Development

Have you ever traveled to a Caribbean island? Even if you haven’t, you have probably seen advertisements for resorts featuring a bronzed couple sipping exotic drinks, lying on a deserted beach surrounded by palm trees.

Beyond this paradise is another world, fleetingly glimpsed by tourists traveling between the resort and the airport. The permanent residents of the islands may live in poverty, earning less money in a year than a night’s hotel bill. They are ill fed, ill clothed, and underemployed.

This depressing view of conditions on the islands is shielded from tourists, of course. They do not travel hundreds of kilometers to encounter misery on their vacation or honeymoon. Tourists bring money to the islands and in the process help pay for whatever improvements can be made to the squalid living conditions.

But can you imagine the feelings of the local residents? What would you think if a very expensive and exclusive resort were built in your neighborhood, and you and your family, who were economically disadvantaged, were expected to work there (for good wages, perhaps) to serve the needs of the vacationers? You might welcome the money, but would you resent the wealthy tourists?

The world is divided between relatively rich and relatively poor countries. Geographers try to understand the reasons for this division and learn what can be done about it.

KEY ISSUES

1. Why does development vary among countries?
2. Where are more and less developed countries distributed?
3. Where does level of development vary by gender?
4. Why do less developed countries face obstacles to development?
CASE STUDY

Bangladesh’s Development Problems

Rabea Rahman lives in the village of Barhoimuri, Bangladesh, with her three children—a son, 18, and two daughters, ages 10 and 7. Rahman’s two other children died in infancy. Her husband died of tuberculosis.

Rahman’s husband was a tenant farmer, or sharecropper. Under this arrangement, he shared a portion of his crops with the landowner instead of paying rent. After he died, Rahman went to work as a domestic servant and water carrier, working from 7 A.M. to 4 P.M. and from 6 P.M. to 11 P.M., seven days a week. Her son sells bread and prepares a midday meal for his two sisters. Total household income is $16 per month (compared to a monthly household average of around $4,000 in the United States).

Their house has a dirt floor and leaky roof, but the rent is only $2 per month, plus $3 per month for fuel. The remaining $11 a month goes for food. The sum is sufficient to provide each member of the household with 100 grams (about a quarter pound) of rice per day, but little else. The diet is supplemented by leftover food that Rahman receives from her employer. After paying for rent, fuel, and food, the family has no money left for other necessities. Because they cannot afford shoes, the family members often go barefoot. Rahman suffers from a gastric ulcer but cannot afford treatment.

Underlying the impoverished condition of the Rahman household is the role of women in a predominantly Muslim country such as Bangladesh. In rural villages, fewer than 10 percent of the women can read and write. Typically, a woman is married as a teenager and bears six babies in her lifetime, although typically one of the six does not survive infancy. A woman like Rahman, who is forced to find a job, is limited to working as a servant or farm laborer. The condition of women—poor, illiterate, overburdened with children—is one of the most important factors holding back economic development in South Asian countries such as Bangladesh.

Previous chapters examined global demographic and cultural patterns. Birth, death, and natural increase rates vary among regions of the world, and people in different regions also have different social customs, languages, religions, and ethnic identities. Political problems arise when the distribution of cultural characteristics does not match the boundaries between states. In Chapter 8, it was concluded that in the contemporary world, global military confrontation and alliances have been replaced by global economic competition and cooperation.

The second half of the book concentrates on economic elements of human geography. This chapter examines the most fundamental global economic pattern—the division of the world into relatively wealthy regions and relatively poor ones. Subsequent chapters look at the three basic ways that humans earn their living—growing food, manufacturing products, and providing services.

Earth’s nearly 200 countries can be classified according to their level of development, which is the process of improving the material conditions of people through diffusion of knowledge and technology. The development process is continuous, involving never-ending actions to constantly improve the health and prosperity of the people. Every place lies at some point along a continuum of development.

Because many countries cluster at the high or low end of the continuum of development, they can be divided into two groups. A more developed country (MDC), also known as a relatively developed country or simply as a developed country, has progressed further along the development continuum. A country in an earlier stage of development is frequently called a less developed country (LDC), although many analysts prefer the term developing country. Developing implies that the country has already made some progress and expects to continue.

The first geographic task is to identify where more developed and less developed countries are located. Geographers observe that MDCs cluster in some spaces, and LDCs cluster in others. Next, geographers are concerned with why some regions are more developed than others. A number of economic, social, and demographic indicators distinguish more and less developed regions.

For more developed regions, the economic challenge is to maintain a high level of development at the new scale of the economy characterized by globalization. For LDCs, the challenge is to find connections to the global economy by taking advantage of local diversity in skills and resources.
FIGURE 9-1 Human Development Index (HDI), 2005. Developed by the United Nations, the HDI combines several measures of development—life expectancy at birth, adjusted GDP per capita, and knowledge (schooling and literacy). Each country received an index figure for the various measures, which range between minimum and desirable levels. The minimum for each index was set at the lowest level actually observed. The desirable levels were 100 percent for literacy and the maximum observed for life expectancy and mean years of schooling.

**KEY ISSUE 1**

**Why Does Development Vary Among Countries?**

- Economic indicators of development
- Social indicators of development
- Demographic indicators of development

A country's level of development can be distinguished according to three factors—economic, social, and demographic. The Human Development Index (HDI), created by the United Nations, recognizes that a country’s level of development is a function of all three of these factors (Figure 9-1). This key issue examines the three sets of development indicators.

To create the HDI, the United Nations selects one economic factor, two social factors, and one demographic factor that in the opinion of an international team of analysts best reveal a country’s level of development. The economic factor is gross domestic product (GDP) per capita; the social factors are the literacy rate and amount of education; the demographic factor is life expectancy. The four factors are combined to produce a country's HDI. The UN has computed HDIs for countries every year since 1990, although it has tinkered a few times with the method of computation. The highest HDI possible is 1.0, or 100 percent.

The country with the highest HDI in recent years has been Norway, at 0.963 in 2005. The other highest-ranking countries are typically Western European countries, as well as Canada. The lowest ranked country in 2005 was Niger, with an HDI of 0.281. The two dozen lowest-ranking countries were located in sub-Saharan Africa.

The United States ranked only tenth in HDI in 2005. The country is near the top in two of the four indicators—GDP per capita and literacy rate—but lower than a number of other countries in education and life expectancy. The education indicator suffers because of a relatively high school dropout rate, and life expectancy is lower because of inadequate health care for low-income people.

**Economic Indicators of Development**

Gross domestic product per capita is the economic indicator included in the HDI calculation. Four other economic indicators are especially useful in distinguishing between more developed and less developed countries—economic structure, worker productivity, access to raw materials, and availability of consumer goods.

**Gross Domestic Product Per Capita**

The average individual earns a much higher income in an MDC than in an LDC. The typical worker receives $15 per hour in MDCs, compared to $2 per hour in LDCs. MDCs generally mandate a minimum wage of at least several dollars per hour.
Per capita income is a difficult figure to obtain in many countries, so to get a sense of average incomes in various countries, geographers substitute per capita gross domestic product, a more readily available indicator. The gross domestic product (GDP) is the value of the total output of goods and services produced in a country, normally during a year. Dividing the GDP by total population measures the contribution made by the average individual toward generating a country’s wealth in a year. For example, GDP in the United States is currently about $12 trillion and its population is about 300 million, so the GDP per capita is about $40,000.

Annual per capita GDP in 2005 averaged $27,000 in all MDCs, compared with $4,000 in LDCs (Figure 9–2). GDP per capita exceeded $60,000 in Luxembourg, and $30,000 in nine other European countries, as well as Canada and Japan. At the other extreme, 18 countries, including 15 in Africa and three in Asia, had per capita GDP below $1,000.

Overall, LDCs have made considerable progress in raising per capita GDP, from $800 in 1990 to $4,400 in 2005, an increase of 450 percent. Per capita GDP increased only 55 percent during the same period in MDCs. However, the large percentage increase in LDCs is somewhat misleading because the GDP per capita started from a very low number back in 1990. Viewed in a different way, per capita GDP increased between 1990 and 2005 by $10,000 in MDCs compared with only $4,000 in LDCs. The gap is even wider when comparing progress in GDP per capita since 1980 (refer ahead to Figure 9–22). And not all LDCs have shared equally in the growth of per capita GDP; most African countries have had modest increases, whereas China’s has grown rapidly.

Per capita GDP—or, for that matter, any other single indicator—cannot measure perfectly the level of a country’s development. Few people are starving in LDCs with per capita GDPs of a few thousand dollars. And not everyone is wealthy in a developed country such as the United States, with its per capita GDP of more than $40,000. In fact, one-eighth of the U.S. population is officially classified as in poverty, including one-fourth of African Americans and one-fifth of Hispanics.

Per capita GDP measures average (mean) wealth, not its distribution. If only a few people receive much of the GDP, then the standard of living for the majority may be lower than the average figure implies. On the other hand, the higher the per capita GDP, the greater the potential for ensuring that all citizens enjoy a comfortable life.

**Types of Jobs**

Average per capita income is higher in MDCs because people typically earn their living by different means than in LDCs. Jobs fall into three categories—primary (including agriculture), secondary (including manufacturing), and tertiary (including services). To compare the types of economic activities found in more and less developed countries, we can compute the percentage of people working in each of these three sectors.

Workers in the primary sector directly extract materials from Earth through agriculture, and sometimes by mining, fishing, and forestry. The secondary sector includes manufacturers that process, transform, and assemble raw materials into useful products. Other secondary-sector industries take manufactured goods and fabricate them into finished consumer goods. The tertiary sector involves the provision of goods and services to people in exchange for payment. Tertiary-sector activities include retailing, banking, law, education, and government.

At one time the practice was to identify quaternary and quinary sectors as well. Quaternary-sector jobs were in business
services, such as trade, insurance, banking, advertising, and wholesaling, whereas quinary-sector jobs were in health, education, research, government, retailing, tourism, and recreation. Current practice is to consider all of these jobs as groups within the tertiary sector (see Chapter 12).

The distribution of workers among primary, secondary, and tertiary sectors varies sharply between more and less developed countries. The percentage of people working in agriculture exceeds 60 percent in LDCs, compared with less than 5 percent in MDCs (refer ahead to Figure 10–3).

The first priority for all people is to secure food for survival. A high percentage of agricultural workers in a country indicates that most of its people must spend their days producing food for their own survival. In contrast, a low percentage of primary-sector workers indicates that a handful of farmers can produce enough food for the rest of society. Freed from the task of growing their own food, most people in an MDC can contribute to an increase in the national wealth by working in the secondary and tertiary sectors.

Within MDCs the number of jobs has decreased in the primary and secondary sectors and increased in the tertiary sector (Figure 9–3). The decline in manufacturing jobs reflects not only greater efficiency inside the factories but also increased global competition in many industries. At the same time, employment in the service sector continues to expand as a result of increased consumer demand for many goods and services.

**Productivity**

Workers in MDCs are more productive than those in LDCs. **Productivity** is the value of a particular product compared to the amount of labor needed to make it.

Productivity can be measured by the value added per worker. The value added in manufacturing is the gross value of the product minus the costs of raw materials and energy. The value added per manufacturing worker is around $80,000 in the United States and $70,000 in Japan, compared to around $1,000 in China and $500 in India.

Workers in MDCs produce more with less effort because they have access to more machines, tools, and equipment to perform much of the work. On the other hand, production in LDCs must rely more on human and animal power. The larger per capita GDP in developed countries in part pays for the manufacture and purchase of machinery, which in turn makes workers more productive and generates more wealth.

**Raw Materials**

Development requires access to raw materials (such as minerals and trees) that can be fashioned into useful products. It also requires energy to operate the factories, whether in the form of water power, coal, oil, natural gas, or uranium for nuclear power. In the twentieth century, both the United States and Russia (formerly the Soviet Union) became powerful industrial states, partly because both possessed a wide variety of raw materials and energy resources essential to development.

The United Kingdom, the first country to be transformed into a developed society late in the eighteenth century, had abundant supplies of coal and iron ore, the most important industrial raw materials at the time because they were used to make steel for tools. Other European countries took advantage of domestic coal and iron ore to promote industrial development during the nineteenth century.

As they ran short of many raw materials essential for development during the nineteenth century, European countries began to import them from other regions of the world. To ensure an adequate supply of these materials, European countries established colonies, especially in Africa and Asia (see Chapter 8). The international flow of raw materials sustained development in Europe but retarded it in Africa and Asia. Although most former colonies have become independent states, they still export raw materials to MDCs and import finished goods and services.

As certain raw materials become more important, a country’s level of development can advance. The LDCs that possess energy resources, especially petroleum, have been able to use revenues from the sale of these resources to finance development. Prices for other raw materials, such as cotton and copper, have fallen because of excessive global supply and declining industrial demand. LDCs, depending on the sale of these resources, have had difficulty achieving development.

In a global economy, availability of raw materials and energy resources measures a country’s development potential rather than its actual development. A country with abundant resources has a better chance of developing. Yet some countries that lack resources—such as Japan, Singapore, South Korea, and Switzerland—have developed through world trade.

**Consumer Goods**

Part of the wealth generated in MDCs is used to purchase goods and services. Especially important are goods and services related to transportation and communications, including motor vehicles, telephones, and computers.
Motor vehicles provide individuals with access to jobs and services and permit businesses to distribute their products. Telephones enhance interaction with providers of raw materials and customers for goods and services. Computers facilitate the sharing of information with other buyers and suppliers.

Products that promote better transportation and communications are accessible to virtually all residents in MDCs and are vital to the economy's functioning and growth. In contrast, in LDCs these products do not play a central role in daily life for many people. Motor vehicles, computers, and telephones are not essential to people who live in the same village as their friends and relatives and work all day growing food in nearby fields.

In MDCs, the number of land-line telephones exceeds 500 per 1,000 inhabitants, motor vehicles 400, and Internet users 300. In comparison, all three figures are less than 100 per 1,000 inhabitants in LDCs (Figure 9-4). Lower numbers indicate that people in LDCs are much less likely to have access to these products.

Most people in LDCs are familiar with these goods, even though they cannot afford them. These objects may be desired as symbols of development. Because possession of consumer goods is not universal in developing countries, a gap might emerge between the "haves" and the "have-nots." The minority of people who have these goods may include government officials, business owners, and other elites, whereas the majority who are denied access to these goods may provoke political unrest.

In many LDCs the "haves" are concentrated in urban areas; the "have-nots" live in the countryside. Technological innovations tend to diffuse from urban to rural areas. Access to these goods is more important in urban areas because of the dispersion of homes, factories, offices, and shops.

Motor vehicles, telephones, and computers also contribute to social and cultural elements of development. These consumer goods provide people with access to leisure activities and exposure to new ideas. A person can explore new places in a motor vehicle, talk to people in distant locations by telephone, and see what life is like elsewhere by Internet connection. As a result of greater exposure to cultural diversity, people in developed countries display different social characteristics than do people in LDCs.

Technological change may help to reduce the gap in access to communications between MDCs and LDCs. For example, the distribution of cellular telephone service varies from the pattern for other communications devices. Cell phone ownership is lower than land-line ownership in North America but higher in much of the rest of the world (Figure 9-5). Cell phones do not require the costly investment of connecting wires to each individual building, and more individuals can obtain service from a single tower or satellite.

### Social Indicators of Development

MDCs use part of their greater wealth to provide schools, hospitals, and welfare services. As a result, their people are better educated, healthier, and better protected from hardships. Infants are more likely to survive, and adults are more likely to live longer. In turn this well-educated, healthy, and secure population can be more economically productive.
Education and Literacy

In general, the higher the level of development, the greater are both the quantity and the quality of a country's education. A measure of the quantity of education is the average number of school years attended. The assumption is that no matter how poor the school, the longer the pupils attend, the more likely they are to learn something. The quality of education is measured in two ways—student/teacher ratio and literacy rate. The fewer pupils a teacher has, the more likely that each student will receive instruction.

The average pupil attends school for about 10 years in MDCs, compared to only a couple of years in LDCs. The student/teacher ratio is twice as high in LDCs as in MDCs (Figure 9–6).
The MDCs publish more books, newspapers, and magazines per person because more of their citizens read and write. MDCs dominate scientific and nonfiction publishing worldwide—this textbook is an example. Students in LDCs must learn technical information from books that usually are not in their native language but are printed in English, German, Russian, or French.

The **literacy rate** is the percentage of a country's people who can read and write. It exceeds 98 percent in MDCs, compared with less than 60 percent in LDCs. For many in LDCs, education is the ticket to better jobs and higher social status. Improved education is a major goal of many developing countries, but funds are scarce. Education may receive a higher percentage of the GDP in LDCs, but their GDP is far lower to begin with, so they spend far less per pupil than do MDCs (refer ahead to Figure 9–16).

**Health and Welfare**

People are healthier in MDCs than in LDCs. When people get sick, MDCs possess the resources to care for them. Total expenditures on health care exceed 8 percent of GDP in MDCs, compared to less than 6 percent in LDCs (Figure 9–7). So not only do MDCs have much higher GDP per capita than LDCs, they spend a higher percentage of that GDP on health care. Some of that additional expenditure on health is reflected in more hospitals, doctors, and nurses per capita in MDCs (Figure 9–8).

The health of a population is influenced by diet. On average, people in MDCs receive more calories and proteins daily than they need. But in the LDCs of Africa and Asia, most people receive less than the daily minimum allowance of calories and proteins recommended by the United Nations (Figure 9–9).

In many wealthier countries, health care is a public service that is available at little or no cost. The government programs pay more than 70 percent of health care costs in most European countries, and private individuals pay less than 30 percent. In comparison, private individuals must pay more than half of the cost of health care in LDCs (Figure 9–10). An exception is the United States, where private individuals are required to pay 55 percent of health care, more closely resembling the pattern in LDCs.

The MDCs use part of their wealth to protect people who, for various reasons, are unable to work. In these states some public assistance is offered to those who are sick, elderly, poor, disabled, orphaned, veterans of wars, widows, unemployed, or single parents. Countries in northwestern Europe, such as Denmark, Norway, and Sweden, typically provide the highest level of public-assistance payments.

MDCs are hard-pressed to maintain their current levels of public assistance. In the past, rapid economic growth permitted these states to finance generous programs with little hardship. But in recent years economic growth has slowed, whereas the percentage of people needing public assistance has increased. Governments have faced a choice between reducing benefits or increasing taxes to pay for them.

**Demographic Indicators of Development**

MDCs display many demographic differences compared to LDCs. The United Nations’s HDI utilizes life expectancy as a measure of development. Other demographic characteristics

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**Figure 9-7** Expenditure on health care as percent of GDP, 2005. More developed countries have much higher gross domestic product (GDP) than less developed countries, and they spend a higher percentage of that GDP on health care.
FIGURE 9-8 Physicians per 1,000 persons, 2005. More developed countries have three or more physicians per 1,000 persons, compared with less than one in most less developed countries.

FIGURE 9-9 Daily available calories per capita as a percentage of requirements, 2005. Daily available calories per capita (food supply) is the domestic agricultural production plus imports, minus exports and nonfood uses. To maintain a moderate level of physical activity, an average individual requires at least 2,360 calories a day, according to the United Nations Food and Agricultural Organization. The figure must be adjusted for age, sex, and region of the world. In more developed countries the average citizen consumes about one-third more calories than the minimum needed. The typical resident of a less developed country receives almost precisely the minimum number of calories needed to maintain moderate physical activity—on average. At first glance, this does not reveal a serious problem. However, because these figures are means, a substantial proportion of the population must be receiving less than the necessary daily minimum. The problem is especially severe in Africa, where most people consume less than the needed minimum.
described in Chapter 2 that distinguish more and less developed countries include infant mortality, natural increase, and crude birth rates.

**Life Expectancy**

Better health and welfare in developed countries permit people to live longer. Life expectancy at birth was defined in Chapter 2 as the average number of years a newborn infant can expect to live at current mortality levels. Babies born today can expect to live into their sixties in LDCs compared to their seventies in MDCs (see Figure 2–11). The gap in life expectancy is greater for females than for males. Males can expect to live 10 years longer in MDCs than in LDCs, whereas females can expect to live 13 years longer in MDCs.

With longer life expectancies, MDCs have a higher percentage of older people who have retired and receive public support, and a lower percentage of children under age 15, who are too young to work and must also be supported by employed adults and government programs. The number of young people is six times higher than the number of older people in LDCs, whereas the two are nearly the same in MDCs (see Figure 2–15).

**Infant Mortality Rate**

Better health and welfare also permit more babies to survive infancy in MDCs. About 94 percent of infants survive and 6 percent die in LDCs, whereas in MDCs more than 99.5 percent survive and fewer than one-half of 1 percent perish (see Figure 2–10).

The infant mortality rate is greater in LDCs for several reasons. Babies may die from malnutrition or lack of medicine needed to survive illness, such as dehydration from diarrhea. They may also die from poor medical practices that arise from lack of education. For example, the use of a dirty knife to cut the umbilical cord is a major cause of fatal tetanus in India.

**Natural Increase Rate**

The natural increase rate averages 1.5 percent annually in LDCs compared to only one-tenth of 1 percent in MDCs. Greater natural increase strains a country’s ability to provide hospitals, schools, jobs, and other services that can make its people healthier and more productive. Many LDCs must allocate increasing percentages of their GDPs just to care for the rapidly expanding population rather than to improve care for the current population (see Figure 2–7).

**Crude Birth Rate**

LDCs have higher natural increase rates because they have higher crude birth rates. The annual crude birth rate is 24 per 1,000 in LDCs, compared to 11 per 1,000 in MDCs. Women in MDCs choose to have fewer babies for various economic and social reasons, and they have access to varied birth-control devices to achieve this goal (see Figure 2–8).

The crude death rate (CDR) does not indicate a society’s level of development. The CDR is lower in LDCs than in MDCs, 8 per 1,000 compared to 10 per 1,000. Two reasons account for the lower rate in LDCs. First, diffusion of medical technology from MDCs...
has eliminated or sharply reduced the incidence of several diseases in LDCs. Second, MDCs have higher percentages of older people, who have high mortality rates, as well as lower percentages of children, who have low mortality rates once they survive infancy.

KEY ISSUE 2
Where Are More and Less Developed Countries Distributed?
- More developed regions
- Less developed regions

The countries of the world can be categorized into nine major regions according to their level of development. These regions also have distinctive demographic and cultural characteristics that have been discussed in earlier chapters (Figure 9–11). Subsequent chapters will show that the nine major regions also differ in how people earn their living, how the societies use their wealth, and other economic characteristics. In a global economy, geographers are increasingly concerned with both the similarities and differences in the economic patterns of the various regions.

In the Western Hemisphere, two regions—Anglo-America (Canada and the United States) and Latin America—can be distinguished on the basis of dominant languages, religions, and natural increase rates. Despite the considerable diversity within these regions, at a global scale the individual countries within these regions display cultural similarities.

Europe can be divided into two regions—Western and Eastern. Although they share many cultural traditions, distinctive political experiences have produced different levels of economic development.

Asia comprises four major cultural regions—East, South, Southeast, and Southwest. Demographic, religious, linguistic, ethnic, and political characteristics distinguish these four regions. Because of similarities in language, religion, and population growth, Southwest Asia can be combined with North Africa to form the Middle East region. Africa south of the Sahara comprises the ninth major region.

In addition to those nine major regions, two other important areas can be identified—Japan and the South Pacific. Japan is a populous country with cultural and demographic characteristics that contrast sharply with neighboring states in East Asia. The South Pacific, primarily Australia and New Zealand, covers an extensive area of Earth's surface but is much less populous than the nine major regions.

The distribution of more and less developed countries reflects a clear global pattern. If we draw a circle around the world at about 30° north latitude, we find that nearly all of the MDCs are situated to the north, whereas nearly all of the LDCs lie south of the circle. This division of the world between more and less developed and developing countries is known as the north–south split.

The north–south split between more and less developed countries shows up clearly in world maps of measures of development, such as the HDI created by the United Nations (Figure 9–1). MDCs in the north have relatively high HDIs, whereas southern countries have lower indexes.

FIGURE 9–11 More and less developed regions. Earth's six less developed regions are Latin America, Southeast Asia, Middle East, East Asia, South Asia, and sub-Saharan Africa. The world's more developed regions are Anglo-America, Western Europe, and Eastern Europe, plus Japan and the South Pacific.
More Developed Regions

Three of the nine major cultural regions—Anglo-America, Western Europe, and Eastern Europe, plus Japan and the South Pacific—are considered more developed. The other six regions are considered less developed. This section examines the more developed regions.

Anglo-America

HDI 0.94. Language and religious patterns are less diverse in Anglo-America than in other world regions. More than 90 percent of the region’s people use English as their first language and adhere to Christianity (excluding those with no religion). Cultural diversity generates some tensions in the region, including discrimination against ethnic minorities, intolerance of other Christian sects as well as non-Christian faiths, and uncertain status of French-speaking Québécois. However, Anglo-America’s relative homogeneity reduces the possibility that a large minority will be excluded from participating in the region’s economy on the basis of cultural characteristics.

Well endowed with minerals and natural resources important for manufacturing, Anglo-America was once the world’s major producer of steel, automobiles, and other goods, but in the past three decades, Japan and Western Europe as well as LDCs led by China have eroded the region’s dominance. Americans remain the leading consumers and world’s largest market for many of these products.

Despite the loss of manufacturing jobs, the region has adapted relatively successfully to the global economy, in part because it is the leading provider of many financial, management, and high-tech services, as well as entertainment, mass media, sports, recreation equipment, and other services that promote use of leisure time. In addition, Anglo-America is the world’s most important food exporter and the only region that could significantly expand the amount of land devoted to agriculture. Few Americans are farmers, but a large percentage of the region’s workforce is engaged in some aspect of producing or serving food.

Western Europe

HDI 0.93. On a global scale, Western Europe displays cultural unity, because nearly all Western Europeans speak an Indo-European language and adhere to Christianity. However, the diversity of individual languages and religious practices has been a longtime source of conflict in Western Europe, especially when strong national identities were forged out of distinctive ethnic traditions and historical experiences.

Competition among Western European nationalities caused many wars, most notably the two wars fought in the twentieth century. Since the end of World War II in 1945, Western Europe has become much more unified politically, militarily, economically, and culturally. Offsetting the increased cultural unity within Western Europe is greater diversity through migration of Muslims and Hindus from LDCs in search of jobs. With natural increase rates at or below zero in most Western European countries, immigrants are responsible for much of the region’s population growth, and they have become scapegoats for the region’s economic problems according to many Europeans.

Within Western Europe the level of development is the world’s highest in a core area that includes western Germany, northeastern France, northern Italy, Switzerland, southern Scandinavia, southeastern United Kingdom, Belgium, the Netherlands, and Luxembourg. Because the region’s peripheral areas—southern Italy, Portugal, Spain, and Greece—lag somewhat in development, Western Europe as a whole has a slightly lower development level than Anglo-America.

To maintain its high level of development, Western Europe must import food, energy, and minerals. In past centuries Western Europeans explored and mapped the rest of the world and established colonies on every continent. These colonies supplied many resources needed to foster European economic development. Colonization also diffused Western European languages, religions, and social customs worldwide.

Once most of their colonies became independent, Western Europeans had to buy raw materials from other countries. To pay for their imports, Western Europeans have provided high-value goods and services, such as insurance, banking, and luxury motor vehicles, including BMW and Mercedes-Benz.

The elimination of most economic barriers within the European Union makes Western Europe the world’s largest and richest market. Restructuring of the region’s economy has lagged behind Anglo-America, in part because most governments have been willing to sacrifice some economic growth in exchange for protection of existing jobs and social services.

Eastern Europe

HDI 0.80. Eastern Europe has the dubious distinction of being the only region where the HDI has declined significantly since the United Nations created the index in 1990. Eastern Europe clearly ranked among the world’s more developed regions in 1990, and it had an HDI only slightly behind those of Western Europe and Anglo-America. By 2000, Eastern Europe’s HDI had declined to the level of Latin America, which is classified as a less developed region.

Eastern Europe’s rapidly declining HDI is a legacy of the region’s history of Communist rule. Winston Churchill declared in a 1946 speech that an “Iron Curtain” had descended across Europe, from the Baltic Sea (near Germany) in the north to the Adriatic Sea (east of Italy) in the south. This became the dividing line between Western and Eastern Europe. Eastward of 15° east longitude, the Soviet Union during the late 1940s imposed or inspired Communist governments in Albania, Bulgaria, Czechoslovakia, East Germany (the German Democratic Republic), Hungary, Poland, Romania, and Yugoslavia.

When Communist parties gained control of Russia in 1917 (the Bolshevik Revolution) and other Eastern European countries after World War II, they achieved rapid development, especially during the 1950s and 1960s. Annual per capita GDPs increased from a few hundred dollars to several thousand, and most social and demographic indicators became comparable to those of Western European countries.
Early Communist theorists, such as Karl Marx and Friedrich Engels, believed that communism would triumph in MDCs because exploited factory workers would lead a revolution and overthrow their governments. The social and economic programs of these theorists were based on conditions in advanced industrial societies. Because few of these states had modern industries (Czechoslovakia, East Germany, and Poland were exceptions), the Communists had to figure out how to apply their theories to the conditions in poor, agricultural societies.

The Communists promoted development during the 1950s and 1960s through economies directed by government officials rather than private entrepreneurs. In the Soviet Union, for example, a national planning commission called Gosplan developed 5-year plans to guide economic development. The plans prescribed production goals for the entire country by economic sector and region. They specified the type and quantity of minerals, manufactured goods, and agricultural commodities to be produced, and the factories, railways, roads, canals, and houses to be built in each part of the country.

The 5-year plans featured three main development policies. First, Soviet planners emphasized heavy industry—iron and steel, machine tools, petrochemicals, mining equipment, locomotives, and armaments. To allow industrial growth, the country also promoted development of mining, electric power, and transportation.

Second, the plans dispersed production facilities from the European to the Asian portion of the Soviet Union. Soviet decision makers considered the concentration of industry in the west to be a liability, and with cause: the country had been invaded from the west by the French under Napoleon Bonaparte in the nineteenth century and the Germans under Adolf Hitler in the twentieth century, and they wanted to reduce the vulnerability of their vital industries to attack. Planners also wished to promote equal development throughout the country and believed that dispersal of industries would accomplish this goal.

Third, Soviet planners preferred to locate manufacturing facilities near sources of raw materials rather than near markets. This policy reflected both the needs of industries emphasized in Soviet plans and the lack of effective consumer demand. By locating heavy industry near the raw materials, Soviet planners gave lower priority to producing consumer goods, such as telephones, washing machines, shoes, and dishes.

Eastern European countries in the 1990s dismantled the economic structure inherited from the Communists. Aside from the desire for freedom, the principal reason that Eastern Europeans rejected communism was that central planning proved to be disastrous at running national economies:

- Some targets were impossible to achieve; others were simply ignored: Why work hard when your job is guaranteed and your supervisor cannot fire you?
- Factories polluted the air and water, and citizens were unable to pressure their governments into investing in pollution-control devices.

For many Eastern Europeans, the most fundamental problem was that by concentrating on basic industry, the Communists neglected consumer products such as automobiles, refrigerators, and clothing. Severe housing shortages forced entire families to live in dwellings the size of a college dormitory room. Although restricted from visiting Western countries, many Eastern Europeans could see on television the much higher level of comfort on the other side of the Iron Curtain.

The Eastern European countries along the border with Western Europe—Czech Republic, Hungary, Poland, Slovakia, and Slovenia—have converted more rapidly and successfully to market economies, taking advantage of their proximity to the world's wealthiest market in the core of Western Europe. Because workers in these countries are paid much less than their counterparts in Western Europe, but they possess comparable skills, carmakers and manufacturers have taken over Communist-era factories or built new ones to produce goods for Western Europe's wealthy consumers. As memories of the Communist era fade, these countries may be more logically classified in the near future as part of Western Europe, or as a new world region called Central Europe.

On the other hand, restructuring to market economies has proved painful in Russia and most of the other Eastern European countries once part of the Soviet Union. Russia's HDI is lower than those of Libya and Malaysia, and the HDIs of the other former Soviet republics (with the exception of the three small Baltic states of Estonia, Latvia, and Lithuania) are even lower. Declining HDIs in the former Soviet Republics may be a result of lower production, higher death rates, and other stresses associated with the end of communism. Alternatively, the Communists may have generated higher HDIs when they were in power by falsifying statistics (see Contemporary Geographic Tools box).

Closing inefficient businesses has increased unemployment, and prices for many goods skyrocketed with the elimination of government subsidies. Most Russians have suffered declining standards of living since the end of communism, whereas a handful—some of them gangsters—have become very rich. Average incomes in Moscow are four times higher than in the rest of the country, an indication that residents of Moscow have had much more access than other Russians to jobs and goods.

The dismantling of the Communist system led to the breakup of Czechoslovakia, the Soviet Union, and Yugoslavia. In Czechoslovakia, Czechs were willing to bear a short-term decline in their standard of living, because they believed that rapid conversion to a market economy would bring long-term benefits. Slovaks wanted to slow the pace of change; they feared high levels of unemployment in the large, inefficient factories that the Communists had clustered there to promote economic development during the 1950s.
Democratically elected governments in Eastern Europe have released a lot of once classified data, with the hope that scientists could document problems caused by the Communists. A geographic information system (GIS) is a key analytic tool, because a wide variety of information from many sources can be combined to understand conditions in every community.

As an example, in Czechoslovakia, secret air-pollution data became available after the fall of communism in 1989 (and before it split into the Czech Republic and Slovakia in 1993). Emissions of sulfur dioxide and nitrogen oxide (see Chapter 14) were mapped at the level of the country’s 114 districts, equivalent to counties in the United States (see Figure 9–1.1). Very high emissions were recorded in 13 districts, 11 now in the Czech Republic and two now in Slovakia. GIS was used to try to formulate an understanding of the causes and consequences of relatively high air pollution in these 13 districts.

To understand the causes of air pollution through GIS, layers were created showing concentrations of population, locations of factories, and topography. Western districts with high pollution levels were in the Black Mountains, where Communists had located factories near coal mines (see Chapter 11).

Centralized districts with high pollution levels contained large cities, such as Prague, nestled in valleys.

More controversial was an attempt to use GIS to demonstrate the consequences of high air pollution. Maps were created of many social characteristics, including male and female mortality rates and life expectancy for each of the 114 districts. The expectation was that people living in the 13 most polluted districts would have more deaths and shorter lives, but the GIS did not permit scientifically valid conclusions like these to be made.

Also attempted was a correlation between where gypsies lived and the level of pollution. Gypsies were considered the poorest group of society, most likely to live in the poorest conditions. But GIS showed no relationship between the distribution of gypsies and pollution.

Only one social characteristic stood out. The 13 most polluted districts all ranked among the country’s leaders in divorce rates. But what is the relationship between pollution and divorce? Do couples living in polluted areas have more stress and are therefore more likely to divorce? GIS could point to a relationship, but not to an explanation for it.

The Soviet Union and Yugoslavia also broke up in part because republics such as Russia and Slovenia preferred more rapid economic change than did Belarus and Serbia. However, in these two countries, the end of communism also unleashed long-suppressed friction among ethnicities. As a multi-ethnic state, Russia is especially vulnerable to further unrest among ethnic minorities suffering from the conversion to a market economy.

Because of Eastern Europe’s tradition of economic development, the region is classified here as more developed. But the low HDI shows the region’s distinctive history, as well as difficulties in comparing levels of development among regions.

Japan

**HDI 0.94.** Anglo-America and Western Europe share many cultural characteristics. Anglo-America was colonized by European immigrants, so the regions share language, religion, and other political, economic, and cultural traditions. From the perspective of LDCs, the economic influence wielded by these two regions is closely intertwined with the global influence of European and American culture. Japan, the third major center of development, has a different cultural tradition.

Japan’s development is especially remarkable because it has an extremely unfavorable ratio of population to resources. The country has some of the world’s most intensively farmed land and one of the highest physiological densities (refer to Table 2–1). The Japanese consume relatively little meat and grain other than rice but still must import these products. Japan also lacks many key raw materials for basic industry. For example, although Japan is one of the world’s leading steel producers, it must import virtually all the coal and iron ore needed for steel production.

How has Japan become such a great industrial power? At first, the Japanese economy developed by taking advantage of the country’s one asset, an abundant supply of people willing to work hard for low wages. The Japanese government encouraged manufacturers to sell their products in other countries at prices lower than domestic competitors. Having gained a foothold in the global economy by selling low-cost products, Japan then began to specialize in high-quality, high-value products, such as electronics, motor vehicles, and cameras.

Japan’s dominance was achieved in part by concentrating resources in rigorous educational systems and training programs to create a skilled labor force. Japanese companies spend
twice as much as U.S. firms on research and development, and the government provides further assistance to develop new products and manufacturing processes.

South Pacific

HDI 0.87. The South Pacific has a relatively high HDI but is much less central to the global economy because of its small number of inhabitants and peripheral location. The HDIs of Australia and New Zealand are comparable to those of other MDCs. The area's remaining people are scattered among sparsely inhabited islands that generally are less developed.

As former British colonies, Australia and New Zealand share many cultural characteristics with the United Kingdom. Over 90 percent of the residents are descendants of nineteenth-century British settlers, although indigenous populations remain. Australia and New Zealand are net exporters of food and other resources, especially to the United Kingdom. Increasingly, their economies are tied to Japan and other Asian countries.

Less Developed Regions

Six regions are classified as less developed. The level of development varies widely among them. Latin America and East Asia have the highest HDIs among the six regions, followed by the Middle East. Southeast Asia and South Asia have lower HDIs, and sub-Saharan Africa lags behind the others.

Latin America

HDI 0.80. Most Latin Americans speak one of two Romance languages—Spanish or Portuguese—and adhere to Roman Catholicism. These cultural characteristics resulted from the fact that Brazil was a colony of Portugal, and most of the remaining states once belonged to Spain. In reality the region is culturally diverse. A large percentage of the population are descendants of inhabitants living in the region prior to the European conquest, whereas others trace their ancestors to African slaves.

Latin Americans are more likely to live in urban areas than people in other developing regions. Mexico City, São Paulo, and Buenos Aires rank among the world's ten largest, according to the United Nations. The region's population is highly concentrated along the Atlantic Coast, whereas population density remains low in most of the region, especially the tropical interior of South America. Large areas of interior rain forest are being destroyed to sell the timber or to clear the land for settled agriculture.

The level of development is relatively high along the South Atlantic Coast between Curitiba, Brazil, and Buenos Aires, Argentina. The area has high agricultural productivity, and it ranks among the world's leaders in production and export of wheat and corn (maize). Mexico's development has been aided by proximity to the United States. Development is lower in Central America, several Caribbean islands, and the interior of South America.

Overall development in Latin America is hindered by inequitable income distribution. In many countries a handful of wealthy families control much of the land and rent parcels to individual farmers. Many tenant farmers grow coffee, tea, and fruits for export to relatively developed countries rather than food for domestic consumption. Latin American governments encourage redistribution of land to peasants but do not wish to alienate the large property owners, who generate much of the national wealth.

East Asia

HDI 0.76. The economy of East Asia—and the entire world, for that matter—is being driven in the twenty-first century primarily by China. Now the world's second largest economy, behind only the United States, China accounts for one-third of total world economic growth, and GDP per capita has risen faster there than in any other country.

China has been the world's most populous country throughout recorded history. It was the world's wealthiest country from ancient times until passed by Europe in the sixteenth century. As recently as the early nineteenth century, China still accounted for one-third of world GDP. But after a century of civil wars and foreign invasions, China had fallen far behind the level of development achieved in Europe and North America in the twentieth century.

China's watershed year was 1949, when the Communist party won a civil war and created the People's Republic of China. The old Nationalist government fled to the island of Taiwan, setting up a government in exile. Since then, dramatic changes have been made in China's economy.

At first, priority was given to rural areas, where two-thirds of the Chinese people live. Before communism, most Chinese farmers had been tenants, forced to pay high rents and turn over a percentage of their crops to property owners. Most years, farmers produced just enough food to survive, but they frequently suffered from famines, epidemics, floods, and wars.

Under communism, the government took control of most agricultural land. In some villages, officials assigned specific tasks to each farmer, distributed food to each family according to individual needs, and sold any remaining food to urban residents. In other cases, farmers rented land from the local government, received orders to grow specific amounts of particular crops, and sold for their own profit any crops above the minimum production targets. The system assured the production and distribution of enough food to support China's one-billion-plus population. In recent years, farmers have been permitted to own land and control their own production.

In the twenty-first century, manufacturing has been increasing dramatically in China. With rising wealth, the world's largest population has been transformed into the world's largest market for consumer products like detergent, shampoo, and toothpaste. And with its factories paying much lower wages than in MDCs, China is producing two-thirds of the world's DVD players, microwaves, photocopiers, and shoes, for export to other countries as well as for domestic consumption. In partnership with the world's largest retailer Wal-Mart, China's manufacturing might is pushing down prices for consumer goods throughout the world (see Global Forces, Local Impacts box). At the same time, the low wages being paid to China's factory workers are driving down factory pay around the world.
GLOBAL FORCES, LOCAL IMPACTS

Wal-Mart and China

No corporation exposes the effects of globalization on the world's economy more effectively than Wal-Mart. Wal-Mart Stores, Inc., founded in 1962 by Sam Walton in Arkansas, was the world's largest corporation in 2004, with revenues of $375 billion. As a result of its prominence, Wal-Mart has become a lightning rod for both defenders and critics of the impacts of globalization.

As the world's largest retailer, Wal-Mart is a good example of a tertiary sector activity. The company operated 6,673 stores worldwide in 2006, including 3,973 in the United States, and employed 1.8 million. Wal-Mart accounts for 9 percent of all retail sales in North America.

The primary and secondary sectors of the global economy have also been shaped by Wal-Mart. In the secondary sector, the clothes, appliances, and other goods sold in the stores have to be manufactured somewhere in the world, and Wal-Mart is largely responsible for deciding where. In the primary sector, as the second-largest grocer in the United States (behind Kroger), with 15 percent of the market, Wal-Mart is one of the world's largest purchasers of agricultural products and influences what is grown where.

Wal-Mart's distinctive relationship with suppliers of goods has been a key element in the company's success. Gaining or losing a contract with the world's largest retailer can make or break a manufacturer. But producing for Wal-Mart is hard work: suppliers must manufacture and deliver goods to Wal-Mart on short notice in order to eliminate the high cost of storing extra inventory in warehouses.

Wal-Mart's impact on the secondary sector of China has been especially strong. Supplying Wal-Mart has been a central element in the rise of China to become the world's second largest manufacturer. Three-fourths of products sold in Wal-Mart are at least partially manufactured in China. Most of the remainder comes from elsewhere in Asia. The company accounts for around 10 percent of the U.S. trade deficit with China.

For Wal-Mart, obtaining most of its goods in China is a simple matter of economic geography: Because of much lower labor costs, producing in China costs less than in the United States, even with the added cost of shipping across the Pacific Ocean. Critics charge that the United States has lost 1 million manufacturing jobs because Wal-Mart obtains almost no merchandise from domestic suppliers. Wal-Mart responds that it still has 68,000 U.S. suppliers, employing 3.5 million people.

Wal-Mart has also been subject to local-scale criticism. Wal-Mart employees are paid lower than those at other retailers, and many lack health-care benefits. The company is on record as strongly opposing efforts to unionize the workforce in order to bargain for higher wages and benefits. Wal-Mart's low-wage, low-benefit employment policy, as well as its preference for locating on the outskirts of cities, has been satirized in episodes of The Simpsons TV show set in a store called Sprawl-Mart.

The rapid pace of development in China has resulted in regional economic inequalities. Provinces along China's east coast have considerably higher GDPs per capita than those in the interior (Figure 9–12). The east coast region between Beijing and Shanghai, with one-fourth of the population, generates one-half of the country's GDP and attracts three-fourths of foreign investment.

Weaknesses remain in China's economic performance. Middle management is weak, quality control is minimal, banking is primitive, and legal protection is inadequate. Rapid development is straining resources, as China has become the world's largest consumer of steel, copper, coal, and cement, and the second-largest consumer of petroleum behind the United States. China is also responsible for an increasing share of the world's pollution.

Middle East

HDI 0.68. Much of the Middle East is desert that can sustain only sparse concentrations of plant and animal life. Most products must be imported. However, the region possesses one major economic asset—a large percentage of the world's petroleum reserves.
Muslim women working on computers. Exposure to modern technology does not necessarily destroy traditional culture. Women in predominantly Muslim countries have been urged to wear the chador, a combination head covering and veil, as a sign of adherence to traditional Islamic religious principles.

Because of petroleum exports, the Middle East is the only one of the nine major world regions that enjoys a trade surplus. In every other major region, the value of imports exceeds exports. To a considerable extent, this is because countries in these other regions must purchase large quantities of petroleum from Middle Eastern states.

Government officials in Middle Eastern states, such as Saudi Arabia and the United Arab Emirates, have used the billions of dollars generated from petroleum sales to finance economic development. The Middle East is the only region in which development is not hindered by lack of capital for new construction. To the contrary, many governments in the region have access to more money than they can use to finance development.

However, not every country in the region has abundant petroleum reserves. Most are concentrated in states that border the Persian (Arabian) Gulf. Development possibilities are limited in countries that lack significant petroleum reserves—Egypt, Jordan, Syria, and others. (See Figure 14–4 for a map of petroleum production and reserves.)

The large gap in per capita income between the petroleum-rich countries and those that lack resources causes great tension in the Middle East. People in poorer states held little sympathy for wealthy Kuwait when Iraq invaded it in 1990, triggering the first Gulf War. Kuwait was accused of not sharing its petroleum-generated wealth and failing to provide good living conditions for guest workers from poorer Arab countries.

The challenge for many Middle Eastern states is to promote development without abandoning the traditional cultural values of Islam, the religion of more than 95 percent of the region's population. Many Middle Eastern countries sharply restrict the role of women in business. They also prevent diffusion of financial practices that are considered incompatible with Islamic principles. The low level of literacy among women is the main reason the United Nations considers the development among these petroleum-rich states to be lower than the region's wealth would indicate.

To shed more light on the Middle East's lagging development record, the United Nations uses a team of Arab social scientists to construct an Alternative Human Development Index (AHDI). The AHDI points to three causes in the region's relatively low HDI—lack of political freedom, low education and literacy rates, and lack of opportunities for women.

The region also suffers from serious internal cultural disputes, as discussed in Chapters 6 through 8. Iraq's long war with Iran and attempted annexation of Kuwait split the Arab world. Countries dominated by Shiite Muslims, especially Iran, have promoted revolutions elsewhere in the region to sweep away elements of development and social customs they perceive to be influenced by Europe or Anglo-America.

Most Middle Eastern states have refused to recognize the existence of Israel, the region's only state controlled by Jews. Israel has successfully repelled several attacks by neighboring states and, since 1967, has occupied territory captured from its adversaries. Money that could be used to promote development is diverted to military funding and rebuilding war-damaged structures.

The Middle East has also struggled with terrorism. The attitude of most people in the Middle East toward terrorism is ambivalent. On the one hand, very few endorse acts of violence against Americans, Israelis, and other civilians not directly involved in combat, or the interpretation of Islam used to justify the attacks. On the other hand, few supported the U.S.-led invasion of Iraq, and alternatives are sought to U.S.-influenced culture and development.

Southwest Asia

HDI 0.58. Southeast Asia's most populous country, Indonesia, includes 13,667 islands. Nearly two-thirds of the population live on the island of Java, which has one of the world's highest arithmetic densities. People have concentrated on Java partly because the island's soil, derived from volcanic ash, is more fertile than elsewhere in the region and partly because the Dutch established their colonial headquarters there.

Other than Indonesia, Southeast Asia's most populous countries are Vietnam and Thailand (situated on the Asian mainland) and the Philippines (situated like Indonesia on a series of islands). The region has suffered from a half-century of nearly continuous warfare. Japan, the Netherlands, France, and the United Kingdom were all forced to withdraw from colonies they had established in the region. In addition,
France and the United States both fought unsuccessfully to prevent Communists from controlling Vietnam during the Vietnam War, which ran from the 1950s to 1975. Wars have also devastated neighboring Laos and Cambodia.

The region's tropical climate limits intensive cultivation of most grains. The heat is nearly continuous, the rainfall abundant, and the vegetation dense. Soils are generally poor, because the heat and humidity rapidly destroy nutrients when land is cleared for cultivation. Economic development is also limited in Southeast Asia by several mountain ranges, active volcanoes, frequent typhoons, and occasional tsunamis.

This inhospitable environment traditionally kept population growth low in Southeast Asia. But the injection of Western medicine and technology resulted in one of the most rapid rates of increase in the world since the mid-twentieth century.

Because of distinctive vegetation and climate, farmers in Southeast Asia concentrate on harvesting products that are used in manufacturing. The region produces a large percentage of the world's supply of palm oil and copra (coconut oil), natural rubber, kapok (fibers from the ceiba tree used for insulation and filling), and abaca (fibers from banana leafstalks used in fabrics and ropes). Southeast Asia also contains a large percentage of the world's tin as well as some petroleum reserves. Rice, the region's most important food, is now exported in large quantities from India, Malaysia, and Thailand.

Development has been rapid in some Southeast Asian countries, notably Thailand, Singapore, Malaysia, and the Philippines. The region has become a major manufacturer of textiles and clothing, taking advantage of cheap labor. Thailand has become the region's center for the manufacturing of automobiles and other consumer goods.

Economic growth in the region has slowed during the past decade. Earlier economic growth had been achieved through very close cooperation among manufacturers, financial institutions, and government agencies. In the absence of independent watchdogs and regulators, funds for development were sometimes invested unwisely or stolen by corrupt officials. To restore economic confidence among international investors, Southeast Asian countries have been forced to undertake painful reforms that reduce the people's standard of living.

**South Asia**

**HDI 0.58.** South Asia includes India, Pakistan, Bangladesh, Sri Lanka, and the small Himalayan states of Nepal and Bhutan. The region has the world's second-highest population and second-lowest per capita income. Population density is very high throughout the region, and the natural increase rate is among the world's highest.

India, South Asia's largest country, is the world's leading producer of jute (used to make burlap and twine), peanuts, sugarcane, and tea. India has mineral reserves including uranium, bauxite (aluminum ore), coal, manganese, iron ore, and chrome (chromium ore). However, the overall ratio of population to resources is unfavorable because of the region's huge population.

India is one of the world's leading rice and wheat producers. The region was a principal beneficiary of the Green Revolution, a series of inventions beginning in the 1960s that dramatically increased agricultural productivity. As a result of the Green Revolution, "miracle" rice and wheat seeds were widely diffused throughout South Asia (see Chapter 14).

Agricultural productivity in South Asia also depends on climate. The region receives nearly all its precipitation from rains that fall during the monsoon season between May and August. Agricultural output is often low if the monsoon rains fail to arrive. In a typical year, farmers in South Asia produce a grain surplus that is stored for distribution during dry years. However, several consecutive years without monsoon rains produce widespread hardship in South Asia.

India has become the world's fourth largest economy, behind the United States, China, and Japan, and the rate of growth of its economy is second only to China's. India has become a major manufacturer, though not as rapidly as China. Instead, India has become a major service provider. When you phone an airline, a help desk, or a credit card company, chances are your call will be answered by someone actually located in India (see Chapter 12).

**Sub-Saharan Africa**

**HDI 0.51.** Africa has been allocated to two regions. Countries north of the Sahara Desert share economic and cultural characteristics with the Middle East. South of the desert is called sub-Saharan Africa.

Sub-Saharan Africa has a number of assets. Population density is lower than in any other less developed region. South Africa is a major source of minerals, including chromium, diamonds, manganese, and platinum. Other countries in the region contain resources important for economic development, including bauxite in Guinea, cobalt in Congo Democratic Republic and Zambia, diamonds in Botswana and Congo, manganese in Gabon, petroleum in Nigeria, and uranium in Niger. Wealth is comparable to levels found in other LDCs.

Despite these assets, sub-Saharan Africa has the least favorable prospect for development. The region has the world's highest percentage of people living in poverty and suffering
from poor health and low education levels. And economic conditions in sub-Saharan Africa have deteriorated in recent years: the average African consumes less today than a quarter-century ago.

Some of the region’s economic problems are a legacy of the colonial era. Mining companies and other businesses were established to supply European industries with needed raw materials rather than to promote overall economic development in sub-Saharan Africa. Africa’s many landlocked states have difficulties shipping out raw materials through neighboring countries (see Figure 8-6). In recent years, African countries have suffered because world prices for their resources have fallen.

Political problems have also plagued sub-Saharan Africa. European colonies were converted to states without regard for the distribution of ethnicities (see Figure 7-23). After independence, leaders of many countries in the region pursued personal economic gain and local wars rather than policies to promote development of the national economy. Frequent wars within and between countries in sub-Saharan Africa have retarded development.

The fundamental problem in many countries of sub-Saharan Africa is a dramatic imbalance between the number of inhabitants and the capacity of the land to feed the population. Nearly the entire region consists of either tropical or dry climate. Both climate regions can support some people but not large concentrations. Yet, because sub-Saharan Africa has by far the world’s highest rate of natural increase, the region’s land is more and more overworked, and agricultural output has declined.