quality of life? Explain.
 - Does sustainability have a positive or negative influence on quality of life? Explain. **Q**
- Seal hunting is seen by many people in Canada as a part of the cultural traditions of some rural communities in Atlantic Canada and Inuit communities in the North. It is also seen as a suitable economic activity. In contrast, many people in Europe see the hunt as barbaric and organize boycotts of not only seal products but many other Canadian exports as well. Explain why this situation exists.

Thinking Critically

- Explain in your own words how human interaction with the environment can take place in a sustainable manner. Consider the interrelationships between human and natural environments in your answer (for example, the effects they have on one another). **S**
- What are your views on placing a monetary value on nature? **PERSPECTIVES**
- Examine the newspaper headlines in Figure 2–25. Determine how each one relates to the themes of quality of life, globalization, sustainability, or two or more themes. Briefly explain the relationship between the headline and the theme(s).
- Do people with a high quality of life have a moral obligation to help improve the lives of those with a very low quality of life? Explain. **JUDGEMENTS**

Apply and Connect

- As a class, organize an informal debate on the statement: “Globalization offers the world our best chance to solve the issues we face.” Take one of these roles:
 - a resident of a wealthy country, such as Canada, Germany, or Japan



Figure 2–25 Newspaper headlines.

- a resident of a poor country, such as Haiti, Sierra Leone, or Madagascar
 - a resident of a country between these extremes, such as Mexico, India, or Brazil **G**
- Write two scenarios, with supporting visuals, about what the global environment might be like by 2050. One should be optimistic and the other pessimistic. Which scenario do you think will come to pass? Explain. **S**

Extend Your Thinking

- You have been chosen to give advice on whether your province could use the example of Dubai to become a leader in globalized business and tourism.
 - Identify the advantages and disadvantages your province would have in becoming more globalized.
 - Suggest several initial steps officials should take to start this process.
- What can you do to make your own use of resources more sustainable?
- Give an example of environmental damage created by previous generations. How does this affect your quality of life?
 - What obligations do you have, if any, to prevent environmental damage for the sake of the next generation? How might this affect quality of life in the future? How might you address these obligations? **S** **Q**

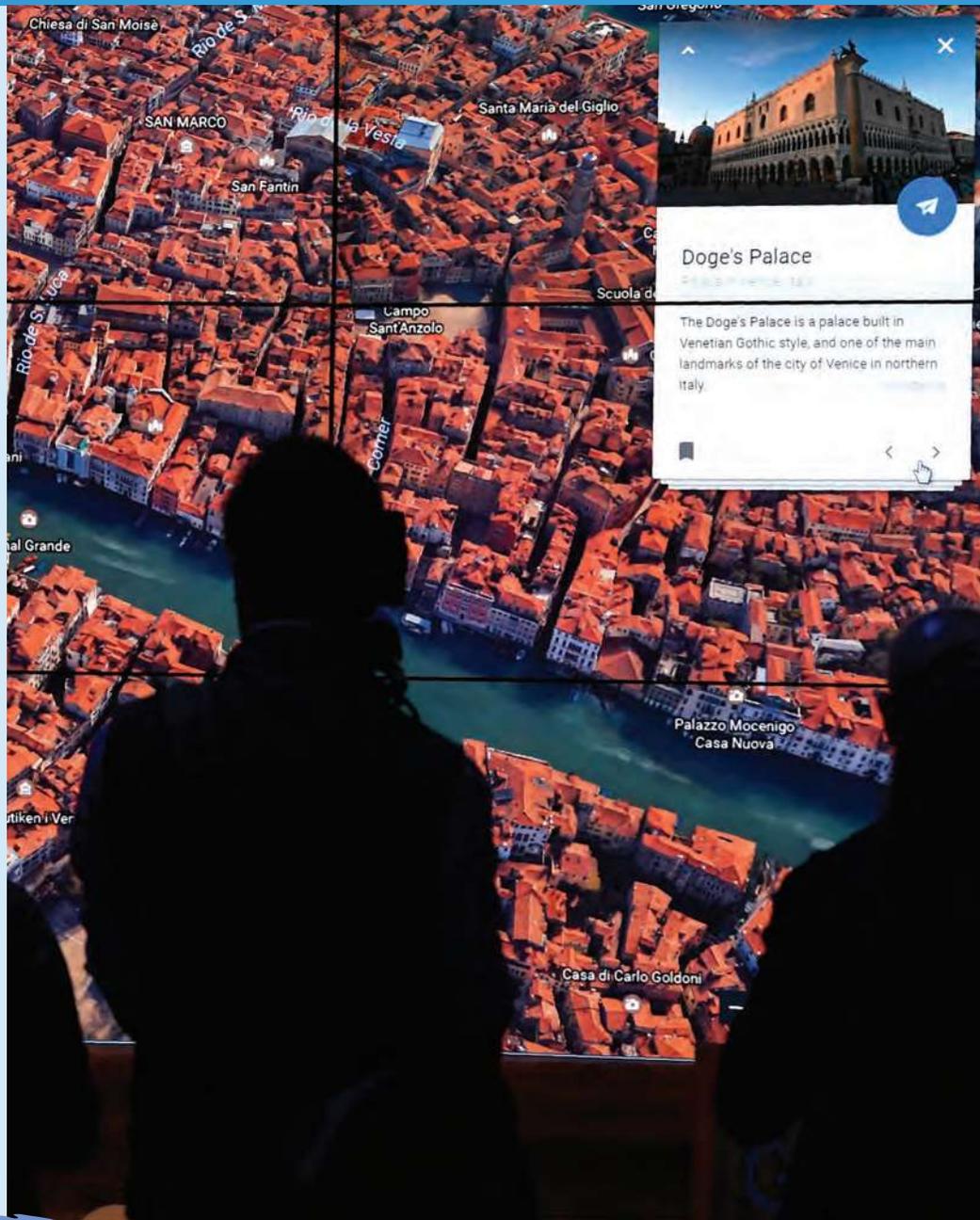
CHAPTER 3

Why Do We Compare Countries?

Key Terms

economic development
MEDC (More Economically Developed Country)
LEDC (Less Economically Developed Country)
Human Development Index (HDI)
Gini index
economic development
human rights
social development
political maturity

Museum visitors view a Google Earth map of Venice, Italy, on a screen (right). In the world map below, the circle shows where half the world's population lives—and much of what is within the circle is ocean. How can a map make you see the world differently?



Chapter Focus Questions

- How can you group countries to make it easier to understand international differences?
- What graphical methods can you use to make analysis easier?

3.1 Why Do We Group Countries?

Only an international affairs specialist would be able to keep track of the economic, environmental, social, and political similarities and differences of all of the countries in the world. For the rest of us, it is easier to learn the characteristics of countries, and study their similarities and differences, by grouping them in some way.

You have already been grouping countries for years, perhaps without even realizing it. For example, you might think that Canada has more in common with the United States than it does with India or Russia. When you think this way, you are placing countries into different groups. If you have heard or used terms such as “developing nation,” or “North–South divide,” you are already familiar with other ways of grouping countries.

Countries can be grouped in a wide variety of ways—usually by looking for similarities. Consider each of the points below. How might these groupings limit our understanding of countries? How might they change what you think of different places in the world?

- Cultural groupings place countries in the same group based on cultural similarities. This can include customs, language, or religion. In this grouping, like the others that follow, countries that are very far apart may still have enough similarities to place them in the same group.
- Economic groupings place countries in different groups based on their **economic development**, income level, or by economic agreements.
- Political groupings can group countries by political system (democratic, authoritarian) or by political alliances and agreements.
- Regional groupings include geographical regions, such as North and South America, Europe, or Asia. This grouping is based on geographic location or other geographic similarities (ecosystems, geographical zones, etc.).

You will see many types of country groupings based on different characteristics throughout this textbook.

Did You Know?

While the terms *state*, *nation*, and *country* are often used interchangeably, there are some differences. A *state* is a political territory with its own institutions and populations. A *nation* refers to a group of people who live in a specific territory and are connected by history and culture. The word *country* can be used to refer to state or nation. It can also mean a region or cultural area that has no governmental status (for example, “wine country”).

Why is it useful to use certain kinds of data or certain characteristics as ways of categorizing countries? The main goal of these groupings is to increase our understanding of these countries—we are not just looking at similarities, but also differences. For example, the **MEDC** (More Economically Developed Country)/**LEDC** (Less Economically Developed Country) model can reveal economic challenges faced by some countries.

Unfortunately, by placing a country into this or that category, we can also limit our understanding. Bias can be introduced by any of these groupings if there is an implication that one group is more important, or better, than another. It is important to remember that even countries with similarities can be very different from each other. As well, countries change over time, so we cannot view all of these groupings as static or unchanging.

A Brief History of Country Groupings

Over the years, many methods have been used to group countries in the world. You may be familiar with some of these groupings, since the terminology is often used in the media and in classrooms.

As you read Figure 3–1, consider the cultural, economic, geographical, and political factors that go into each grouping.

Country Grouping Models

Pre–Second World War

Models used before the Second World War tended to be very simple—“us” in one group and “them” in another group. Consider these two examples.

EUROPEAN COLONIAL MODEL

Some European countries had immense empires. Britain, France, and Spain are good examples. Even Portugal and the Netherlands had extensive colonial holdings. This model was divided into the colonizing country and the colonies. The colonies were much larger in area and/or population.

CHINA AND THE WORLD

The word *China* means “Middle Kingdom,” and this is how this model viewed the world: China in the middle and everything else around it. The Chinese also divided the world into three groups: the Middle Kingdom itself, “familiar barbarians,” or foreigners who had experienced cultural influence from China, and “raw barbarians,” who were those beyond Chinese influence.

Post–Second World War

After the Second World War, different models of country grouping came into use. Simpler models were used by the media, politicians, and the public. More complex models were used by professionals in a variety of fields, such as geographers.

DEVELOPED/UNDERDEVELOPED

In this simple model, the world is divided into “economically advanced countries” and “everyone else.” Since this model is entirely economic, it ignores the cultural development and history of countries. The developed/underdeveloped model also tends to be unchanging. A country is in one group or the other, and stays there.

DEVELOPED/DEVELOPING

The developed/developing model more fairly reflects the dynamic nature of development. Over time, many countries have moved from poor to rich. For example, in the years after the Second World War, South Korea and Singapore were clearly in the developing world. Now they are part of the developed world. Other countries are developing very slowly, if at all. The terms *developed* and *developing* are both widely used today.

DEVELOPED/NEWLY INDUSTRIALIZED/DEVELOPING

This model takes the developed/developing model and adds a transition grouping for those countries making significant progress toward being developed. The name of this model acknowledges the role that movement from an agricultural economy toward one based on manufacturing (and services) plays in development.

FIRST/SECOND/THIRD WORLD

The “three world” model (Figure 3–2) was created in the 1950s, when much of the world’s focus was on the Cold War between the Soviet Union and the United States. “First World” nations were the rich capitalist countries, such as Canada, the United States, Japan, and the United Kingdom. “Second World” nations were communist countries, such as Russia, Poland, and East Germany. “Third World” countries were those that were considered developing, or underdeveloped economically. Non-European communist countries, such as Cuba, China, and Vietnam found themselves somewhere in between. Politically they were linked to the Second World but in terms of economic development they were similar to Third World countries.

NORTH–SOUTH

If you look at the locations of developed and developing nations on a map (Figure 3–3), you will notice an interesting pattern. Most developed nations are farther north than developing nations. In this model, developed nations are collectively called the “North,” and developing nations are called the “South.” There are some obvious exceptions to this rule. Australia, New Zealand, Chile, Singapore, and Argentina are quite far south, but are developed countries.

Figure 3–1 What are the similarities and differences between these models?

The Three World Model

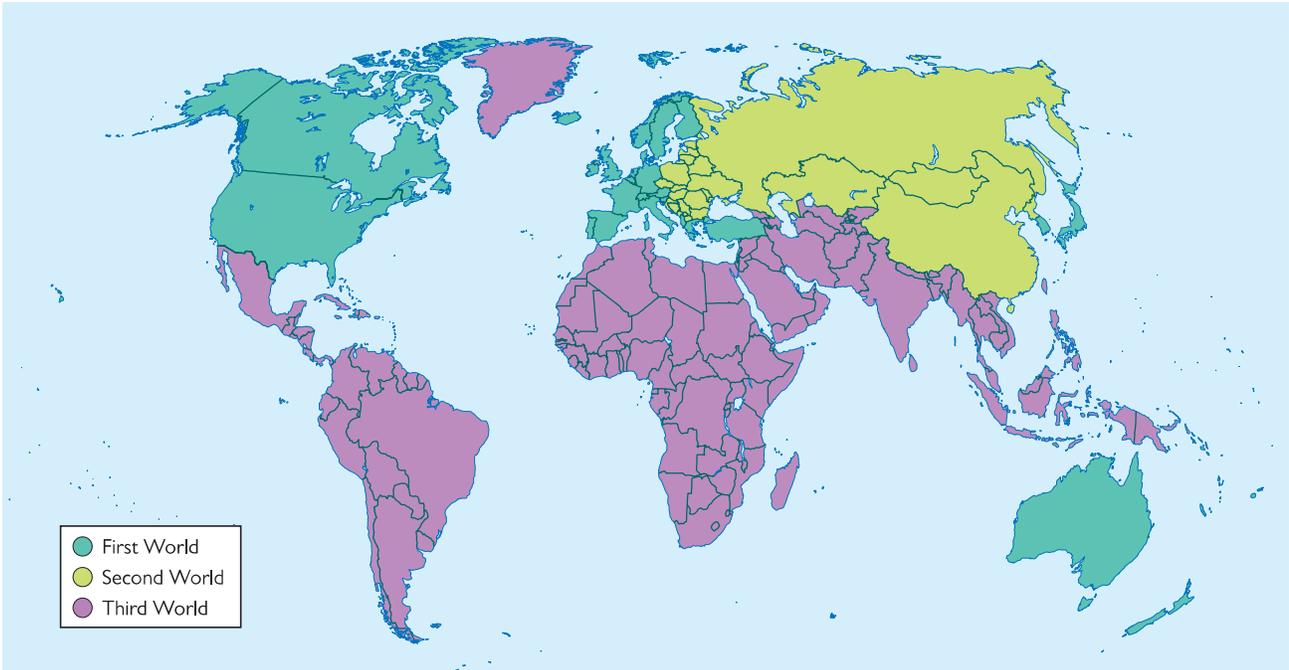


Figure 3–2 The now outdated “three world” model placed countries into First, Second, and Third world groups. This was both a political and economic model. What bias can be introduced by this model?

The North–South Model

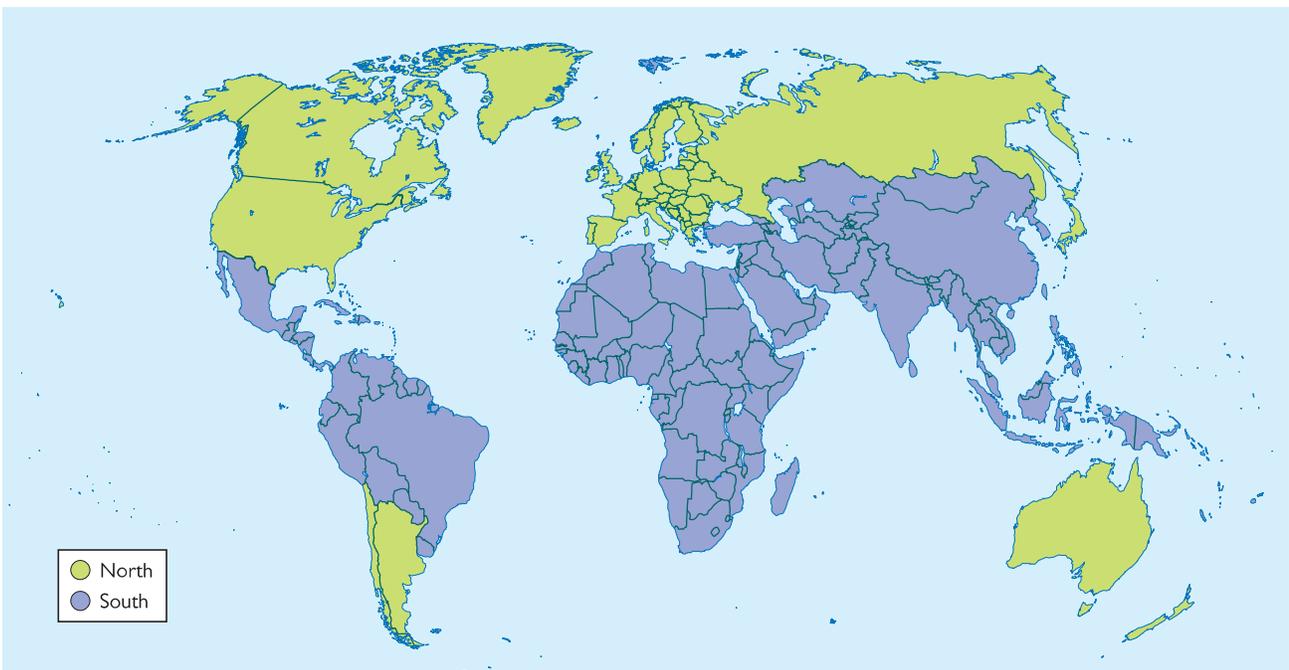


Figure 3–3 The North–South divide. This grouping does not work with Australia, New Zealand, Chile, and Argentina. Can you think of two more accurate terms to differentiate the groups?



ANALYZING SIMILARITIES BETWEEN COUNTRIES

In this exercise, you will find and analyze similarities between countries—and form them into groups—by graphing data.

1. Examine the statistics in Figure 3–17. At first glance, this mass of numbers may present no obvious patterns. When you look at them more closely, however, you should start to see similarities between countries; for example, countries A and C seem comparable. Still, trying to divide these countries into groups just by examining the table is a formidable task likely to lead to inaccurate results. A much better approach is to look

for groupings on a scatter graph (an x/y axes graph) that relates two measures of development. For example, Figure 3–18 shows the relationship between per capita GDP and the number of Internet users.

2. On a scatter graph like Figure 3–18, it is often relatively easy to identify the countries that have similar characteristics. Groupings are not so clear, though, because of the mass of countries in the lower-left corner of the graph. In a situation like this, the use of semi-log or log-log graph paper can help.

Country Data

Country	Corruption Perceptions Index	Freedom House Rating	GDP per capita on a PPP Basis (US\$)	GDP from agriculture (%)	Infant mortality rate (deaths per 1000)	Internet users (% of population)	Literacy rate (% of population)	Number of McDonald's locations	Oil consumption (bbl/day/1000 people)	Visiting tourists (millions)
A	34	63	11 500	6.7	15.9	54	94.5	27	10.9	2.4
B	77	98	50 400	3.6	4.2	88	99	920	43.6	7.4
C	38	56	12 900	7.8	8.2	32	92.6	7	4.3	2.3
D	20	41	1 800	22.1	45.4	12	60.7	0	1.2	0.5
E	73	96	42 900	1.1	2.0	92	99	2 975	35.0	31.2
F	71	86	59 800	0.9	5.7	76	99	14 146	61.0	79.6
G	67	94	24 600	4.2	6.4	66	96.6	77	17.7	5.7
H	29	14	7 400	20.9	48.4	18	79.9	0	0.5	3.8
I	39	11	16 700	7.9	11.8	53	96.4	2 700	7.0	62.9
J	19	17	2 300	52.3	71.7	5	40	0	0.2	0.1
K	33	20	6 900	15.3	16.7	53	94.5	22	3.5	15.5
L	70	17	68 600	0.9	5.5	91	93.8	172	102.6	15.9
M	48	85	24 700	3.7	9.1	73	99.3	30	15.3	16.6
N	49	37	9 200	4.5	13.7	62	98	31	15.1	4.2
O	72	90	44 100	1.7	3.2	86	98	1 419	28.4	89.4
P	41	83	4 700	18.3	34.1	35	76.6	0	2.4	1.0

Figure 3–17 Use this data to determine the characteristics and members of each of the four groups.



UNIT 2 HUMAN POPULATION

Some areas of the world are experiencing high population growth. Other parts of the world are seeing population decline. People are migrating between countries or from rural to urban areas for significant reasons. Population issues such as these have consequences, and they influence quality of life and sustainability.

CHAPTER 6

What Are the Consequences of Population Growth?

Key Terms

demographic trap
overpopulation
feedback loop
population control
one-child policy
structural change model
change by diffusion model
International Conference on
Population and Development
(ICPD)

This family planning poster (right) was issued in Singapore in 1972. Aastha (below) was born in 2000. She was India's billionth baby. By the end of 2019, India's population had increased by 380 million people—10 times the population of Canada. What are the possible challenges of rising birth rates?



Chapter Focus Questions

- What is the demographic trap? What issues does it cause?
- What measures have India and China used to try to control their population growth?
- What are the impacts of population control measures on the societies of India and China?
- How do economics and culture influence a country's population policies?
- Did the Indian state of Kerala find a better way to reach post-transition?

6.1 What Is the Population Explosion?

The fourth stage of the demographic transition model is known as post-transition or low expanding. In post-transition, a country's birth rate equals, or may even fall below, its death rate. As a result, the population stabilizes or begins to decline.

Countries shift into post-transition as they experience the benefits of economic and social growth. These can include urbanization, the changed role of women within the society, a rich resource base, and accessibility to education, health care, and advanced technology. But what happens if a country does not achieve the level of economic and social development that leads to post-transition?

Too Many People: The Demographic Trap

Some demographic experts think that some LEDCs may not reach post-transition. They fear that these countries may fall into a situation known as the **demographic trap** (Figure 6–1). This is a situation in which a country continues to experience a relatively high birth rate instead of the low birth rate of the late transition stage. The result is a dramatic increase in population. The increasing population places great demands on the country for an increased food supply, social services (e.g., education, health care), and infrastructure (e.g., sanitation, water). As a consequence, the country does not have enough revenue to promote the economic and social development necessary to proceed to post-transition. If the country's birth rate

does not eventually decline, the population explosion will continue until a Malthusian collapse (see Chapter 5) becomes inevitable.

Each year, India's population grows by an amount almost equal to the population of Ontario. This means that annually, the Indian economy must provide food, housing, health care, education, and everything else that an additional 14 million people need—before being able to improve the quality of life of the existing population. Ultimately, the demands of a growing population will exceed their country's carrying capacity. This circumstance is called **overpopulation**.

📍 QUALITY OF LIFE

Some LEDCs may fall into the demographic trap.

How might this influence the quality of life in these countries?

Food

The provision of enough food is the most basic problem associated with overpopulation. In recent decades, however, India has been able to provide enough food for most of its people because it was a major beneficiary of the Green Revolution. The Green Revolution sprang from a series of agricultural innovations that began in the late 1940s and became widely used in many countries throughout the 1970s. New crop varieties and agricultural methods caused major improvements in crop yields. (The Green Revolution is discussed in more detail in Chapter 10.)

Between 1950 and 2000, India doubled its production of rice and wheat. The country achieved this remarkable feat not by increasing the amount of its cropland, but by using modern agricultural technology. By the late 1990s, however, rapid gains in agricultural productivity had slowed because no new innovations were occurring.

As India's population increases, its amount of cropland per capita diminishes. In 1961, the country had 0.34 hectares of cropland per capita. By 2015, this had fallen to 0.12 hectares per capita. During the Green Revolution, increased agricultural productivity made up for this decline. However, it is not clear if further productivity increases are possible.

Education

An educated population is generally considered vital for a country to move through demographic transition.

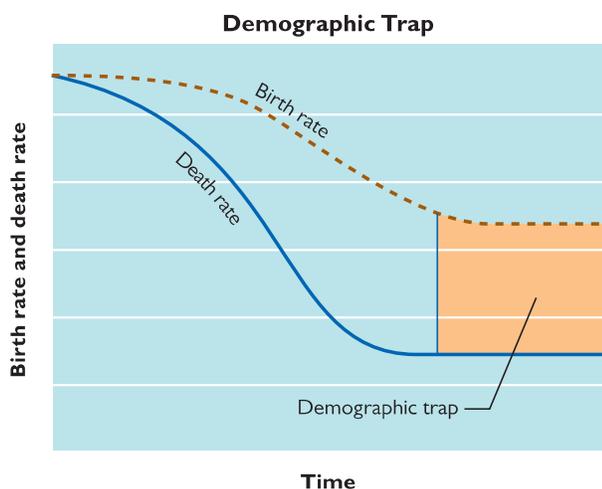


Figure 6–1 What factors combine to cause the demographic trap?

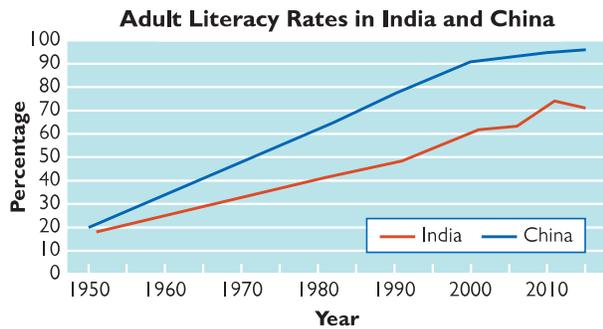


Figure 6–2 China and India had similar literacy rates around 1950. Since that time, which country did a better job of educating its citizens? What impact did this difference have on each country’s population transition?

India’s exploding population has a serious impact on its ability to educate its citizens. It is useful to compare how India has done to how China has done in terms of literacy rates, since the two countries have similar populations and started out with similar education levels (Figure 6–2).

Employment

Countries with booming populations have difficulty providing jobs for the great number of people entering the workforce each year—in India’s case, about ten million people annually. Traditionally, most people have worked in agriculture, but agricultural jobs are now harder to find. Although the number of farms in India increased from 48 million in 1960 to 119 million in 2011, the average farm size decreased from 2.7 hectares to 1.2 hectares. These tiny farms do not provide many new jobs. It is worth noting, however, that although each individual small farm in India does not provide employment for many people, together these farms are a large source of employment. In 2018, about 47 percent of Indian workers were in the agricultural sector.

In contrast, the equivalent numbers were 28 percent in China and only 2 percent in Canada.

Because India’s agricultural economy cannot support the ever-growing population, increasing numbers of people are moving to cities. Unfortunately, most of these people lack the education to take advantage of the opportunities offered by India’s growing urban economy. For example, India’s large and growing software and service industries (Figure 6–3) offer no prospect to an illiterate or semi-literate person who has just moved from a depressed agricultural region. (You will learn more about migration to the cities of LEDCs in Chapter 8.) At the same time, however, the growth of these industries is being hindered by a shortage of workers with the necessary skills. This is a good example of a **feedback loop** (Figure 6–4).



Figure 6–3 When you call a large Canadian or American company about a problem, you may be connected to a call centre in India. Why have companies placed these centres there? What skills do workers in India need to get these jobs? **G**

6.2 What Is Population Control?

China and India (Figure 6–5) each have a population of about 1.3 billion people. In fact, India’s population is expected to exceed China’s in 2027 (Figure 6–6). China has used government-mandated **population control** measures much more effectively than India. This can be seen by the fact that in 1950–1951, China’s population (552 million) was 53 percent larger than India’s (361 million). In this section we will explore the reasons why this happened.

India’s Approach to Population Control

India’s efforts to control the growth of its population have had only moderate success. Since 1950, fertility in India has decreased from six children per woman to just more than the replacement rate of 2.1.

How Did Kerala Control Its Population Growth?

India's approach to population control proved to be only somewhat effective. China's approach was more successful but with serious infringement of people's human rights.

Is there a better way to control population growth? Can poor countries reach post-transition quickly without creating wealthy economies or coercing their citizens to adopt unpopular birth-control methods? Kerala, an Indian state (Figure 6–13), may have discovered a way.

Compare Kerala's demographic characteristics in 1947 and 2011, as shown in Figure 6–14. The 1947 birth rate of 47 per thousand and death rate of 25 per thousand clearly indicate that Kerala was in Stage 2, early transition.

Now compare the 2011 data for Kerala, and the 2018 data for the whole of India, and the United States. Some of Kerala's demographic characteristics are more like those of the US than those of India as a whole. They suggest that Kerala is now in Stage 4, post-transition. Kerala's birth

rate of only 17 per 1000 and death rate of 7 per 1000 is a remarkable change from 1947.

Factors in Kerala's Transition

You might conclude that Kerala's successful transition must have been because the state was wealthier, more industrialized, and more urbanized than the rest of the country. Your conclusion would make sense based on what we know about how demographic transition usually works. But this conclusion would be wrong.

Kerala did not fit the demographic transition model when it entered post-transition during the 1990s.

- Kerala had an agricultural economy with limited manufacturing and service sectors.
- More than 70 percent of its people lived in rural areas.
- Kerala was poor even by Indian standards. In the early 1990s, its per capita income was 30 percent less than that of the entire country.
- Not only was Kerala poor, but its economy was stagnating while that of most of India was growing steadily.

What has contributed to Kerala's successful demographic transition?

Education

Levels of education in Kerala have been significantly higher than in India as a whole for a long time. In 1951, for example, the literacy rate in Kerala was 47 percent, compared with India's rate of 18 percent. By 2011, Kerala's adult literacy rate was almost 94 percent (India's rate was 74 percent).

The importance placed on education in Kerala is significant because, everywhere in the world, people with more education, especially women, tend to have fewer children than those with less education.



Figure 6–13

Indicator	Kerala (1947)	Kerala (1997)	Kerala (2011)	US (2018)	India (2018)
Birth rate (per 1000 people)	47	17	17	12.4	18.7
Death rate (per 1000 people)	25	6	7	8.2	7.3
Natural increase (%)	2.2	1.1	1.0	0.4	1.1
Life expectancy (years)	N/A	72	75	80	69.1
Infant mortality rate (per 1000 births)	150	13	8	5.7	37.8
Total fertility rate (number of children)	6.0	1.7	1.7	1.9	2.2

Figure 6–14 Demographics for Kerala, the US, and India. What trends do you see?

Chapter Questions

Knowledge and Understanding

1. What is the demographic trap, and why is it a significant issue for some countries? 
2. a) A number of factors that contribute to the completion of demographic transition were mentioned in this chapter. List these, and explain one way in which each contributes to transition.
b) Explain why an educated population is vital in helping a country move through demographic transition.
3. a) What are the reasons for the abnormally high ratio of boys to girls in India and China?
b) What are the implications of the gender gap?
c) What is being done about this gender gap?
d) The Indian and Chinese governments have told their people that it is the responsibility of every child (not just male children) to look after their parents. What is the purpose of this move? Is it likely to work? Explain.
4. Examine Figure 6–16 on page 98. Demonstrate how the trend to smaller families in Kerala occurred as a result of a series of individual choices rather than due to a program of government measures. A web diagram may be useful. 

Thinking Critically

5. a) **SIGNIFICANCE** Why is the status of women a critical factor in demographic transition?
b) Why is it so difficult to make changes in regard to the status of women?

6. a) While the population of India is expected to continue to increase between now and 2050, per capita grain production in India is expected to decrease. How might these changes influence the country economically, politically, and socially?
b) India's population is projected to be at least 1.5 billion in 2050. Give two reasons why this might not occur.
7. **COMPARISONS** **PATTERNS AND TRENDS** Compare the efforts of Kerala and China to control population growth. Which of these approaches do you think will have the most desirable long-term results? What makes this comparison difficult?
8. a) Does Canada have enough people or too many? Explain your answer.
b) Canada's natural increase is approaching zero. What might be Canada's options for addressing this issue?
c) Identify any possible negative consequences of these options.

Apply and Connect

9. **INQUIRY** In the past, the composition of the Indigenous Peoples' population in Canada has been noticeably different from that of Canada's whole population. The Indigenous Peoples' population has been clearly younger. Prepare a brief presentation in the format of your choice answering the following questions based on Figure 6–18:
a) Look at the 2001 pattern. What transition stage does it appear to be in? How do you know this?

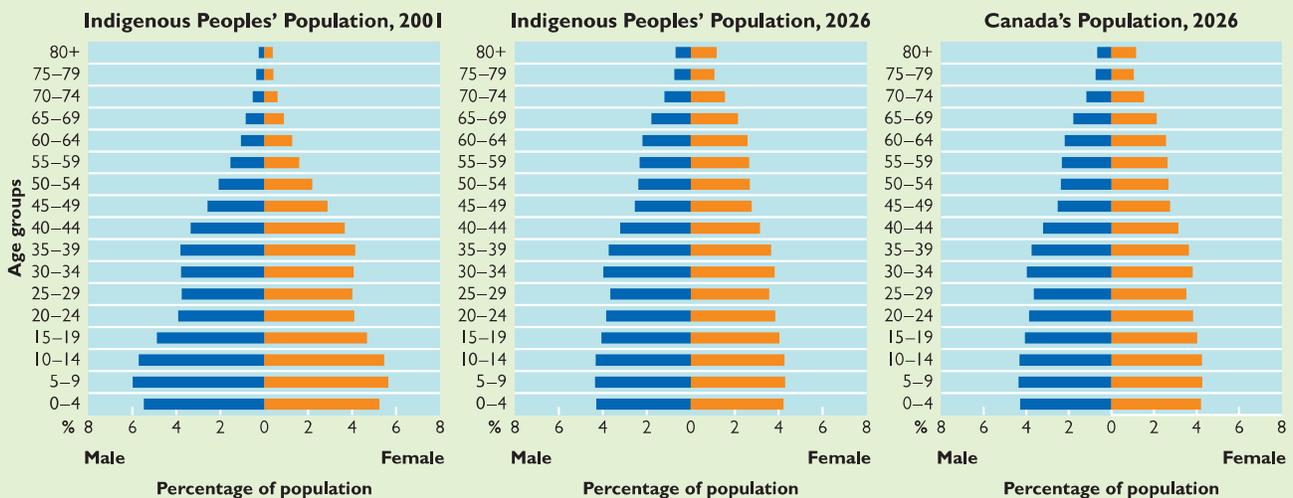


Figure 6–18 Compare these population pyramids for Indigenous Peoples in Canada and for all of Canada.

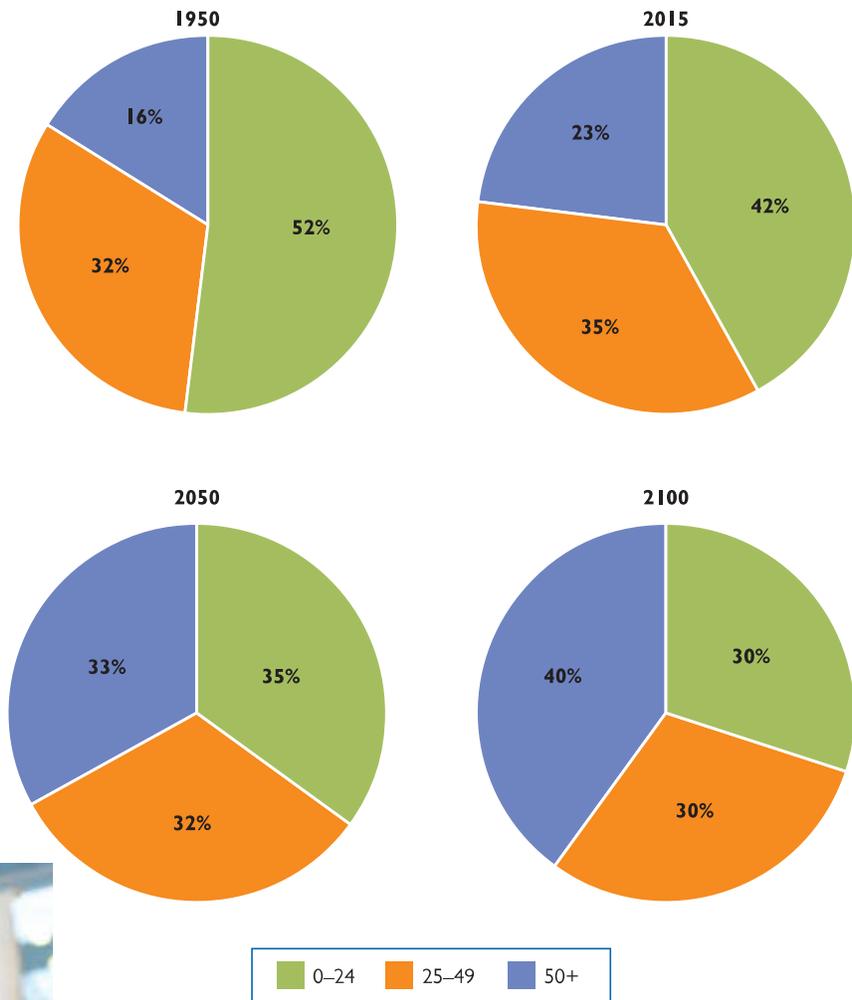
What Are the Consequences of Population Decline?

Key Terms

population implosion
 medium variant
 high variant
 low variant
 birth dearth
 DINKs
 pronatalist strategies

Fertility rates are declining in many countries in the world. The implications of this fertility rate change are striking, as these graphs show (right). How might this demographic shift influence society? Consider school closures, such as the one this girl (below) is protesting in the UK, due to declining enrolment.

Percentage of World Population by Age Groups



Chapter Focus Questions

- How are changes in fertility rates related to changing roles of women and men in MEDCs?
- How are population predictions made? Why are accurate predictions hard to make?
- What are the implications of low fertility rates in MEDCs?
- What does this all mean to you, as a young Canadian?

Many of the people of Bologna seem to live a very good life. Situated in northern Italy, this wealthy, cultured city was settled more than 2500 years ago. Its famous university (100 000 students) opened in 1088. It is the hometown for Lamborghini sports cars and Ducati motorcycles. The city has been called the food capital of Italy, which is high praise in a country that values eating so highly. *Bolognesi* love to sit in cafés to talk about politics and the fortunes of the city's sports teams.

Bologna has one of the world's lowest fertility rates of only 1.37 children per woman. In 2018, Bologna had 11 people over the age of 45 for every child under five (Figure 7-1). What is happening so dramatically in Bologna is happening in all MEDCs and even in the wealthier cities in some LEDCs. This chapter examines the implications of this **population implosion**. (In the absence of significant net in-migration, a country that maintains a total fertility rate significantly below 2.1 for many years will experience a population implosion—a dramatic collapse in numbers, and aging of the population.)

1. a) Claudia is a high-school student in Bologna. She has always wanted to be a kindergarten teacher. What options does she have if she would like to pursue this goal?
b) Name three other careers that will become less common as populations age.
2. An aging population offers many opportunities as well. Name three jobs that will become more common.
3. Some companies will benefit from an aging population, while others will face challenges. Identify which of

these companies is likely to benefit and which may be challenged because of demographic change. Consider who makes up their target markets. If you have not heard of some of these companies, you may want to do some quick Internet searches.

- | | |
|-----------------------------|----------------------|
| i) Alterra Mountain Company | vi) Manulife |
| ii) Arbor Memorial | vii) McDonald's |
| iii) ClubLink | viii) Nike |
| iv) Extendicare | ix) Princess Cruises |
| v) Intractwest | |

4. Companies that face serious demographic challenges must adapt. Explain what this means for the business focus of any two of the companies listed above.



Figure 7-1 If Bologna's very low total fertility rate is an indication of what the future might hold for MEDCs, what could this mean for Canada's future?

7.1 What Is a Population Projection?

Three fundamental factors affect the size of any population:

- The total fertility rate (TFR)—more births lead to a higher population.
- The life expectancy of people—if they live longer, the population will be greater.
- The impact that migration has on population—more immigrants than emigrants will increase the population.

Each of these factors is influenced by such a complex combination of economic and social conditions that population prediction is a tricky business. A wrong assumption about future fertility trends or immigration policies can dramatically affect the accuracy of a population projection. In spite of the risks, a number of international organizations, including the United Nations and the World Bank, produce world population projections—because they must have some idea of how many people there will be in the future if appropriate planning is to be done.

Consider that, to make such projections, a demographer must be able to predict how many children you (and others your age) will have and even how many children your children and their children will have.

Typically, population projections include a range of possibilities based on different assumptions about the total fertility rate, life expectancy, and, where appropriate, migration. For example, one projection may be based on what experts think is the lowest realistic estimate for total fertility rate, a second on the highest realistic TFR, and a third on their “best guess” for the TFR. Similar assumptions are made about possible increases in life expectancies and migration patterns. The most likely future population is called the **medium variant**, while the others are called the **high variant** and the **low variant**. Unless the experts were very wrong about their assumptions, the future population should almost certainly be between the high and low variants, and is

most likely to be close to the medium variant. Why does a range of projections make better sense than one best-guess projection?

In 2019, the UN projected a world population in 2050 of 9.7 billion. The low variant and the high variant could make this lower or higher by slightly more than the current population of China (1.4 billion). Even in the case of the low variant of 9.4 billion, there is considerable growth from the current population of 7.7 billion. The projections are quite different for many countries, though. The UN predicted a 2050 population for Europe of 710 million, a drop of more than 5 percent compared to the 2019 population of 748 million. Similar stagnant or declining populations are also likely in other countries such as Japan and Russia. Even Canada would see a population decline without the impact of immigration on our population.

7.2 Where in the World Is Population Decline a Problem?

The world is facing two entirely different population problems at the same time.

- On one hand, there are countries still experiencing the problems of massive population growth. Most of these are in Africa, whose population is predicted to grow to about four billion people by 2095 (Figure 7–2). Nigeria has Africa’s largest population,

which is growing at more than 3 percent per year. By 2050, its population is predicted to double from about 200 million to more than 400 million.

- On the other hand, there are dozens of countries facing the uncertainties of aging, and especially declining, populations. It is this latter group of countries that we will examine in this chapter.

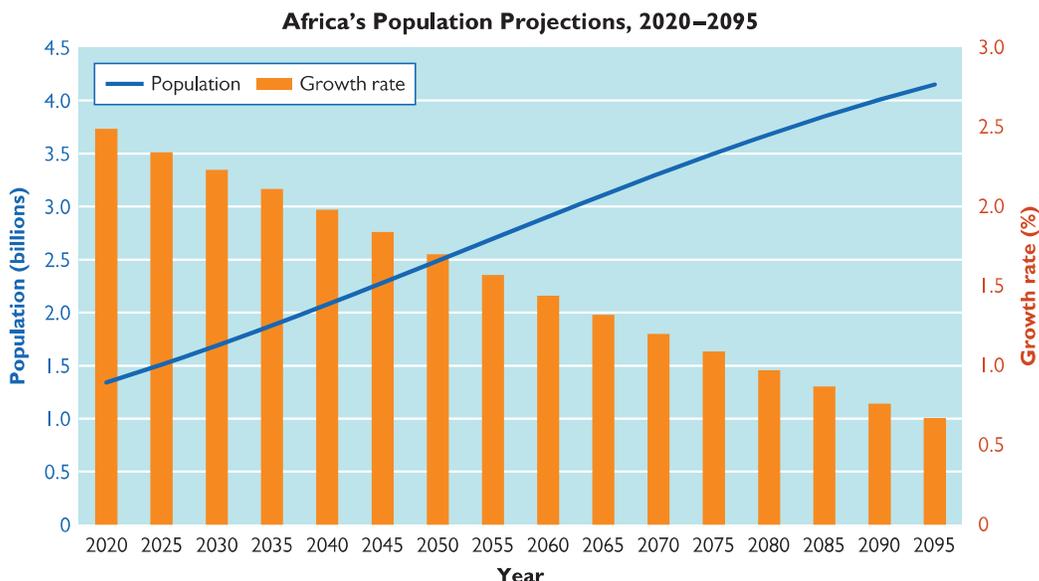


Figure 7–2 How might Africa’s massive population growth affect the quality of life there? 🗎

Where Is the Decline Happening?

Countries with declining populations (Figure 7–3) also have aging populations. At the same time, many

countries have populations that are still growing. They might also have aging populations because of the impacts of demographic transition. Canada is a good example of the latter situation.

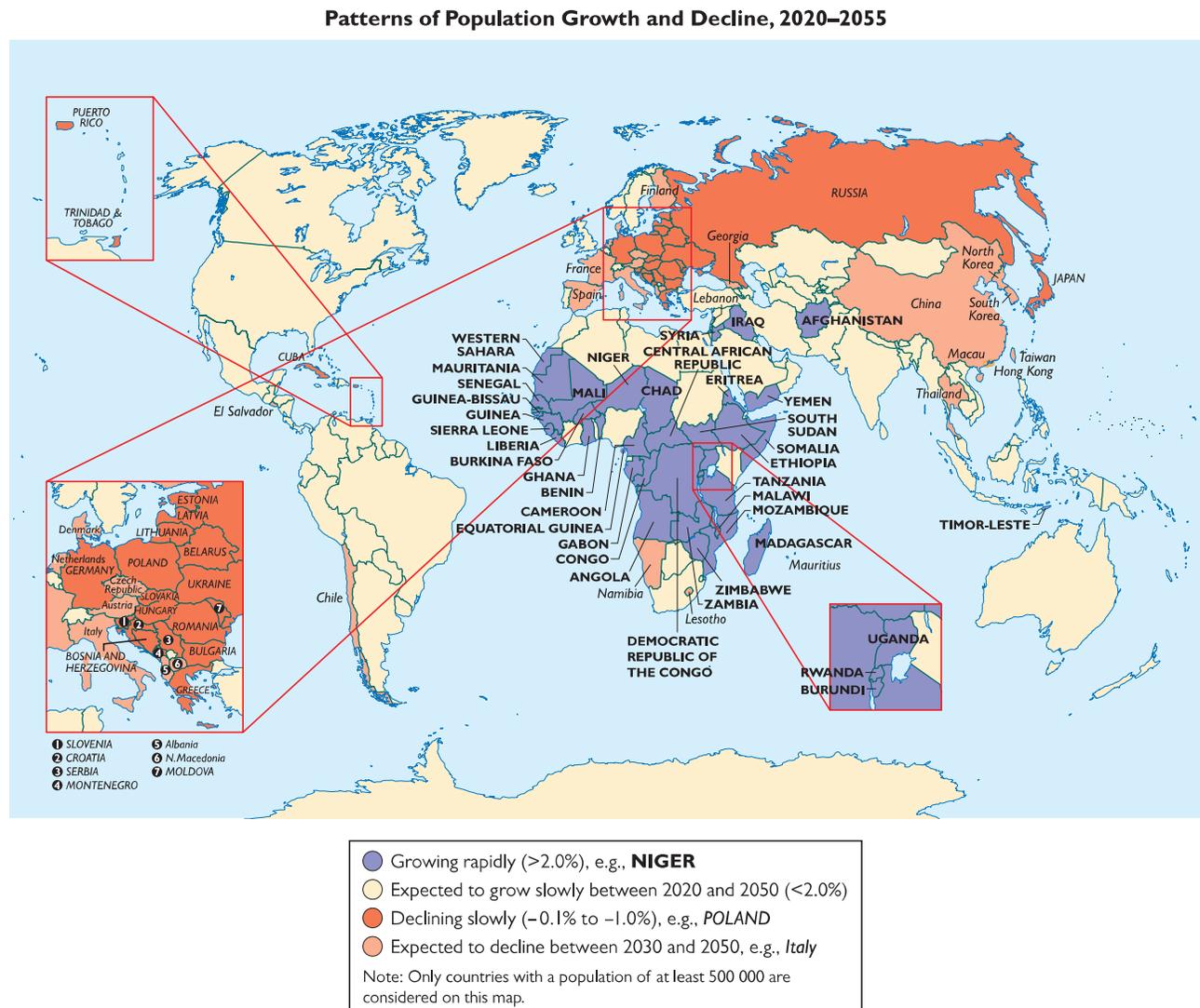


Figure 7–3 In what parts of the world are populations declining? Where is the issue of declining population most significant? In what part(s) of the world are there no declining populations?

Antinatalist and Pronatalist Policies in Singapore

Singapore has an interesting history of trying to control its population. From 1972 to 1987, this tiny country tried to reduce its population growth rate. Figure 7–10 shows the antinatalist policies. It is not clear whether this initiative was successful, since the total fertility rate was already dropping dramatically before it came into effect (1960 TFR = 5.76; 1972 TFR = 3.04). By 1987, the government of Singapore realized that it had a different population problem—its TFR had dropped to 1.62. In response, the government switched to pronatalist strategy policies (Figure 7–11). These policies succeeded only briefly. In 1988, the TFR rose to 1.96, but more decline followed. By 2018, the TFR had fallen to a dramatically low level: 1.14.

Questions

1. Based on the case of Singapore, does it appear that population control policies (anti and pro) are likely to be successful? Why or why not?
2. Can you suggest other pronatalist strategies to try? Are the costs of your strategies feasible? (For example, if you offered a woman \$1 million a year for each child, it would likely work but not be feasible.)
3. What does Singapore's situation (Figure 7–12) tell you about demographic transition and population control policies?

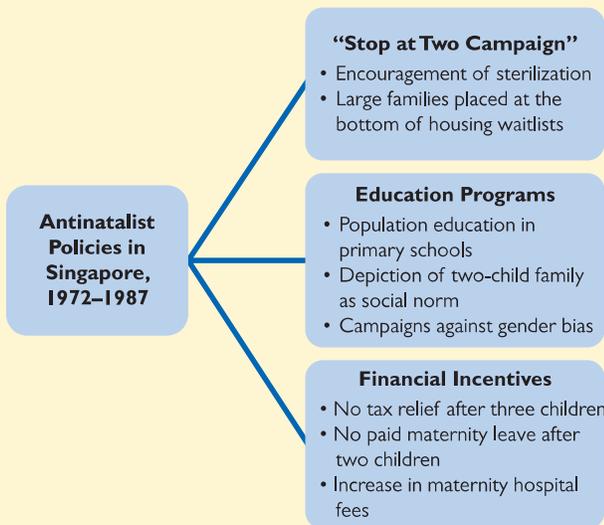


Figure 7–10 Which of these antinatalist strategies might be most effective in lowering the birth rate? Why?

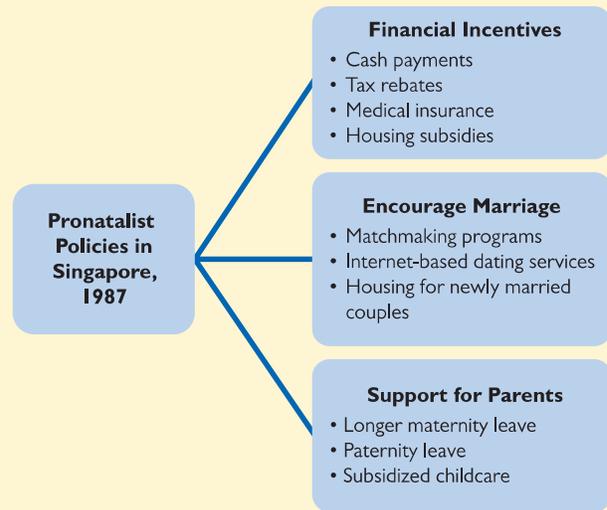


Figure 7–11 Which of these pronatalist strategies might be most effective in increasing the birth rate? Why?

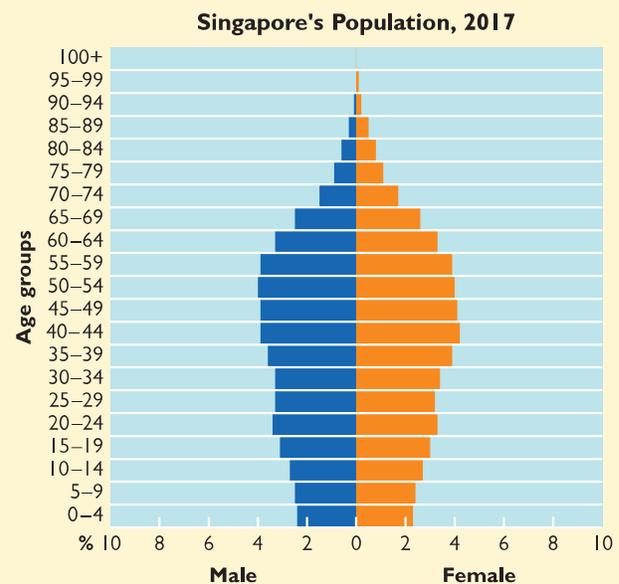


Figure 7–12 Analyze Singapore's 2017 population pyramid. What stage of demographic transition is the country experiencing? How might it address the issues that will arise?

Chapter Questions

Knowledge and Understanding

- EVIDENCE** a) Describe how the health care needs of countries like Canada will change as the population decline occurs.
b) What evidence is there that this change is already happening?
- In recent years, there has been a tendency toward earlier retirements. In the future, this is likely not to be the case. Give two reasons why working until an older age will make sense (or indeed be necessary) in the future.
- CAUSE AND CONSEQUENCE** Describe one social and one economic influence of each of the three factors that affect the size of a population.
- a) In this chapter you learned a great deal about how the population of Canada and other countries will change in this century. How might what you have learned affect your career choice? Why?
b) Give specific examples of jobs that will become more common and others that will become less common because of demographic change.
- Describe how your career choice may affect your family choices and how your family choices may affect your career.

Thinking Critically

- PERSPECTIVES** Discuss the statement, “The birth dearth is essentially a women’s issue.” In your answer, consider both the ways that this statement might be true and the ways in which it might not be true.
- What changes in employment would meet the needs of women and men who want to have children? **Q**
- SIGNIFICANCE** Explain why solving the demographic issues of the next century is not as simple as moving people from overpopulated regions of the world to underpopulated regions. **Q G**

- a) Imagine that you have been asked to write a plan for the recreational needs of your community or your province for the next 25 years. Your plan should consider which recreational demands are likely to grow and which are likely to decline. Suggest additional facilities and programs that should be added and existing ones that may not be needed.
b) Part a) of this question looked at how demographic change will have effects on one area of human life—recreational needs. Suggest three other major aspects of life not discussed in this chapter that will be affected by demographic change, and give one example of an effect in each area. **Q**

Apply and Connect

- You have been given the job of creating a new structure for the UN Security Council for 2050. Keeping in mind that they would have veto powers, how many permanent members would you have and who would they be? Explain the reasons for your choices. Present your new Security Council to the class as if you are presenting at the United Nations.
- How old will you be in 2060? Assume that you will have an eight-year-old grandchild by then (this might be the first time you have considered your grandchildren). Write your grandchild a letter explaining how life is different today (2060) than it was when you were in high school because of changes in demography. **S**

Extend Your Thinking

- a) Our economy has been based on the idea of growth. In what two ways does this growth occur? How might this dynamic change in the future?
b) If Earth’s population will eventually stabilize or decline, how could this change affect economic growth and quality of life?
c) What could be done to maintain economic growth in spite of population decline?

CHAPTER 8

Why Do People Migrate?

Key Terms

push factors
pull factors
voluntary migration
involuntary migration
internally displaced persons (IDPs)
refugees
environmental migration
guest workers
legal migration
illegal migration
internal migration
brain gain
brain drain
remittance
replacement migration

In recent years, immigration to Canada has risen to the 300 000 range each year. At right, members of a family, originally from the Philippines, become Canadian citizens. A couple crosses into Canada from the United States at the Quebec/New York border (below). What might compel people to migrate illegally in this manner?



Chapter Focus Questions

- What effect does human migration have on natural and human systems?
- How has the pattern of Canada's immigration changed? Why?
- What types of migration occur globally?
- What issues does migration solve? What issues does it create?
- What causes people to become refugees and internally displaced persons?

Like the family shown on page 114 (right), you or some of your classmates may have recently moved to Canada.

Few countries in the world have been, or are being, more affected by immigration than Canada. Five percent of Canadians are of Indigenous descent. This means that 95 percent of the population are immigrants or descendants of immigrants. The sources of immigration to Canada have changed over time. Complete the following activity to see the changing pattern of where Canada's immigrants have come from.

1. Using the information in Figure 8-1, construct a compound line graph for each time period. Place time along the x axis and the percentage of immigrants on the y axis. The first part of the graph is shown in Figure 8-2.

Place of Birth	1921	1941	1961	1981	2001	2016
Europe	75.9	79.9	85.7	66.8	42.0	27.7
US	19.1	15.5	10.0	8.1	4.4	3.4
Asia	2.7	2.2	2.0	14.0	36.5	48.1
Caribbean & Latin America	0.2	0.2	0.4	7.3	11	11.6
Africa	0.0	0.0	0.0	2.7	5.2	8.5

Figure 8-1 Sources of foreign-born residents of Canada, 1921–2016, expressed as a percentage. Values of 0.0 percent do not mean that there were zero immigrants to Canada from 1921 to 1961 born in Latin America or Africa—instead the number was so small that it rounded to zero rather than to 0.1 percent. How has the source of Canadian immigrants changed over the last century?

- What changes do you see in the sources of Canada's immigrants since 1921?
 - Which sources contributed the most immigrants to Canada starting in 2001?
 - Why might the sources of Canada's immigration have changed?
- Why might people migrate to Canada? Why might they leave the country they were living in?
- How might Canada be affected if immigration stopped today?

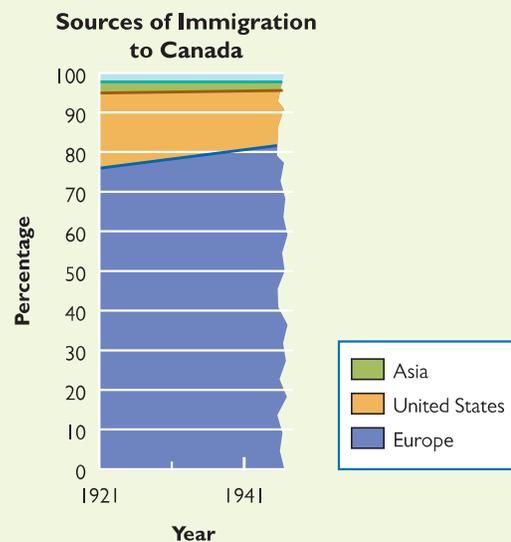


Figure 8-2 The compound line graph for 1921 and 1941 should look something like this. Using the data in Figure 8-1, extend this graph to 2016. (Hint: You will need to add Caribbean & Latin America and Africa to your legend.)

8.1 What Is the Nature of Migration?

What makes people migrate? Certain conditions, known as **push factors**, cause people to leave the places where they live. Push factors may include

- degradation of agricultural land, or the depletion of forests or water
- high crime rates
- lack of economic opportunity

- low wages, underemployment, unemployment
- overcrowded living conditions
- political persecution
- shortages of food
- wartime conditions

Other conditions, known as **pull factors**, attract people to new places. Pull factors may include

- good educational opportunities
- havens from political or religious persecution
- high standards of living
- high wages
- plentiful resources such as fresh water, forests, wildlife, or agricultural land

These factors, to a greater or lesser extent, are all tied to people trying to improve their individual quality of life.

People who move *from* a country are known as *emigrants*. People who move *to* a country are known as *immigrants* (Figure 8–3). Each year, more than two million people migrate and settle permanently in other countries; millions more migrate, but settle only temporarily. Many people migrate within their own country. Much migration tends to be between adjacent countries and regions—for example, from Mexico to the US, and from North Africa to Europe. Convenient, relatively inexpensive air transport has allowed migrants

to travel great distances. Today, virtually all of Canada’s immigrants arrive by plane from distant countries such as China, India, and the Philippines.

S SUSTAINABILITY

Each year, more than two million people migrate and settle permanently in other countries; millions more migrate, but settle only temporarily.

Do you think the number of immigrants is likely to increase or decrease in the future? Why?

Four questions can be asked about any migration:

- Is the migration *voluntary* or *involuntary*?
- Is the migration *permanent* or *temporary*?
- Is the migration *legal* or *illegal*?
- Is the migration *international* or *internal*?

When you consider the possible combinations of the answers to these four questions, you will see that migration takes many forms. For example, migration could be *voluntary, permanent, legal, and internal* or it could be *involuntary, temporary, illegal, and international*. Let’s look at each of these forms in more detail.

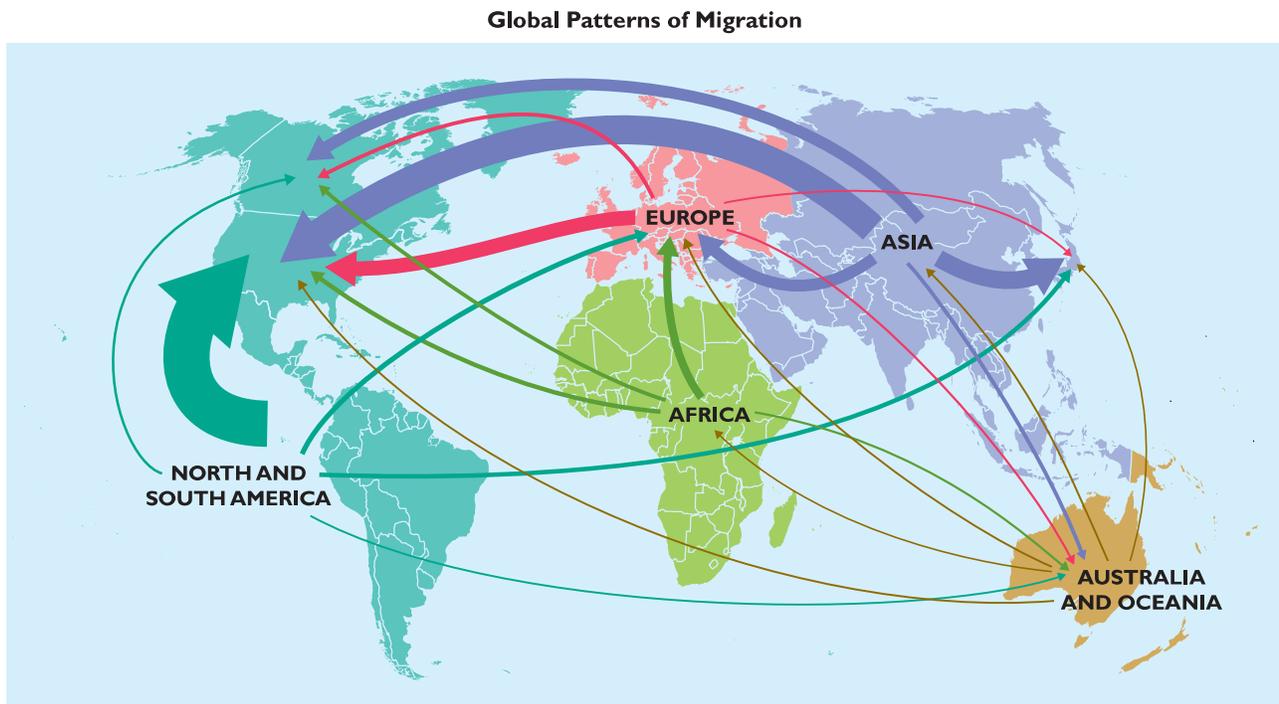


Figure 8–3 The thickness of the arrows indicates the size of the migration flow. What patterns do you notice? What might account for them? **G**

Citizens may also object to the costs of integrating immigrants into their society. These costs of providing health care, temporary shelter, language instruction, and other social services are borne by taxpayers.

Some immigrants find it hard to be successful in their new country because of cultural and professional difficulties. Foreign professionals sometimes find that their degrees and other forms of certification are not recognized in the receiving country, or that they would have to take additional training that may be difficult or

expensive to access. This has been a common complaint in Canada. Through a framework begun in 2009, the Canadian government is trying to let potential immigrants to the country know, before they come, whether their qualifications would be accepted here. Foreign workers often find working in their new country difficult because of their weak language skills or lack of familiarity with how institutions (for example, businesses, hospitals, or schools) operate.

WORKING IT OUT

HOW DO WE DEAL WITH FUTURE MIGRANT/REFUGEE CRISES?

JUDGEMENTS

Most experts agree that while today's migrant/refugee issues are serious, they are only a precursor to real crises to come. There are a few reasons why.

- Foremost of these reasons is climate change, which will reduce the population carrying capacities of a variety of natural environments in LEDCs adjacent to the United States, Western Europe, and Australia.
- In addition, many source countries for migrants are facing significant population growth pressures—at the same time that the countries' economies are stagnating or declining.

The world's MEDCs are barely coping with the current situation. We will have to do better in the future when migration pressures increase (Figure 8–11).

There are several questions that need to be addressed moving forward. Your teacher will tell you whether you will consider these questions individually, in a small group, or in a class discussion.

1. You may have noticed the usage of “migrant/refugee” above. This is because while many of the people seeking to move from LEDCs to MEDCs are, in fact, refugees under international law, many others are not. The latter group are sometimes called *economic migrants*.
 - a) What is the legal definition of a “refugee”?
 - b) If people have to migrate because of climate change, are they refugees or not? Explain.



Figure 8–11 Refugees and migrants attend an English and Greek class at the Reception and Identification Centre for Refugees in a Greek village near the Greek-Turkish border. Why is this type of assistance important?

2. When a person arrives at a border, the person is entitled to claim refugee status. It is the responsibility of the receiving nation to decide whether, under national and international law, the person's refugee claim is valid or not. This is a complex and time-consuming process (Figure 8–12). What could be done to expedite this process?



Figure 8–12 According to the UNHCR, Canada took in 28 100 of the 92 400 refugees who were resettled in 25 countries in 2018. Resettlement of refugees can be a slow and complicated process. What implications does this fact have globally? **G**

3. One possibility for the future would be to improve the security and quality of life for people in their home countries. Before responses can be found, it is necessary to clearly identify the nature of the issues that people face.
 - a) Suggest the kinds of issues that might exist in the home countries that migrants are leaving.
 - b) For the issues you identified in part a), suggest possible responses that would reduce the number of people who would otherwise want to migrate.

4. A different issue exists in many MEDCs. They face aging and declining populations and may need **replacement migration** to respond to this trend. What has to be done to make these countries willing (and able) to accept large numbers of refugees and economic migrants?
5. The United Nations High Commissioner for Refugees (UNHCR), also known as the UN Refugee Agency, is a global group involved in the protection and assistance of refugees. It encourages people to get involved. Why should we help refugees? What can you do to help?

Chapter Questions

Knowledge and Understanding

1. Describe, with specific examples, the four categories of migration.
2. a) Define “push factor.” Give two examples of push factors that might encourage a Canadian to migrate to another country. **G**
 b) Define “pull factor.” Give two examples of pull factors that might encourage someone to migrate to Canada. **G**
3. Explain the difference between “brain drain” and “brain gain.” What are the negative effects on the country experiencing the drain? What are the positive effects on the country experiencing the gain?
4. **SIGNIFICANCE** a) What are remittances?
 b) Demonstrate how remittances are significant to the economies of many countries.
 c) Select a country and show how remittances are important to its economic well-being.
5. Differentiate, using specific examples, between the terms “refugee” and “internally displaced person.”



Thinking Critically

6. **PERSPECTIVES** Individuals who migrate tend to fall into specific categories and show these characteristics.
- Age: Most migrants are younger adults.
 - Ambition level: Most migrants are ambitious people.
 - Gender: Females and males migrate. The number of female migrants is about the same as the number of male migrants.
 - Marital status: Most migrants are single.
 - Skills: Most migrants have higher-level rather than lower-level skills.

What might account for each of these characteristics? Consider this question from the perspective of both the migrant and the receiving nation.

7. Based on your knowledge of world affairs, suggest two trouble spots in the world that are generating (or are likely to generate) substantial numbers of refugees. (Hint: Look on our website for help finding examples.) If some of these refugees came to Canada, would they find it easy or difficult to integrate into Canadian life? Explain.  

Apply and Connect

8. **JUDGEMENTS** Should governments offer amnesty to illegal immigrants? As a class, identify the benefits and challenges this approach may pose. Try to reach a consensus on this question.

Extend Your Thinking

9. **JUDGEMENTS** Construct a chart to show the benefits and challenges of immigration for receiving and sending countries. In addition, answer the following questions:
- a) What are Canada's current immigration policies?
 - b) Do you think these policies are fair
 - to Canadians?
 - to prospective immigrants to Canada?

Explain your responses.

- c) If given the opportunity, would you change these policies? Explain.

10. a) In the 2016 US presidential election, the construction of a wall along the Mexican border became an issue that seriously divided the country. The winner of that election, President Trump, very much wanted a wall, but Democrats in Congress fought to stop funding for wall construction. Opposition to the wall came for two reasons. What were these reasons?
- b) What is the current status of this wall?

CHAPTER 9

What Causes Rural to Urban Migration?

Key Terms

rural to urban migration
megacities
decentralization
recentralization
gentrification
infrastructure
overurbanization
squatter settlements
fiscal squeeze
slums of hope
slums of despair

Kibera is a district in Nairobi, Kenya (right). Considered a slum, it serves as home for many people who migrate to Kenya's capital from the countryside. Below is a view of downtown Nairobi. What might be the varied experiences that people face as they migrate inside of Kenya?



Chapter Focus Questions

- What causes rural to urban migration?
- What are the effects of rural to urban migration in MEDCs and LEDCs?
- How will the size of rural and urban populations change in the future?
- How are cities changing throughout the world in response to urbanization?
- What issues do cities face? What are possible responses to these issues?
- What is the best way to ensure a high quality of life for urban residents?

9.1 What Are Global Patterns of Urbanization?

Two hundred years ago, less than 5 percent of the world's 980 million people lived in urban communities. In 2007 the world reached a significant milestone—for the first time ever, more people were living in urban areas than in rural ones. The migration to cities continues, in particular in LEDCs. But what caused (and is causing) this enormous migration from the countryside to cities—the largest migration in history?

Rural to Urban Migration in LEDCs

The migration of population from rural to urban areas began first in Britain during the mid-18th century. Unemployed farm workers migrated from rural areas to find work in factories that were being built during the Industrial Revolution and to provide services for the growing urban population. Rural depopulation was also caused by new agricultural machinery that reduced the need for manual labour on farms.

This pattern of **rural to urban migration** has spread as industrialization has become a global phenomenon.

Today, the process of urbanization in LEDCs is occurring at lightning speed compared to what took place in MEDCs. What took 200 years during the 18th and 19th centuries has taken just over half a century in many of today's LEDCs. As is the case with international migration, there are push and pull factors at work as rural populations in LEDCs migrate to cities (Figures 9–1 and 9–2).

The effects of rural to urban migration are many and far-reaching. For example, it is generally the better-educated, more ambitious, wealthier people in rural communities who tend to migrate to cities. They are in a better position to learn about opportunities and to be able to recover the costs of moving. If they have friends or family in the city, they are more likely to be supported until they get settled.

Over the past 50 years, the number of women migrating to the cities has been increasing. In countries such as the Philippines and Thailand, more women than men are moving to urban areas.

Factors in Rural to Urban Migration



Subsistence farms do not provide enough food or income to support grown children, who must migrate to the city to find work.

Government policies may favour urban over rural areas. For example, a government may protect goods manufactured in city factories by imposing import taxes on foreign goods. But, to maintain social stability in the cities, it may keep the price of agricultural products low so that city dwellers have cheap food.

Rural areas of most LEDCs offer inadequate jobs, infrastructure, and services. The UN estimates that 79 percent of the world's poorest people live in rural areas.

Government policies, both at home and in other countries, may create problems for farmers. In the 1970s and 1980s, Brazil encouraged farmers to resettle in cleared areas of the tropical rainforest. After a few harvests, the soil was so depleted that the settlers had to abandon the land and move to the city. Agricultural subsidies in MEDCs can often prevent farmers in poor countries from competing in unfair world markets.



Urban areas offer more employment opportunities, in a wider range of economic activities that are often growing rapidly. New jobs are constantly being created.

Living in a city can provide significant economic and social empowerment for women compared to traditional lifestyles in rural areas.

In LEDCs, better educational opportunities and medical care are available in cities than in most rural areas.

Urban areas offer a wider range of opportunities and lifestyles and may be seen as more "exciting" than life in rural areas. This is often attractive to young people.

Figure 9–1 Which factor(s) might most influence a person's decision to migrate? 

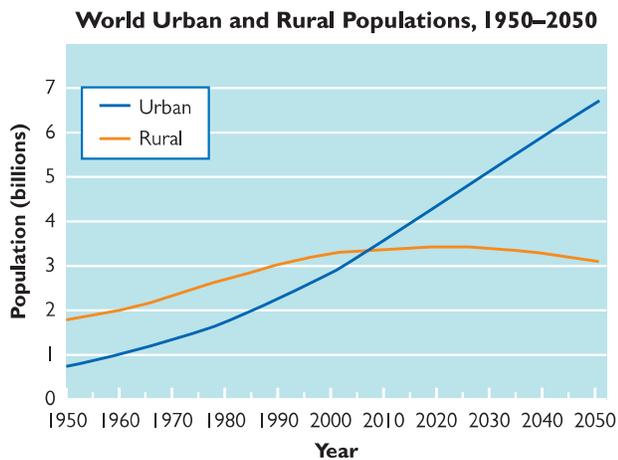


Figure 9–2 What past and projected trends do you see? What is the most significant factor in the growth of the urban population—the decline of rural populations or the growth of the total population?

This trend seems to be occurring in China as well, as there are often more factory and service jobs available for women than for men (Figure 9–3). The growth of labour-intensive industrialization and the development of service industries in cities are providing many job opportunities that did not exist in the past for women. The money women earn from these new jobs gives them the potential (not always realized) of an increased level of independence. The downside of the migration of women to cities is that many of the jobs are temporary, unsafe, and poorly paid and provide little security. Despite these negative aspects, migration has generally provided greater opportunities and some empowerment for women.



Figure 9–3 Chinese light manufacturing companies (e.g., electronics, clothing, toys) prefer female workers. Why might this be? How might this preference affect the status and quality of life of women in China? 🗣️

🗣️ QUALITY OF LIFE

Rural to urban migration can help to revitalize rural villages. Rural families frequently receive remittances from family members who have moved to the city.

How might remittance payments make a difference to quality of life in rural areas?

CASE STUDY

A Life of Urban Poverty

INQUIRY

One of the photographs on page 126 shows part of a slum area of Nairobi, Kenya, called Kibera. Kibera's population is difficult to determine, but estimates range from 200 000 to over 1 million. These people live in an area of 225 hectares. To get a sense of how crowded this is, if Kibera were a square block, the sides would be only 1.6 kilometres long! Similar districts exist in and around most large cities in LEDCs.

Questions

- A variety of names are used for areas like Kibera. These include "informal settlement," "shanty town," "spontaneous settlement," "squatter settlement," "mushroom city," "community built after dark and before dawn," and "uncontrolled settlement." From these names, and by viewing the images, describe
 - how areas like Kibera come into existence
 - what the quality of life might be like for residents
 - why it is not a surprise that such areas have grown enormously in recent years
- What is the most obvious difference in appearance between Kibera and neighbouring areas? What characteristics of Kibera account for this difference?
- What kinds of jobs would residents of Kibera be most likely to take?
- Cities in MEDCs are also home to significant numbers of poor people. Are there areas like Kibera in MEDCs? Why or why not?

- What percentage of the world's population is rural and what percentage is urban?
- What are the trends for the future?

Complete the following activity to discover the answers to these two important questions.

- Figure 9–2 (page 128) shows global trends in rural and urban population growth.
 - What will happen to the world's rural population between 2020 and 2050?
 - Why do you think this trend is happening?
 - What will happen to the rate of change of the urban population?
 - What does this change suggest about the number and size of cities in the future?
- Figure 9–4 includes six graphs that show rural–urban population percentage changes throughout the world.
 - What will happen to the rural populations of each region between 2020 and 2050?
 - Why do you think this is happening?
 - What will happen to the urban populations of each region between 2020 and 2050?
 - What does this trend suggest about the distribution of large cities in the future?
- Consider the consequences of the trends for LEDCs and MEDCs.



Figure 9–4 These graphs are based on UN-defined regions. What patterns do you see?

1. Identify the most serious urban issues that you think cities face in all parts of the world (Figure 9–10).
2. Imagine that you are the mayor of the community in which you live. The UN has asked you to rank the top 14 urban issues in your community in order of their significance. Compare your list with those of your classmates.
3. The United Nations Development Program asked mayors around the world to rank the top 14 urban issues in their communities. The percentage of mayors who identified each issue as significant in their city is shown in Figure 9–18 on page 141.
 - a) How does your list compare to that of the world mayors?
 - b) Which issues did you not identify? What might account for this difference?
 - c) Did you identify issues that are not on this list? What might account for this difference?
4.
 - a) Now imagine that you are the mayor of a large city in an LEDC. Re-rank these 14 issues in order of their significance.
 - b) How does your list differ from the list you made in question 2? Explain any differences.



Figure 9–10 World cities face a wide range of seemingly insoluble challenges ranging from substandard housing to urban decay. What materials have been used to build these houses (above)? Why do some cities and neighbourhoods in cities thrive while others decay?

9.3 What Urban Issues Do MEDCs Experience?

Urban issues anywhere in the world cannot be studied in isolation. Unemployment, poverty, problems faced by the elderly, inadequate tax base, decaying neighbourhoods, decentralization, lack of affordable housing, air pollution, traffic, solid waste disposal, and all the other problems that beset urban areas are interconnected in an intricate web of cause and effect.

Economic Issues

One of the major issues facing cities in MEDCs has been called the **fiscal squeeze**: there is never enough tax money to pay for all the services that cities need to run efficiently. Why might that be?

The issue stems from the fact that, over the last half century, MEDCs have moved from industrial to post-industrial economies in which most people work in businesses that provide services. (See Chapter 10 to learn more.) As this economic transition has happened, cities in MEDCs have undergone tremendous change. Traditional manufacturing industries—and their related activities, such as warehousing and transportation—have moved away from inner cities to the suburbs, or disappeared entirely as manufacturing activities have moved to China and other countries. As a result, the tax base of cities has decreased and city governments now have less money to maintain and repair infrastructure such as older roads, out-of-date water and sewage lines, and crumbling public buildings.

Add the costs involved in paying for social assistance, providing increasing levels of service to an aging population and to new immigrants, and cities really begin to feel the squeeze! A problem for many cities, such as those in Ontario, is that they are able to tax only the value of properties and not the incomes of residents. This limits their ability to raise money.

What is the solution to this dilemma? Starting in the 1990s, the US federal government came to the rescue of many of the country's largest cities by spending billions of dollars on infrastructure improvements. Some observers have suggested that a more permanent solution would be for cities to become the equivalent of provinces or states. This change would give them taxation powers that would better match their governmental responsibilities.

Social Issues

The social issues in the cities of MEDCs are connected to economic issues. For example, poverty is a serious urban issue in MEDCs. More than 20 percent of urban dwellers live below the poverty line. People living in the inner city are more than twice as likely to be poor as people living in the suburbs are. Overcrowded living conditions and poor diet contribute to absenteeism at school and work, which in turn leads to lower educational achievement and lower incomes. An environment of high unemployment, low wages, and general despair creates a continuous cycle of poverty.

S SUSTAINABILITY

An environment of high unemployment, low wages, and general despair creates a continuous cycle of poverty.

How can this cycle of poverty be broken?

Even when recentralization occurs and the economies of inner cities improve, problems can arise for residents. Redevelopment can push up rents faster than wages increase. The combination of low incomes and higher rents drives families out of the inner city just as living conditions and economic opportunities improve. The number of homeless people has also increased because of cutbacks in welfare programs. Homelessness is often tied to issues of mental well-being and cities may lack adequate mental health care and support systems. Homeless people are visible in the cities of MEDCs (Figure 9–11), including men and women of all ages, as well as an increasing number of children. In fact, it is estimated that about one-quarter of Canada's homeless are children.

A major problem in many cities is the shortage of affordable housing. Budgeting experts say that people



Figure 9–11 Homeless people can be seen on the streets of every large city. Why is the issue of homelessness difficult to address?

should not spend more than about 30 percent of their income on housing costs. People working for low wages find that 30 percent of their salary is not enough to cover housing costs. Their choice is either to spend more on housing (leaving them less for other essentials like food), or risk ending up homeless. Lack of affordable housing has contributed to homelessness in many cities.

Many suggestions have been made to address (or at least reduce) homelessness. The fundamental issue is that housing in cities, and in particular large cities, is expensive and beyond the means of many people. The potential responses are either to increase incomes or reduce the cost of housing. Increasing incomes at the bottom of the economic spectrum is a problem and many social programs exist to try to help people with very low incomes. But this income support is not enough.

Other responses to the shortage of affordable housing involve changing our concept of what a house should look like. In some communities “tiny houses” are being built in small neighbourhood groupings (Figure 9–12).



Figure 9–12 This tiny house neighbourhood in Seattle provides houses that are only about 3.7 m by 2.5 m and can accommodate one or two people. They are not very big, but how would life here compare to life on the street? 

Chapter Questions

Knowledge and Understanding

- List the push and pull factors that persuade rural populations in LEDCs to migrate to cities.
 - Are similar factors at work in MEDCs? Explain.
- Why are the largest and fastest-growing cities located in LEDCs?
- Describe the urban changes that are taking place
 - in the cities of the Old Core
 - in the cities of the rest of the world
- Summarize the economic, environmental, and social issues facing cities in MEDCs.
 - Summarize the same types of issues for cities in LEDCs. **Q S**
- Describe the living conditions in squatter settlements.
 - This chapter referred to “slums of hope” and “slums of despair.” What is meant by these terms? Could a particular neighbourhood be both at the same time? **Q**

Thinking Critically

- In some LEDCs, the movement from rural to urban environments is predominantly male; in others, it is predominantly female. What are the social implications of these trends? **Q**
- What initiatives did the mayor of Bogotá take to improve quality of life in the city?
 - Do you think this approach has merit? Explain.
 - If you were the mayor of your city or one near you, what initiatives would you take to incorporate happiness into your city-planning process?

Apply and Connect

- Construct a flow chart or web diagram to show how the 14 urban issues in Figure 9–18 are interrelated. If you were a mayor of one of these cities and were given a large sum of money to help alleviate these issues, which ones would you deal with first to make the best use of the money? Explain your choices. **S**

Extend Your Thinking

- Spending money on infrastructure improvements is necessary for a city to keep up with new growth and aging infrastructure components. Find out what the Canadian federal government and your provincial government are doing. Do you think these initiatives are enough? Explain.
- The Cities Alliance is an organization that creates and funds programs to improve the quality of life for large numbers of people in very poor countries. You can find a link to this organization's website on our website. You can look at other sources that mention this group too.
 - Who are the members of the Cities Alliance? What particular strengths do the various categories of members bring to the organization?
 - What type of projects are part of “Cities Without Slums”?
 - JUDGEMENTS** How does Cities Alliance measure the success of its work? What do you think of the organization's work and any future potential to improve the quality of life globally? **Q**
- CAUSE AND CONSEQUENCE** It is difficult to determine exact numbers, but it is estimated that at least 235 000 Canadians are homeless in any given year. Homelessness is most visible in urban centres, but it also exists in rural areas and on reserves. What are some of the causes of urban poverty?
 - Research to report on an initiative in Canada that is helping to reduce homelessness.
 - What else can or should be done about this issue? What can you do?
- Research the term *environmental racism*. You can find links to information about this topic on our website. Choose one example of an urban issue described in this chapter that could be considered a form of environmental racism. Propose some possible responses to the issue.



UNIT 3 ECONOMIC ISSUES

Economic globalization has created a high level of integration or connectedness among countries, especially through trade popular culture, and tourism. This type of globalization has major quality of life, economic, environmental, political, and social influences on countries and people around the world.

CHAPTER 10

How Do Economies Develop and Change?

Key Terms

economic growth
colonialism
mercantile system
concession companies
neo-colonialism
transnational corporations
free market economy
command economy
mixed economy
economic liberalism
Keynesian economics
progressive thought
neo-liberalism
economic globalization
tariffs
non-tariff barriers
populism
Living Planet Index
ecological footprint (EF)
Index of Sustainable Economic Welfare (ISEW)
Genuine Progress Indicator (GPI)

Trading at the New York Stock Exchange (right), an activity associated with Stage 5 of Rostow's model of economic development. Mariet Hara and her husband work on their farm in Malawi, (below), an activity associated with Stage I of the model. What might the quality of life be like at each stage?



Chapter Focus Questions

- What five stages do countries go through as their economies develop?
- How have colonialism and neo-colonialism affected poor countries?
- What are the differences between progressive government and neo-liberal government policies?
- How can sustainable development be measured?

10.1 What Are the Stages of Economic Development?

Economic growth is an increase in the production of goods and services over a period of time. As a country develops economically, the four sectors of its economy (primary, secondary, tertiary, and quaternary) change. Primary industries are resource-based activities such as agriculture, mining, and fishing. Secondary industries include manufacturing and construction activities. Tertiary industries include services such as government, financial services, and education. Quaternary industries are skill-based, including information technology, media, and research and development. The percentage of a country's gross domestic product (GDP) contributed by industries normally changes (Figure 10–1).

What forces might drive a country's economy from being dominated by primary industries to one dominated by tertiary industries? Many models have been developed to answer this question. Perhaps the best known is the model for economic growth proposed by Walt Rostow in the 1960s. Rostow suggested that a country goes through five stages as its economy develops (Figure 10–2).



For a more detailed description of Rostow's five-stage model, go to the link on our website.

Changes in GDP by Country, 1960–2017

	% of GDP from Primary Industries				% of GDP from Secondary Industries				% of GDP from Tertiary Industries			
	1960	1978	2000	2017	1960	1978	2000	2017	1960	1978	2000	2017
OLD CORE												
MEDCs												
Canada	6	4	3	2	34	31	29	28	60	65	69	70
Germany	6	3	1	1	53	48	28	31	41	49	71	68
NEW CORE												
Poland	26	16	3	2	57	64	32	40	17	20	66	58
South Korea	47	20	18	2	16	38	34	39	37	43	46	58
NEAR CORE												
LEDGs												
Indonesia	56	41	20	14	10	23	34	41	34	36	46	45
Philippines	35	26	17	10	27	28	30	31	38	46	53	59
PERIPHERY												
Bangladesh	61	57	26	14	8	13	25	29	31	30	49	57
Zambia	63	39	24	8	11	17	25	35	26	44	51	57

Figure 10–1 A summary of the changes in the proportion of GDP in each economic sector for the countries of our Four-Group model (Chapter 3). What patterns and trends do you see?

Rostow’s model, however, presents only one explanation for variations in the economic development of different countries. It describes development as

Rostow saw it in Europe and North America. Economic development may or may not occur in the same way in Africa, Asia, or Latin America.

Rostow’s Stages of Economic Development

Stage	Characteristics	Examples
Stage 1: Traditional Society	<ul style="list-style-type: none"> Economy is based on subsistence agriculture Population growth and social and economic progress are limited by natural controls (e.g., droughts, outbreaks of disease) Some governments are dictatorships or absolute monarchies Society changes very slowly 	Great Britain before 1750; Canada before 1850; some of the countries in the Periphery such as Burundi and Malawi today
Stage 2: Establishing Conditions for Takeoff	<ul style="list-style-type: none"> Society achieves a surplus of wealth, or “savings” as Rostow called it Savings are invested in vital economic sectors, such as transportation, communications, natural resource exploitation A sense of national purpose evolves More effective, responsive, central government develops 	Many Western European nations in the early 1800s; Canada after the 1850s; some Periphery countries such as Suriname and Togo today
Stage 3: Economic Takeoff	<ul style="list-style-type: none"> Economy begins to change in response to important technological innovations (e.g., improved transportation infrastructure) Agriculture changes from primarily subsistence to primarily commercial Manufacturing becomes an important part of the economy Tertiary sector expands as cities grow and number of customers for services increases 	Great Britain in the late 1700s; France and the US by 1860; Canada by 1900; some Near Core countries such as Bolivia and Vietnam; and many New Core countries such as Argentina and Bulgaria today
Stage 4: Drive to Maturity	<ul style="list-style-type: none"> An extended period of sustained economic growth Per capita wealth increases as economic growth outpaces population growth Economy becomes diversified with expansion of manufacturing and services Efficient production methods used in primary and secondary industries Increasing percentage of the country’s wealth invested in the economy Country reaches maturity about 50 to 60 years after takeoff 	Great Britain in the 1850s; France and the US by 1910; Canada by 1950; New Core countries such as Malaysia and Poland today. These New Core countries reached maturity more quickly than was the norm before the Second World War.
Stage 5: High Mass Consumption	<ul style="list-style-type: none"> Many people have incomes that are greater than necessary for buying essentials such as shelter, food, and clothing A growing demand for additional consumer goods and services Society is also wealthy enough to invest in social programs, such as improved health care, pensions 	United States from the 1920s; Canada from the 1950s; Western Europe and Japan following the Second World War; today many New Core countries such as Singapore, South Korea, and urban parts of China and India

Figure 10–2 If a country passes through these stages, how will citizens’ quality of life be affected? What would your life be like at each of these stages? 

10.3 What Is Modern Economic Colonialism?

The old form of political colonialism has been eliminated, but new forms of economic colonialism have replaced it. This new form of dominance in the post-colonial period is called **neo-colonialism** because it has some things in common with colonialism. Instead of dominating weak countries through direct political control, strong, wealthy nations now use economic policies, trade policies, and cultural influences (Figure 10–8). For example, a wealthy country may grant foreign aid to a poor country, provided the poor country buys its manufactured products. Or, it may *subtly* dominate a country through the gradual imposition of its culture. This is done through entertainment, language, access to news, and control over social media platforms.

In some important ways, however, neo-colonialism is different from traditional colonialism. These features are summarized in Figure 10–9.



Figure 10–8 What does this cartoon say about neo-colonialism without using any words?

"Old" and "New" Colonialism

Colonies' Role	"Old" Colonialism	"New" Colonialism
Source of raw materials	Yes	Yes
Source of manufactured products	No—colonial power did not want competition from its colony	Yes—the former colony can supply low-cost labour
Market for manufactured goods	Yes	Yes
Chief beneficiary	Colonial power	Transnational corporation

Figure 10–9 Why have transnational corporations become so important in modern economic systems? What was their nearest equivalent in old-style colonialism?

Transnational corporations, or large companies that operate across the world, are part of the modern economic system. While there may be some benefit to the countries where the transnational corporations operate (e.g., employment, taxes paid to governments), the corporation is the primary beneficiary. Little accumulation of capital occurs in the host country. You will explore transnational corporations in greater detail in Chapter 11.

Some people also argue that neo-colonialism also occurs when international organizations give money to governments in poor countries to create national parks, or when the World Bank reduces the national debt of poor countries in exchange for creating wildlife-protected areas. For example, the World Bank reduced Madagascar's national debt in exchange for its setting up and maintaining wilderness areas.

10.4 What Are Economic Systems?

Over the past century, economic decision making by the world's nations has occurred along a continuum between two extremes (Figure 10–10). At one extreme is a **free market economy**. In a perfect free market, the price of all goods and services is determined by the relationship between demand and supply. In a **command economy**, the price of goods and services, as well as the supply, are determined by the government as part of a planned economy.

In reality, there have never been countries that have had free market or command economies in their purest forms. Governments of all types have learned that, in spite of their political philosophies, they will end up with a **mixed economy**. This combines elements, to a greater or lesser degree, of both free enterprise and government intervention.

The governments of Canada and the US, whose economies are nominally free market, have found that some activities, such as operating the military and protecting endangered species, are best provided by governments. The fundamental question about mixed economies is how large a role government should play. Adam Smith, the founder of modern economics, published a famous book in 1776 called *An Inquiry into the Nature and Causes of the Wealth of Nations*, which advocated the idea of **economic liberalism**. This meant that the economic system should be allowed to operate without government intervention. Smith's economic ideas remained dominant in the Western world until the early 1900s.

Keynesian Economics

During the economic collapse of the Great Depression in the 1930s, unemployment reached record levels. John Maynard Keynes, a British economist, proposed that government should increase its spending during periods of high unemployment, and this in turn would provide jobs for people. With higher employment, people would be able to spend more and the economy would improve.

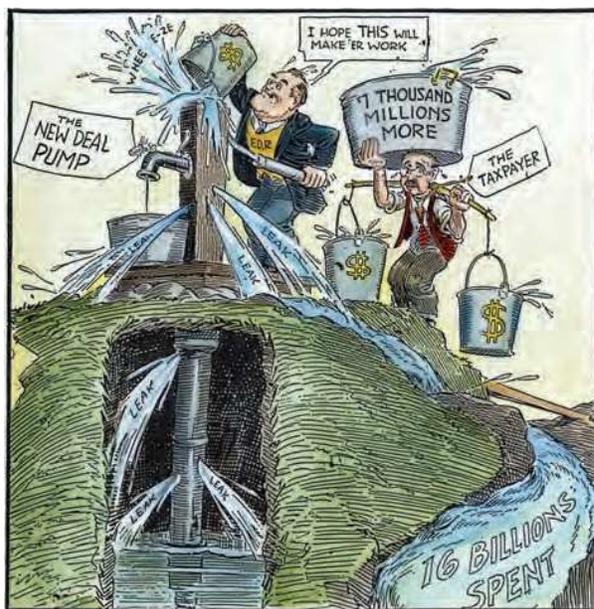


Figure 10–11 US President Roosevelt priming the New Deal pump. In literal terms, what does it mean to “prime a pump”? As an economic metaphor, what does it mean? Does this cartoon represent a free-market or progressive perspective?

Keynes' theory, which became known as **Keynesian economics**, became central to the policies of many governments during the Depression. This includes the New Deal, which President Franklin D. Roosevelt instituted in the US (Figure 10–11). The New Deal provided jobs by spending billions of dollars on projects like dam and highway construction. Similar policies were adopted in Canada and elsewhere.

Keynesian methods were also employed in 2008–2009 during the Great Recession, the largest economic collapse since the 1930s. Governments used a variety of spending methods, including bailing out large corporations that were likely to go bankrupt without massive loans. The policies proved successful since growth in the economy resumed and continued for the next decade.

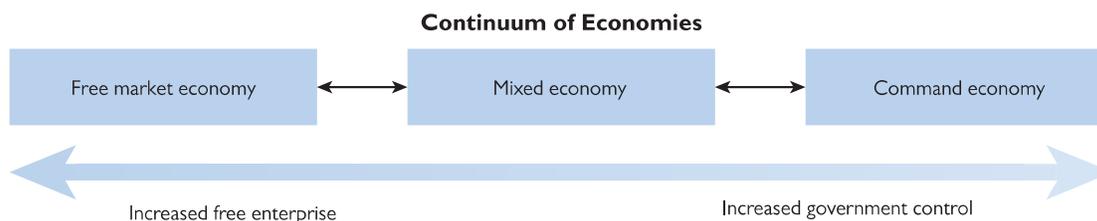


Figure 10–10 World economies fall somewhere between free enterprise and government control. What role do elections play in determining what kind of economy Canada has?

Chapter Questions

Knowledge and Understanding

1. Create a summary table to compare progressive and neo-liberal economic beliefs. In your table you might want to look at the following:
 - What do the policies include?
 - When has each school of thought been popular?
 - Which political parties support each approach?
 - Why do people believe in one approach or the other?
2. **a) CAUSE AND CONSEQUENCE** Briefly summarize, in your own words, the effects that colonialism has had on former colonies. For each effect, suggest why, after 50 or more years of independence, the effects of colonialism are still causing issues in these countries.
b) Suggest how colonialism and concession companies aided the economic takeoff of imperial nations and hindered that of colonies.
3. **a)** What is neo-colonialism?
b) What are the similarities and differences between colonialism and neo-colonialism?
4. Make a chart to compare, in a general way, the **a)** characteristics, **b)** strengths, and **c)** limitations of specific indicators and comprehensive indicators of progress toward sustainability. **S**

Thinking Critically

5. Imagine that a Western country is facing a period of economic decline. What might this government tend to do if it believes in
 - a)** Keynesian economics? **b)** neo-liberal economics?

Apply and Connect

6. **a)** Summarize the characteristics of the five stages of Rostow's model of economic growth.

b) EVIDENCE Give evidence, from our economy and lifestyles, to show that Canada is in Rostow's Stage 5 (high mass consumption).

7. **JUDGEMENT** Figure 10–9 states that the new beneficiaries of economic activities in the former colonies are transnational corporations. It could also be argued that the beneficiaries of the presence of transnational corporations are the former colonies. Is there a mutual benefit from the investment of transnationals, or does one party seem to gain more? Explain. **G**

Extend Your Thinking

8. **INQUIRY** While all countries have mixed economies, some countries have a great deal of government control of the economy, while others have relatively little. Using a variety of sources, identify three countries that have
 - a)** limited free markets (great deal of government involvement)
 - b)** a balance between free markets and an involved government
 - c)** free market (little government involvement)(**Note:** A good place to begin your research is the CIA's World Factbook website.)
9. **a)** Identify one country for each stage of economic development in Rostow's model. Give evidence to support your choices.
b) Is Rostow's model still valid for describing economic development in the 21st century? Why or why not?
(**Hint:** Consider the effects of economic and financial globalization—discussed in Chapter 2.)
c) Work with one or more classmates to suggest how you might modify Rostow's model to better fit the economic characteristics of the 21st century.

What Is Economic Globalization?

Key Terms

Global 500

multinational companies

free trade

North American Free Trade Agreement (NAFTA)

BRIC

The globalization of business is not only connecting the world ever closer; it is also making different places in the world more alike. These two buildings could be in almost any city. Where do you think they are located?



Chapter Focus Questions

- What roles do giant corporations play in the world?
- What is free trade and why should you care about it?
- What is Canada's experience with free trade?
- In what ways is economic power in the world shifting?
- How will world economic changes affect you?

Can you guess where the photos on the previous page were taken? The answer is at the end of the chapter. Globalization is changing the nature of business in the world. Each year, *Forbes* magazine publishes a list of the **Global 500**. These are the 500 largest companies in the world based on annual revenue.

What do you know about international big business? Take our quiz to find out. The answers to this quiz are based on *Forbes*' 2019 rankings. Changes to the list tend to happen fairly slowly, so rankings in later years are likely to be similar. For an updated list, go to the *Forbes* website and search for the latest list.

See how many of these questions you can answer without doing any research.

1. What company headed the Global 500 list in 2019? That is, what is the largest company in the world?
2. What four companies complete the top five?
3. What country had the most companies on the Global 500 list? How many Global 500 companies did this country have?
4. What are the next top four countries with the greatest number of Global 500 companies?
5. What is the name of the largest Canadian company on the list? Where did this company rank?
6. How many Global 500 companies were Canadian? Name as many of these companies as possible.
7. Estimate the number of Global 500 companies that have their head offices in MEDCs and how many are in LEDCs.
8. Which of the following companies are not on the Global 500: Nike, Walmart, Tim Hortons, L'Oréal, BMW, Royal Bank of Canada, McDonald's, FedEx?

The answers to these questions can be found on page 175.

11.1 What Are Transnational Corporations?

If you are like most people, you probably knew the answers to only a few of the questions in the quiz above. Most of us give little thought to the huge companies that dominate our economic life, and increasingly, our political life. This lack of concern should be disturbing, since these companies have enormous influence in the world. In the past, such large companies were often called **multinational companies** because they operated in several, or even many, countries. They are now more frequently called transnational companies, because not only do they operate across the world, but they are also becoming less clearly identified with any particular nation.

Transnational corporations are not new. In fact, some experts say that the first transnational “corporation” was a religious/military order called the *Knights Templar*, founded in the early 1100s. This order acquired so much wealth that by the end of the 1200s, it acted as bankers to the courts of Europe. (The Knights Templar have been featured prominently in a number of popular novels and movies.)

So what are the world's largest corporations (Figure 11–1)?

When you examine this list, you may marvel at the enormous size of these companies. In fact, their economic power rivals that of many nations. A reasonable comparison can be made between the revenues of Global 500 companies and the gross domestic product (GDP) of some countries. For example, the revenues generated by Walmart are comparable to the GDP of Poland (Figure 11–2). BP's revenues are similar to the GDP of Pakistan, which has a population of more than 216 million. Similar comparisons can be made between smaller companies on the Global 500 list and other countries. For example, #500 on the list, a French chemicals company called Air Liquide, had revenues that were similar to the GDP of Cyprus, while Adidas' (number 481 on the list) revenues were greater than the GDP of Honduras.

Comparing Company Revenues to Country GDPs

	Company	Focus	Headquarters' Country	Revenues (US\$ billions)	Country with GDP Rank in World	GDP (US\$ billions)
1.	Walmart	Retailing	United States	514	23. Poland	526
2.	Sinopec	Oil & gas	China	415	27. Austria	417
3.	Royal Dutch Shell	Oil & gas	Netherlands	396	28. Norway	400
4.	China National Petroleum	Oil & gas	China	392	28. Norway	400
5.	State Grid	Utilities	China	387	29. United Arab Emirates	382
6.	Saudi Aramco	Oil & gas	Saudi Arabia	356	31. Israel	353
7.	BP	Oil & gas	United Kingdom	304	40. Pakistan	305
8.	Exxon Mobil	Oil & gas	United States	290	41. Chile	277
9.	Volkswagen	Auto-making	Germany	278	41. Chile	277
10.	Toyota	Auto-making	Japan	272	41. Chile	277
11.	Apple	Technology	United States	265	42. Finland	252
12.	Berkshire Hathaway	Financials	United States	247	43. Bangladesh	247
13.	Amazon	Retailing	United States	233	44. Egypt	235
14.	UnitedHealth Group	Health services	United States	226	45. Vietnam	224
15.	Samsung	Technology	South Korea	222	46. Portugal	222

Figure 11-1 Not surprisingly, the 15 largest companies in 2019 are primarily located in the two countries with the largest economies in the world. What industry dominates the list? Why might that be? If the world's largest companies were countries they would have economies as large as the countries with GDPs ranked 23rd to 46th in the world. How does the economic strength of these companies give them great influence in the countries in which they operate? **G**



Figure 11-2 A Walmart store in Shenzhen, China, in 2019. Are you surprised by the global success of this transnational company? Explain.



Figure 11-6 A Taiwanese company used to make blue jeans in China but labour costs were rising dramatically. Its response was to move production to this factory in Lesotho in southern Africa, where labour costs are much lower. The company saves money, the workers get a steady job in a country where jobs are rare, and consumers, perhaps including you, get jeans at a lower price. Is this a win-win-win situation? Explain.



Figure 11-7 In 2013, the Rana Plaza in Dhaka, Bangladesh, collapsed. This building housed five garment factories. More than 1000 workers died and thousands more were injured. How can you make an informed choice about what you buy?  

11.2 How Has Free Trade Grown in the World?

Key to the growth of economic globalization has been the explosion in the number and extent of free-trade agreements. **Free trade** is trade that occurs without financial and non-financial barriers. Financial barriers are tariffs, which are taxes on imports. Tariffs make imports more expensive, and hence make it easier for domestic manufacturers to compete. An example of a non-financial barrier is a set of trade regulations so complex that importing becomes impractical. For example, a dispute broke out within the North American Free Trade Agreement (NAFTA) over the labelling requirements for jelly beans that made it difficult for Canadian jelly beans to be sold in the US and Mexico. (NAFTA is discussed later in this chapter.)

During the 1930s, most Old Core nations erected barriers to trade in an ultimately futile attempt to protect their economies from the economic chaos of the Great Depression. By the late 1940s, growing numbers of economists, politicians, and business leaders believed that these barriers were slowing the growth of the world's economy. The first international meetings to liberalize trade were held in 1947 under the General Agreement

on Tariffs and Trade (GATT). GATT was the precursor of the World Trade Organization (WTO), which was formed in 1995 to coordinate trade in the world. By 2007, ten rounds of trade meetings had been held that gradually were able to reduce tariffs and other restrictions on trade. A round starts with a major meeting that creates a set of objectives. Additional meetings are held to work out and agree on the detailed rules that are needed to meet these objectives. Rounds are typically named after the place where the first meeting is held or after a person, for example, the Tokyo Round or the Kennedy Round.

The WTO also coordinates the creation of regional free-trade agreements between and among countries. The number of these agreements has grown enormously since the early 1990s as support for freer trade has grown. The expansion of free trade in the world allows much larger markets to exist; this, according to supporters, promotes greater worldwide economic growth and prosperity. Opponents fear a loss of national sovereignty and the loss of a country's ability to protect its culture, environment, labour standards, and social programs.

Let's use one industry in North America—popular entertainment—to look at the complexity of free-trade agreements. Canada has rules that require that radio stations play a certain percentage of Canadian-produced music. This guarantee of a domestic market has aided the careers of a wide range of performers from Drake to Celine Dion. Many people concerned about protecting Canada's culture think that similar protection should be given to Canadian films—for example, that 10 percent of the screens in the local cinemas should be reserved for Canadian films. (Chances are good that you are much more familiar with Canadian music than you are with Canadian films. There is a good reason for this.) Not surprisingly, the US film industry is vehemently opposed to this idea. For Canadian nationalists, it is a question of cultural protection. For US movie studios (and the US government), it is a question of profit. Similar concerns exist all over the world.

Free Trade in Western Europe

The first major region to move toward free trade was Western Europe. This region had suffered the loss of tens of millions of lives, along with terrible economic destruction, in two world wars within barely 30 years. They wanted to find a way to come together so that a third war could never happen. In a famous speech in 1946,

Winston Churchill, the British prime minister, called for the eventual creation of a “United States of Europe.” The countries of Western Europe were not ready for such close political linkage, but there was willingness to cooperate economically if that could prevent a new war. Support for this cooperation grew gradually over many years.

- The first step was the creation of the European Coal and Steel Community (ECSC) in 1952. This agreement integrated the coal and steel industries of Belgium, France, Germany, Italy, Luxembourg, and the Netherlands. Coal and steel were chosen because they were the key commodities needed for the manufacture of heavy weapons. Eliminating any advantage for one country reduced the risk of war.
- The partners in the ECSC were pleased with its success. This led, in stages, to further integration of the partners' economies, including free trade. The Treaty of Rome, signed in 1957, liberalized trade in goods, services, capital, and labour within the same group of six nations of the ECSC. The newly created body was called the European Community (EC).
- Since then, the EC, which became known as the European Union (EU) in 1992, has expanded greatly both in size and purpose (Figure 11–8). There were 27 members in 2020. The collapse of communism is a factor in the growth of the EU.



Figure 11–8 Between 1957 and 2013 (when Croatia joined), the EU grew from six nations to 28 with a population of 513 million people. The UK left the EU in 2020. What countries would be possible members in the future? How might free trade influence quality of life among these nations? 📍

CHAPTER 12

What Are the Effects of Economic Disparity?

Key Terms

economic disparity
distribution of wealth
extreme poverty
HIV/AIDS
pandemic
anti-retroviral drugs (ARVs)
development assistance
official development assistance (ODA)
private development assistance (PDA)
non-governmental organizations (NGOs)
civil society
Gini index
income redistribution
progressive taxation

The expression “economic disparity” is a way of saying that some people and countries are very rich, while others are very poor. How does the quality of life of someone who owns a sports car in one country differ from someone like the young girl below in another country?



Chapter Focus Questions

- What is the nature of economic disparity in the world?
- What can be done to reduce economic disparity?
What should be done?
- What can be done to minimize the impact of HIV/AIDS and the next pandemic in the world?
- How successful has foreign aid been in helping to reduce economic disparity?

12.1 What Is the Nature of Economic Disparity?

Some people in the world live in great wealth. In contrast, many people have few possessions and little likelihood of ever rising above a life of extreme poverty. Their lives are likely to be very short and desperate. The two photos on the previous page illustrate an extreme example of the **economic disparity** that exists in the world.

While the idea of economic disparity—the economic inequality between the “haves” and “have-nots”—is quite simple, the implications of disparity are highly complex, as are the possible solutions to this problem. Economic disparity can be examined in different ways—between countries, and between people within a country. This chapter explores the implications of the growing gap between rich and poor nations and among the rich and poor people within each nation.

As Figure 12–1 shows, one simple value, US\$4210, divides the world’s people economically. If the total value of your assets (including financial assets, real estate, livestock, vehicles, and other property) is more than US\$4210, you are in the wealthy half of Earth’s population. If it is less than this amount, you are in the poor half. If you consider the value of the assets of a typical Canadian, this is a remarkably low number. In fact, if your assets are worth only US\$93 170, you are in the richest 10 percent of the people of the world. To provide some context, the average house price in St. John’s (which is typical of Canadian cities other than Toronto and Vancouver) was about US\$250 000.

Most observers agree that economic globalization has created more wealth in the world. Unfortunately, many people argue that this increase in wealth has not been shared equitably among all countries and among the people within each country. While the wealthier nations (like the United Arab Emirates and Canada) have seen their economies grow steadily, the economies

of many poor countries have stagnated or even declined in recent decades. At the same time, some people—whether in rich countries or poor—are much better off financially than others.

Figure 12–2 shows the global **distribution of wealth** quite clearly as a pyramid with almost two-thirds of the population, 3.2 billion adults, having a net wealth of less than US\$10 000. At the other extreme, 42 million people have a net worth of US\$1 million or more. These people are classified as “high net worth” (HNW) individuals. Even higher, there are the “ultra-high net worth” (UHNW) individuals who have more than US\$50 million. There are 37 000 of these. At the very, very top are the billionaires. In 2019, there were 2153 billionaires, ranging from Amazon CEO Jeff Bezos with \$112 billion to business person and media personality Kylie Jenner with \$1 billion—the youngest ever billionaire at age 21.

On a global basis, it is clear that wealth distribution is highly uneven. One simple statistic demonstrates this. The health budget of Ethiopia, a country with more than 100 million people, is equivalent to 1 percent of Jeff Bezos’ personal wealth. If we look at the distribution of wealth on a regional basis, the problem becomes even clearer (Figure 12–3). Some regions have a very high proportion of HNW individuals and relatively few very poor people.

If the total value of your assets is at least...	You are in the world’s richest...
US\$4 210	50%
93 170	10%
871 320	1%

Figure 12–1 These 2018 statistics are from the Credit Suisse Research Institute. They apply to adults only and the assets include real estate, financial investments, and personal property. Are you surprised by these numbers? Why?

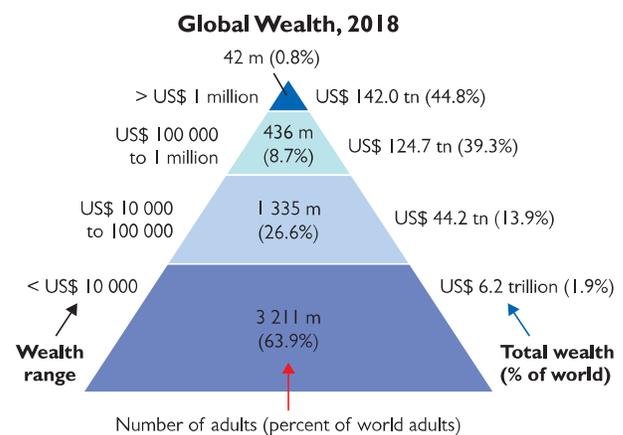


Figure 12–2 This graph illustrates how wealth is distributed among the world’s population. How much money do individuals with more than \$1M in wealth control? How much money do individuals with less than \$10 000 in wealth control? Calculate the per capita wealth of each group (wealth ÷ population). What does this tell you about wealth distribution in the world? And what might it tell you about the quality of life globally?

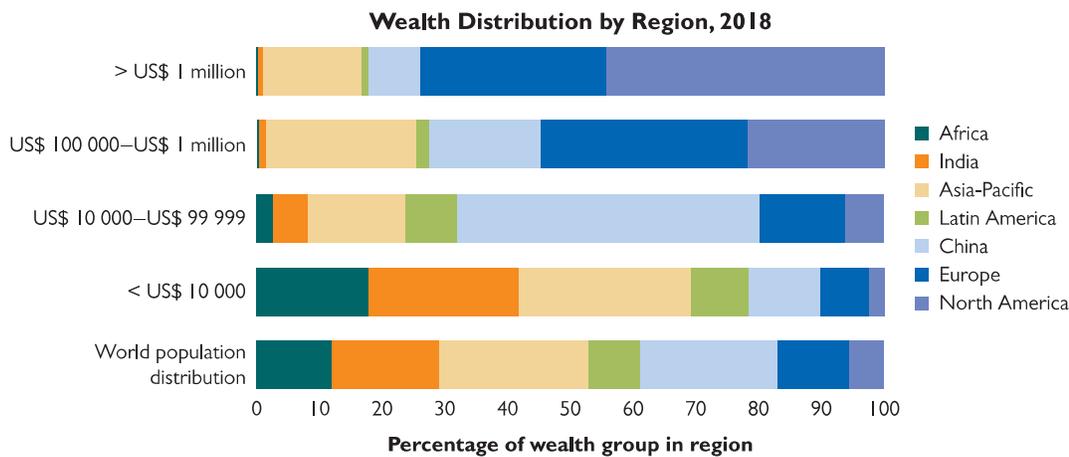


Figure 12–3 This set of graphs shows the distribution of wealth in various parts of the world. If wealth and poverty were distributed equally, the same pattern should exist at each wealth level. What are the most obvious examples where this is not the case?

WORKING IT OUT

EXAMINING THE GLOBAL DISTRIBUTION OF WEALTH

COMPARISONS

PATTERNS AND TRENDS

Frequently in your study of world issues or another subject, you will be presented with a body of data. You have a pretty good idea what the data shows—that is, you have a hypothesis. What you want to do is prove your hypothesis. Figure 12–4 shows all countries that have at least 1 percent of the world's population and/or at least 1 percent of the world's wealth.

- to do a series of calculations with the data
- to make a descriptive analysis of the data

2. What overall pattern do you see?
3. What regional pattern(s) do you see?
4. What is the significance of these patterns?

1. Choose an approach to prove that the distribution of wealth is fundamentally uneven. In general, this might be

- to create a graph to display the data

Country	Percentage of World Population	Percentage of World Wealth	Country	Percentage of World Population	Percentage of World Wealth
China	18.6	16.4	Vietnam	1.3	0.1
India	17.8	1.9	DR Congo	1.1	0.0
United States	4.3	31.0	Germany	1.1	4.6
Indonesia	3.5	0.5	Turkey	1.1	0.3
Pakistan	2.8	0.1	Iran	1.1	0.1
Brazil	2.7	0.8	United Kingdom	0.9	4.5
Nigeria	2.6	0.0	France	0.8	4.4
Bangladesh	2.1	0.1	Italy	0.8	3.3
Russia	1.9	0.7	South Korea	0.7	2.2
Mexico	1.7	0.5	Spain	0.6	2.3
Japan	1.6	7.5	Canada	0.5	2.6
Ethiopia	1.5	0.0	Australia	0.3	2.4
Philippines	1.4	0.2	Netherlands	0.2	1.1
Egypt	1.3	0.1	Switzerland	0.1	1.1

Note: A value of 0.0 indicates an actual value less than 0.05.

Figure 12–4 What is your hypothesis about the distribution of wealth of the world? How will you set out to prove it using this data set?

These are then provided to sub-Saharan countries, along with testing, to provide an acceptable level of care, even if it is not at the standard to be found in countries like Canada.

- Research on a vaccine for AIDS must be accelerated. Although AIDS vaccines are in the early test phases and the results are looking promising, more research is urgently needed to help prevent the spread of this disease.

12.4 What Might Be the Next Pandemic?

It was called the Spanish flu, even though it is now thought to have originated in the US and then taken to France by soldiers who were going there to fight in the First World War. Millions of soldiers from various parts of the world were crowded onto the battlefields of France and Belgium in extremely unsanitary conditions that were ideal for the spread of a deadly infectious disease. When the war ended in 1918, the soldiers took home the deadly virus responsible for the most serious pandemic that the world had faced in five centuries.

G GLOBALIZATION

The First World War killed or wounded at least 40 million people. The influenza pandemic that followed the war killed at least 50 million.

Why do you think that the influenza pandemic gets so much less attention than World War I?

Some estimates give the Spanish Flu a death toll as high as 100 million worldwide. In Canada, one in six people got sick and from 30 000 to 50 000 died. In some places, entire communities were almost completely wiped out (Figure 12–18). The number of fatalities would have been even higher had it not been for the extraordinary steps that were taken to prevent people from passing the virus on to others. Schools were closed and public meetings were outlawed.



Figure 12–18 The arrival of the Spanish Flu in the Inuit village of Okak, Labrador, resulted in the death of 204 of its 263 residents, a fatality rate of 78 percent. What would the impact of such a loss of life be on a community?

The 1919 Stanley Cup hockey playoffs were never finished. They were called off after five games because most of the Montreal Canadiens players were seriously ill. In fact, a Canadiens star player, Joe Hall, died only a few days after the series was abandoned.

The Spanish flu is only one of many pandemics that have occurred in recorded history. Medical historians have determined that there have been 32 major pandemics in the past 400 years. Will the next pandemic be a familiar foe like influenza, or a newer disease like HIV/AIDS? Will it spread quickly, kill many people, and then disappear equally quickly, or will it occur slowly and survive for decades? No one knows for sure, but scientists and governments are trying to prepare for “the next big one.”



In 2020, the COVID-19 pandemic had devastating effects on economies around the world. As they had during the Spanish Flu, many governments prevented people from gathering in groups. Travel was restricted. Sports and entertainment events were canceled or delayed, including the 2020 Summer Olympics. Many businesses closed, and millions of people became unemployed. In order to prevent further economic and social crises, governments spent trillions of dollars on emergency funding programs. This was to support both unemployed workers and businesses during the pandemic. Decisions had to be made quickly on how best to stabilize economies. These decisions were very complex and would have a monumental influence on peoples' quality of life. What values should be used to guide these decisions? Could an opportunity come out of this to create a better balance between economic growth and sustainability? Should economic globalization be reduced, or expanded? Could changes be made that would improve quality of life for everyone? Look on our website to see how governments responded to these questions.

The world's health authorities have an unenviable job. They must prepare for the major threat of a new pandemic, without knowing whether they will be dealing with a known disease or something entirely new. In this exercise, you will have the opportunity to learn about the risks of a new pandemic.

- The characteristics of modern globalized society make the dangers of a pandemic both more likely to happen and less dangerous if (when?) one emerges. Explain this apparent contradiction. **G**
- There a number of potential pandemic candidates. Choose one of these to study.
 - A new form of influenza (each year new strains of the flu appear). Scientists fear a particularly virulent form.
 - Swine flu. This is a special type of influenza that is transmitted from pigs to people.
 - Viral hemorrhagic fevers, including Ebola and Marburg
 - A resurgence of a well-known disease that is controllable by vaccination. Among others, these include tuberculosis and measles.
 - Diseases spread by mosquitoes and other insects. Figure 12–19 gives you a few interesting facts about how deadly mosquitoes are to humans compared to other predators. Diseases spread by mosquitoes include malaria (responsible for most deaths), yellow fever (deadly, but largely contained by vaccination), Zika, West Nile, dengue, and chikungunya. Lyme disease and bubonic plague are spread by other insects. Some of these diseases, like dengue and Lyme, will make you very sick but rarely kill. Scientists fear that diseases like this may evolve into more deadly forms.
 - Respiratory diseases including SARS, MERS, and Coronavirus (COVID-19)
 - Disease X—an as yet unknown disease
- If you did not choose Disease X, answer as many of the following questions about "your disease" as possible.
 - What is the history of the disease?
 - How does the disease work?
 - How likely is this disease to become a pandemic?
 - What preventative measures are possible?
 - If this disease did become a pandemic, how would it be handled?
 - If you did choose Disease X, give an overview of the risks on an unknown disease becoming the next pandemic.



Figure 12–19 What animals are responsible for the most human deaths? Is it sharks, like this great white? The deadliest predators for humans are actually mosquitoes. They are responsible for one million deaths a year. Mosquitoes don't kill directly. They are technically called "disease vectors"; that is, they are the mechanism by which deadly diseases are spread. Sharks? On average, they only kill about seven people a year. What measures can be used to reduce the spread of disease by mosquitoes?



You will find links to information about infectious diseases and pandemics on our website.

CHAPTER 14

How Do Governments Spend Money?

Key Terms

macroeconomics
microeconomics
monetarism
deficit
surplus
inflation
interest rates
hyperinflation
central bank
fiscal policy
monetary policy

A bread line in New York City during the Great Depression of the 1930s (right). A sculpture (below) in Washington, D.C., commemorates that era. How did the Great Depression impact the quality of life throughout much of the world and influence economic theories?



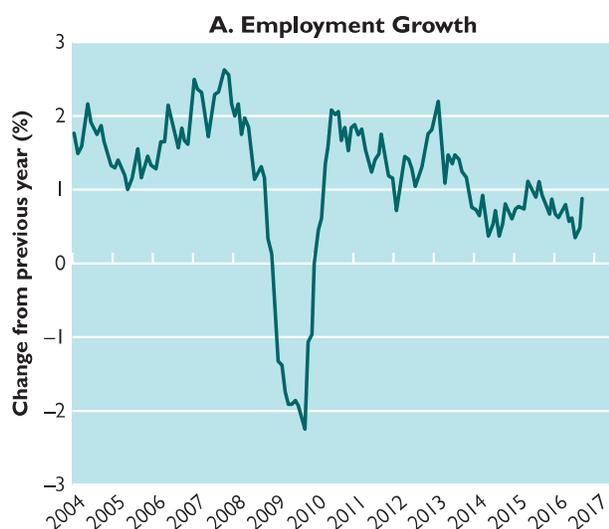
Chapter Focus Questions

- How is macroeconomics different from microeconomics?
- How are Keynesian economic theories used?
- How do inflation and interest rates impact quality of life for people?
- How much debt does Canada have?

14.1 What Are Macroeconomics and Microeconomics?

Macroeconomics is the study of larger economy-wide topics, such as employment growth (Figure 14–1, Graph A). **Microeconomics** focuses on decisions that are made at the individual level—by people, by households, or by companies. In Figure 14–1, Graph B illustrates a fundamental idea in microeconomics—the model of demand and supply. It could be applied to most products and services that people might want to buy or sell. In this case, we will apply it to movie tickets.

- Points A and B are on the demand side: potential movie customers. At point A on the graph, movie tickets cost \$30 each. At this price, very few people want to (or can afford to) go to the movies. At point B, tickets are only \$2.50. People would go to the movies very often at this price.
- Points C and D are on the supply side: the companies that make movies and run the local cinema. At Point C (\$2.50 tickets), very few movies would be produced, since the studios and theatre owners would make very little profit. At point D (\$30 tickets), the suppliers would be willing to make and show a great many movies, since they would earn a high profit. The only problem is that there would be few customers.
- The equilibrium point is where the interests of the customers and suppliers coincide. The price is not too high, so people will be willing to pay to see the next great movie. At the same time, the price is high enough that the suppliers can make a profit.



Before the 1930s, the microeconomic approach to explaining how the economy worked was dominant in the world. It came to be known as “classical economics.” Everything changed starting on October 24, 1929—a day that came to be known as Black Thursday. In two days, the Dow Jones stock index in the United States fell by almost 25 percent. Demand declined, so manufacturers reduced production and laid off workers. Economists assumed that the supply and demand curves would shift around until new equilibrium points were established. Once these points were reached, the economy would naturally grow back to previous levels.

The problem was that millions of people were out of work and had little money to spend. Those who had jobs were paid very poorly. The economy settled into a very deep recession, which was called the Great Depression. It lasted until the beginning of the Second World War in 1939, when war needs dramatically stimulated the economy in Canada and the US. The value of Canadian war production (such as ammunition, ships, and other supplies) was worth almost \$100 billion in today’s dollars. What do you think the quality of life was like in the Great Depression?

Did You Know?

The Grapes of Wrath, a novel by John Steinbeck about a family dealing with the Great Depression, has often been called a “Great American Novel.” It was published in 1939. The movie version came out the following year. Both the novel and movie are well worth your time.

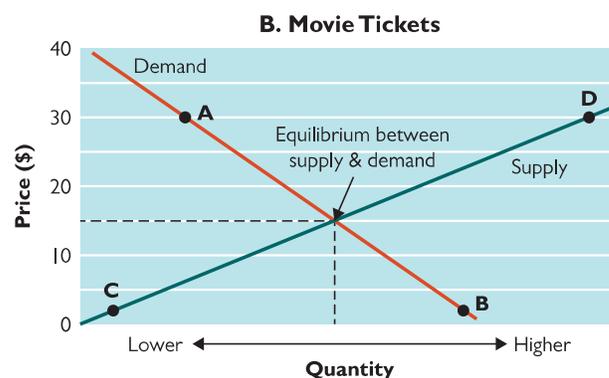


Figure 14–1 Graph A is an example of a macroeconomics graph. Graph B is an example of a microeconomics graph. Why is one *macro* and the other *micro*?

14.2 What Are National Deficit and Debt?

In economic terms, having debt is owing money. A budget **deficit** is a shortfall when spending exceeds revenue. Deficit and debt are crucial economic concepts that are often confused. Let's see how it works with a personal example. Michelle has just graduated from university and is moving to a new city to start in a new job. Figure 14–5 shows Michelle's debt and budget deficit for two years.

The finances of countries operate in a similar way. Reports of large and growing government deficits are always big news (Figure 14–6), but it is not really all that straightforward. To see why, let's go back to Michelle's situation. In Year 1, her debt was \$22 000 and her take-home pay was \$30 000. Another way of looking at this is that her debt was 73 percent of her income. Eight years later, when she had been working for ten years, her debt had increased to \$50 000, but her take-home pay, after several promotions, was \$100 000. This meant that her debt was now only 50 percent of her income. Similarly, when we look at national debt it can be considered in two ways: in *absolute terms* and in *relative terms*.

A **surplus** occurs when income is greater than expenses in a given year. You may have noticed that Canada, and indeed most countries, have had more

US budget deficit woes increase as \$1 trillion mark approaches

Figure 14–6 Why do reports of growing government deficits get a great deal of attention from the media and the public?

(and larger) deficits than surpluses. (Figure 14–7 shows Canada's deficit history in both absolute and relative terms.) In years where there is a deficit, the national debt increases. That means that the country needs to borrow money to make up the difference. Figure 14–8 shows what the Canadian government spent its money on in 2019. Note that interest on our debt is called "Public debt charges." This is the interest we pay on our ongoing debt. In those years when there is a surplus, the government has a choice about what to do with the "extra" money. The choices typically are to cut taxes in the future, increase spending on programs, or pay off some debt. When Canada ran surpluses in the 2000s, a combination of all three was done.

■ Year 1

- Michelle started the year with a student loan of \$14 000. This is *debt*.
- Her take-home pay for the year was \$28 000.
- She spent \$29 000 on rent, furniture, food, clothing for her new job, student loan payments, and other needs.
- She has a budget *deficit* for the year of \$1 000 ($\$28\,000 - \$29\,000$) which she makes up by having a \$1 000 balance on her credit card.
- Her *debt* stayed the same, since she paid off \$1 000 of her student loan but now has a \$1 000 credit card balance. (Note that the interest rate on the credit card is much higher than that on the student loan.)

■ Year 2

- Michelle decides that she needs a car and chooses a used Toyota that costs \$10 000. Her parents lend her \$5 000 (no interest payable) to help pay for the car. She pays the balance with a car loan of \$5 000.
- Her take-home pay increases to \$30 000, but her expenses also increase to \$29 000. She has a budget *surplus* of \$1 000, which she uses to pay off her credit card balance.
- Her debt is now \$22 000 (student loan $\$13\,000 - \$1\,000$ payment = $\$12\,000 + \$5\,000$ from her parents + \$5 000 car loan).

Figure 14–5 What is Michelle's debt in absolute terms (dollars)? What is her debt in relative terms (percentage of her salary)?

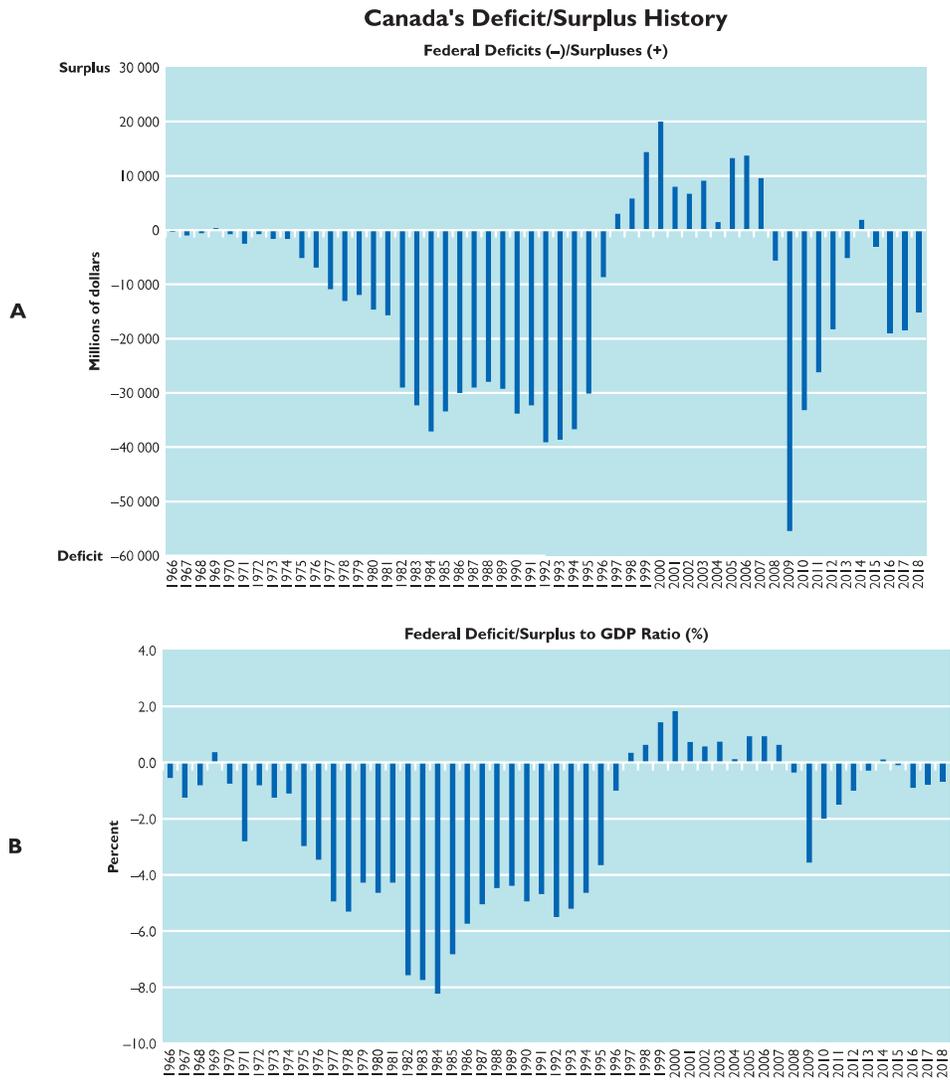


Figure 14-7 Canada's deficit history in **A** absolute (dollar) terms and **B** relative (% of GDP) terms. What similarities and differences do you see? How often have surpluses happened compared to deficits? How large are the surpluses compared to the deficits? What is the net result of this pattern?

Canadian Government Spending (Federal), 2019

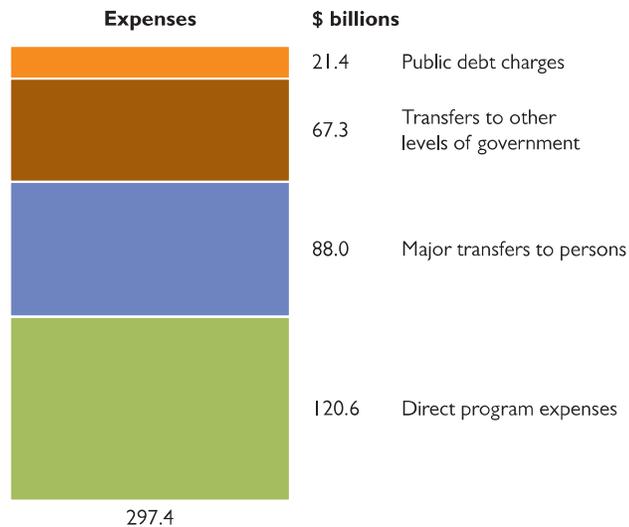


Figure 14-8 What do you think "major transfers to persons" includes? How are they significant to quality of life?

Figure 14–10 shows the amount of national debt compared to GDP for all countries. When you look at this map a number of important questions—and answers—should come to mind.

1. a) Do you see any particular differences between MEDCs and LEDCs? If you do, what might they be?
 b) Which countries in each group do not fit the regional pattern? Why might this be?
2. a) Which major country has a very high debt-to-GDP ratio?

b) Why is this an issue for both that country and the rest of the world? **G**

3. In Chapter 12, you learned about the debt relief program from the International Monetary Fund and World Bank for Highly Indebted Poor Countries (HIPCs). How are those countries doing now?
4. How is Canada doing compared to other MEDCs?

Global Government Debt (Percent of GDP), 2019

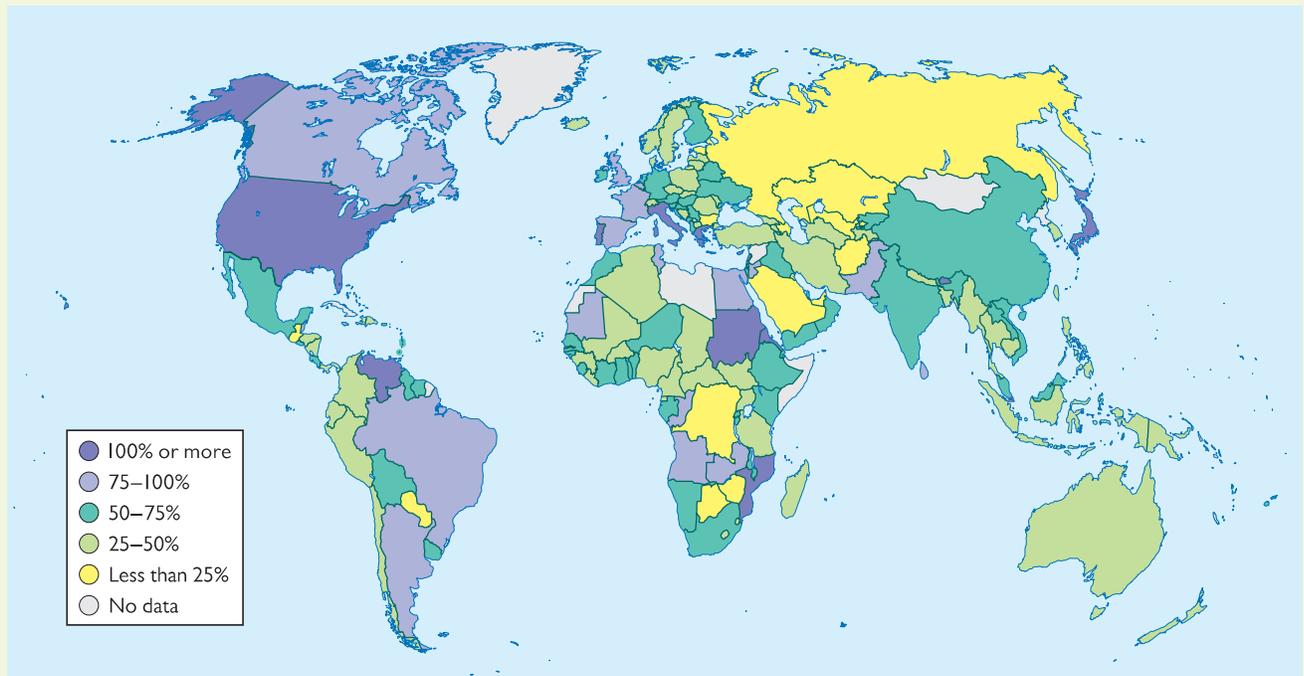


Figure 14–10 This map shows the amount of debt countries have compared to GDP, as of 2019. What patterns do you see?

14.4 How Does Government Try To Manage the Economy?

Governments like stable, growing economies. So do the citizens and companies in their countries. Creating such conditions is the goal for governments when they manage their economies. This management involves actions by two independent parts of the government—the elected government and the country’s **central bank**. Each works in a different way to achieve the same result.

Fiscal Policy

The **fiscal policy** of a country is controlled by the government. Leaders rely on expert advice to make decisions about the economy. Fiscal policy uses Keynesian approaches to a greater or lesser extent to achieve its goals.

When making their decisions, leaders consider many factors, some of which may be contradictory. These include the following:

- The state of the government’s finances. If revenues are high, they may decide to cut taxes or to increase spending on such things as infrastructure or social programs. If there is a surplus, they may decide to pay off some of the country’s debt.
- If revenues are too low, they have a different choice—to increase taxes, cut programs, or borrow money and increase national debt. If the country’s economy falls into recession, they must decide on how strong a Keynesian approach is needed. Borrowing money to increase economic activity would add to the country’s debt.
- The demands of the population and businesses. The government may have to bring in new or expanded programs across a wide range of activities to satisfy these demands.
- Whether the country has an elected government. They must consider the promises they made to get elected or what they need to get done if they want to get re-elected.

In Canada, the government’s fiscal policy for the coming year is detailed in an annual budget presented by the finance minister (Figure 14–18).



Figure 14–18 Canada’s Finance Minister Bill Morneau delivers the budget speech in Ottawa in 2018. Why must the contents of the budget speech be kept secret until the budget is presented in the House of Commons?

Monetary Policy

A nation’s **monetary policy** is controlled by the country’s central bank (Figure 14–19). Central banks are not typical banks. These banks provide financial and banking services to the government. They employ experts who study the economy and make decisions about such things as interest rates and the money supply. If they think the economy is going too slowly and that there could be a recession, they can adopt *expansionary policies*. This includes lowering the key interest rate (which they control). They can also increase the money supply. Both of these tend to stimulate the economy. However, central banks have to be careful. Too much expansion can result in inflation rates that are too high.

On the flip side, the central bank may adopt *contractionary policies* if they believe the economy is getting overheated. Rising inflation is a good indicator of this. They will try to cool things down by increasing interest rates and by restricting growth of the money supply. It all sounds very simple, but it is actually very complex and difficult to manage.

G GLOBALIZATION

The Canadian government tries to grow and manage the economy.

How might fiscal and monetary policy decisions influence Canada’s ability to help other countries?



UNIT 4 ENVIRONMENTAL ISSUES

The polar bear depends on Arctic waters, ice, and land for its survival. Increasing temperatures are causing sea ice and glaciers to melt at an alarming rate. For many, the polar bear has become a symbol for complex environmental issues that span the globe. These issues ultimately influence every aspect of peoples lives.

What Are Land and Forest Issues?

Key Terms

land degradation
deforestation
sustainability
erosion
pollution
chemical soil degradation
leaching
salinization
physical soil degradation
desertification
solid waste management
groundwater
common-pool resources
biodiversity
protected area

Terracing land can protect the soil by reducing erosion, as seen in this Indonesian rice field (right). In comparison, the image below shows land in the Amazon that has been cleared of forest so that cattle can graze. How do people decide how to use the land?



Chapter Focus Questions

- How can we determine the significance of an environmental issue?
- How is land used to meet our needs and wants?
- How is land affected by human activity?
- How can we reduce the impact of solid waste pollution?
- What is the state of the world's forests?
- Why are forests significant?
- How can individuals, businesses, and governments support sustainability and quality of life?

Some environmental issues get a great deal of attention—think of climate change and plastic waste. Other issues like **land degradation** get relatively little worldwide attention. Yet land degradation is any deterioration of the productive capacity of soil for either present or future use, and soils are a vital resource that humans around the world use to satisfy their needs and wants. So, why is land degradation getting so little attention?

The answer is in the nature of issues. Issues vary in terms of the following:

- How vital they are—for example, if they are matters of life and death, of wants or needs, of quality of life and sustainability, of matters of preference
- Where their influence is felt—globally, locally, in one region or many
- If they are inherently interesting or uninteresting to the average person
- The perspective from which we view them—and how we define “the average person”

When you combine these criteria, you can examine issues for their significance and for the perspectives involved. For example,

- The issues of climate change and increased number and severity of storms do get a great deal of attention (Figure 15–1). In general, they are considered vital and interesting.



Figure 15–1 Extreme storms, such as tornadoes, can destroy homes and crops, and kill humans and animals. What types of extreme weather affect your local area? How does this influence quality of life?

- How often you clean your room does not get worldwide attention. While this subject might be interesting at your home, it is not significant globally.
- If you use a paper cup with a plastic lid at lunch, that might get more attention. In the context of hundreds, thousands, or millions of cups, the combined solid waste, and the impact on the environment gets a lot of attention.
- Land degradation affects quality of life for billions of people every year. It is globally significant, but gets little attention.
- A story about Indigenous lands being cleared in Brazil may not be seen as vital to people in other parts of the world. However, the larger picture—**deforestation** of the Amazon—might get more attention.

Questions

1. Consider the issue of severe storms (Figure 15–1). Use the following questions to make notes about the significance of the issue:
 - How vital is it?
 - Where does it take place? What are the effects?
 - How interesting is it to you?
 - What is the context? Does it relate to other issues or is it one part of an issue that is larger in scope than it might first appear?
2. Identify two effects on quality of life that could result from this issue. Do these effects add to the importance of the issue? Explain.
3. What is one environmental issue in your community that you believe deserves more attention? Explain your answer.

15.1 How Is the World's Land Used?

To look at environmental issues focused on the land and how land is misused, we first have to understand how land is used. How do the following perspectives show how the land meets needs and wants?

When we hunger, Mother Earth nourishes us.... When we need to clothe our bodies from the sun, wind, rain, snow, and insects, Mother Earth provides the means to cover our bodies.... When we are sick and need care, Mother Earth's meadows, forests, and shorelines are lush with berries, plants, roots, seeds, and resins that bear the elixir of life and health.... When our spirits flag and are burdened with cares, worries, losses, and sorrows, Mother Earth comforts us.

—Basil H. Johnston, Anishinaabe linguist and educator (the traditional territories of the Anishinaabe are in the Great Lakes region of North America)

Land is our place to stand, our tūrangawaewae, and it is what makes Aotearoa New Zealand home. “People need nature, land and waters for life, purpose and humanity.” Our relationship with land can also be viewed through the benefits or ‘ecosystem services’ we derive from it.... Soil is the foundation of our economy; and healthy soils are key to managing climate change and improving freshwater quality. Our rich biodiversity is the web of life that shapes and sustains our society—and is also a major drawcard for international tourists...

—from the report *Our Land 2018*, from New Zealand's Ministry for the Environment

Approaches that balance **sustainability** and land use vary from one location to the next. Traditional forms of hunting, harvesting, and farming developed to meet people's needs while maintaining long-term use of resources.

Land use over time, and the proportions of land used for crops and for grazing (pastureland) have increased (Figure 15–2). Figure 15–3 shows global land use.

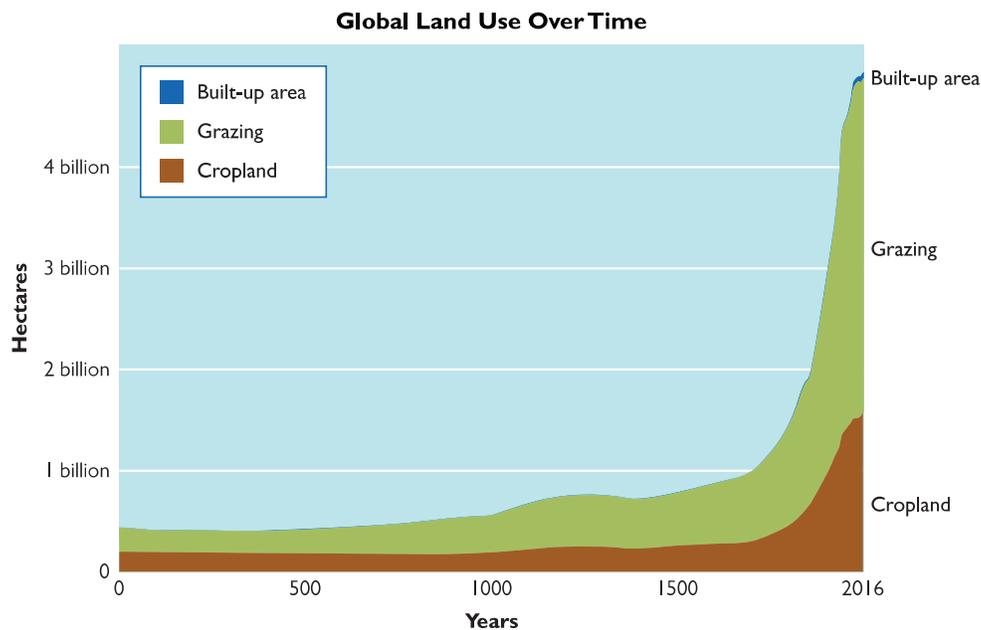


Figure 15–2 How is this pattern of land use related to demographic transition? Hint: include the built-up area in your answer. Suggest two reasons why, in recent years, grazing land has increased much faster than cropland.

What Are Food and Agricultural Issues?

Key Terms

chronic hunger
seasonal hunger
malnutrition
undernutrition
famine
starvation
overnutrition
obesity
food insecurity
nutrition transition
Green Revolution
monoculture
biotechnology
genetically modified organisms (GMOs)
corporate farming
factory farms
organic farming

Compare these two photos. In a world with so much food production, why are some people hungry?



Chapter Focus Questions

- Why is food a fundamental aspect of quality of life?
- What are the different forms of hunger and malnutrition?
- What are the successes and failures of the Green Revolution?
- Will biotechnology solve the world's food problems?
- Can alternative farming methods make sustainable agriculture a reality?
- What is the future of the global agricultural system in a world threatened by climate change?

16.1 What Is the Vocabulary of Hunger?

Someone at school might say, “I’m hungry!” or “I’m starving!” but do they really mean that? Certainly there are people who are hungry or starving in every country. However, for people in LEDCs, *hunger* may mean something very different than it does for people in MEDCs.

Hunger creates a feeling of uneasiness and may result in a loss of strength due to a shortage of nutrition (Figure 16–1). Hunger that occurs over an extended period of time is called **chronic hunger**. Hunger that coincides with agricultural cycles or climatic cycles is often referred to as **seasonal hunger**.

Malnutrition is a medical condition of poor health caused by a diet that includes too little (or too much) of one or more essential nutrients. Generally, malnutrition is the result of eating foods that lack nutrients.

This is called **undernutrition**. While there are more than 50 diseases associated with undernutrition, most are treatable (Figure 16–2).

Famine is a severe short-term shortage of food caused by a temporary failure of food production or food distribution. Famine may result from either of the following:

- natural causes, such as drought
- human causes, such as civil war.

Starvation occurs when a person suffers from extreme undernutrition and does not receive enough food energy. To make up for the lack of food energy, the body begins to break down its own tissue. Starvation can permanently damage organs and eventually lead to death (Figure 16–3).

	NUTRITION AVAILABILITY			
	Inadequate	Adequate	Adequate	Excess
Shortage				
Level of Nutrients	Severe shortage of nutrients to the extent that the body breaks down its own tissues	Significant shortage of nutrients in the diet	“Just right” amounts of all nutrients	Too many calories and/or too much fat in the diet
Shorter-term effects	Starvation and death	Undernutrition (shortage of one or more important nutrients in the diet) can cause one or more of 50 malnutrition-related diseases to develop	A balance of nutrients is part of a healthy lifestyle	Overnutrition can cause high blood pressure, high cholesterol, and diabetes. It dramatically increases deaths from heart disease and strokes.
Longer-term effects	None (people cannot live in starvation conditions for very long)	Chronic hunger resulting in reduced quality of life and reduced life expectancy	High quality of life and extended life expectancy	Reduced quality of life and reduced life expectancy

Figure 16–1 How could every person on Earth consume “just the right amount” of necessary nutrients? How do both undernutrition and overnutrition contribute to a lower quality of life and shorter life expectancy?

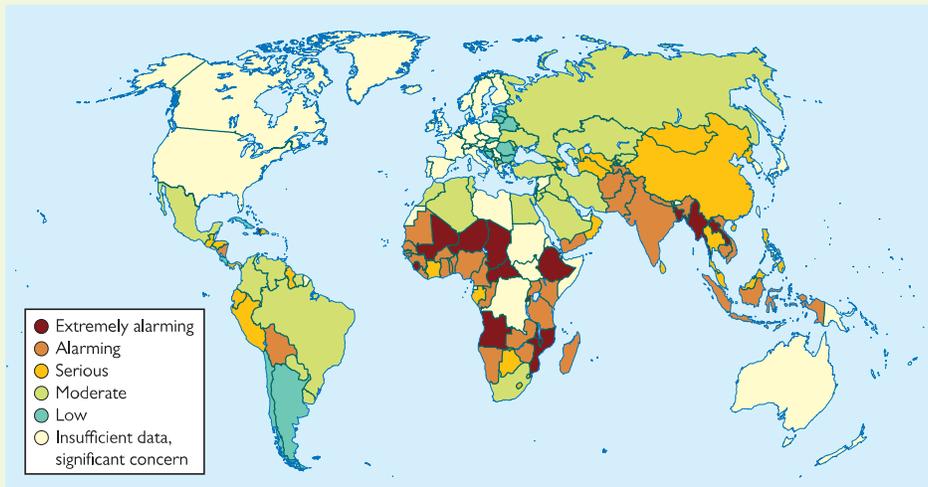
The Global Hunger Index (Figure 16–5) indicates the severity of hunger in many countries and regions around the world. The index is calculated using four indicators:

- undernourishment in the total population
- childhood wasting (low weight for their height)
- childhood stunting (low height for their age)
- child mortality

1. What patterns do you see in the Global Hunger Index ratings shown here? What countries and ratings stand out as most significant?

2. Where is hunger worst in the world? Why do you think hunger is severe in these countries?
3. Why do you think many countries, such as Canada, are not included in the index? In what parts of the world are these countries?
4. There are countries that are described as “Insufficient data, yet significant concerns.” Why might complete data not be available for these countries?

Global Hunger Index, 1992



Global Hunger Index, 2019

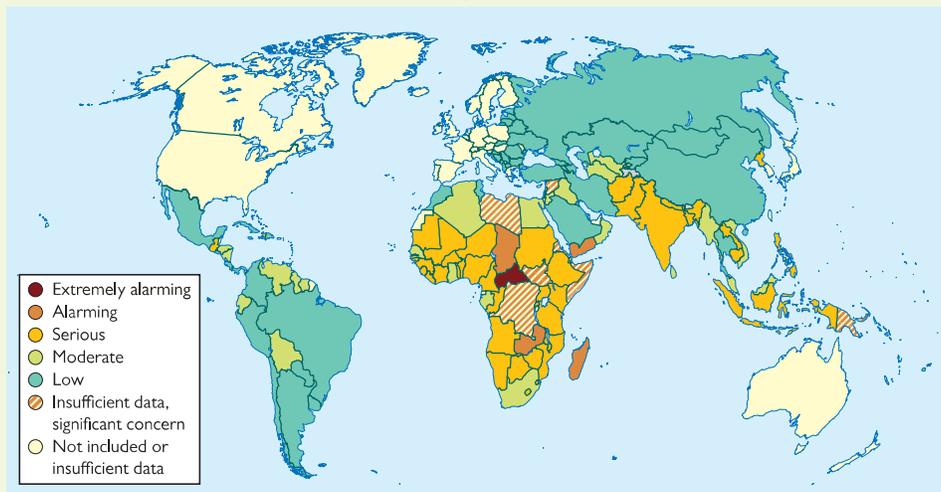


Figure 16–5 The Global Hunger Index calculates ratings for each country by combining four indicators: undernourishment for the population as a whole and three indicators focused on children. These maps show the ratings for 1992 and 2019. Based on the mapped information, what conclusions can you make about the geography of hunger? What has changed over time?

16.2 What Is the Obesity Pandemic?

In global issues textbooks, we often focus on the impacts of food shortages, climate change, or diseases like malaria. We do not always address challenges in wealthier nations, such as obesity (Figure 16–6). This is short-sighted. Diseases that are related to obesity (type 2 diabetes, cancer, and heart disease) are becoming more common globally (Figure 16–7). In fact, the problem has become so significant that it is being called the obesity *pandemic*. (A pandemic involves a disease that is prevalent over a whole country or region.)

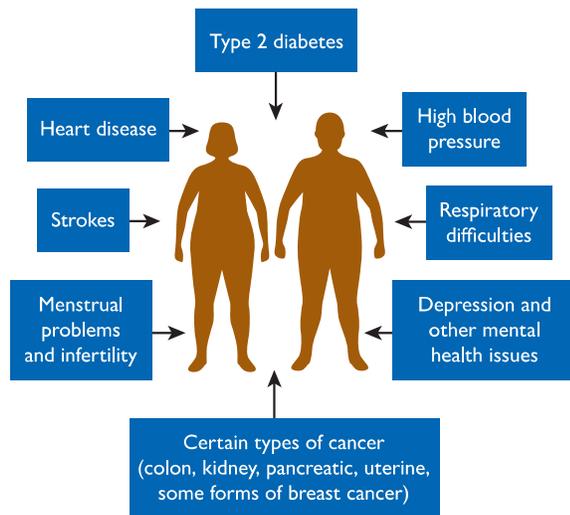


Figure 16–6 Obesity is linked to many of the diseases that kill millions. These diseases reduce people’s quality of life and life expectancies. In what ways is obesity a *pandemic*?

We can view obesity in the context of what researchers call the **nutrition transition**—stages in global food consumption. First, however, we need to understand the terminology. *Body-Mass Index (BMI)* is a calculation used frequently to determine whether a person is overweight. Here’s an example for a person who weighs 60 kilograms and is 1.60 metres (160 centimetres) tall.

$$\text{BMI} = \text{weight (kg)} / \text{height (m)}^2$$

example BMI = $60 / 1.6^2$
= 23.4

The BMI calculation can then be categorized.

- *underweight* (less than 18.5)
- *normal weight* (18.5 to 24.9)
- *overweight* (25.0 to 29.9)
- *obese* (30.0 to 39.9)
- *severely obese* (over 40).

From 1975 to 2016, global obesity has nearly tripled. In 2016, more than 1.9 billion adults worldwide were overweight or obese. In 2016, an estimated 41 million children under the age of five were overweight or obese. Why are so many people in the world obese? To improve quality of life, what can be done about this global trend?

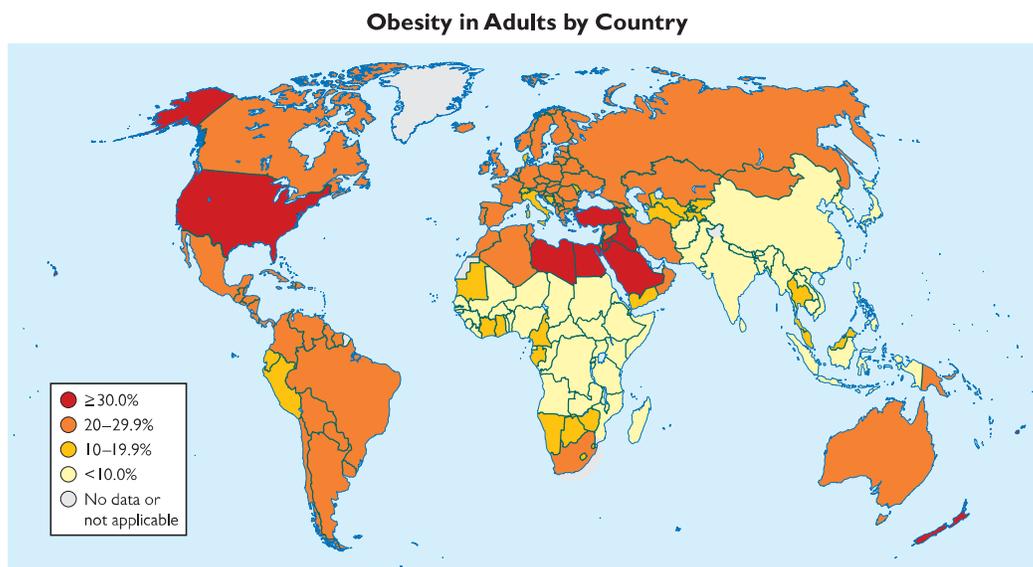


Figure 16–7 This world map shows the percentage of adults who are obese in each country. What patterns do you see? What might explain the patterns?

Why Would a “New” Green Revolution be Needed for Africa?

The original Green Revolution had little impact in Africa. Traditional seeds and farming techniques had not been very effective in increasing the food supply across the continent. So, in 2006, the Bill and Melinda Gates Foundation and the Rockefeller Foundation formed an alliance that would develop a new Green Revolution in and for Africa.

The Alliance for a Green Revolution in Africa (AGRA) is led by Africans and based in Africa. AGRA aims to increase food security for millions of households across Africa. This involves

- improving the variety of seeds to produce higher yields in sub-Saharan Africa
- improving the availability of those seeds to small-scale farmers
- dramatically increasing the productivity of small African farms

AGRA started with an investment of US\$150 million, with contributions from the Bill and Melinda Gates Foundation and the Rockefeller Foundation.

AGRA describes itself as an “alliance led by Africans with roots in farming communities across the continent” and seeking “uniquely African solutions.” In 2007, former UN Secretary-General Kofi Annan became the first chairperson of AGRA. His task was to build broad political and economic support across Africa for this new approach.

AGRA was set up to use conventional plant breeding methods. Local differences in rainfall, soils, pests, diseases, and the needs of communities were considered. AGRA also studied the delivery systems, transportation, and money that small local farmers had.

New seeds and new agricultural techniques were given to millions of small-scale farmers (Figure 16–17). By 2019, 35 million tonnes of improved seeds had been distributed. One and a half million hectares of land are now using advanced soil management systems.

Questions

1. a) Why was a new Green Revolution greatly needed in Africa?
b) What organizations provided support to AGRA?
c) What is AGRA's main goal?
d) What actions is it taking to achieve this goal?
e) What successes has AGRA had so far?
2. Make comparisons between the Green Revolution and the new approach taken by AGRA.
3. From the examples of the original Green Revolution and what you have learned about AGRA, what conclusions can you come to about finding effective responses to issues of food production?



Figure 16–17 Rwanda is one of the countries where AGRA works. In Rwanda, agriculture employs 71 percent of the population and has increased productivity from 2015 to 2018. Maize is four times more productive and wheat is 2.5 times more productive. What might this healthy crop mean for this Rwandan couple's diet, their income, and for the economy? 

What Are Water Issues?

Key Terms

groundwater
global commons
fresh water
salt water
desalinization
fossil water
tragedy of the commons
(TOTC)
aquaculture

Water resources provide water, allow transportation, and in the case of Niagara Falls (right) also bring tourists to both Canada and the United States. Pollution of water resources can create crises (below). How is water vital to all life? How does it connect countries?



Chapter Focus Questions

- Does Earth have enough fresh water to meet the needs of its growing population?
- What are the major causes of freshwater pollution?
- What is groundwater and why should you care?
- Why is the importance of wetlands often overlooked?
- What are the positive and negative consequences of large-scale dams and irrigation projects?
- Is enough being done to protect Earth's oceans?
- Why are the world's commercial fisheries at risk?

17.1 What Are Earth's Water Resources?

Nearly three-quarters of Earth's surface is covered with water in the form of oceans, rivers, lakes, permanent snow cover, and glaciers. As well, there is a great deal of water in the atmosphere, permafrost, and **groundwater**. Water is part of the **global commons**—Earth's resources, such as the oceans or the atmosphere, that have no political boundaries because they are part of systems that circulate throughout the world.

We can look at the world's water in many different ways (Figure 17–1). It makes sense to look the world's water in two broad categories: freshwater resources on the land (Figure 17–2), and saltwater resources in the oceans. Alternatively, we can think of water in its

different states—liquid, gas, or solid. The cryosphere is the parts of the Earth system that are frozen water at and below the land and ocean surface. The cryosphere includes snow cover, glaciers, ice sheets, ice shelves, icebergs, sea ice, lake ice, river ice, permafrost (a permanently frozen layer of Earth's surface), and seasonally frozen ground.

The vast majority of Earth's water cannot be used for needs such as agriculture and drinking water because it is either salty or inaccessible. However, **fresh water** and **salt water** are both habitat for fish and other species, some of which humans use for food.

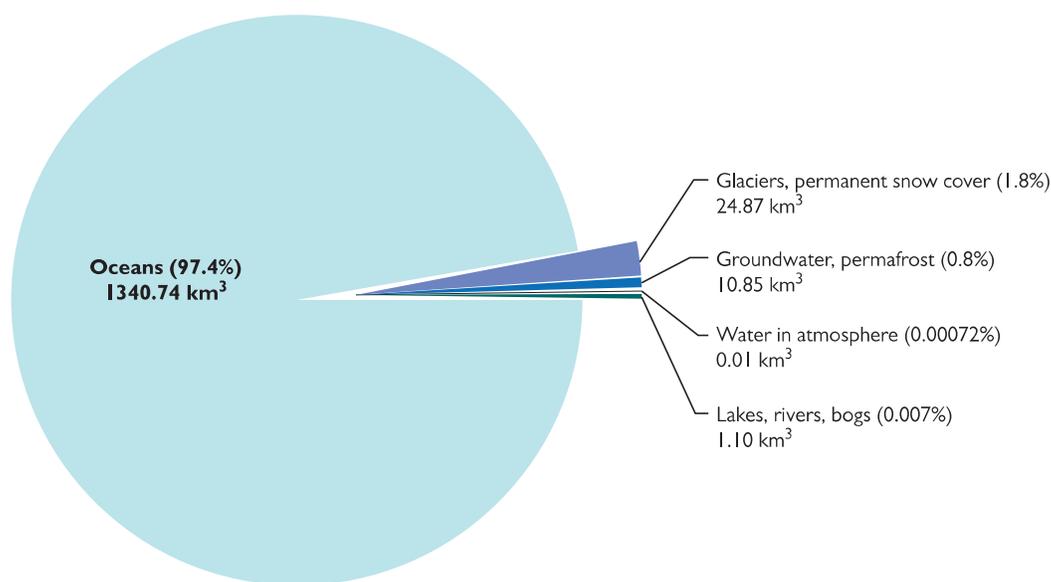


Figure 17–1 Earth has an enormous amount of water—more than 1386 million cubic kilometres. What are some of the ways in which you use water daily?



Figure 17–2 The Citarum River in Indonesia has been described as the most polluted river in the world because of pollution from textile and chemical industries. In spite of this, 28 million people use it for daily activities such as cooking, bathing, and laundry. In 2018, the Indonesian government announced plans to revitalize the river and make the water safe to drink by 2025. What actions do you think government and businesses should take?

CASE STUDY

How Can Different Countries Share the Same River?

INQUIRY

The Brahmaputra-Ganges-Yarlung Zangbo river system is not well known outside of South Asia, but it should be. This river system is very long—3800 kilometres. It carries the ninth most water of any river in the world—on average, 1980 cubic metres per second. That’s about five swimming pools of water every second.

The river starts with meltwater from the Tibetan Ice Sheet (Figure 17–3). In China, the river is called the Yarlung Zangbo. It flows eastward in China for almost 1500 kilometres before making a dramatic turn and entering India. Here the river name changes to the

Brahmaputra. After flowing through rich tea-growing and other agricultural areas that support millions of people, it is joined by the Ganges. The river then flows through Bangladesh to the sea.

Conflict Now and in the Future

Rivers that flow across political boundaries have been a source of conflict and some cooperation. For example, the Columbia River Treaty was signed in 1961 between Canada and the United States, but that was 17 years after studies and discussions began. The treaty coordinated the



A



B



Figure 17–3 The Brahmaputra-Ganges-Yarlung Zangbo river system crosses political boundaries and flows through very different geographical areas (photos A and B). It is likely to be the focus of a major geopolitical conflict between India and China. Why are the issues of this river system significant? How would a conflict over the river system affect the large populations of these countries?

building of dams on the largest river on the Pacific coast of North America. These dams provide flood control, huge amounts of hydroelectric power, and water for irrigation. Similar agreements exist for the management of Great Lakes waters.

Hydro-political interactions can include wars. Agreeing to river basin treaties to avoid these conflicts requires political determination and willingness to compromise. However, India and China are long-time rivals. The two countries fought a war in 1962, and parts of their shared border are still in dispute.

As is generally the case, the downstream nation (in this case, India) has the most to lose from actions of the upstream country. China has built a large dam on the Yarlung Zangbo that threatens to reduce water flow into India at times of the year when India needs it very much. Another threat is the possibility of China diverting water to areas in China's northeast, where there are serious water shortages. Climate change is making the river's source, the Tibetan Ice Sheet, smaller. In the long-term, water flow from mountains could be seriously reduced. A reduced flow would require careful water management and cooperation across borders.

Conflict over water is hardly new. In 771 BCE, King Hezekiah of Judah had all the springs and a stream around Jerusalem blocked to deny water to an invading army. The difference today is that there are now a lot more people. More hydro-political conflicts seem inevitable. Considerable research has been done to identify where future water conflicts may happen (Figure 17-4).

Questions

1. What are the possible consequences of conflict over the Brahmaputra-Ganges-Yarlung Zangbo river system?
2. What might agreement over the water resource and stewardship involve?
3. Identify three places in the world where there is a strong likelihood of a water conflict in the future. As much as possible, outline the issues involved.
4. Why is conflict over water predictable both historically and today?

Global Hydro-Political Interaction

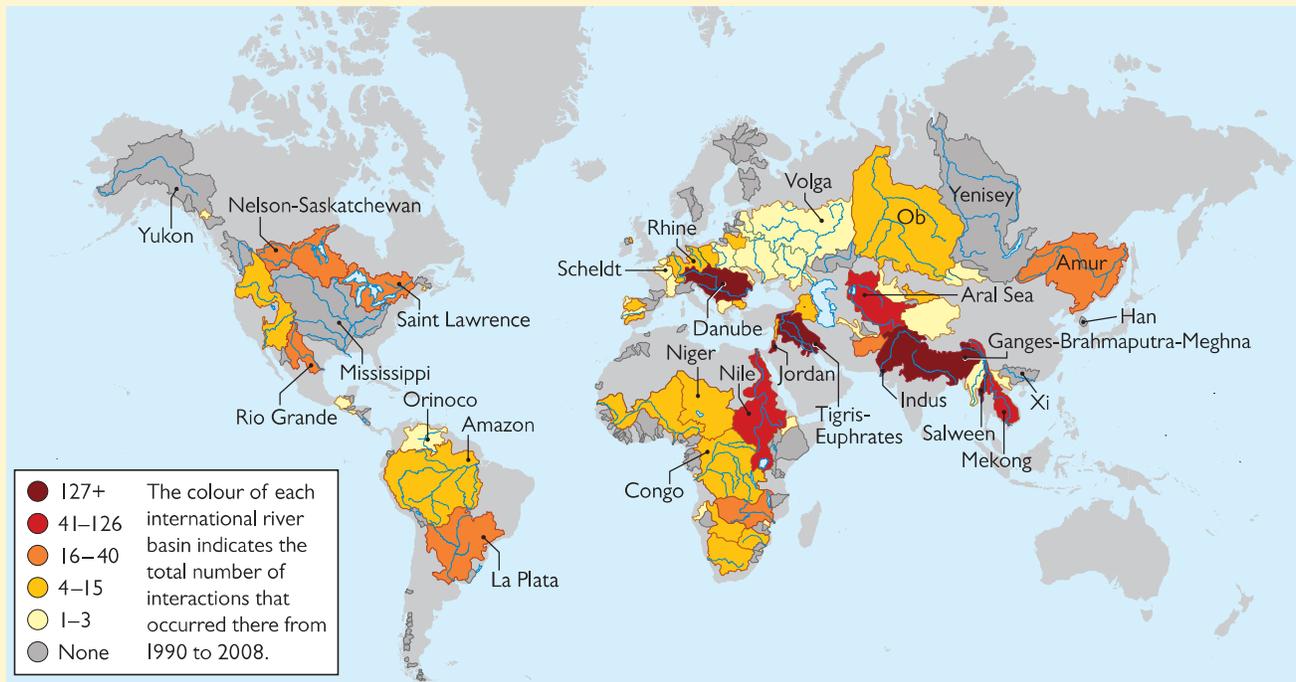


Figure 17-4 Water has often been a source of conflict. Look at this map to identify one area marked as having a high likelihood and one marked as low likelihood. How do the areas compare?

What Are Air Quality Issues?

Key Terms

atmosphere
pollution
air quality
fossil fuels
ozone layer
greenhouse gases
persistent organic pollutants (POPs)
grasshopper effect
bioaccumulation
acid deposition
smog
temperature inversion

Imagine that you traveled all the way to India to see the Taj Mahal (often described as the world's most beautiful building) and it looked like this (right) rather than like that (below). How would you feel? How might residents of large Indian cities feel about life with heavy air pollution?



Chapter Focus Questions

- How are air and the atmosphere part of the global commons?
- How does air pollution affect your health and quality of life?
- How does acid deposition occur, and what is being done about it?
- What lessons can be learned from two types of smog?
- What can be learned from ozone depletion and the battle to fight it?
- How can dramatic improvements in air quality be achieved?

18.1 What Should We Know About the Atmosphere and Quality of Life?

When we take in a breath of air, we might not think too much about the global commons or the **atmosphere**. We might not think about how the atmosphere sustains life on Earth and our quality of life. However, consider these facts:

- Air **pollution** can be described as *ambient* (outside) or *household* (inside homes).
 - Ambient air pollution can cross countries and regions. In 2019, smoke from forest fires drifted from Alberta to British Columbia. In 2020, smoke from bush fires in Australia drifted to New Zealand. Forest fires in Indonesia regularly cause a haze of air pollution in surrounding countries of the Pacific Rim.
 - Almost half of the world population cooks over smoky stoves, and millions of deaths per year are caused by inefficient stoves or fuels.
- Around the world, 6.5 million deaths (or one of every nine) per year are due to air-pollution related diseases.
- Air pollution is responsible for half of deaths due to childhood pneumonia.
- In 2016, 91 percent of the urban population worldwide was breathing air that did not meet World Health Organization standards.
- In Canada, 14 600 premature deaths per year can be linked to air pollution from *fine particulate matter* (tiny particles that can be breathed in, like dust or pollen).
- Deforestation and industrial activity can have an impact on **air quality**.
- Many cities have high levels of air pollution and are leading with strategies to decrease it. In 2019, at the C40 World Mayors Summit in Copenhagen, Denmark, mayors of cities such as Mexico City, Toronto, Houston, Seoul, and Paris committed to greater action.

The Atmosphere

When the curved edge of Earth is seen from space, our atmosphere appears as a thin blue layer (Figure 18–1). This thin atmospheric layer sustains all life on our planet and protects it from dangerous levels of *ultraviolet* (*UV*)



Figure 18–1 Earth's atmosphere looks like a thin blue layer. How have photos from outer space helped prompt discussion of environmental issues? How can organizations, individuals, and technologies become agents of change?

radiation. This is invisible radiation, with a shorter wavelength than visible sunlight. The UV radiation that does reach the surface of Earth can cause sunburn and, in extreme cases, skin cancer.

Earth's atmosphere is approximately 1000 kilometres thick. It is a mixture of particles, gases, and *aerosols* (Figure 18–2). Aerosols are suspensions of tiny solid particles or liquid droplets in a gas. The lowest five kilometres contain 50 percent of all atmospheric gases (Figure 18–3).

The layer of atmosphere that most concerns us is the troposphere. It varies from 9 kilometres to 16 kilometres thick. Weather occurs in the troposphere. It is also where most air pollution is found. Differences in temperature and pressure keep the atmosphere in constant motion. This motion carries pollutants around Earth. These pollutants come from natural processes such as forest fires and volcanoes. It also comes from the burning of **fossil fuels** and from industrial processes.

Human activities have had a profound effect on the atmosphere. During the Industrial Revolution, burning coal released huge quantities of smoke and gases. Today, airborne chemical contaminants from industrial processes have caused poisons to accumulate in the air we breathe. It forms smog and acid rain. It also opened a hole in the **ozone layer**.

18.4 What Is Smog?

Air pollution, particularly **smog**, has afflicted cities since the mid-1700s. Emissions from industrial activities and the burning of wood and coal in people's homes contributed to terrible air quality.

Air pollution from coal fires is often associated with England during the Industrial Revolution (Figure 18–12). Other highly industrialized locations have experienced air pollution since this time (Figure 18–13).



Figure 18–12 As shown in this print from the 1880s, Sheffield, UK, was a major industrial city. It was famous for its steel-making, which relied on local coal and iron ore. What environmental price did the people of this city pay for its economic success?



Figure 18–13 This photo of the American Steel and Wire manufacturing plant was taken in 1910, in Donora, Pennsylvania. In 1948, 20 people died in Donora and 7000 more were made sick by severe industrial air pollution.

There are two types of smog created by human activity. Although each is named for a key location, these types of smog take place in many locations around the world. They have significant health and environmental implications.

- London-type smog is the result of burning a fuel that releases particulates and sulphur dioxide into the atmosphere. It is named for London, UK, which is known for its rain, fog, and smog.
- LA-type smog is the result of a chemical reaction between sunlight and the components released by the burning of petroleum products. It is named for the city of Los Angeles, California.

We will look at the causes and consequences of both types, and what strategies are being used to address them. We will also look at where there are or could be similar dangers to air quality.

How London-type Smog Forms

Air at ground level is normally warmer than air above ground level. As the warm air rises, it cools and carries away pollutants. However, under certain conditions, a cold layer of air may become trapped at ground level by a warm layer above it. This **temperature inversion** produces fog at ground level and stops the air from rising. This might remind you of fog in St. John's, Halifax, or many other Canadian locations today. If the trapped air is very polluted, the air mass close to the ground becomes a lethal combination of smoke and fog called “smog.”

Did You Know?

You almost certainly know sulphur dioxide from its nasty, rotten-egg smell.

📍 QUALITY OF LIFE

Air pollution and smog have afflicted industrialized cities for hundreds of years.

To what extent can people around the globe achieve industrial development, prosperity, and healthy lives?

Throughout the 1800s and into the 1900s, most Londoners heated their homes by burning inexpensive coal. This coal was also highly polluting, sending soot and particles of tar into the air. On cold nights, water droplets condensed around these particles. When combined with the sulphur dioxide in the coal smoke, they formed sulphuric acid. The people of London were living in, and breathing, tiny droplets of acid.

On the morning of December 5, London was covered by a thick layer of smog (Figure 18–14). Over the next five days, the city experienced the Great Smog of London—the worst air pollution disaster on record in the United Kingdom. A temperature inversion, fog, and very high concentrations of soot and sulphur dioxide had combined to create a deadly environment (Figure 18–15).

People with respiratory diseases, children, and elderly people were especially vulnerable. In December 1952 and the months that followed, as many as 12 000 people choked to death on their own mucus or died from heart attacks as they struggled to breathe.

In response to the disaster, the British government passed the Clean Air Act in 1956. The act set up smokeless zones. It also gave grants to homeowners to convert their coal heaters to ones that used gas, electricity, or a higher-quality coal.

London’s air is now the cleanest it has been for over 400 years. Exhaust from motor vehicles is the main source of London’s pollution, but recent government initiatives are addressing that as well.



Figure 18–14 London, December 8, 1952. A police officer uses a flare to guide traffic in the smog. Today, London has very clean air. What parts of the world now face air quality issues similar to London in the 1950s? Why?

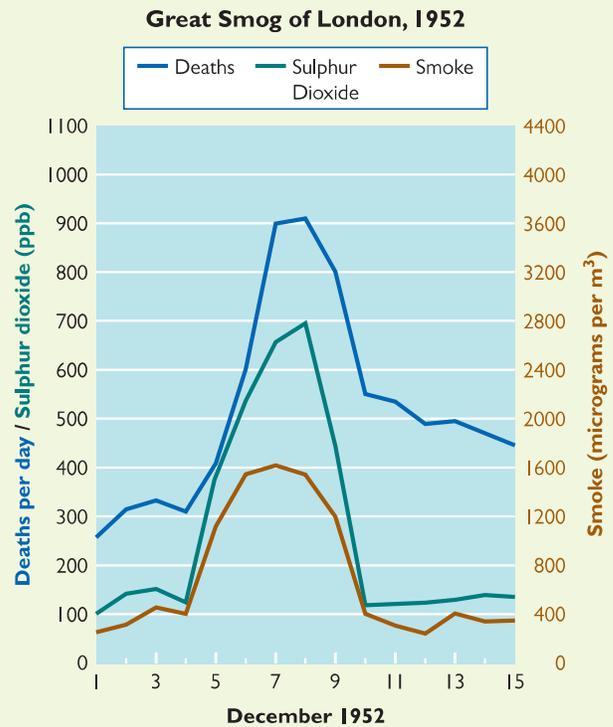


Figure 18–15 This graph shows the number of deaths and levels of sulphur dioxide and smoke in the air between December 1st and 15th, 1952. The left-hand scale is used for both deaths per day and the amount of sulphur dioxide in the air in parts per billion (ppb). What relationship is shown on the graph?

Questions

1. What factors combined to create the Great Smog of London in 1952? Summarize the factors and consequences.
2. How would the evidence shown in Figure 18–15 make it easier for British leaders to pass laws to prevent another deadly smog?
3. Where else do you think there could be another deadly smog?
4. What could other governments learn from the lesson of the Great Smog?

Chapter Questions

Knowledge and Understanding

1. Explain the grasshopper effect and bioaccumulation related to northern regions.
2. How can acid deposition have effects near the source and far away?
3. **a) COMPARISONS** Differentiate between London-type smog and LA-type smog.
 - b) What methods are used to reduce smog forming?
 - c) How successful are these methods?
4. **a)** How can ozone both protect us and harm us?
 - b) What caused the ozone layer to be reduced?
 - c) Since 1987, what progress was made related to the Montreal Protocol?

Thinking Critically

5. The Taj Mahal is one of the world's most iconic buildings, but it is being damaged by air pollution. How important is it to preserve and protect the Taj Mahal (and similar famous, ancient buildings), particularly in countries where the money could be spent on things like improving health care and potentially saving lives?
6. **CAUSE AND CONSEQUENCE** How could a transition from gas-powered vehicles to electric (or hybrid) vehicles improve air quality? Why might this not always be the case? Explain.
7. When international environmental treaties are signed, LEDCs are often given less strict targets than MEDCs—for example, a later date to meet some standard. Is this fair to everyone in the world? Explain your evaluation **G**.
8. **PERSPECTIVES** Often society (and individuals) have to make choices between the economic and quality of life benefits of products that we buy and the environmental damage caused by the production and use of these products. Work with a small group to brainstorm criteria that could be used to make these choices.

Apply and Connect

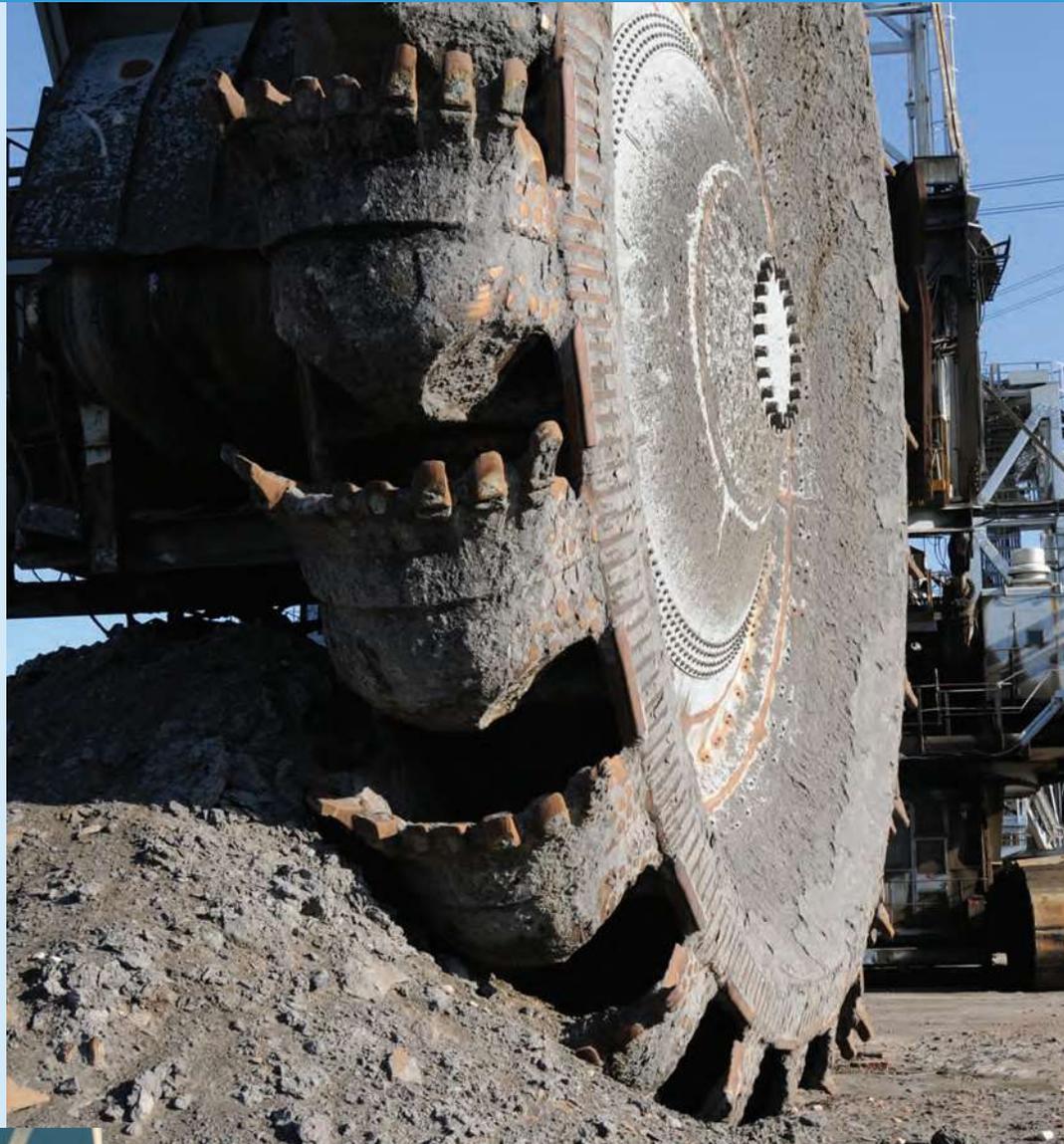
9. How are you affected by the quality of the air? What are the consequences?
 10. **a)** In a small group, conduct a survey of a large number of students and teachers to find out what people would be prepared to do to help fight air pollution and climate change. You can develop your own questions for the survey, but here are some to get you started.
 - i) Do you believe that you can personally do something to make an impact?
 - ii) Are you prepared to pay more for gasoline (10¢ a litre, 50¢ a litre, or more)?
 - iii) What personal actions are you prepared to take? Consider such things as
 - recycling
 - using a more fuel-efficient vehicle
 - paying a penalty for driving in cities
 - using less electricity
 - not buying food produced thousands of kilometres away
 - using public transit
 - taking vacations close to home
 - iv) What actions should businesses and politicians take?
 - v) What are you prepared to do to encourage businesses and politicians to put into practice “green” policies?
 - b)** Based on the information you obtained from your survey, develop a “green plan” that your community can implement to fight air pollution and climate change.
 - c)** Present your results in a format of your choice (for example, written report, brochure or flyer, website, slide presentation, etc.). **S**
11. **a)** What, if anything, are you doing in your personal life to limit the amount of air pollution and greenhouse gas emissions that your actions contribute to?
 - b)** What else could you do? Would it be difficult to do those things? Explain.
 - c)** Write a personal action plan that you can use to reduce your impact on the quality of the air.

What Are Energy Issues?

Key Terms

climate change
fossil fuels
environmental stewardship
access to energy
biofuels
R/P ratio
carbon neutral
hydropower

From the oil sands in Alberta (right) to wind turbines (below), there is an increasing variety of energy sources available globally. What factors help determine the energy sources used, and what are the consequences?



Chapter Focus Questions

- Where are energy resources found, how are they distributed, and how is this significant?
- Which countries are the biggest energy producers and consumers?
- What are conventional sources of energy and what are alternative sources?
- How does energy relate to quality of life, prosperity, sustainability, the global commons, and globalization?
- Why does energy storage matter and what can we do about it?
- How can governments, businesses, and individuals make sustainable choices today for the world tomorrow?

19.1 How Are Energy Issues Related to Quality of Life, Sustainability, and Globalization?

Many important global issues of the 21st century are tied to our use of energy.

- There is a link between energy use and **climate change**. (Climate change is examined in Chapter 20.)
- There are disparities in the availability and distribution of energy resources, how it is consumed, and who benefits.
- Some energy resources are renewable and sustainable, while others are not.
- In Canada and elsewhere around the world, there is a connection between energy issues and the rights of Indigenous Peoples.
- The use of **fossil fuels** (coal, oil, and natural gas) causes air pollution that impacts quality of life.
- Oil and gas resource development, production processes, and distribution can provide many jobs. However, they can also cause serious environmental damage. For example, oil spills from offshore drilling or from fuel transportation can cause water pollution.
- Conflicts emerge over energy (Figure 19–1). The Iraq War (2003–2011) and conflict in the Niger delta since 2004 both involved control over energy resources. Just as water has been the source of geopolitical conflict, so have energy resources.
- Some governments are calling for reduced emissions. Policy changes, new initiatives, and technology are creating new opportunities for sustainable choices and **environmental stewardship**.



Figure 19–1 Toward the end of the first Gulf War in 1991, when Iraq's defeat was inevitable, Iraqi President Saddam Hussein ordered the destruction of Kuwait's oil wells. More than one billion barrels of oil went up in flames from over 700 burning oil wells. From your perspective, what issues about resource use, quality of life, and environmental stewardship does this photo raise? Where do you think energy resources could again be the focus of geopolitical conflict?  

19.2 How Is Energy Used Globally?

Energy is used around the world to cook food, keep people warm (or cool), light homes and workplaces, make products, and transport people and goods.

Major Energy Sources

Energy can be classified by source. The five major *conventional energy sources* are:

- coal
- hydroelectric power
- natural gas
- nuclear power
- oil

There are also sources that are called *alternative energy sources*. These include:

- biomass
- geothermal
- solar
- wind

Figure 19–2 shows global consumption by type of energy, with a focus on the five conventional sources plus solar and wind.

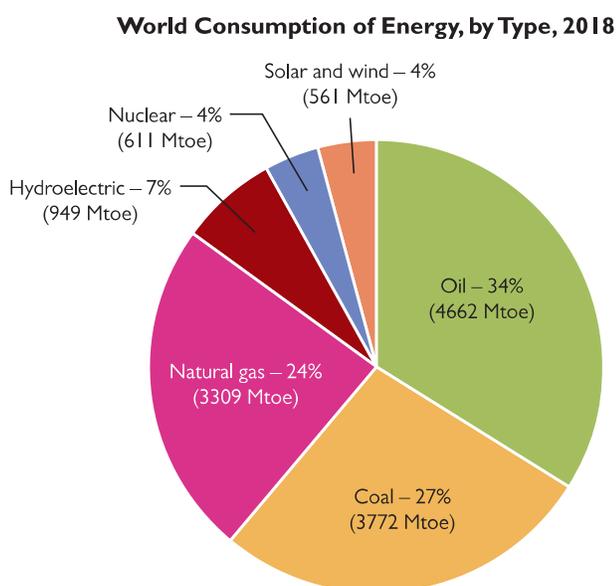


Figure 19–2 Which resources made up most of consumption in 2018? Why might that be so? (Note: millions of tonnes of oil equivalent [Mtoe] is a basic unit used for direct comparisons between different types of energy resources.)

Some alternative sources of energy are traditional, such as wind, gathered wood, or cow dung. Some are new. Others are quickly growing because of global demand, government policies, and technological innovation. Alternative types of energy have been less significant in terms of global resources. They are used non-commercially in a manner that is difficult to track. This can include cow dung or wood burned for fuel. However, alternative sources are undergoing a lot of change. You will look at them later in this chapter.

Access to Energy

Globally, the sources and amounts of energy people consume vary tremendously. **Access to energy** is not equal. For example, 840 million people worldwide have no electricity. Almost half the global population uses open fires and solid fuels for cooking (Figure 19–3). There are health and environmental consequences to this. Household air pollution causes over four million premature deaths per year. Gathering fuel for cooking can contribute to deforestation.

The impact of unequal access to energy is particularly felt in rural households and by women and girls. The UN Sustainable Development Goal 7 has these targets:

- By 2030, ensure universal access to affordable, reliable, and modern energy services.
- By 2030, increase substantially the share of renewable energy in the global energy mix.



Figure 19–3 A woman cooks over an open fire in her home in South Africa. How would having to find fuel to cook every day impact your life?

Energy consumption is increasing globally (Figure 19–7). However, there are differences from region to region and country to country. For example, over 50 percent of the energy used in the Middle East comes from oil. Only 32 percent of energy comes from oil in Europe.

In the World Energy Tour sections in this Working It Out, you will learn more about some major sources of energy, including

- regional patterns in their use and production
- how they are transported
- the consequences of these energy sources.

You will

- explore some energy issues
- practise the skills of examining text, maps, and other graphical information for patterns and trends in energy production and consumption
- consider causes, consequences, and relationships among energy issues

- examine how quality of life, sustainability, and globalization relate to energy use.

As you read and answer questions, you might make connections to other chapters and issues. You will answer some questions based on informed speculation. Make sure to note comments and questions for later use.

Note: In the data for each type of energy, there are two regional groupings.

- *Asia Pacific*—This regional grouping includes a few OECD members, such as Australia, Japan, New Zealand, and South Korea. There are rapidly growing countries with massive populations, such as China and India. There are also many other highly populated, poorer countries such as Bangladesh, Indonesia, and Pakistan.
- *Commonwealth of Independent States (CIS)*—This regional grouping refers to Russia and other former parts of the Soviet Union.

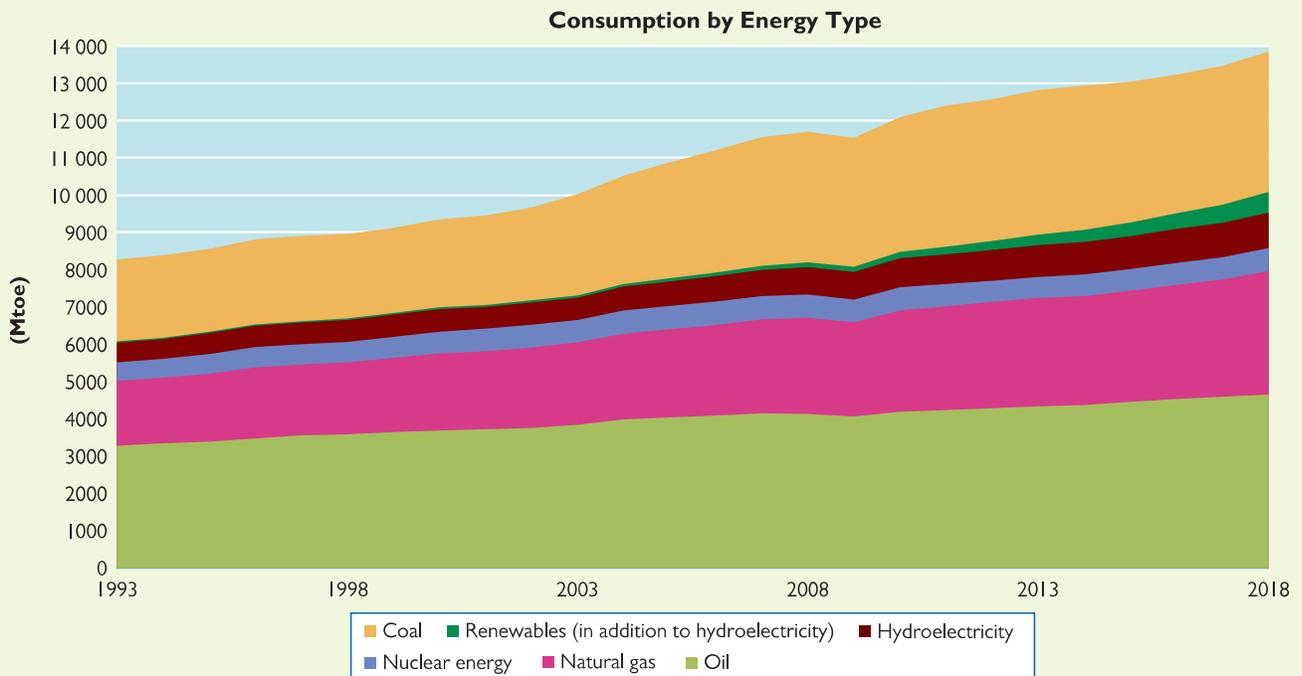


Figure 19–7 What energy source consumption is increasing the most? Consider this growth both in absolute and relative terms. What do you think are some consequences for quality of life and for the environment?

Chapter Questions

Knowledge and Understanding

1. Construct a summary for each of the major energy sources described in the Working It Out activity. In your summary do the following for each source:
 - Identify the advantages and disadvantages.
 - Explain the environmental consequences.
 - Rank the role of each energy source in future energy budgets of both MEDCs and LEDCs.

In doing so, consider quality of life, economic, and environmental implications. **Q G S**

2. Explain how Earth energy and geothermal energy systems function. Which is likely to become a more significant part of Canadian energy use? Explain.
3.
 - a) What role does energy storage play in the effective use of renewable energy sources?
 - b) How can effective energy storage be achieved?
4. Some Canadian provinces have initiated the use of smart meters to measure household electrical use and report the readings directly to the electrical supply agency. This allows “time-of-day” pricing for power. For example, in Ontario in 2020:
 - Off-peak rate was 10.1 cents per kWh.
 - Mid-peak rate was 14.4 cents per kWh.
 - On-peak rate was 20.8 cents per kWh.
 - a) How is time-of-day pricing related to overall demand patterns?
 - b) Why is time-of-day pricing considered a win-win situation for both the provider and the consumer of electricity?
 - c) What household electrical use can be easily postponed to an off-peak time? What use is hard to shift?
 - d) Why would the summer pattern for rates be different from the winter pattern?
 - e) Why would weekends and holidays be completely off-peak?
 - f) Does time-of-day pricing exist where you live? If it does, does your family take advantage of its benefits? If it does not, would you support its adoption, keeping in mind that installing smart meters is costly? Why?

Thinking Critically

5. **PERSPECTIVES** Consider the use of the terms “tar sands” and “oil sands”.
 - a) How does each term reflect a perspective on the issue?
 - b) What is the effect of changing one word?
6. **JUDGEMENT** Nuclear plants have important positive and negative aspects. In deciding whether we should build more nuclear plants, how do we balance the two?
7.
 - a) What might be the positive and negative effects of growing crops for biofuel rather than food? Consider such things as crop diversity, food prices, fuel prices, environmental effects, and food aid. **Q**
 - b) Would you argue for biofuels or against biofuels? Why?
8. The change to a hydricity-based energy system could be very complicated. What particular elements of the current energy system might be obstacles to such a change? What elements of the current system could be easily integrated into a hydricity system?
9. Resources and their benefits are not always shared equally. Identify an example of disparity in quantity, distribution, and effects of resources in this chapter. **G Q**

Apply and Connect

10.
 - a) **EVIDENCE** Develop a 10-point survey to determine levels of student awareness of various alternative energy sources.
 - b) Conduct the survey, using a sample of at least 25 students from different grades. Analyze the data to identify patterns and relationships, and then prepare a report of your findings.
11.
 - a) In this chapter about energy issues, and in planning for future energy use, a great deal of attention is paid to cars and other vehicles. Why does this make sense?
 - b) What other transportation options need to be considered by individuals and/or promoted by governments? Why? **S**

Why Is Climate Change *the* Issue of the 21st Century?

Key Terms

climate change
tipping point
greenhouse effect
global warming
anthropogenic greenhouse gases
carbon cycle
global warming potential (GWP)
Anthropocene
environmental refugees
environmental racism
feedback loop
cap and trade system
carbon tax
geo-engineering

In 2019, people were protesting climate change around the globe (right). The country of Tuvalu, in the Pacific Ocean (below), was under threat of rising sea levels. What are the environmental consequences of human actions and what can we do about them?



Chapter Focus Questions

- What is climate change and how has awareness of this threat to the environment grown?
- Why is the concept of tipping points useful in explaining patterns in public opinion?
- What are the scientific and political aspects of climate change, and how do they relate?
- What are the environmental, social, and economic implications of climate change?
- How can governments, other organizations, individuals, and technology make positive changes relating to the environment?
- What relationships are there between global issues and responses of governments and individuals?

20.1 Has the Tipping Point Been Reached?

At the turn of the millennium, it was fair to say that **climate change** was just one of a long list of major global issues. In the middle of the first decade of the 2000s, attitudes dramatically changed. Climate change is now seen as *the* issue that has the greatest likelihood of causing major damage to human and animal life on Earth. Climate change is the focus of daily discussions in governments and mass media. It is also linked to many of the other issues in this textbook.

A theory borrowed from sociology may help explain the attitude shift about climate change. The idea of a **tipping point** was popularized in a book published in 2000 called *The Tipping Point: How Little Things Can Make a Big Difference* by Malcolm Gladwell. Gladwell's idea was that dramatic changes in behaviour take place when a "social epidemic" occurs.

- Gladwell stated that a small number of people who are knowledgeable and *charismatic* (possessing powerful magnetic charm or appeal) play a critical role in the spread of an idea or a trend. An excellent example of this is Greta Thunberg, a Swedish

teenager and environmental activist who has gained international attention (Figure 20–1).

- Gladwell also talked about how interesting ideas or products contributed to a tipping point. The implications of climate change are interesting to most people.
- Gladwell's theory also relied on work by Everett Rogers on how ideas spread through a population (Figure 20–2). Gladwell believes that concern about climate change has moved well into the Laggards stage of acceptance. This is at least true in MEDCs. One possible exception is the United States, where skepticism about climate change is more common.
- Gladwell also discussed that when people can see how an idea fits into the reality of their life, they find it easier to accept. People had a sense that something was changing in the weather they were experiencing. Temperatures were noticeably higher than ever (Figure 20–3). Severe storms seemed more frequent. Both had direct effects on peoples' lives.



Figure 20–1 Greta Thunberg, 2018. At first the high school student protested against climate change by herself at the Swedish Parliament. Within a year, her efforts inspired millions of students and adults. She was nominated for the Nobel Peace Prize and was chosen as *Time* magazine's Person of the Year in 2019. What does her sign say? If you don't speak Swedish, try reading the sign out loud. How is the location of her protest significant?

A 2019 study established the amount of land that would be flooded by 2100 if there is a 2°C temperature increase. The number of people affected ranges between 110 million and 460 million depending on the stability of Antarctica's ice sheet. This is something that we don't have a good understanding of yet. Examine two maps of the Pearl River Delta in China and Bangkok, Thailand (Figure 20–12) to consider the potential impact of flooding.

Questions

- In some cases, cities that have faced rising sea levels have planned to relocate populations. In other cases, they have proposed solutions to reduce impacts with sea walls and other structures and technology. How might the cities shown on these maps respond to the rising sea?
- For Guangzhou and Bangkok, explain
 - what actions you think governments should take before 2100
 - what businesses should do
 - what individuals in both cities should do
- What actions do you think would be sustainable, improve quality of life, and demonstrate environmental stewardship?

- How do you think flooding in either location might have disparate consequences? What factors might cause people to leave (or stay) before flooding? Explain.



Predicted Flooding with 2°C Increase, 2100

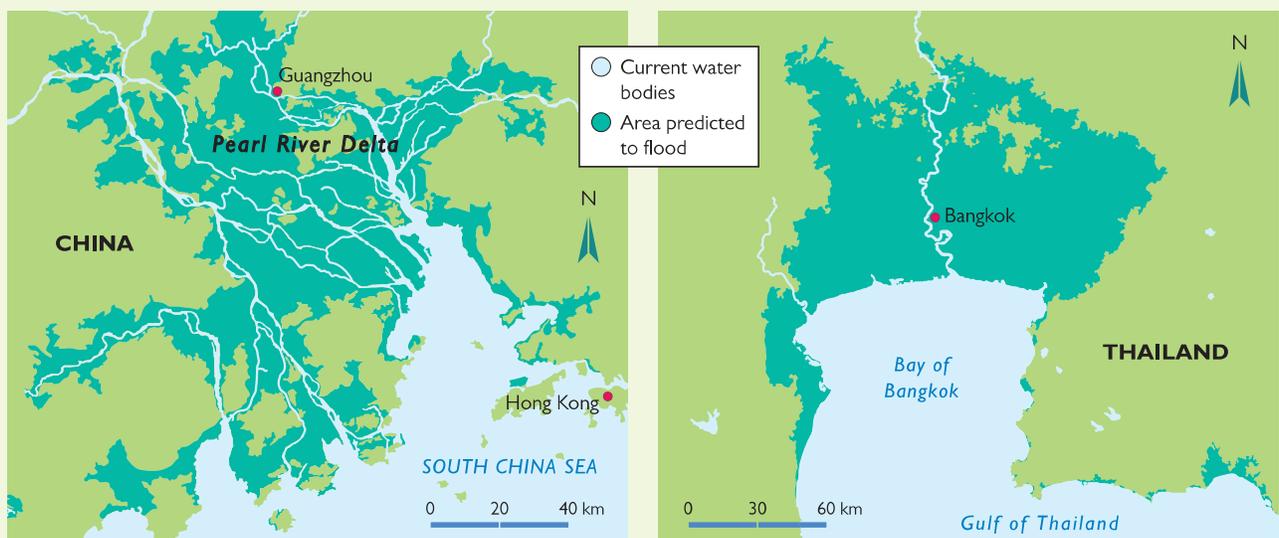


Figure 20–12 The map on the left shows a part of China with a population of tens of millions. The city of Guangzhou (population 13.2 million) is at the northern edge of a long bay. On the map on the right, Bangkok (population 10.5 million) is close to the Gulf of Thailand. What are the expected effects of rising sea levels? How might increased water levels influence quality of life? Why?

Chapter Questions

Knowledge and Understanding

- In your own words, explain Malcolm Gladwell's idea of tipping points.
 - How does the idea of tipping points apply to climate change?
- Summarize how the greenhouse effect works, the chemicals involved, and how the production of anthropogenic greenhouse gases increases temperatures.
- Define *carbon sink*, *carbon source*, and *fixed carbon*.
 - Draw a simplified sketch of the carbon cycle, focusing on identifying the sinks, sources, and processes that create and release fixed carbon.
- Electric and plug-in hybrid vehicles are seen as a major part of the fight against climate change. Explain why the source of the electricity used by these vehicles is critical in making this true. **S**

Thinking Critically

- CAUSE AND CONSEQUENCE**
 - Briefly summarize the effects that climate change will have on Earth. In your summary, do not forget to include the effects that are part of feedback loops.
 - Describe how significant each of these effects will be on Canada compared to the world in general.
 - On balance, will Canada be affected by global warming to a greater or lesser extent than most countries?
 - Will the effects, on balance, be positive or negative for Canada?
- JUDGEMENTS**
 - What was your reaction when you learned (in this chapter or previously) that Canada did the least well of any of the G7 nations in meeting its Kyoto commitments?
 - Why do you think you had this reaction?
 - Give two reasons why Canada did so poorly in reducing its greenhouse gas emissions.
- PERSPECTIVES** In 2019, the *Guardian* newspaper announced that it would use terms such as “climate emergency, crisis, or breakdown” instead of “climate change.” The newspaper would also use more visuals of people in its coverage of the climate emergency. This would emphasize the issue as a human crisis. Do you agree? What impact do you think language and images choices have for global issues?

Apply and Connect

- What can you do in your own life (and your family's life) to contribute to a reduction in the greenhouse gases that you emit? Consider the operation of your home, transportation options, and your recreational activities. **Q**
 - How could you communicate your concerns with your family?
- Imagine that you are a speechwriter for a major politician in Canada or another country. The key question is whether to take dramatic action to fight climate change or to go slowly. Your politician boss wants two speeches—one in support of each approach. Each speech should take no more than one minute to deliver and strongly support why each approach makes the most sense for the country. Start writing!

Extend Your Thinking

- Identify at least six cities, on at least three continents, that are located barely above sea level and would be threatened by rising sea levels. You may want to check an atlas if you are not sure of these.
 - Why is it common for large cities to be located in such areas?
 - For two cities, what strategies could they use to reduce the effects of climate change?
- INQUIRY** In the midst of many concerns and warnings about climate change, there are also some examples of innovation, action, and even some positive side effects. For example,
 - In 2019, India faced extreme air pollution in the many cities and imposed driving restrictions, but planted millions of trees in one day.
 - Germany started shutting down coal-fired electrical generation stations in 2020. All such plants are to be closed by 2038.
 - Among cities trying to reduce carbon emissions, some have made improvements to quality of life by promoting healthy, walkable cities, urban parks, and accessible food, housing, and transit options.

Choose two or three examples, from this book or elsewhere, of countries, regions, or cities that are innovating in ways that have positive effects on environmental quality, sustainability, and quality of life. **S Q**



UNIT 5 POLITICAL ISSUES

Political and social change affects the quality of life of people around the world. This photograph was taken during the 2019 democracy protests in Hong Kong. Residents created a John Lennon wall, named after the singer of “Give Peace a Chance.” This wall is filled with messages of hope and peace.

CHAPTER 21

How Does Political Stability Affect Quality of Life?

Key Terms

geopolitics
political stability
nation state
sovereignty
ideology
democracy
authoritarianism
nationalism
communism
left-wing
right-wing
fragile state
failed state
Fragile States Index

(Right) In 2019, Tunisians support a candidate in their country's second free election since a national uprising in 2011. (Below) In 2019, a woman sells medicine in a Venezuelan market during a shortage. How do these two examples show how political stability—or the lack of it—can affect quality of life?



Chapter Focus Questions

- What is political stability?
- How does political instability affect quality of life?
- What are the differences between democracy and authoritarianism?
- What happens when a nation's government fails in their duty to support the well-being of the people?
- What are failed and fragile states?

21.1 What Is the Significance of Political Stability?

Generally speaking, politics is the administration and management of state affairs. Politics is also the decision-making process of government. The interplay of geography and politics, either on a national or international level, is called **geopolitics**. Many factors, both geographical and political, come into play when governments make decisions on issues such as

- controlling access to land, sea, and air routes
- determining and protecting their borders
- developing and protecting natural resources
- improving quality of life for their citizens
- making trade agreements
- resolving conflicts
- setting immigration and visitor policies

During the ongoing management of these affairs, governments also encounter challenges, including war or natural disasters. The **political stability** of most governments allows them to meet these challenges. In other cases, a weak or politically unstable government is unable to manage. In the worst-case scenarios, some governments fail.

No country is perfect, but politically stable countries tend to share the following characteristics:

- a strong central government, able to control administration of services, respond to any natural disasters, provide for military security, uphold justice, and grow a strong economy
- a balanced society, in which all groups are able to voice their concerns (and feel they are heard), and citizens are given the support they need to live full lives
- peaceful relationships and strong economic ties with other countries, particularly neighbours

A government can be more stable if it works to avoid conflict—for example, fewer instances of war with other countries, less internal conflict such as ethnic violence, and fewer struggles over access to resources and wealth.

What Creates Political Instability?

If the factors listed previously show how a country can hold together, what might tear one apart? The causes of political instability can be grouped into three categories.

Government

A country's government provides for the needs of its citizens. It does so by providing services (education, water, electricity), by providing economic stability (preventing high rates of inflation), and by providing security (police, courts of justice, military). What might happen if these services are not distributed fairly? It is easy for a society to become split if different groups feel they are being treated unfairly. A struggle for political power can easily destabilize a government.

Economy

Economic decline can be one of the most significant factors in a country's loss of stability. A sudden rise in the price of consumer goods, unemployment, or loss of housing can quickly lead to hardship and increased disparity. Crime and corruption can rise, and citizens may choose to flee the country. Economic decline can be seen in measures such as per capita income, GDP, unemployment rates, inflation, debt, and poverty levels.

Fairness, Equality, and Human Rights

Even the perception of inequality based on ethnic, religious, or other identity groupings can lead to tensions and conflict. Widespread abuse of legal, political, and social rights (for example, harassment of the press, arrests, executions, or restriction of services based on identity) can lead to conflict. Throughout history, abuse by government has led to instability through protests, strikes, revolutions, or political overthrows.

QUALITY OF LIFE

Economic decline can lead to hardship for a country's citizens.

What economic factors influence your quality of life? If something changed, how would your life be influenced?

Political Instability and Quality of Life

Political instability affects not only the day-to-day needs of a population but can also produce long-term stress, uncertainty, and fear. This is largely due to the prolonged conflicts that instability can create—ethnic conflict, terrorism, war, and even violence committed by the government, such as arrests and executions.

Can the effects of instability on the well-being of a population be measured? In 2013, the analytics firm Gallup interviewed 1022 adults in Syria. They asked different questions to see how the civil war, which had started two years earlier, was affecting the Syrians' sense of well-being. For example, did they feel they were thriving or struggling? Could they live comfortably on their present income?

Unsurprisingly, the well-being of the respondents had declined between the start of the civil war in 2011 and the interviews in 2013 (Figure 21–1).

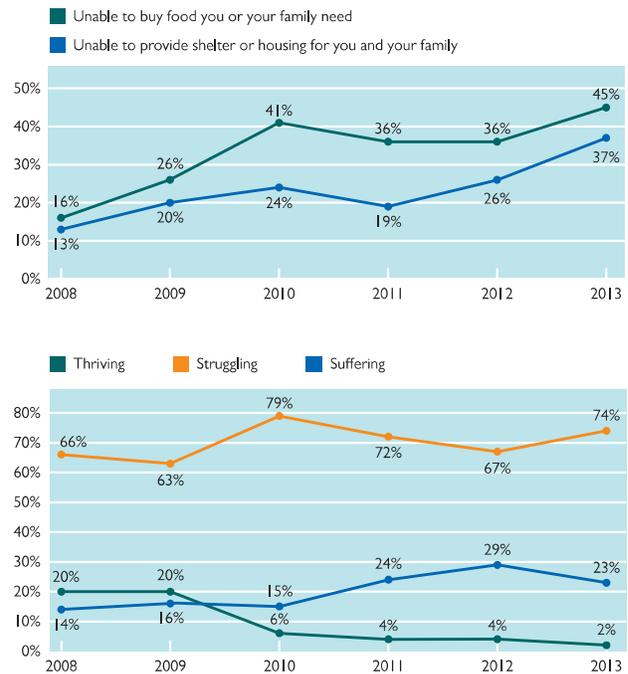


Figure 21–1 The conflict in Syria lasted for many years after this survey was taken. Would the responses have changed over that time? Why or why not?

CASE STUDY

How Can an Economic Crisis Influence Political Stability and Quality of Life?

INQUIRY

How does the government's response to an economic crisis affect quality of life in that country? Let's look at the political and economic situation in Venezuela, which by the end of 2019 was in a state of crisis.

Government

Nicolás Maduro became president of Venezuela in 2013. Since then the national government has extended control over the other branches of government. For example, in 2017, a Constituent Assembly was created. It is empowered to change the constitution and dismiss government institutions and officials. Freedom of expression and freedom of the press have been restricted (Figure 21–2), and the government is taking a more active role in the economy, including the creation of state-owned businesses.

President Maduro has been accused of retaining power through a corrupt system that brings financial benefit to his supporters. In 2017, he created an elite military unit that is suspected of making illegal arrests and executing people accused of "resistance to authority."



Figure 21–2 Members of the Venezuelan National Guard stand guard around the National Assembly building, where opposition leaders were meeting. Police prevented journalists from entering the National Assembly while the Congress met. How does control or suppression of the media characterize an authoritarian government?

21.3 What Are Fragile and Failed States?

Generally, citizens of politically stable nations experience prosperous economies, reliable government services, little or no violence or terrorism, and a protected environment.

◎ QUALITY OF LIFE

Citizens of politically stable nations tend to experience a relatively high quality of life.

What economic, environmental, and political elements provided or supported by a government produce high quality of life? What happens if the government fails to provide these?

On the other end of the spectrum are those countries with governments that struggle to serve their citizens. The factors that lead to instability—such as conflict, economic decline, and population growth—can result in a government that cannot, or will not, provide the services and protection citizens need to enjoy a good quality of life. In the worst cases, the quality of life for citizens declines. These are called fragile states and failed states.

A **fragile state** is a country that is politically unstable and may collapse. The government has difficulty providing services, including healthcare and education. Transportation, communication, and food systems are inadequate, and legal and political systems are often corrupt. Conflict is common, and often a government will spend its time and resources on managing the conflict. As a result, non-combatants—people who are not soldiers—are left to meet their needs by themselves.

A **failed state** is a country in which the government has collapsed and is unable to function. Living conditions are terrible, human rights are violated, and the government is incapable of providing even basic services to its citizens—let alone protect them from violence. A recent example of a failing state is Syria, where millions of people have been killed or displaced by ongoing war.

How Can We Measure Political Instability?

Nations around the world are always changing in response to internal and external forces. In more stable countries, like Canada, change may seem to be very slow. In less stable countries, such as Venezuela, massive changes can occur very quickly. Events have multiple consequences, and the population is left in a state of uncertainty. For example, damage from a hurricane

can result in entire communities losing electricity, clean water, and medical care, perhaps for months at a time if the government cannot respond and send aid.

The Fragile States Index

The Fund for Peace has spent more than a decade developing the **Fragile States Index**—a measure of how fragile a country is. They use 12 indicators to produce a score between 0 and 120. The indicators are

- Economic: how well the economy is doing
- Divisions: possible security threats, how divided the country is between identity groups, such as those based on language or religion, and whether all groups have equal access to the political process
- Political: how stable the government is, how well it responds to the needs of citizens, and whether it respects human rights
- Social: demographics, population pressures on resources, the effects of natural disasters on the population, levels of migration, and levels of intervention from foreign governments

Viewed together, these indicators provide a picture of how stable a country is, whether it is fragile, or if it is in danger of failing. The higher the overall score, the more unstable the country. Scores can change from year to year depending on events within each country (Figure 21–16).



Figure 21–16 The Fragile States Index score for the United Kingdom *increased* in 2019. Fund for Peace analysts linked this to ongoing debate and protests over Brexit, or the vote to leave the European Union. How could an issue like this lead to instability in a country like the UK? Refer to the indicators listed above in your answer.

Fragile States, 2019

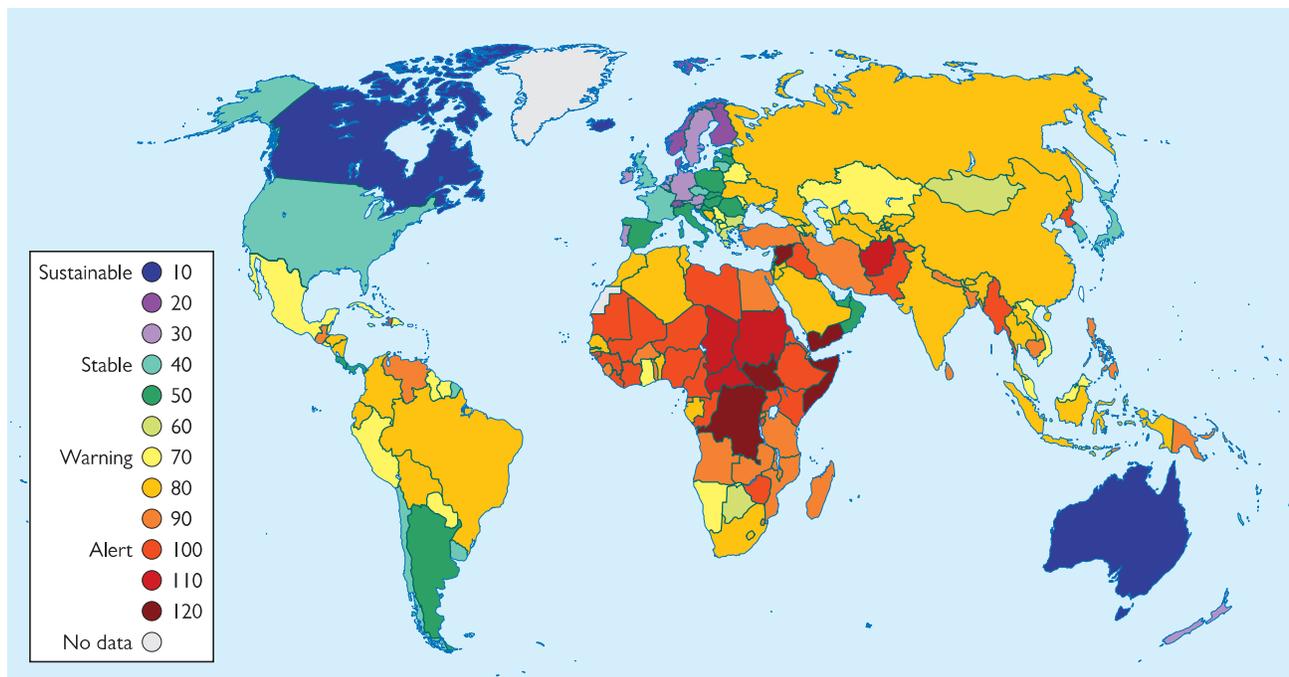


Figure 21–17 The Fund for Peace released this fragile states world map in 2019. Compare this map to the one on page 45. What correlations can you find? What inferences can you make about the location of fragile and failed states?

In the 2019 Fragile States Index (Figure 21–17), Finland had the lowest score (16.9). Yemen had the highest (113.5). In comparison, Canada had a score of 20. The scores for Finland and Canada improved from 2018, while Yemen’s got worse. Venezuela and Brazil were identified as the two countries in the world with the most increased instability since 2018. However, the 2019 report also stated that overall, despite continuing conflicts and economic crisis, stability around the world is improving.

GLOBALIZATION

One of the goals of the United Nations is to “achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character.”

How can reports such as the Fragile States Index be used to help achieve this goal?



View the current Fragile States Index on our website.

CASE STUDY

How Can a Failed State Achieve Stability?

INQUIRY

While regaining stability in a failed state is possible, it is extremely difficult. We can look at Somalia as an example.

Somalia (Figure 21–18) had some of the elements of democracy (for example, an elected president and parliament), but throughout the 1980s the government became increasingly authoritarian. Resistance groups sprang up around the country to oppose the government, resulting in a civil war. In 1991, the government completely collapsed.

In the years following, Somalia was divided up into areas ruled by warlords. With no legitimate central authority, Somalia was a failed state.

The people of Somalia faced years of severe poverty, starvation, and violence. Thousands were killed and almost 2 million people became refugees. In addition to the violence, civilians were unprotected during times of drought and other natural disasters.

What Are Human Rights Issues?

Key Terms

- human rights
- Universal Declaration of Human Rights*
- ethnic cleansing
- United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*
- poverty cycle
- Convention on the Rights of the Child*
- forced labour
- caste
- bonded labour
- cultural exceptionalism
- genocide

Human rights violations worldwide in 2014 (right). A survivor of the Rwandan genocide in 1994 (below). In 100 days approximately 800 000 people were killed during this genocide. Most of those who were killed were Tutsi, a minority of the population. The genocide was led by members of the Hutu majority. How can such abhorrent human rights violations be prevented?

Human Rights Violations



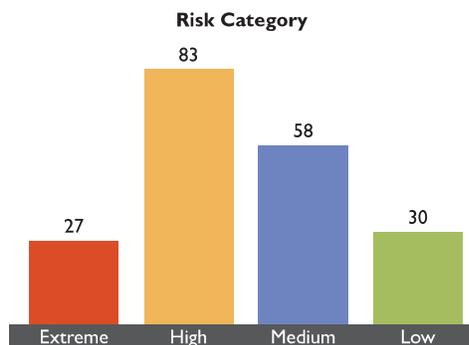
The five **worst performing countries, 2014**

Rank	Country	Region	Score	Category
1	North Korea	Asia	0.61	Extreme
2	Somalia	Africa	0.68	Extreme
3	Syria	MENA	0.69	Extreme
4	South Sudan	Africa	0.82	Extreme
5	Sudan	Africa	0.90	Extreme

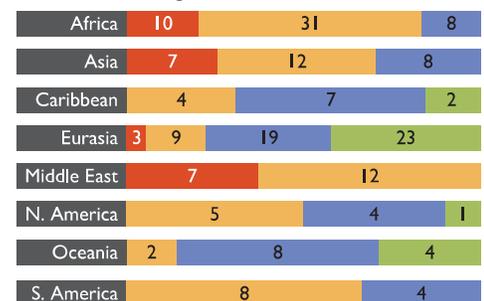
The five **best performing countries, 2014**

Rank	Country	Region	Score	Category
198	Denmark	Eurasia	9.49	Low
197	Finland	Eurasia	9.26	Low
196	Luxembourg	Eurasia	9.13	Low
195	Norway	Eurasia	9.11	Low
194	San Marino	Eurasia	8.95	Low

Distribution of risk for 198 countries, 2014

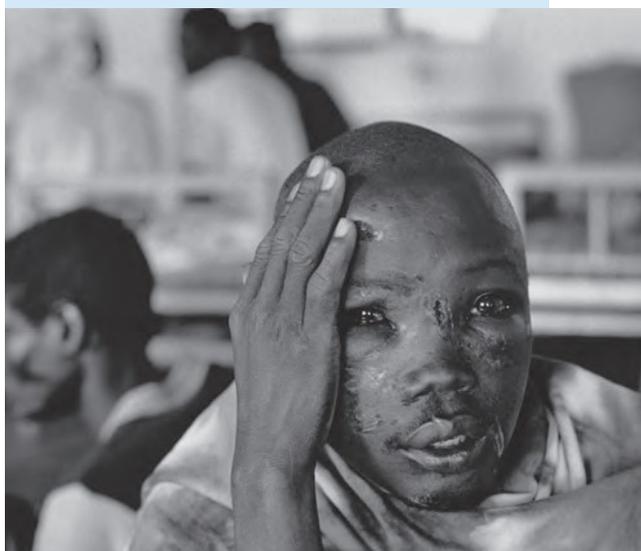


Regional Breakdown



Chapter Focus Questions

- What are universal human rights and how do they affect quality of life?
- What obstacles hinder the political participation of women around the world?
- How does conflict affect human rights?
- How can slavery exist in the 21st century?
- How does cultural exceptionalism hinder a universal view of human rights?



23.2 What Are Some Critical Human Rights Issues?

So far, we have looked at human rights very broadly. In this section we will examine specific human rights issues.

Political Power for Women

A fundamental aspect of gender equity is access to political power (Figure 23–3). When women lack political power, everyone loses. Capable women are not able to assume leadership positions and reach their full potential. Societies that do not have women in leadership positions are deprived of their knowledge and perspectives.

National leaders fall into two categories: heads of government (who hold political power) and heads of state (who hold symbolic power). Most countries, like Canada, have two different people taking these roles. In some the two categories can be held by the same person. As of 2019, Canada has had the same woman head of state for 67 years—Queen Elizabeth II. Canada has had only one female head of government—Kim Campbell, who was prime minister for four months before losing an election in 1993.

In 2019, women were heads of government of about 15 nations. More than half of these were in Europe. Only a few of these leaders were from large countries,

like Germany. Many are from small countries, like the Marshall Islands and Barbados.

At the UN’s Fourth World Conference on Women in 1995, the governments of 189 countries promised to provide women with equal access to and full participation in political decision making and the power structures of government. They also pledged to ensure an increase in the numbers of women in government and public administration. Women are still under-represented in governments worldwide, even though they have gained the right to vote and to stand for elections in almost all countries.

In 1995, the Sixth UN Human Development Report recommended that at least 30 percent of government representatives should be women. It states that anything less than that is mere *tokenism*—a symbolic effort as opposed to a genuine one. Some countries are doing well in this regard, but most are not (Figure 23–4).



Figure 23–3 Sheikh Hasina, prime minister of Bangladesh (left), and Angela Merkel, chancellor of Germany (right), in 2017. How would a female leader make a difference in your life?

Discussion Points

- Why is it important for women to hold positions of power in governments?
- How might having more women in power affect quality of life for people in their country?
- Is the goal of women making up at least 30 percent of political leadership enough? Is it tokenism, or could it make a difference?
- Use Figure 23–4 to discuss what the countries with 30 percent female legislators have in common. For example, you may consider if they are MEDCs or LEDCs and whether they are democratic.
- There are almost 200 countries in the world. Barely 10 percent have female leaders, despite international agreements made to provide women with equal access to power. Why might that be so?

Human Rights and Conflict

In many ways, conflict can be seen as the ultimate abuse of human rights. Some wars are well known—the First and Second World Wars are good examples.

Executions are far more common outside the MEDCs. In many countries the actual number of executions is kept secret. The country suspected to have the highest number of executions is China. Humanitarian organizations estimate that around 2400 people were executed in China in 2014. Other countries with more than 100 executions in 2018 include Iran and Saudi Arabia. Saudi Arabia has never accepted the authority of the *Universal Declaration of Human Rights*.

Discussion Points

- Why would issues such as the death penalty be so divisive around the world?
- Explain why religious beliefs might be a source of cultural exceptionalism.
- If human rights are truly *universal*, should cultural exceptionalism allow some countries to violate those human rights?

23.4 How Does Political Stability Affect Human Rights?

A government must be both *able* and *willing* to protect and promote the human rights of its citizens (Figure 23–12). If human rights are lost, denied, violated, or simply not provided, a nation may face issues such as

- disparity in access to resources, services, and political power
- inability of people to participate in economic growth and social development

- increased frustration in groups who believe their rights are being denied or ignored
- increased instability in the government if it is unable to deal with unrest
- increased violence and possibly terrorist attacks
- movements against the government, such as protests, strikes, or revolutions

Freedom of the Press Worldwide, 2019

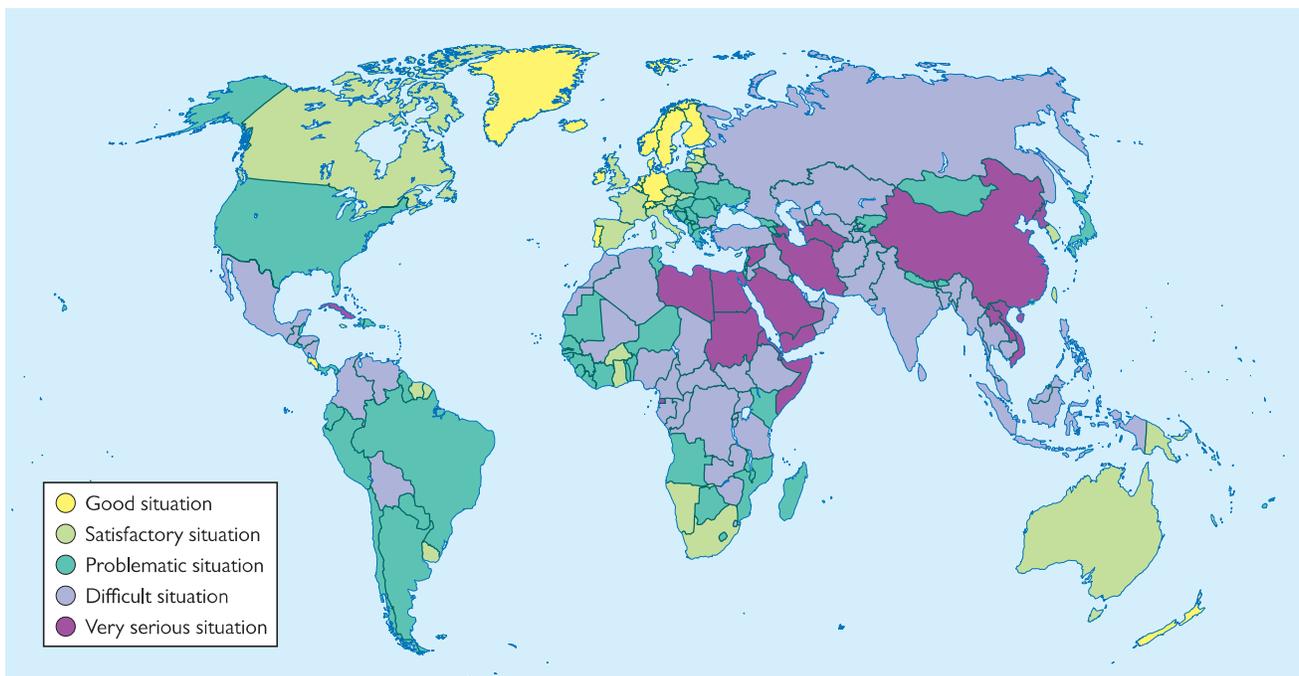


Figure 23–12 This map from Reporters Without Borders shows levels of freedom for the media in different countries. The organization measured factors such as independence of the media and safety of journalists. Does anything on this map surprise you? Explain.

The mass killing of an identifiable group is known as a **genocide**. The United Nations passed the Genocide Convention in 1948, making genocide a crime. This convention is considered the first human rights treaty passed by the United Nations.

Political instability can be one of the main causes of genocide. During times of political upheaval, for example, a group may seek to keep political power by eliminating a rival group.

The Rwandan Genocide

Longstanding tension between two ethnic groups in Rwanda, the Hutu and Tutsi, erupted into civil war in 1990. The war was fought between the Rwandan government (primarily Hutu) and the Rwandan Patriotic Front (primarily Tutsi). When the Rwandan president was assassinated on April 6, 1994, police, soldiers, and militia responded by executing Tutsi leaders, as well as any moderate Hutu politicians and journalists they could find. Outright killings began to take place across the country. Approximately 800 000 people were massacred in just 100 days. Civilians took part in the massacres, attacking and killing their neighbours. The genocide ended in July 1994, when the Rwandan Patriotic Front took control of the government.

During the genocide, many nations, including Belgium, France, and the United States, ignored what was happening. It also happened despite the presence of United Nations personnel in Rwanda. Canadian observers, including Major-General Roméo Dallaire, issued warnings of growing

ethnic tensions in the weeks leading up to the genocide. These warnings were ignored.

The genocide had lasting effects. In Rwanda, surviving victims were left with terrible wounds; many victims who had been raped were later diagnosed with HIV. Thousands of children were left orphaned. The loss of so many people had a severe effect on the economy.

Rwanda now has two public holidays to mourn the genocide. There are eight museums commemorating the genocide across the country. These memorials contain evidence of the massacre as well as memorials to victims. In the years that followed, some observers stated that a genocide had not occurred, and that the numbers of deaths were incorrect. In Rwanda, it is now illegal to deny the genocide.

On an international level, the International Criminal Court (ICC) was established in 1998. This court investigates and prosecutes those accused of genocide or crimes against humanity. The United Nations acknowledged that it had failed the people of Rwanda, and outlined a new action plan for the prevention of genocide in 2004. April 7, 2004, was declared an International Day of Reflection in honour of the victims of the genocide.

Questions

1. What is genocide? How can political instability lead to genocide?
2. Why is genocide considered by the UN to be a human rights violation?
3. How did international and regional authorities respond to the Rwandan genocide?



Figure 23–14 The skulls of victims at the Bisesero Genocide Memorial Centre in Rwanda. How can peace be built and maintained after a genocide?

Did You Know?

Canada officially recognizes five genocides: Armenia (1914–1923), Holodomor in Ukraine (1932–1933), the Holocaust (1941–1945), Rwanda (1994), and Srebrenica (1995). There have been many other genocides in history, including the genocides of Indigenous Peoples in the Americas, Australia, Africa, and Asia. In 2019, the Canadian Museum for Human Rights acknowledged the existence of genocide within Canada, calling the residential schools system “a violation of the UN Genocide Convention.”

What Are the Politics of Terrorism?

Key Terms

terrorism
domestic terrorism
state terrorism
chemical terrorism
bioterrorism
nuclear terrorism
War on Terror
counterterrorism
civil liberties

The attack on the World Trade Center in New York was part of a series of terror attacks on September 11, 2001 (right). (Below) In 1988, the US government labelled Nelson Mandela a terrorist. Less than a decade later he was the president of South Africa and a Nobel Peace Prize winner. Had he changed, had the situation changed, or had perceptions of him changed?



Chapter Focus Questions

- How can terrorism be defined, and why does the specific definition matter so much?
- How does terrorism affect quality of life?
- What is domestic terrorism?
- How are terrorist threats changing?
- How can governments fight terrorism?
- Are you prepared to give up some of your civil rights to combat terrorism?

24.1 What Is the Geography of Terrorism?

On September 11, 2001, hijackers crashed two airplanes into the twin 110-storey towers of the World Trade Center in New York City. A third plane hit the Pentagon in Washington, DC; a fourth, targeting the US Capitol Building, crashed in a field in Pennsylvania. Almost 3000 people were killed, and the immediate economic loss was estimated at more than US\$100 billion. The attacks were directed at symbols of American power

and the Western world's economy. They were linked to an extremist Islamic group called *al-Qaeda*. The events of September 11 brought **terrorism** to the attention of the world to a degree never seen before. But while terrorism is news, there is nothing new about terrorism. It has existed for centuries—the word was first used to describe some of what was happening during the French Revolution.

WORKING IT OUT

WHAT IS “TERRORISM”?

PERSPECTIVES

Surprisingly, there is no generally accepted definition of the word *terrorism*. In fact, multiple definitions of terrorism can exist even within the same government. Definitions can also evolve over time. The specific content of the definition is important because it determines which acts are terrorism.

1. How would you define terrorism?
2. In 1937, the League of Nations declared terrorism to be *all criminal acts directed against a State and intended . . . to create a state of terror in the minds of particular persons or the general public*. At first glance, this may seem like a reasonable definition, but by many standards, it is inadequate in several respects. Consider the following issues.
 - Terrorists often target not just governments, but also individuals and companies, religious groups, and groups who oppose governments.
 - This definition also ignores the fact that the threat of violence can be almost as effective as an actual attack.
 - How can we define *criminal*? An action that might be considered criminal by some may be viewed as a legitimate protest by others.
 - It also does not address who the terrorists might be. Could it be a government, for example?

Canada's official definition of terrorism is much more comprehensive. According to the Criminal Code, a Terrorist Activity is generally defined as *an act or omission, inside or outside of Canada, committed for a political, religious, or ideological purpose that is intended to intimidate the public, or a subset of the public, with respect*

to its security, including its economic security, or to compel a person, government or organization (whether inside or outside Canada) from doing or refraining from doing any act, and that intentionally causes one of a number of specified forms of serious harm, such as causing death or serious bodily harm. This can also include conspiracy, attempt or threat to commit, or being an accessory after the fact or counselling in relation to any such act.

a) The Criminal Code definition may seem complex. To make it more understandable, unpack it by breaking it down into individual phrases—you should get more than 10 separate statements. Here is a start.

According to the Criminal Code, a Terrorist Activity is generally defined

1. as an act
... or omission,
2. ... inside [Canada]
... or outside of Canada,
3. ...

b) What is your overall reaction to this definition?

c) Did you find any surprises in this definition?

d) Do you think anything is missing from this definition?

3. Revisit your definition of terrorism from question 1 and modify if necessary.
4. Compare your definition to those of at least three of your classmates. Based on this comparison, modify your definition if you think that you can make it clearer.

24.2 How Are Terrorist Threats Changing?

The use of airliners as flying bombs against New York and Washington on September 11 has been described as a “high-concept, low-tech” approach to terrorism. Authorities are constantly worrying about new terror threats.

Vehicle Attacks

In 2016, terrorists evolved a new form of attack: driving a vehicle onto a crowded sidewalk. In Nice, France, a terrorist rented a large truck and drove into crowds celebrating Bastille Day. Eighty-six people were killed and 458 wounded. Similar attacks occurred in London, UK, and Barcelona, Spain, the following year. Authorities responded to this kind of attack by trying to monitor suspicious truck rentals, a virtually impossible task, and putting up barriers in places likely to be attacked (Figure 24–8). This kind of attack is very difficult to prevent considering the immense number of potential targets and the cost to protect each.

🕒 QUALITY OF LIFE

Critics point out that too often we are fighting “yesterday’s wars” in how we respond to terrorist threats. This may well be true, but trying to predict the next kind of attack is very difficult.

How can the constant threat of attacks influence quality of life?



Figure 24–8 The Nice attack occurred on the Promenade des Anglais, a popular walkway next to the beach. The white post barrier on the left of the image was added after the attack. Can new forms of attacks like the one in Nice be predicted? Explain.

Biological and Chemical Threats

The greatest fear that authorities have is that a terrorist group might be able to use a weapon of mass destruction in an attack. Such an attack could kill thousands.

The threat posed by **chemical terrorism** became a reality in 1995 in Tokyo, when a religious cult released a nerve gas called sarin into the subway. Thirteen people died and more than 5000 were injured. This attack proved that a small group could acquire and successfully use a chemical agent for terrorism. ISIS, a jihadist militant group operating in Iraq and Syria, has used chemical weapons such as mustard gas on both military and civilian targets.

In the US, letters containing anthrax spores have been mailed to American media outlets and government offices. These spores could spread a potentially deadly disease. It seemed that the age of **bioterrorism** had begun, and the anthrax attacks caused widespread concern. Canada and many other countries took steps to build up supplies of antidotes to biological weapons. False attacks involving harmless powders also became common. In each case the threat had to be taken seriously and proper precautions taken (Figure 24–9).



Figure 24–9 Israeli emergency forces take part in a biological terrorism drill. Why are drills like this necessary?

24.3 How Does Terrorism Affect Quality of Life?

Terrorism has a terrible effect on quality of life. This is particularly true in fragile or failed states, where terror groups attack both the government and civilian targets in order to promote their goals. For many people, not knowing when the next attack may come can create deep feelings of anxiety and fear. This can have a negative affect on quality of life (Figure 24–11).

However, people can choose to respond to terrorist acts in a positive way. By coming together as a community to help the victims, the terrorist’s goal of instilling fear can be defeated.

Those who have experienced a terrorist attack typically unite and have an increased sense of community. In 2017, a suicide bomber attacked the Manchester Arena, in England, as crowds left following a concert by Ariana Grande. Twenty-two people died and 800 were wounded, many of them teenagers. The attack was horrific, but it did make a community stronger (Figure 24–12).

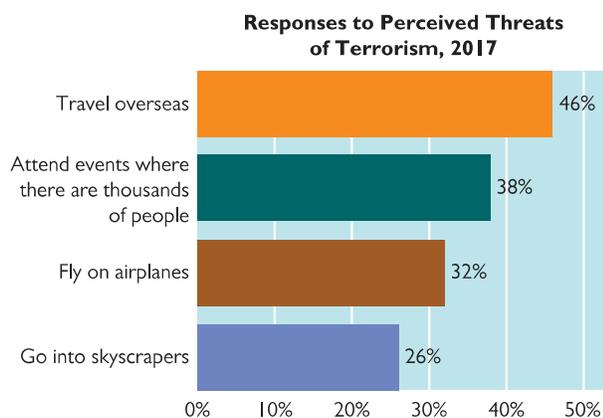


Figure 24–11 This graph shows the percentage of respondents who stated they were *less willing* to do these activities because of terrorism. The survey took place in the United States. Would the responses be different in Canada or other countries? Explain.

Perhaps the most remarkable positive response to a terrorist attack happened far away from the actual attacks. During the September 11 attacks, American airspace was closed down. Many aircraft were already in the air and on the way to the US. One solution was to direct the planes to various locations in Atlantic Canada, including 38 to Gander, Newfoundland and Labrador.

The Gander airport provided a parking place for the planes, but the town was then faced with the need to host an enormous number of guests (including two chimpanzees on the way to a zoo in Ohio) with no notice. Gander did an incredible job, mobilizing the entire community to house, feed, and comfort thousands of people at a very difficult time. As the mayor of Gander said, “We started off with seven thousand strangers, but we finished with seven thousand family members.”

The story of what happened in Gander was so inspiring that it even became the subject of an award-winning musical called *Come From Away*, which has been performed in Toronto, New York, London, Melbourne, and once in Gander.

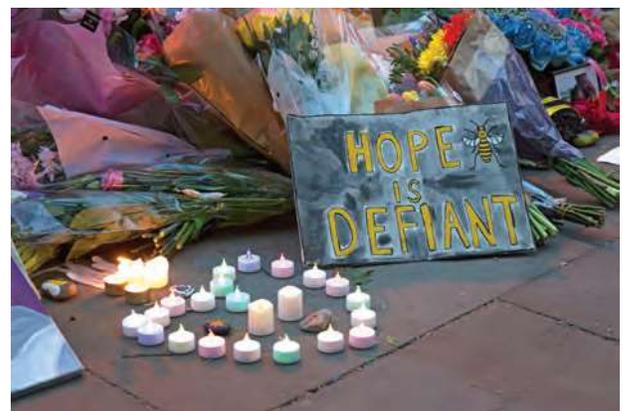


Figure 24–12 After the Manchester Arena attack, many people responded with sadness and sympathy, but also with a sense of hope and a belief that the community would become stronger. Ariana Grande hosted a benefit concert that raised more than US\$10 million to help victims. How is this typical of what happens after such an attack? How might this make a community stronger?

Chapter Questions

Knowledge and Understanding

1. All terrorist acts are crimes, but not all crimes are terrorist acts. Explain this difference.
2. Using examples from this textbook, describe some of the circumstances that might motivate terrorists.
3. Describe how political instability can result in terrorism.
4. Describe the difficulties faced by governments who are trying to fight terrorism.
5. What role do television and social media play in terrorism today? Answer this question both from the perspective of terrorist organizations and from the perspective of those who fight terrorism. 

Thinking Critically

6. **JUDGEMENTS** Prepare for a debate on this topic: Resolved—That governments should use all the means at their disposal to deal with terrorism, even if this involves the restriction of constitutionally protected civil rights.
7. Using specific examples, explain the difference between a freedom fighter and a terrorist. Why is it sometimes difficult to make this distinction?

Apply and Connect

8. **CAUSE AND CONSEQUENCE** The ultimate solution to terrorism may be the elimination of the underlying conditions that lead people to adopt terrorist methods to achieve their goals. Work with a partner to identify a condition or issue that may lead to terrorism in one of the following areas. Suggest any possible responses.
 - cultural globalization
 - economic globalization
 - environmental sustainability
 - political globalization
 - political stability
 - quality of life

9. Have counterterrorism or security measures affected your life, or the lives of your family members? Explain.

Extend Your Thinking

10. a) Does the federal government do enough to secure Canada's borders or to prevent potential terrorists from entering Canada? Consider both the need to identify terrorists and catch them and the need to respect people's rights.
b) What steps could be taken to make Canada's borders more secure?
c) What costs (both financial and otherwise) would be associated with increased border security? 
11. Some people have said that the treatment of migrants entering the United States and Australia is a form of state terrorism. Is this a valid claim? Explain.

How Are Global Power Structures Changing?

Key Terms

world power
sphere of influence
Cold War
rule set
mutually assured destruction (MAD)
isolationism

The British Empire (right) evolved into the Commonwealth, which still has 53 member nations. The influence of the Roman Empire (below) is still seen today, such as this aqueduct in Spain. Can empires like these exist today? Why or why not?



Chapter Focus Questions

- What combination of factors contributes to the rise and fall of a world power?
- What were the causes and consequences of the Cold War?
- Is a nation's power linked to the quality of life enjoyed by its people?
- How might globalization influence a world power?
- How will sustainability affect the distribution of world power by 2050?

25.1 Why Do World Powers Rise and Fall?

A **world power** is a nation that has significant influence in international affairs. In the past, world powers like the British Empire controlled vast regions of the world. Today, countries exert their power through military or economic actions. World powers can also rise and fall, meaning that they can gain and the lose their influence around the world.

When you think about world powers, several questions should come to mind:

- What special set of conditions allows a state, sometimes quite small like Britain, to expand its influence to the point where it becomes a major world power?
- How might technological change contribute to the rise or eventual fall of a world power?
- How might the expansion of a world power’s influence affect the quality of life of its own citizens? Of citizens in other nations?
- How does a world power eventually lose its influence? To what extent is this determined by what happens inside or outside the country?
- What will the world’s power structures be like in 50 years?

How Did the Cold War Influence World Powers?

The end of Second World War marked an important turning point in the history of world power structures. The devastation of the war affected not only the defeated nations, Germany and Japan, but it dramatically weakened two of the victors, Britain and France. These nations were no longer in the race to be dominant countries in the world.

Only two superpowers remained—the democratic United States and the communist Soviet Union. Both nations attempted to expand their **sphere of influence** in the world by increasing their economic, political, and military influence on a global level (Figure 25–1). The result was the **Cold War**, which threatened the world with nuclear annihilation for close to 40 years (Figure 25–2).

Realizing they could not risk nuclear war by facing each other directly, the superpowers began to compete in other ways. Where conflict occurred during the 1970s and 1980s (for example, civil war in Angola and Mozambique, and in the Somali–Ethiopian War), each superpower provided money, weapons, military advisers, and troops to the side it supported.

Allies During the Cold War, 1980

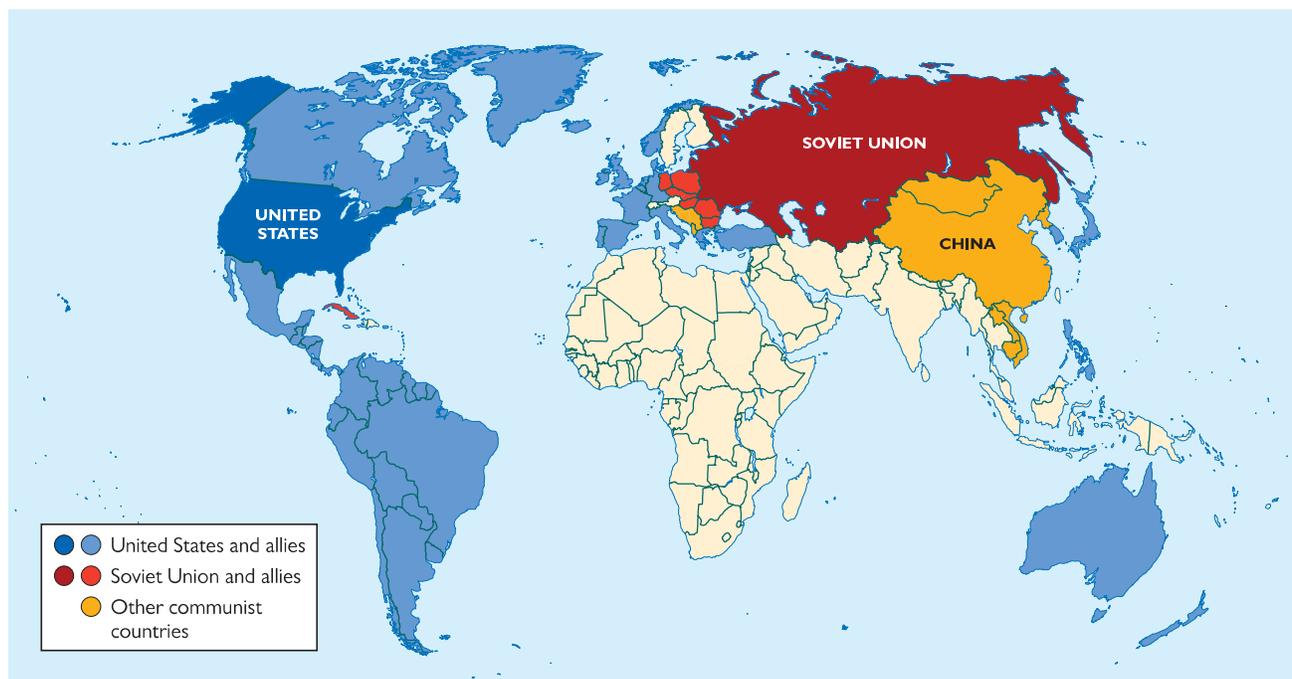


Figure 25–1 The United States and the Soviet Union created alliances (associations formed for mutual benefit) with other countries during the Cold War. What patterns do you notice? **G**

How old will you be in 2050? What do you think your life will be like? How will world economic, political, and military power structures influence your life? It is fascinating to think about how the world will change between now and then. In this exercise you will consider how the world's power structures might evolve.

Once you have an understanding of today's rule set and the factors that will influence its future evolution, you can start to think about the world's power structures in 2050. To do this, you will look at a number of countries, and one region, that will likely continue to be dominant world powers or that may become dominant powers by 2050. Our "nominees" for major world powers in 2050 come from the MEDC group of nations, including the Old Core (Canada, the European Union (EU), Japan, and the US), and the New Core (Brazil, Russia, India, and China) (Figure 25–6). (Note that we will use the word *country* to refer to both individual countries and to the EU.)

You should work on this activity with two or three classmates to discuss the factors that contribute to a country becoming a dominant power and what conclusions you draw from your analysis. We will use Canada to demonstrate how you should approach this task.

The rule set for international relations is constantly evolving as conditions change. The new rule set for the 21st century must take into consideration several important factors.

- Dealing with globalization of all types. By most measures, globalization has had many benefits, but the spread of globalization has also caused serious problems.
 - Some people and countries have benefited economically far more than others. Can the overall benefits of economic globalization be sustained while ways are found to protect people hurt by freer trade and by the global movement of jobs and investment?
 - Can individual cultures be protected in a world increasingly dominated by the culture of the US (and, increasingly, China)?
 - How and to what extent can countries and regions choose to opt out of aspects of globalization that they find unacceptable?
- Encouraging a move to sustainable practices on a global basis, without causing undue economic dislocation for people in both rich and poor countries.
 - How can the living standards of those outside the Old Core be improved substantially without causing increased greenhouse gas emissions, pollution of all types, and resource depletion?
 - To what extent can residents of Old Core countries live much more sustainably and still enjoy a lifestyle comparable to what they have had?
- Coming to terms with the predominant role of the US and the rapid growth of Chinese influence in the world.
 - Not only does the rest of the world have to come to terms with the dominance of the US, but so too do the American people. While some Americans support their dominant role in the world, others want to move toward **isolationism**. This would mean avoiding foreign wars, reducing legal and illegal immigration, and erecting more trade barriers.



Figure 25–6 Here are our nominees for the world's great powers in 2050.

What You Will Do

Determine how the world's power structures might evolve. Figure 25–7 shows the process to follow.

1. Examine the *Country Facts* and the *Things You Should Know About* pointers.
2. Evaluate the information from these sources and summarize your findings in *Evidence* under the most appropriate heading.

3. Analyze the evidence to reach a *Verdict*.

4. Categorize the nominees and identify relationships.

Note: Obviously, the conclusions you draw will be somewhat speculative in nature. Do not be afraid to explain the conditions needed for your prediction to come true, or to suggest alternative outcomes for a particular country, based on different assumptions of what might happen.

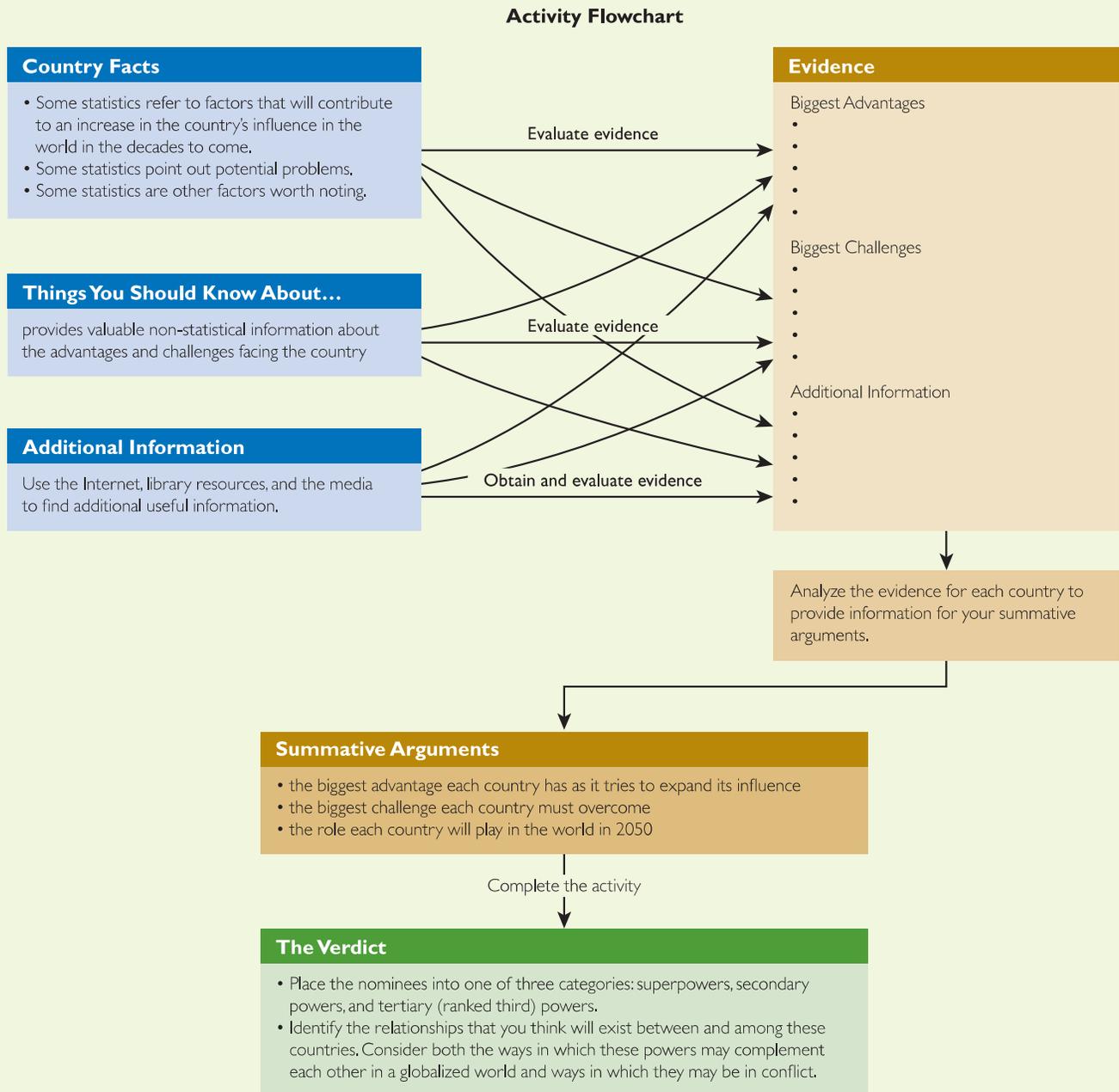


Figure 25–7 Use this flow chart to help you complete this activity. Now read the Canadian example. It will help you get started.

CANADA

Canada has a relatively small population, but a very large natural resource base.

The People	
• Population (millions)	37.59
• Population density	4 km ²
• Total fertility rate	1.56
• Population growth rate	+0.72
• Natural increase	+0.15
• Net migration	+0.57
• Infant mortality	4.5
• Literacy rate (%)	99
• Internet users (%)	90
• HDI ranking	13
• Fragile States ranking	172

Energy Resources	
• Crude oil reserves (billions bbl)	171
• Electricity sources (%)	
Fossil fuels	23
Nuclear	9
Hydroelectric	56
Other renewables	12

The Land	
• Arable land per capita (ha)	1.21

The Economy	
• Total GDP* US\$ (2018)	1.6 trillion
• GDP per capita (PPP)** US\$ (2017)	48 400
• GDP growth (%) (2017)	3.0
• GDP by sector (%) (2016–2017)	
Agriculture	1.6
Industry	28.2
Services	70.2
• Public debt (% of GDP)	90
• Gini index	34.0
• Trade balance US\$ (billions)	-18
• Export partners (minimum 10% of total exports)	USA
• Import partners (minimum 10% of total imports)	USA, China

*Gross Domestic Product
**Purchasing Power Parity

The Military	
• Size of active military (thousands)	63
• Military expenditures (% of GDP)	1.29

Figure 25–8 Canada facts (2018).

Things You Should Know About Canada

1. Canada has a remarkable natural resource base for a country with such a relatively small population. The US and China are similar in size to Canada and also have rich resource bases—but have much larger populations.
2. The proximity and power of the US influences Canada's identity.
3. Because of expanding oil sands developments (as well as energy production and transportation), Canada is one of the world's worst offenders in the production of greenhouse gases.
4. Climate change may affect Canada less severely than many other parts of the world.
5. Canada has been successful in accepting and integrating immigrants. Immigrants have added to a highly educated and skilled population.

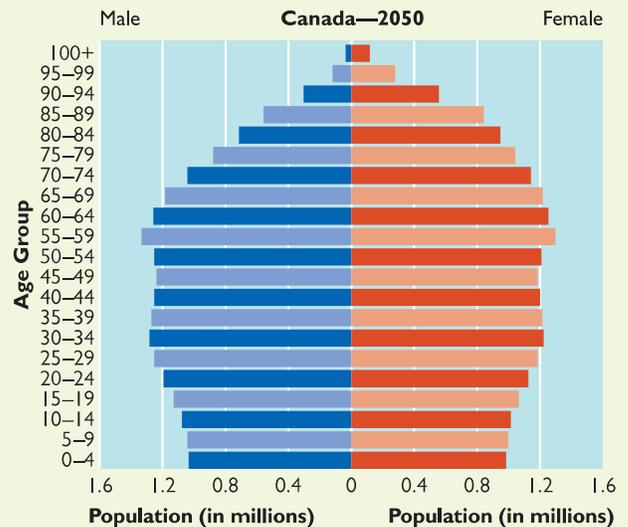


Figure 25–9 Canada's population in 2050.

The Evidence

These are the kind of observations you should make for each country.

Biggest Advantages

1. Canada's ability to attract highly skilled immigrants makes up for the fact that our natural rate of increase is low and dropping. We will likely have something close to zero population growth by 2050.
2. The oil sands (Figure 25–10) provide a substantial amount of oil for domestic use and for export. A problem with oil sands development is the massive production of greenhouse gases. A solution for this is being sought.
3. The Canadian economy is strong and growing. Canada's GDP growth rate was 1.8 percent in 2018. This may seem small compared to China's 6.6 percent. However Canada's growth rate yields an increase in the per capita GDP of about US\$1452, while China's growth rate only increases its per capita GDP by US\$1083.
4. Our Gini value shows that income is relatively evenly distributed across the population compared to the income distribution in many countries.
5. Canada's public debt as a percentage of the GDP is relatively stable.
6. Canada is a very stable country, with a high Human Development Index score and a low ranking on the Fragile States Index, indicating most Canadians have a relatively high quality of life.

Biggest Challenges

7. We have relatively small natural gas reserves. New reserves must be found and alternatives to natural gas (for example, for home heating) must be put in place.



Figure 25–10 The Alberta oil sands development. How might Canada's greatest advantage in the 21st century be its rich resource base?



Figure 25–11 On a per capita basis, Canada has a large amount of farmland. In spite of this, Canadians consume great amounts of imported food. Suggest two reasons for this odd fact.

8. Canada imports large amounts of food from all over the world (Figure 25–11).
9. Our dependence on the American market is worrisome, since poor economic conditions there have a great impact in Canada.

Additional Information

10. Whether Canada's limited spending on its military is a good thing or a bad thing depends largely on your view of the role of hard power in achieving peace and stability in the world—and whether you think Canada can make a meaningful contribution in this type of endeavour.
11. What additional information do you need before making a judgement? Where can you find it?

The Verdict

Biggest Advantage—There will be an increasing demand in the future for Canada's immense natural-resource wealth, including fresh water.

Biggest Challenge—Canada does not have a large enough population to compete in the "big leagues" of world economic, political, and military power.

Conclusion—It is unlikely that Canada will be one of the most important world powers by 2050 or even a secondary power. Most likely Canada will be considered important, but rarely thought of in terms of world-power politics. Three things stand in Canada's way.

- Canada's population is small—less than one-third that of the next-smallest country on our list, Japan.
- Canada's relationship with the US will make it difficult for Canada to emerge as an independent centre of world power.
- Canadians show little interest in becoming a major world power.