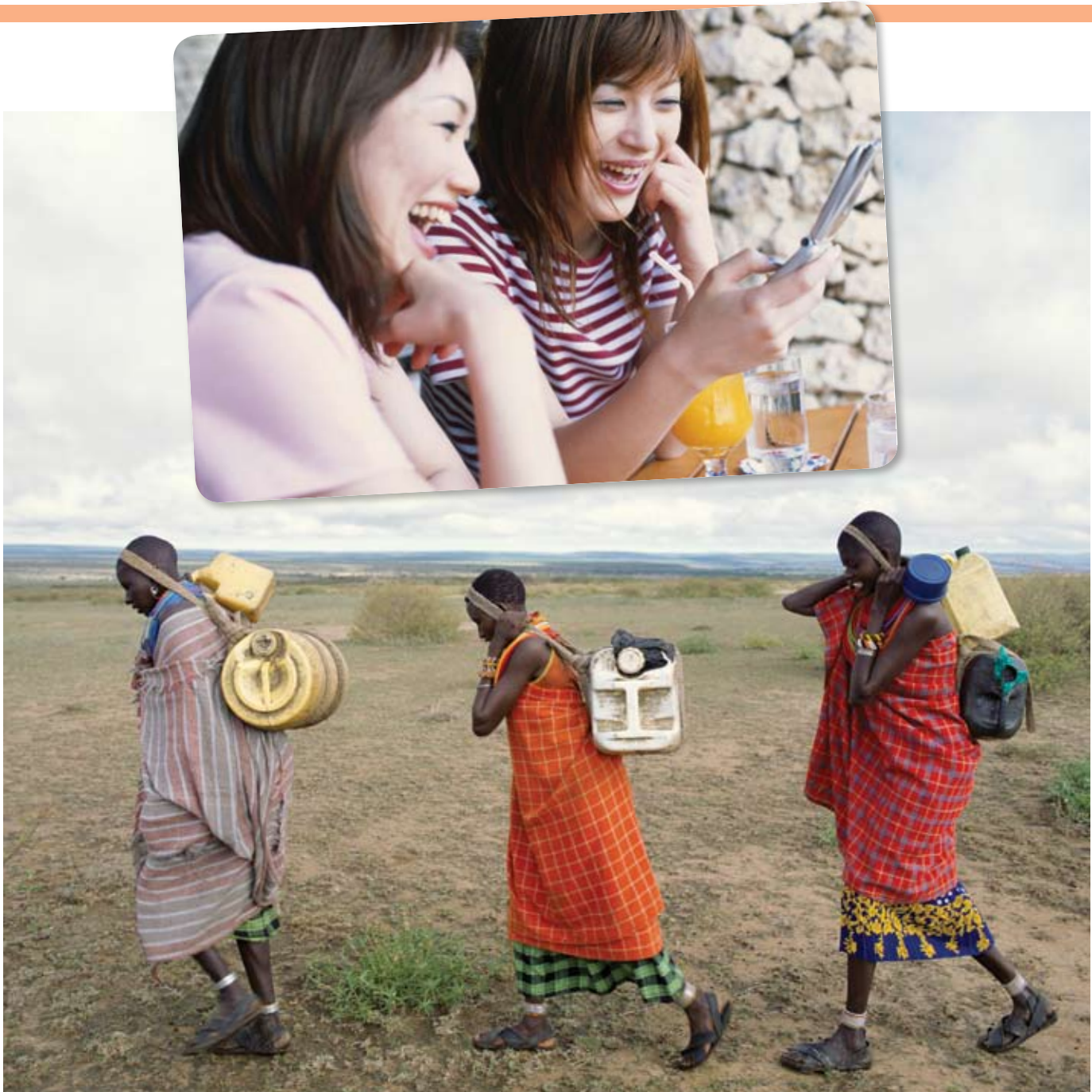


Chapter 12 Sustainable Prosperity — Challenges and Opportunities



↑ **Figure 12-1** The young people in these photographs are about the same age. In the bottom photograph, young Sambura women carry water from a communal well to their homes in northern Kenya, Africa. In the top photograph, Canadian students eat lunch in a café. Their water is easily obtained.

CHAPTER ISSUE

To what extent can globalization bring sustainable prosperity to all people?

THE YOUNG PEOPLE IN THE two photographs on the previous page live very different lives. Their prosperity and sense of safety, comfort, security, and health — the factors that contribute to quality of life — are affected by the communities and countries in which they live.

In the dry northern part of Kenya, young women spend hours every day carrying water from wells and rivers to their family homes. Because they are helping to keep their families alive, they do not have time to go to school. The water they collect is often polluted, and this contributes to Kenya's high death rate from water-borne diseases.

In North America, young people spend hours every day at school, where they prepare themselves for the future. They can go to a fountain for a drink of clean water and to a cafeteria to eat lunches they have either brought from home or bought at school.

As you examine the photographs on the previous page, consider the following questions:

- What does “prosperity” mean to the young people in these photographs?
- How do the photographs reflect their quality of life? Their prosperity?
- How will the daily activities of the young people in the two groups affect their future prosperity?
- How are the needs of the young people in these photographs the same? How are they different?

KEY TERMS

sustainable prosperity

sustainable development

knowledge economy

privatization

global climate change

LOOKING AHEAD

In this chapter, you will explore answers to the following questions:

- What is sustainable prosperity?
- What political and economic challenges and opportunities are associated with globalization?
- What choices are associated with sustainable prosperity?



My Point of View on Globalization

Use words or images — or both — to express your current view on economic globalization. Compare this with the points of view you have already recorded in your notebook, learning log, portfolio, or computer file. Is your point of view changing? If so, how? Date your ideas and record them so that you can continue to return to them as you progress through this course.



VOICES



Sustainable prosperity is shared prosperity . . . That globalization can open doors to prosperity has been established, and is not the issue here. What is at issue is the concern that, left on their own, the dynamics of globalization will bring prosperity to some, and misery and marginalization to many others, particularly in sub-Saharan Africa.

— Benjamin William Mkapa,
president of Tanzania, 2003

VOICES



To create economic prosperity while creating ecological poverty (e.g., by logging a forest beyond its regrowth capability) is not creating sustainable prosperity. Closing down a logging operation to create ecological prosperity, without suitable transition arrangements, and thereby contributing to social and economic poverty, is not creating sustainable prosperity. To create economic prosperity through mining and increasing social prosperity (e.g., through increased access to social mobility, opportunity and community cohesion) while at the same time decimating an Indigenous culture and creating cultural poverty, is not creating sustainable prosperity.

— Peter Ellyard, senior adviser to the
United Nations and author of *Ideas
for the New Millennium*, 2002

WHAT IS SUSTAINABLE PROSPERITY?

Like the word “globalization,” the term “**sustainable prosperity**” is defined differently depending on a person’s point of view and reason for using the term in a particular context. For some, sustainable prosperity means practising stewardship of the environment and resources for future generations. Their goal is to balance environmental, social, and economic factors. What do you think it means to have prosperity that is sustainable? How can people sustain this prosperity in a globalized world?

Global sustainable prosperity is connected to global economic prosperity. But as Benjamin William Mkapa says in the Voices feature on this page and as the photographs on the opening page of this chapter show, “prosperity” can mean different things to people who live in developed and developing countries.

In March 2007, the Nova Scotia government proposed legislation called the Environmental Goals and Sustainable Prosperity Act, which said that the “health of the economy, the health of the environment and the health of the people of the Province are interconnected.” Among other things, the bill aims to reduce greenhouse-gas emissions, as well as the amount of garbage going to landfills, and to encourage people to produce electricity from renewable sources.

For other people, sustainable prosperity is more closely tied to freer trade among all countries, including developing countries. In this view, resolving international trade issues will lead to sustainable prosperity that is shared by all people around the world. Prosperity will be sustained if the world is integrated economically and if every country increases its productivity, eases trade restrictions, and reduces government intervention in the economy. Peter Ellyard says that sustainable prosperity will be achieved only when it extends beyond economics and trade to include all the needs of society and of the environment.

The United Nations and other organizations use the term **sustainable development** instead of “sustainable prosperity.” According to the UN 1987 World Commission on Environment and Development, development is sustainable when it meets the needs of the present without compromising the ability of future generations to meet their needs.

As this chapter progresses, you will encounter many views about how people can achieve sustainable prosperity. Write a one-sentence explanation of the concept of sustainable prosperity as you now understand it.

Figure 12-2 A technician checks out a giant windmill at the Horns Rev wind farm in Denmark, where wind generates about 20 per cent of all electricity for the country. Globally, wind supplies less than 1 per cent of electric power, but it is a fast-growing source. How might this kind of technology contribute to sustainable prosperity and development?



Sustainable prosperity and global interdependence

Balancing economic and social prosperity can be a challenge, especially when economic and social goals clash. In Salaberry-de-Valleyfield, Québec, for example, two manufacturing plants closed for similar reasons. Gildan Activewear, one of the world's largest T-shirt manufacturers, closed in October 2006. Over the previous 10 years, this Canadian-owned company had gradually moved its operations to countries where workers are paid less. By 2007, Gildan employed 15 000 people, most in Honduras, Nicaragua, Haiti, and the Dominican Republic. Gildan officials explained that they moved so they could continue to compete with Asian companies.

In January 2007, about 800 people lost their jobs when the Goodyear Tire and Rubber Co., an American company, also closed its Salaberry-de-Valleyfield plant. The company president explained that the closing was because of “today’s intensely competitive and increasingly global business environment.”

What economic and social goals clashed in Salaberry-de-Valleyfield? Create a cause-and-effect diagram that illustrates the chain of events that led to the plant closings. Be sure to include an assessment of what you think happened after the plants closed.



Figure 12-3 This is the main street of Salaberry-de-Valleyfield, Québec. How do you think the closing of Gildan Activewear and the Goodyear Tire and Rubber plants affected the retailers on this street? How might the effects on retailers affect other people in the town?

Ideas

What things must change if all people are to enjoy sustainable prosperity?

The students responding to this question are Katerina, who lives in St. Albert and whose grandparents emigrated from Ukraine in 1948; Ling, who was born in Hong Kong but is now a Canadian living in Edmonton; and Deven, who was born in India but is now a Canadian who lives in Calgary.

People have to realize that sustainable prosperity is everyone's responsibility — not just the people who run governments and big companies. My uncle lives in Leaf Rapids, Manitoba. His town banned plastic bags in grocery stores. The town gives shoppers reusable cloth bags. So everyone who changes over to cloth bags is doing a little bit to make sure that the environment will be sustainable.



Katerina

Living in Alberta means that we really do have to figure out what to do about sustainable prosperity. After all, our own prosperity depends on the sale of fossil fuels — and they're a non-renewable resource. My mom and dad work in the oil industry. The province gets billions of dollars in royalties every year. But every step of the process, from getting the oil out of the ground to the way it's used as fuel in homes and vehicles, has some effect on people, animals, plants, soil, air, and water.



Ling

We have to change the way we think about prosperity for everybody on the planet. That's the real challenge. I keep thinking about those girls in Kenya who have to spend hours every day collecting water for their families. All I have to do to get clean water is turn on the tap. If we're really going to make the world safe for those girls in Kenya — and for ourselves — we'd better all start learning more about what we can do to promote sustainable prosperity for all people.



Deven

Your Turn

How would you respond to the question Katerina, Ling, and Deven are answering? What changes do you think must be made to ensure that sustainable prosperity extends to all people in Canada and around the world?



CHECKBACK

You read about GDP in Chapter 6 when you learned about how the economic legacies of historical globalization continue to affect people in former colonies.

Figure 12-4 GDP per Person in Selected Countries, 2006

Country	GDP per Person (U.S. Dollars)
United States	39 676
Norway	38 454
Canada	31 263
South Africa	11 192
China	5896
Ecuador	3963
India	3139
Honduras	2876
Kenya	1140

Measures of Prosperity

Groups and organizations use various measures to try to develop an accurate picture of how countries are sharing in sustainable prosperity and of how the sustainable prosperity of a country has changed over time. Some of these measurements are based on the standard of living: how well the people in a community or a country live and the number and quality of goods and services they enjoy. The more money a country has, the higher its standard of living is.

Gross domestic product as a measure of prosperity

Gross domestic product is a widely used measure of the health of a country's economy and the prosperity of its people. Comparing the GDP per person of a number of countries, such as those in Figure 12-4, provides an idea of differences in living standards in various countries.

Changes in GDP can be used to track the health of a country's economy. Agencies like Statistics Canada monitor and record these changes. Statistics Canada, for example, reported that Alberta's GDP growth between 2002 and 2005 was 43 per cent, the highest ever recorded by any province.

The income and standard of living of the people in a country are closely tied to the GDP. To measure how much money individuals in a country have to live on, GDP is averaged over the number of people in the country.

One of the drawbacks of this method of measuring prosperity is that it is an average — and averages can be deceiving. When GDP per person is calculated, for example, everyone is counted, including children. But children rarely work. If children were removed from the calculation, would the GDP per person be higher or lower?

In February 2007, *The Globe and Mail* reported that the chief executives of some companies in Canada earn up to 400 times more than the average worker. If a company has 100 workers who earn \$35 000 a year and a president who earns 200 times as much, what would be the total earnings of the workers and the president? What happens when you average the earnings of these 101 people? How accurately does this number reflect the real prosperity of the workers? Of the company president?

The human development index as a measure of prosperity

The human development index was created by the United Nations Development Program to measure quality of life in UN member countries. The HDI is used to classify countries as developed, developing, or underdeveloped and to measure how economic policies affect the quality of life of a country's people.

HDI calculations are based on three main categories:

- longevity, which is measured by life expectancy at birth
- knowledge, which is measured by school enrolment and adult literacy
- standard of living, which is measured by GDP per person

Examine the data in Figure 12-5 on page 283. Norway ranks first on the HDI, and Canada ranks sixth. Which countries do you think ranked second, third, fourth, and fifth? Explain why you made each prediction, then check the accuracy of your predictions by following the links in the Web Connection on this page. What factors affected the accuracy of your predictions?

FYI

In 2005, the top 300 000 income earners in the United States earned nearly as much as the bottom 150 million income earners combined — and the top 1 per cent of the U.S. population earned 21.8 per cent of all reported income.

Web Connection

To learn more about the human development index and to examine current figures, go to this web site and follow the links.

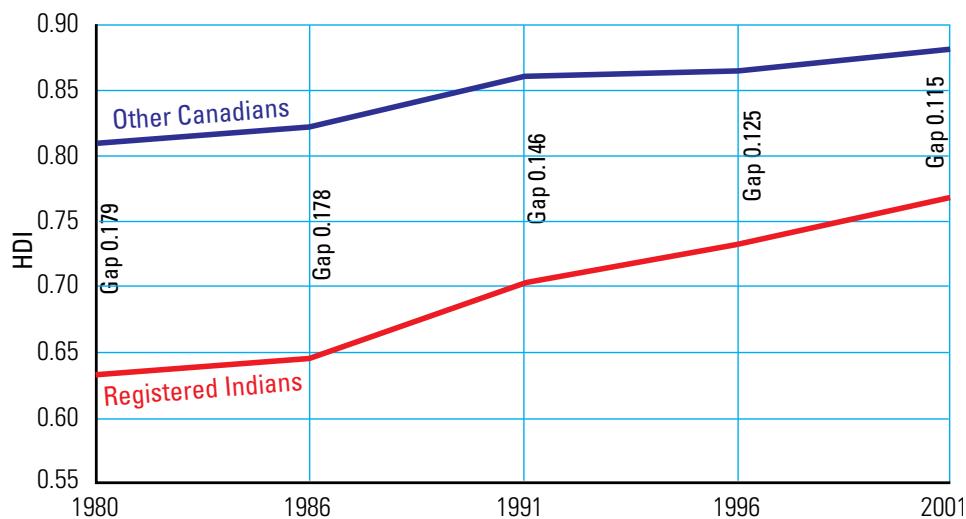
www.ExploringGlobalization.ca

Figure 12-5 Some HDI Scores, 2006

Country	HDI Ranking	GDP per Person (U.S. Dollars)	Life Expectancy at Birth (Years)	Adult Literacy Rate (Percentage)
Norway	1	38 454	79.6	99
Canada	6	31 263	80.2	99
U.S.	8	39 676	77.5	99
China	81	5896	71.9	91
Ecuador	83	3963	74.5	91
Honduras	117	2876	68.1	80
South Africa	121	11 192	47.0	82
India	126	3139	63.6	61
Bhutan	135	1970	63.4	42
Kenya	152	1140	47.5	47

The HDI was created to draw the attention of governments, the media, and NGOs to indicators that go beyond GDP and to reveal information that is not reflected in GDP statistics. Kuwait, for example, has a very high GDP but a low level of education attainment. And Canada, which ranks high on the HDI, has been criticized for the sharp differences between the level of quality-of-life indicators for the general population and for Aboriginal people.

Figure 12-6 The HDI Gap: All Canadians and Registered Indians, 1980–2001



Source: Indian and Northern Affairs Canada

Human development and access to clean water

The United Nations Development Program and other international organizations track global sustainable prosperity over time, focusing on issues that need particular attention. In 2006, for example, the *Human Development Report* focused on access to clean water and on the ability of societies to use water as a productive resource. The young women pictured on the opening page of this chapter may be among the 1 billion people in the world who do not have access to clean water. Currently, about 1.8 million children die every year of diseases caused by unclean water and poor sanitation.

In the past, few countries have considered water and sanitation to be political or social priorities. According to the UN, some of the world's poorest people are paying some of the world's highest prices for water.

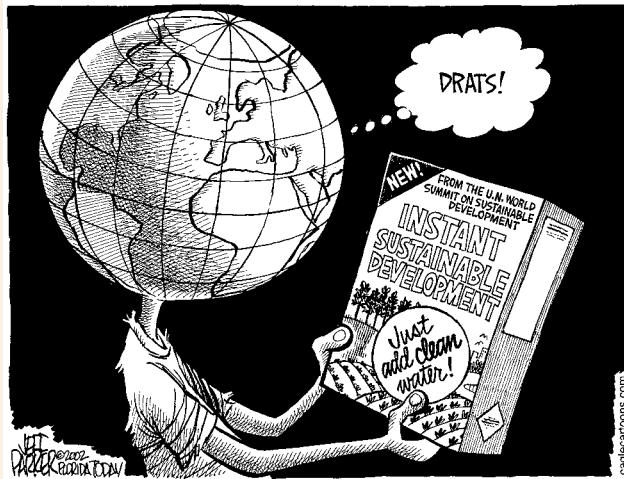
Registered Indians living on reserves are ranked approximately 68th [on the HDI], somewhere between Bosnia and Venezuela, while off-reserve Indians are ranked 36th. These are contested statistics, but they do give some indication of the inequality of life between Canada's Aboriginal and non-Aboriginal communities.

— Scott Fogden, program co-ordinator, Cultural Diversity Institute, University of Calgary, in "Native Social Issues in Canada," 2003

Water may be something that many people in Canada take for granted, but in other countries – and in some parts of Canada – water availability and quality are important concerns. The following shows how three people have responded to these concerns.



JEFF PARKER is an award-winning editorial cartoonist whose work appears in *Newsweek*, *Time*, the *Washington Post*, and *Florida Today*.



PHIL FONTAINE, chief of the Assembly of First Nations, spoke out about the need for government and First Nations leaders to find a solution to the problem after a 2003 government report found that 30 per cent of First Nations' water systems were at "high risk" of contamination and were a danger to health.

If these conditions were being experienced by the general population, there would be a national outcry and an immediate response . . . Canada is not a poor country and these conditions should not be allowed to fester in our communities. There are moral, political, and legal reasons that compel the government to work with First Nations on a new approach to safe drinking water.



MARQ DE VILLIERS is a Canadian journalist and writer. This excerpt is from his book *Water: The Fate of Our Most Precious Resource*.

The trouble with water – and there is trouble with water – is that they're not making any more of it. They're not making any less, mind, but no more either. There is the same amount of water in the planet now as there was in prehistoric times . . . Humans can live for a month without food but will die in less than a week without water. Humans consume water, discard it, poison it, waste it, and restlessly change the hydrological cycles, indifferent to the consequences: too many people, too little water, water in the wrong places and in the wrong amounts.

Explorations

1. Return to the ideas about sustainable prosperity you recorded earlier. After examining Jeff Parker's cartoon and reading Phil Fontaine's and Marq de Villiers's comments on the earth's water supply, rewrite your explanation to reflect changes in your thinking.
2. Can the difference between access to clean water for Aboriginal people in Canada and the general Canadian population be attributed in some ways to historical globalization? Explain your answer.

Other measures of prosperity

Some people believe that measures such as gross domestic product and even the human development index leave out important elements of prosperity.

King Jigme Singye Wangchuk of Bhutan, for example, created the gross national happiness index in 1972. The king says that the GNH index is based on Buddhist spiritual values rather than economic growth. The focus is on the inner happiness and the well-being of the people in a country — their spiritual and material development.

The purpose of the GNH index is to

- promote sustainable and equitable social and economic development
- preserve and promote cultural values
- conserve the natural environment
- establish good governance

The king is determined to help Bhutan keep its own cultural identity despite outside pressures, including the influence of television and the Internet. The government strictly controls trade, tourism, and foreign investment. In a globalizing world, some people think that the GNH index should be a guiding force in economic and political decisions.

The genuine progress index is another new index being developed to measure sustainability, well-being, and quality of life. Advocates of the GPI say that GDP does not measure growth accurately because it does not take people's real prosperity into account. GDP, for example, does not reflect the toll of economic growth on the environment, nor does it measure the inequality of income among the people in a country.

According to those who are developing the GPI, this system will more accurately measure economic progress. It will include environmental and social assets, such as volunteer work and time spent raising children. Measurements like these are not included in GDP calculations.

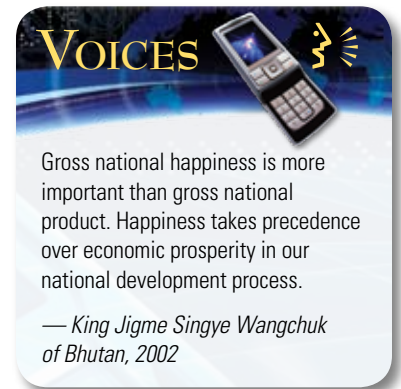


Figure 12-7 Bhutan

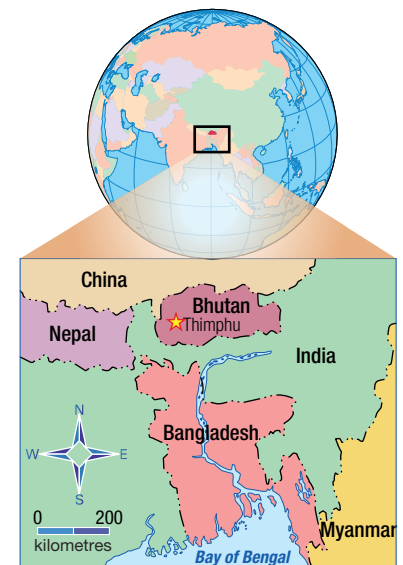


Figure 12-8 These children are riding a water taxi on a river in Bhutan. The country's infant mortality rate is 98.41 deaths per 1000 live births. By comparison, Canada's rate is 4.69 deaths per 1000 live births. What do statistics like these reveal about human prosperity and happiness?

REFLECT AND RESPOND

Think about the various measures of prosperity you have read about. Some try to include intangible items, while others focus mainly on economics. List five factors you would use to measure the overall well-

being of the people in a country. For each factor, write a brief explanation of why you chose it. Provide a short introduction to set the stage for your new measure. Give a name to your measure of well-being.

WHAT POLITICAL AND ECONOMIC CHALLENGES AND OPPORTUNITIES ARE ASSOCIATED WITH GLOBALIZATION?

CHECKBACK

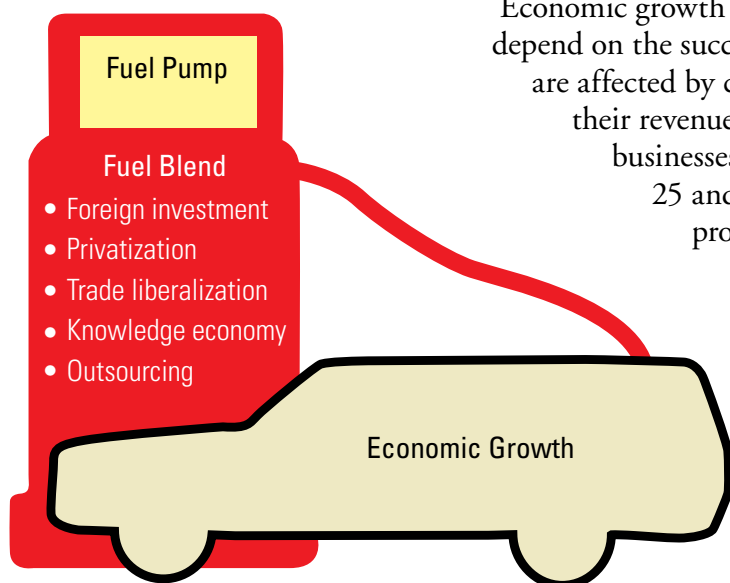
You read about the theories of Friedrich Hayek and Milton Friedman in Chapter 9.

VOICES

[The globalization] process can broadly be categorized as follows: growth and expansion in the few leading or fully participating countries; moderate and fluctuating growth in some countries attempting to fit into the globalization/liberalization framework; and marginalization or deterioration experienced by many countries unable to get out of the acute problems such as low commodity prices and debt, unable to cope with problems of liberalization and unable to benefit from export opportunities.

— Martin Khor, director of the Third World Network and author of *Rethinking Globalization*, 2001

Figure 12-9 The Fuel That Powers Economic Growth



Governments, businesses, communities, and individuals in countries around the world face both challenges and opportunities as a result of rapidly expanding economic globalization. Because of the speed of electronic connections, changes in a country's economy can happen very quickly and can deeply affect people and institutions. A natural or human-made disaster in Asia, for example, can present immediate problems for that country's trading partners and investors in other countries.

In recent years, Friedrich Hayek's and Milton Friedman's ideas of ensuring freedom and prosperity by promoting a market economy that is free of government interference have taken hold among many government leaders, especially in North America and Europe. According to this view, governments serve their people best by getting out of the way and letting their economies expand. Even China, a communist state, is determined to expand its economy through global trade.

Economic Growth and Sustainable Prosperity

Economic growth depends on businesses to produce more goods and services faster, more efficiently, and at a lower cost than the competition. According to many economists, continuous economic growth leads to greater prosperity for everyone in a country. But because so many countries are trying to achieve the same goals, competition is fierce.

Economic growth is measured by the rate at which a country's overall income grows. One way of measuring this growth is by tracking changes in GDP from year to year.

Though economic globalization has contributed to an increase in GDP in some countries, it is harder to tell how much it has contributed to sustainable prosperity. As Martin Khor points out in the Voices feature on this page, not everyone benefits from rapid economic growth.

Economic growth and the living standards of a country's people depend on the success of a country's businesses. Governments are affected by changes in economic growth because most of their revenue comes from the taxes paid by individuals and businesses. Businesses in Canada, for example, pay between 25 and 40 per cent of their profits in taxes to the federal, provincial, and municipal governments.

Business owners are also affected by changes in economic growth. These owners, who take the financial risks of running businesses, provide jobs for people in their communities. The employees and the business owners earn money that they use to buy the goods and services that are provided by businesses.

Trade Liberalization and Sustainable Prosperity

Some people believe that the economic growth inspired by trade liberalization is the best way to ensure prosperity for all people. Horst Köhler, who heads the International Monetary Fund, has said, “Trade liberalization is the most important element to promote sustained growth for industrialized countries and for low-income countries.”

But other people, such as environmentalist David Suzuki, are not convinced of the truth of this idea. In 2001, for example, St. Lucia’s prime minister, Kenny Anthony, told delegates at the Summit of the Americas in Québec City: “Until the hemisphere as a whole can enjoy the fruits of trade liberalization, we cannot proclaim its glories. Until all the peoples of the Americas are free from hunger and free from the fear of unemployment, we cannot celebrate the benefits of trade liberalization. True, trade liberalization may bring new prosperity for some, but we must be honest and admit that it will destroy the lives of others.”

Subsidizing farmers


Though governments around the world have cut tariffs on many goods and services, they have had trouble cutting farm subsidies — government grants that keep food prices low because farmers do not need to pass on all their production costs to consumers. Who do you think does — and does not — benefit from farm subsidies?

Through the early years of the 21st century, the members of the World Trade Organization tried to agree on how to liberalize trade in agricultural products. But as of February 2007, the problem remained unresolved.

Some people say that liberalizing trade in agricultural products would help the economies of developing countries because they would no longer need to spend money to support agriculture. They also accuse developed countries, such as Canada and the United States, of subsidizing their farmers so much that farmers in developing countries cannot compete.

In late 2005, the World Bank predicted that if all tariffs, subsidies, and other supports for agriculture were abolished, the global economy could grow by nearly \$200 billion over the next 10 years.

What challenges do governments face when trying to negotiate international trade rules for farm products? What might happen to the sustainable prosperity of a country if farmers could not make a living — or if food prices went way up because the government stopped subsidizing agriculture? Revisit your explanation of sustainable prosperity. Revise this in light of your understandings of farm subsidies.

VOICES 

Economics and a reliance on science and technology to solve our problems has led to an unsustainable situation where continued growth in consumption is required for governments and business to be considered successful. This is a form of insanity. Economics is at the heart of our destructive ways and our faith in it has blinded us.

— David Suzuki, Canadian scientist, environmentalist, and broadcaster, 2002

Figure 12-10 These farms are located in Ireland (left), Alberta (right), and Uganda (bottom). What similarities and differences can you see?



WRITING FOR DIFFERENT PURPOSES AND AUDIENCES

Whenever people write something — a text message, a to-do list, a telephone message, a letter, or an essay — they write with a specific purpose and audience in mind.

The purpose and audience determine the kind of writing needed. You might, for example, write a text or e-mail message to a friend one way — and a letter applying for a job another way. In each case, your purpose and audience are different. Focusing on your purpose and audience helps you decide on the most effective way of presenting your views so that they will be accepted by others.

The following steps will help you focus on a purpose and audience for your writing. You can use these steps to help you prepare the persuasive essay you are writing as the challenge for this related issue. You can use the same steps to prepare other persuasive essays and position papers as you progress through this course and others.

Steps to Writing for Different Purposes and Audiences

Step 1: Think about one purpose and audience

Imagine that you are representing a developing country’s farmers at a World Trade Organization summit on agricultural subsidies. You are presenting a position paper with the goal of persuading developed countries, such as Canada and the United States, to consider reducing their farm subsidies so that farmers in your country can export produce that competes with Canadian- and American-grown produce.

Think about what you want to achieve and how you will inform at the same time as you persuade. In addition, consider the effect you want to create. The following chart sums up the purpose and audience for your position paper.

My Position Paper	
Purpose	To persuade Western countries to reduce farm subsidies
Audience	Delegates from Western countries Media from my country and the West

Step 2: Think about different audiences

When you are presenting your position on an issue, you need to think about the people you are trying to convince of the validity of your ideas. You need to anticipate what they are likely to think and be ready to respond to alternative ideas.

With a partner, discuss responses to the following questions:

- What are your audience’s views on this issue likely to be? How will their experiences and viewpoints shape their reaction to your point of view?
- What will your audience know about the issue? What experiences related to this issue do you and your audience likely share? Will they need background information? Will some concepts need to be explained?
- What kind of supporting evidence will you need to assemble to persuade people to consider your point of view when they try to resolve this issue?
- What are the areas of common concern that you think all delegates agree on? How can you present your ideas so they can be heard and understood through the filter of these areas of common concern?

On a sheet of paper, copy the chart on the following page. With your partner, fill in the chart to show how your position paper might change when you are writing for different audiences. An example is partially filled in for you.

Audience	Purpose	How would the position paper change to suit the audience? How would the position paper stay the same?
Canadian senior citizens living on fixed incomes	To convince audience that higher food prices may be offset by other advantages	Would need to provide lots of background about what farm subsidies are and their effects Would include acknowledgement of concerns about possibility that food prices in Canada will go up Would need to provide suggestions for coping with higher food prices Would need to list advantages of increased competition
A group of Canadian consumers		
Canadian politicians		
Farmers in your own country		
Politicians in your own country		

Step 3: Think about different purposes

With your partner, talk about how your position paper would change


- if its purpose were to persuade conference delegates to agree not to reduce farm subsidies
- if its purpose were to persuade people to join a demonstration against farm subsidies

Present your ideas to a small group, and listen as other group members present their ideas.

Summing up

When the group discussion concludes, revise your chart to reflect ideas gathered during this discussion. Then think about the persuasive essay you are working on in response to the challenge for this related issue. Preparing a similar purpose-and-audience chart will help focus your thinking as you work on the essay.

VOICES



[Looking into the future] I can see a computerized world, with robots doing most of the dull work or a space-centered world with people moving out into orbit about the earth and reaching the asteroids. But I can also see a polluted world in which the quality of life sinks and one in which there is a nuclear war and we destroy ourselves. There is nothing that **MUST** be, everything depends entirely on what we decide to do.

— Isaac Asimov, science fiction writer, in an interview with Slawej Wojtowicz, 1988

The Knowledge Economy

The **knowledge economy** is another term whose meaning changes depending on who is using it and why. In general, the knowledge economy includes businesses and individuals who use research, education, new ideas, and information technologies for practical purposes. Knowledge-based industries include those that create high-tech products for businesses: microsystem technologies, computer software, robotics, and biotechnology. Biotechnology innovators, for example, have developed new forms of antibiotics, as well as genetically engineered insulin, which can be produced more quickly and cheaply than older forms of this drug.

The knowledge economy offers both challenges and opportunities for sustainable prosperity. Because this branch of the global economy often offers high-income jobs, developed and developing countries try to create education systems that will help students land these jobs in the future.

The knowledge economy contributes to the evolution of technologies and increased global trade and competition. To remain competitive, knowledge workers must constantly upgrade their skills. On the one hand, people can now work in global networks to solve problems and create new ideas for products. On the other hand, keeping up to date can be difficult.

New technologies

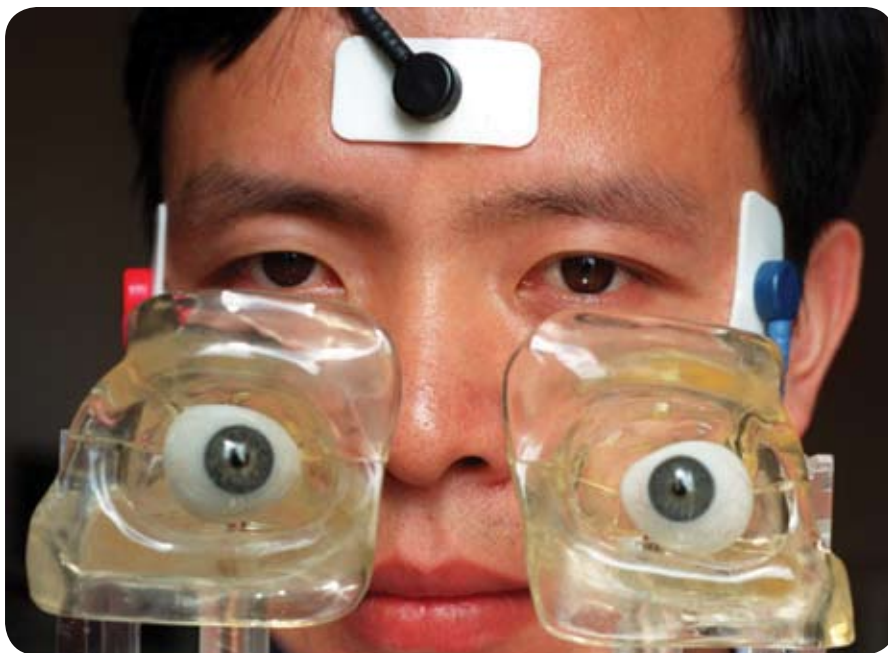
Robots were once characters in science fiction novels, like those written by Isaac Asimov. Today, inventors create robots that have many practical and innovative uses. Car manufacturers such as General Motors have been using robots to build cars since the 1980s. When robots took over the assembly line, the people who were replaced had to find new careers. But robots can also be used for tasks that are dangerous for people, such as inspecting the exterior of buildings for flaws or detecting landmines.

Robotics in the field of medicine have improved human health. Robots are used, for example, to dispense medicines in hospitals to cut down on human error. And scientists are developing mini-robots that can be used in

delicate surgery, as well as robotic eyes for people who have lost an eye because of illnesses.

The knowledge economy has also provided technologies that improve people's everyday lives. The wide use of cellphones, for example, means that many more people are able to communicate over distances than ever before. In some countries where the infrastructure for telephone land lines is still being developed, cellphones are used instead. In South Africa, for example, nearly 80 million people have cellphones, more than twice the number who have land lines.

Figure 12-11 Jason Gu was a PhD student at the University of Alberta in 2000, when he and a team of scientists, engineers, and doctors from Misericordia Hospital began to develop an artificial eye that can move. When the robotic eye is perfected, people who have lost an eye because of cancer can have the device implanted. A tiny motor controls the eye's movement.



Privatization

Providing public services such as postal services can be costly. To eliminate the cost of operating these services and to raise cash, some governments are choosing **privatization**. Privatization involves selling a public service to a private company, so that the service is no longer owned by the government. Around the world, governments have privatized services such as electric utility companies, health care, highway repair and upkeep, and even water supply.

In 2007, for example, Japan privatized its government-owned post office. Many Japanese people use the post office not only to send mail, but also as a savings and investment bank. The Japanese post office is the world's largest savings bank, with 500 million accounts and 4000 branches. The new post office was divided into four separate companies: a bank, an insurance company, a courier service, and a post office.

Privatization advocates believe that it is an important trade liberalization reform. They say that

- privatization lowers taxes because the service is no longer paid for by taxpayers
- the competition that results from privatization improves the quality of service and leads to lower prices

Those who oppose privatization say that it makes services more expensive because private companies must make a profit, and the company's profit is calculated into the cost of the service. They maintain that governments can provide the service more cheaply because they do not need to make a profit. And they add that government-run services meet the needs of all citizens, not just those who can afford to pay for them.

Privatization doesn't always work. In 1989, the New Zealand government sold Air New Zealand to an international group that included Qantas and American Airlines. But in 2001, Air New Zealand ran into severe financial problems, and in 2002, the government took back control. The government rescued the company because the airline is essential to New Zealand's economy.

Sometimes privatization is controversial. According to the business magazine *Fortune*, the control of water resources is "one of the world's great business opportunities. It promises to be to the 21st century what oil was to the 20th." In 56 countries, the water supply is controlled by large transnational corporations that profit from providing people with water. In some cases, this has resulted in improved service, but it can also result in higher costs for the people who need the water.

Find out which services (e.g., telephone, electricity, garbage collection, public transit) in your community are publicly owned and which are privately owned. Record two arguments you would use to persuade people to support continuing public ownership and two you would use to support private ownership.

Figure 12-12 The president of Japan Post is shown with models wearing the uniforms that were to be worn by employees when the company was privatized.



Web Connection

To find out more about the issues involved in water privatization, go to this web site and follow the links

www.ExploringGlobalization.ca

Web Connection

The debate over how governments should ensure that all citizens have safe, inexpensive, and dependable water supplies continues. To learn more about the political, economic, and environmental dimensions of this controversy in Canada and around the world, go to this web site and follow the links.

www.ExploringGlobalization.ca

VOICES

Everything about global capital markets seems to be breaking records these days . . . Of course, it has long been possible to trade goods, but being able to move billions of dollars around the world with a touch of a button is new. Technology has revolutionized capital markets more dramatically than almost any other part of the economy.

— John Micklethwait and Adrian Wooldridge, in *A Future Perfect: The Challenge and Hidden Promise of Globalization, 2000*

Privatizing water

In some developing countries where the World Bank has made structural-adjustment loans, governments are encouraged to privatize water utilities. This can result in high costs and affect the sustainable prosperity of the very people who can least afford to pay for water. Do you think that supplying water should be a public or private service?

In its 2006 report called *Beyond Scarcity: Power, Poverty and the Global Water Crisis*, the United Nations Human Development Program comments that the debate over water privatization often overlooks “the fact that the vast majority of the poor are already purchasing their water in private markets,” which sometimes charge high prices for water. But the Human Development Program also warns that privatizing water may result in a monopoly, which is then free to charge high prices for water. In addition, some governments do not regulate the private providers to make sure that the water is safely and efficiently delivered to everyone in a country.

Foreign Investment

Foreign investment is the purchase of assets in one country by individuals, institutions, or governments in another country. Foreign investors can buy shares in existing businesses, set up new businesses, or invest money in the currency of another country.

Those who favour Canadian foreign investment see it as an opportunity to keep Canada competitive in an interconnected and fast-moving global economy. In this view, foreign investment strengthens the sustainable prosperity of Canadian companies, consumers, and workers. It also strengthens ties among Canada’s trading partners. The Canadian government says that “Canada has a clear interest in providing for stability, transparency, predictability, non-discrimination, and protection for Canadian companies and individuals that invest abroad, as well as for foreign investors wishing to invest in Canada.”

Risks of foreign investment

At the same time, some people are concerned that foreign investment can cause sudden and dangerous risks to a country’s economy. By the early 1990s, for example, South Korea boasted the world’s 11th largest economy and was growing rapidly. This growth attracted foreign investment that helped stimulate the economy, increase employment, and raise the living standards of many South Koreans.

But in 1997, something went very wrong. The value of a number of East Asian currencies — including South Korea’s — fell. Investors around the world lost confidence in the South Korean economy and started to pull their money out. This happened very quickly, thanks to the electronic interconnections in money markets around the world. The South Korean economy shrank, the government had to borrow \$58 billion from the International Monetary Fund, some of the country’s largest companies closed down, and many South Koreans were thrown out of work. The standard of living they had enjoyed disappeared, and investors lost billions of dollars.

Figure 12-13 Canadian Foreign Investment, 1990–2005

Year	Canadian Investment in Other Countries (Millions of Dollars)	Foreign Direct Investment in Canada (Millions of Dollars)
1990	98 402	130 932
1995	161 237	168 167
2000	356 506	319 116
2005	464 058	415 561

Source: Department of Foreign Affairs and International Trade Canada

Foreign investment and Kurdistan

Kurdistan is in the northern region of Iraq and, compared with some other areas of the country, was relatively peaceful in 2007. The Kurdish people suffered under Iraqi dictator Saddam Hussein. More than 100 000 Kurds were killed by Saddam's forces during the late 1980s. Thousands more fled to neighbouring countries. Their farms, villages, and economic base were destroyed.

When Saddam was overthrown, Kurdistan became an autonomous region under the new Iraqi constitution. People who had fled began to return home, where the unemployment rate stood at about 30 per cent.

To help correct this situation and stimulate the economy of the region, Kurdistan government officials are trying to attract foreign investment. Money is needed to rebuild homes, roads, hospitals, schools, hotels, and shopping areas that were destroyed in the conflicts of the past decades. They are also looking for foreign investment in agriculture, mining, tourism — and oil. Kurdistan is thought to be rich in oil reserves, and this has attracted the attention of foreign oil companies, which are investing in exploration in the region.

Canadian companies in Kurdistan

Among foreign oil companies investing in the region is WesternZagros, which is a wholly owned subsidiary of Western Oil Sands of Calgary. Western Oil Sands was formed in 1999 to participate in the development of the Alberta tar sands. The company will explore a 2120-square-kilometre region of Kurdistan for oil.

Heritage Oil Corp., also of Calgary, which has exploration projects in Uganda and the Democratic Republic of Congo, is also “pursuing opportunities” in Kurdistan.

Figure 12-14 Kurdistan



Figure 12-15 Kurds were persecuted by Iraqi dictator Saddam Hussein. Many people lived in exile for decades but are now starting to return home. Awat Najat is one. She stands in front of her makeshift home in Kirkuk.



REFLECT AND RESPOND

Create a chart like the one shown. On your chart, identify five groups for whom globalization presents a challenge or opportunity. For each, jot a note explaining why globalization presents a challenge or an opportunity — or both. An example has been filled in.

Compare your chart with that of a partner. With your partner, choose one group identified on one of your charts and decide on three points you would mention if members of the group were the audience for a presentation you are making on the challenges — or opportunities — of globalization.

Challenges and Opportunities of Globalization	
Group	Challenge, Opportunity, or Both
Knowledge workers	Challenge — Must keep upgrading skills to stay competitive Opportunity — Access to higher-paying jobs

Figure 12-16 Proportion of People Living on Less Than \$1 a Day, 1990 and 2002

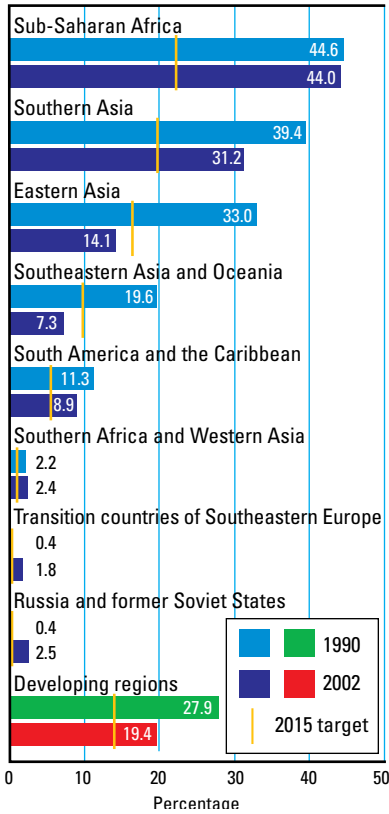


Figure 12-17 Millennium Development Goals

- 1  Eradicate Extreme Hunger and Poverty
- 2  Achieve Universal Primary Education
- 3  Promote Gender Equality and Empower Women
- 4  Reduce Child Mortality
- 5  Improve Maternal Health
- 6  Combat HIV/AIDS, Malaria, and Other Diseases
- 7  Ensure Environmental Sustainability
- 8  Develop a Global Partnership for Development

WHAT CHOICES ARE ASSOCIATED WITH SUSTAINABLE PROSPERITY?

Economic globalization offers complex challenges and opportunities. Governments, non-governmental organizations, communities, and individuals around the world face the challenges of ensuring that people have opportunities to achieve sustainable prosperity. But there is debate over how to achieve this goal most effectively.

Millennium Development Goals

In 2000, the United Nations and leaders of more than 150 countries held an assembly at which they agreed to work toward a world in which everyone had an opportunity to achieve sustainable prosperity and development. The eight millennium goals are listed in Figure 12-17.

Since then, the UN has monitored the world's progress toward achieving these goals. One goal, for example, calls for the eradication of extreme hunger and poverty. To help achieve this, the UN set a target of cutting in half, by 2015, the proportion of the world's people whose income is less than \$1 a day. Although the gap between rich and poor remains wide — both among countries and within countries — the proportion of people who live on less than \$1 a day has been reduced.

Think about your spending over the past three days. List everything you buy and what it cost, then calculate the total. Divide this total by 3 to arrive at your average daily spending. Then add to your list everything you used but did not pay for (e.g., shelter, food, clothing, telephone, and computer). Estimate their costs and recalculate your average daily spending. How difficult would it be for you to live on \$1 a day?

Jeffrey D. Sachs helped the United Nations prepare the millennium development goals. In his book *The End of Poverty: Economic Possibilities for Our Time*, he outlined a plan for managing some of the challenges faced by people trying to reduce poverty in their country.

- **Decentralization** — The people who live in the affected communities must be the ones who decide what should be done and how money should be spent.
- **Training** — People need to be trained to run poverty-reduction programs. This training should be carried out at the national, district, and village level.
- **Information technologies** — The people involved in poverty-reduction programs need to have access to computers, e-mail, and mobile phones so that they can communicate quickly with one another.
- **Measurable benchmarks** — A benchmark is a standard. People must have specific goals that are designed to suit their national conditions, needs, and availability of data.
- **Audits** — No country should receive funding unless spending can be audited.
- **Monitoring and evaluation** — Budgets and plans for monitoring programs should be part of all poverty-reduction programs.

Which millennium goal do you think you might be able to influence most directly? Explain why.

Climate Change and Sustainable Prosperity

Ensuring sustainable prosperity for all people on Earth is a challenge, one that many governments, businesses, scientists, and environmentalists are joining forces to meet. The interdependence and constant shifting of political, economic, and environmental factors make this challenge highly complex.

Global climate change


People around the world have been burning more and more fossil fuels — coal, oil, and natural gas — to create the energy needed to heat and cool homes, power cars, and run factories. The burning process releases carbon dioxide and other greenhouse gases that had been trapped in these fuels.

Greenhouse gases form a barrier in the atmosphere. This barrier absorbs heat from the earth's surface and radiates it back to Earth instead of allowing it to pass into space. This phenomenon is called the greenhouse effect, and many scientists say that it contributes to **global climate change** — small but steady changes in average temperatures around the world.

Many scientists believe that greenhouse gases already in the atmosphere will cause global temperatures to increase by an average of 0.5° C every year until at least 2025. This warming increases the risk of drought and evaporation of water from lakes and rivers. According to Gordon McBean, who heads the Canadian Foundation for Climate and Atmospheric Sciences, "Our climate is changing and it will continue to change for decades. Canadians need to think about what that means to them." But scientists also believe that actions taken now can slow the rate after 2025.

In April 2007, the Intergovernmental Panel on Climate Change issued a report on the effects of climate change. The IPCC is made up of scientists and government representatives from 100 countries. Susan Solomon, one of the lead authors of the report, said, "We can be very confident (i.e., with 90 per cent certainty) that the net effect of human activity since 1750 has been one of warming."

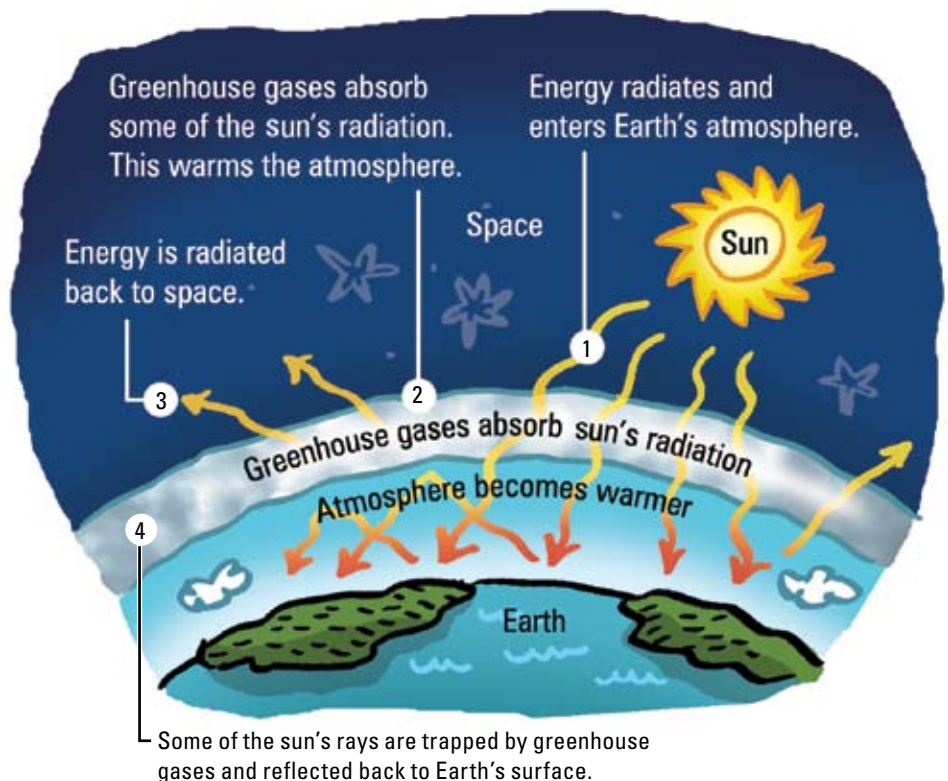
The IPCC report said that unless people around the world unite to stop the progress of climate change, the poorest people in the world will suffer the most as climate change affects animals, plants, and water supplies. The hardest-hit regions will be the Arctic, sub-Saharan Africa, small islands, and large deltas in Asia.

VOICES 

Lately, we've become inundated with sweeping, high-hysterical pronouncements along the lines of "Global warming will render 95 per cent of Arctic species extinct within 10 years" or "Climate change will destroy Inuit culture within a decade." We humans instinctively love a crusade; but a crusade is past-oriented, while adaptation is future-oriented. We cannot trust crisis, since someone always profits from fear; nor can we trust prediction, until the day science can provide us with an accurate five-day forecast. But we can trust in our heritage as an ancient species, and an adaptive one. We can trust in our own ability to change, if the Land will not.

— Rachel Qitsualik, Inuit writer, in "Nalunaktuq: The Arctic as Force, instead of Resource," 2006

Figure 12-18 The Greenhouse Effect



Country	Total CO ₂ Emissions (Millions of Tonnes)	CO ₂ Emissions per Person (Tonnes)	GDP per Person (U.S. Dollars)
Norway	35.21	7.9	38 454
Canada	521.40	16.9	31 263
U.S.	5762.10	20.2	39 676
China	3473.00	2.7	5896
Ecuador	20.70	1.7	3963
Honduras	5.00	0.8	2876
South Africa	344.60	7.8	11 192
India	1008.00	1.0	3139
Kenya	10.20	0.3	1140

Figure 12-19 Carbon Dioxide Emissions in Selected Countries, 2005

The writing of the report was controversial. Some scientists, for example, wanted to say that they had “very high confidence” (more than 90 per cent) in their findings. But representatives of some governments — the United States, Saudi Arabia, China, and India — wanted to reduce this estimate. The final report says that the confidence level was “high” (more than 80 per cent). Why do you think countries might have had different agendas?

Examine the data in Figure 12-19. What relationships do you observe? What factors do you think account for the large difference between the carbon dioxide emissions of Canada and the United States?

Changing Government Policies

The Intergovernmental Panel on Climate Change is an example of joint governmental efforts to meet the challenge of dealing with climate change. In Canada and other countries, local, provincial, and national governments — and individual citizens — are also trying to do their part.

Bolivia

The Bolivian government is very concerned about the speed at which the glaciers in the Tuni Condoriri mountains are melting. These glaciers supply 80 per cent of the water for residents of La Paz, the country’s administrative capital. Water from the runoff is captured in a reservoir.

From 1983 to 2006, the glaciers shrank by more than a third. Oscar Paz, the head of the Bolivian national climate change program, says, “These glaciers are our water stores. One of our great concerns is the future of our drinking water supplies.” What would loss of their water supply mean to the people of this city? How would this challenge affect people in a country where the GDP per person is only \$3000?

Norway

The Norwegian government and the Global Crop Diversity Trust Foundation have co-funded the Svalbard Global Seed Vault, which is located far above the Arctic Circle on one of Norway’s most northerly islands. The project is designed to save Earth’s diverse seed sources in the event of a global catastrophe or plant epidemic. One goal is to prevent the kind of loss that has occurred in the United States, where 6800 of the 7100 varieties of apples once grown no longer exist.

Although there are 1400 seed banks around the world — including an Agriculture Canada bank in Saskatoon — the Svalbard vault will include seeds from both developed and developing countries around the world. Why do you think maintaining seeds in vaults is important?

Figure 12-20 The Svalbard Global Seed Vault will be built deep inside a mountain. Scientists believe that the thick rock and permafrost will ensure that millions of seed samples from around the world will remain frozen. This drawing shows what the entrance to the vault was to look like.



Alberta

In April 2007, the Alberta government asked Albertans to help shape the province's climate change action plan and policies by responding to an online questionnaire. Alberta's greenhouse-gas emissions are the highest in Canada, even though the province has about one-quarter the population of Ontario and less than half the population of Québec. In responding to the questions, Albertans were asked to think about how their decisions might affect the province's economy, society, environment, communities, and future generations.

Albertans were asked to respond to questions like the following:

1. What goals do you want to set?
2. What important steps need to be taken?
3. What actions should Albertans take?
4. What role can individuals play?

Web Connection

To find out more about climate change and what the Alberta government plans to do about it, go to this web site and follow the links.

www.ExploringGlobalization.ca

PROFILE

WILLIAM MCDONOUGH PROMOTING ZERO POLLUTION AND TOTAL RECYCLING

William McDonough is an architect and community designer who is dedicated to changing the design of the world to increase sustainability. He promotes "zero pollution and total recycling" and believes that buildings and products should be designed so that they contribute to a "diverse, safe, healthy and just world with clean air, water, soil and power."

McDonough designed Nike's energy-efficient and environmentally friendly European headquarters in Hilversum, Netherlands. The roof of this building collects rainwater that is

used to irrigate the gardens. The heating and cooling system includes a large reservoir of water. In summer, the heat from the water is stored. In winter, this stored heat is used to help warm the buildings.

In his design for the Guantang Chuagye Park New Town Concept in Liuzhou, China, McDonough says the main energy systems will be solar energy. He foresees a day when "China will be the largest solar manufacturer in the world."

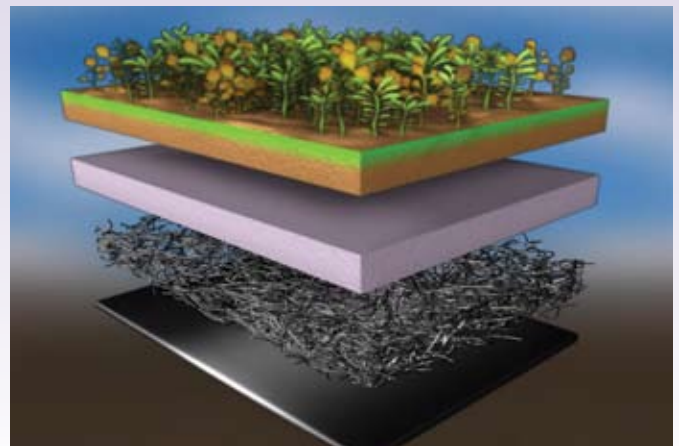


Figure 12-21 William McDonough designed the huge roof of the Ford Rouge Center truck factory in Dearborn, Michigan. It has been planted with a drought-resistant groundcover called sedum. The sedum grows in a four-layer mat of vegetation that collects and filters stormwater runoff (right). The roof helps cool the atmosphere in the surrounding community, absorbs carbon dioxide, and creates oxygen.

4. With a partner or small group, prepare a checklist that you can use to conduct an audit of your school and its efforts to achieve sustainable prosperity (e.g., How is waste paper handled? Is it recycled? Reused?).

When you complete your audit, create a report card for your school. Grade its efforts to

- reduce
- reuse
- recycle
- refuse

Work with your partner or group to recommend ways your school could improve its efforts to achieve sustainable prosperity. Create an action plan describing how you could persuade other students and school officials to put your recommendations into effect.

5. Read “Watershed Rap” on this page.
- a) Summarize its essential message in a couple of sentences.
 - b) With a partner, add two or more verses that expand the rap’s message and include mention of sustainable prosperity.
 - c) With your partner, perform your verses for the class.

Watershed Rap

Adapted by Peter Donaldson

from the original by the Washington Department of Ecology

Interesting fact, whatever it’s worth
 70 per cent of big old Earth
 Covered by a fabulous fluid force
 H two O, life at its source

In all us people, truth to tell
 There be a miraculous parallel
 The part of humans that water claims
 70 per cent, exactly the same

Open your eyes, it be everywhere
 Down in the ground, up in the air
 Fog, mist, dew drop diamond
 Cloudburst sun, rainbow shinin’

Make you to think in a whole new way
 How we do water every — every day
 For drinking and swimming and boat transportation
 Showers and flowers and crop irrigation

Pump it from rivers, industrial use
 Spin turbines for electrical juice
 Citizens want it, turn on the faucet
 Flush it all down yo water closet

This be the dirt, crystal clear
 Ain’t so easy with water you hear
 Cars and factories pollute up the air
 Ssst — acid rain drizzle down everywhere

Ain’t one source, ain’t one clear solution
 Here come the nightmare non-point pollution
 And this be the clincher to make you queasy
 All them problems from just one species

Get it together, man, on the double
 Old water cycle really — really in trouble
 Best thing to do is help spread the word
 Takin’ water for granted be way absurd

Step to the front, get out of the bleacher
 Become the sermon and the preacher
 Do the science, be the seeker
 Protect yourself and every creature

Think about Your Challenge

Your challenge for this related issue is to prepare and write a persuasive essay. As you revise and edit your essay, revisit the editing steps on page 213 and revisit the Checklist for Success on page 212. Ask a partner to read and comment on your essay. Make final revisions based on the feedback you receive.