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CHAPTER

9

Unpaved road near Kumasi, Ghana, an obstacle to development.



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.

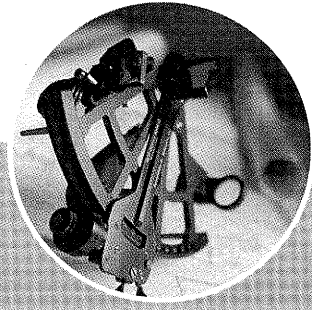
This depressing view of conditions on the islands is shielded from tourists, of course. They do not travel hundreds of kilometers to encounter misery on their vacation or honeymoon. Tourists bring money to the islands and in the process help pay for whatever improvements can be made to the squalid living 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 Bathoimuri, 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. The political geography chapter 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 rather than cultural 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 less developed countries, the challenge is to find *connections* to the global economy by taking advantage of *local diversity* in skills and resources.

KEY ISSUE I

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 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 0.944 in 2001. Canada and Japan had higher HDIs than Norway during the 1990s. The United States has never ranked first, although it invariably falls within the top ten. The other highest-ranking countries are typically in Western Europe. The lowest ranked country most years has been Sierra Leone, with an HDI of 0.275 in 2001. The two dozen lowest-ranking countries are typically in sub-Saharan Africa.

Economic Indicators of Development

The United Nation's HDI includes one economic indicator of development: gross domestic product per capita. Four other economic indicators distinguish more developed from 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 \$10 to \$15 per hour in MDCs, compared to less than \$1 per

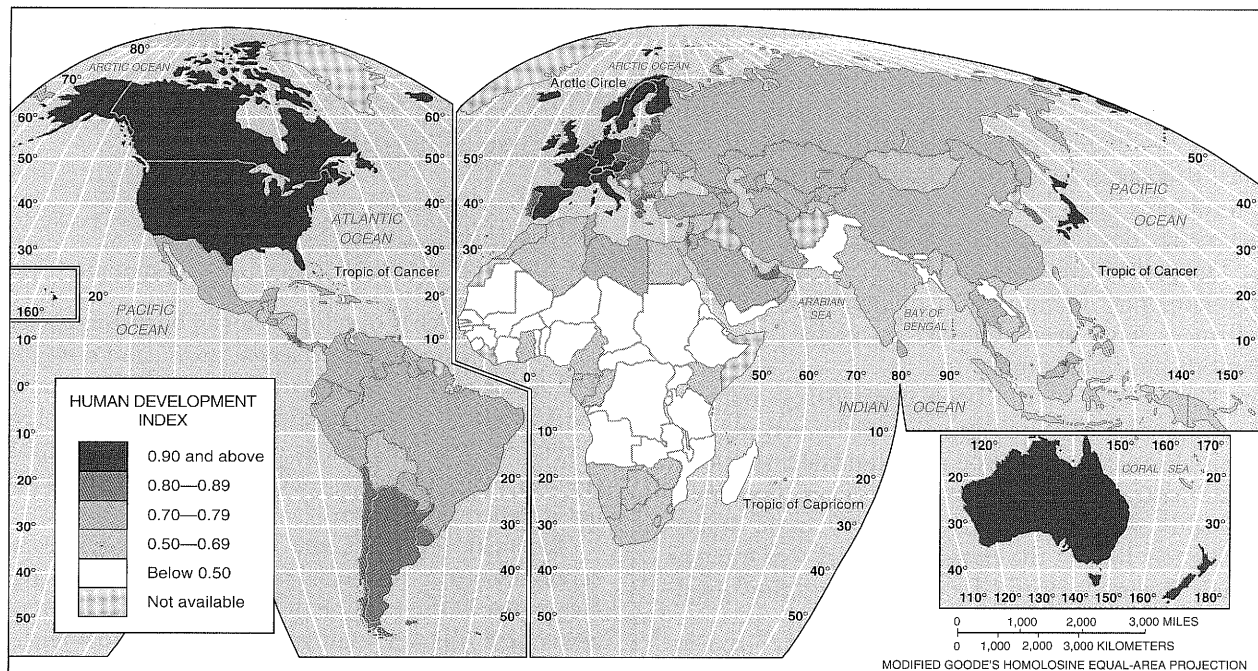


FIGURE 9-1 Human Development Index (HDI). Developed by the United Nations, the HDI combines several measures of development: life expectancy at birth, adjusted GDP per capita, and knowledge (schooling and literacy). Each country received an index figure for the various measures, which range between minimum 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.

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 the average individual makes to generating a country's wealth in a year. For example, GDP in the United States is currently about \$10 trillion and its population is about 290 million, so the GDP per capita is about \$34,000. The gross national product (GNP) is similar to the GDP, except that it includes income that people earn abroad, such as a Canadian working in the United States.

Annual per capita GDP exceeds \$20,000 in MDCs, compared to about \$1,000 in LDCs (Figure 9-2). GDP per capita exceeded \$50,000 in Luxembourg in 2001, and exceeded \$30,000 in Ireland and the United States. The lowest per capita GDPs are found in sub-Saharan Africa, South Asia, and Southeast Asia. Nearly every country in these regions has a per capita GDP of less than \$1,000 per year.

The gap in per capita GDP between more and less developed countries has been widening during the past quarter century. Per capita GDP has increased by about \$10,000 in MDCs, compared with only about \$200 in LDCs. Many African and Latin American countries have actually experienced declines in per capita GDP.

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 hundred dollars. And not everyone is wealthy in a developed country such as the United States, with its per capita GDP of more than \$30,000. In fact, about one-eighth of the U.S. population is officially classified as poor, including about one-fifth of African Americans and 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,

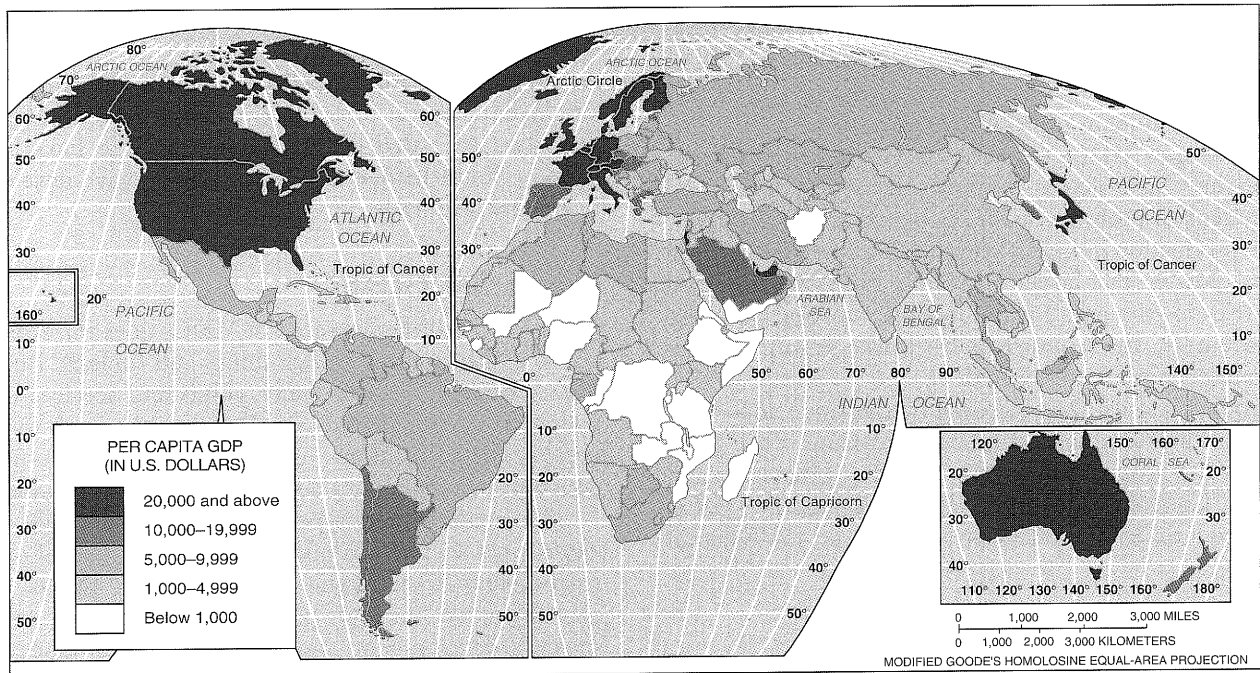


FIGURE 9-2 Annual gross domestic product (GDP) per capita. This measure exceeds \$20,000 in most MDCs, compared to less than \$5,000 in most LDCs. Figures are for “purchasing power parity,” which is a method for comparing living standards based on the price for equivalent products in different local currencies.

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 75 percent in many LDCs of Africa and Asia, compared to less than 5 percent in Anglo-America and many Western European countries (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 are spending 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.

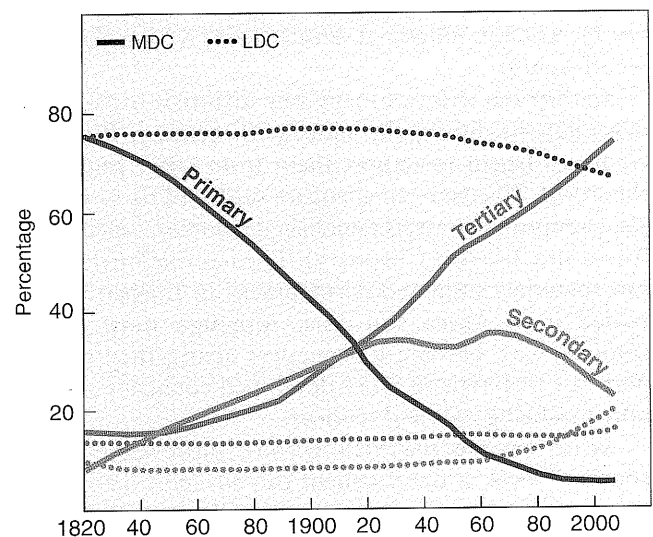


FIGURE 9-3 Changes in percent employed in primary, secondary, and tertiary sectors. In more developed countries the percentage of agricultural workers has sharply declined, whereas the percentage of service workers has sharply increased. The percentage engaged in industry increased during the nineteenth and early twentieth centuries and decreased during the late twentieth century.

Productivity

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

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.

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 capita is \$5,000 in MDCs, compared to \$300 in LDCs and \$40 in sub-Saharan Africa.

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 more developed countries 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 goes for essential goods and services (food, clothing, and shelter). But the rest is available for consumer goods and services (cars, telephones, entertainment). The wealth used to buy nonessentials promotes expansion of manufacturing, which in turn generates additional wealth in the society.

The quantity and type of goods and services purchased in a society is a good measure of the level of development. Among the thousands of things that consumers buy, three are particularly good indicators of a society's development: motor vehicles, telephones, and televisions.

These products are accessible to virtually all residents in MDCs and are vital to the health of the economy. In MDCs the ratio of people to motor vehicles, telephones, and televisions is approaching 1:1. In other words, MDCs contain nearly one motor vehicle, telephone, and television set for each citizen.

The motor vehicle, telephone, and television all play important economic roles. Motor vehicles provide individuals with access to jobs and services and permit businesses to distribute their products. Telephones enhance communications with suppliers and customers of goods and services. Televisions provide exposure to activities in different locations.

In contrast, in LDCs, these products do not play a central role in daily life for many people. Motor vehicles are not essential to people who live in a small village and work all day growing food in nearby fields. Telephones are not essential for those who live in the same village as their friends and relatives. Televisions are not essential to people who have little leisure time.

The number of individuals per telephone and motor vehicle exceeds 100 in most LDCs. This indicates that people are much less likely to have access to these products (Figure 9-4). The number of persons per television set varies widely among LDCs, from less than ten in China and some Latin American countries to several hundred in Bangladesh and many African countries (see Figure 4-14). The variation reflects the rapid diffusion of television in recent years in LDCs: acquiring a television set is an important priority in the early stages of development.

Most people in LDCs are familiar with these consumer 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 who have these goods may include government officials, landowners, and other

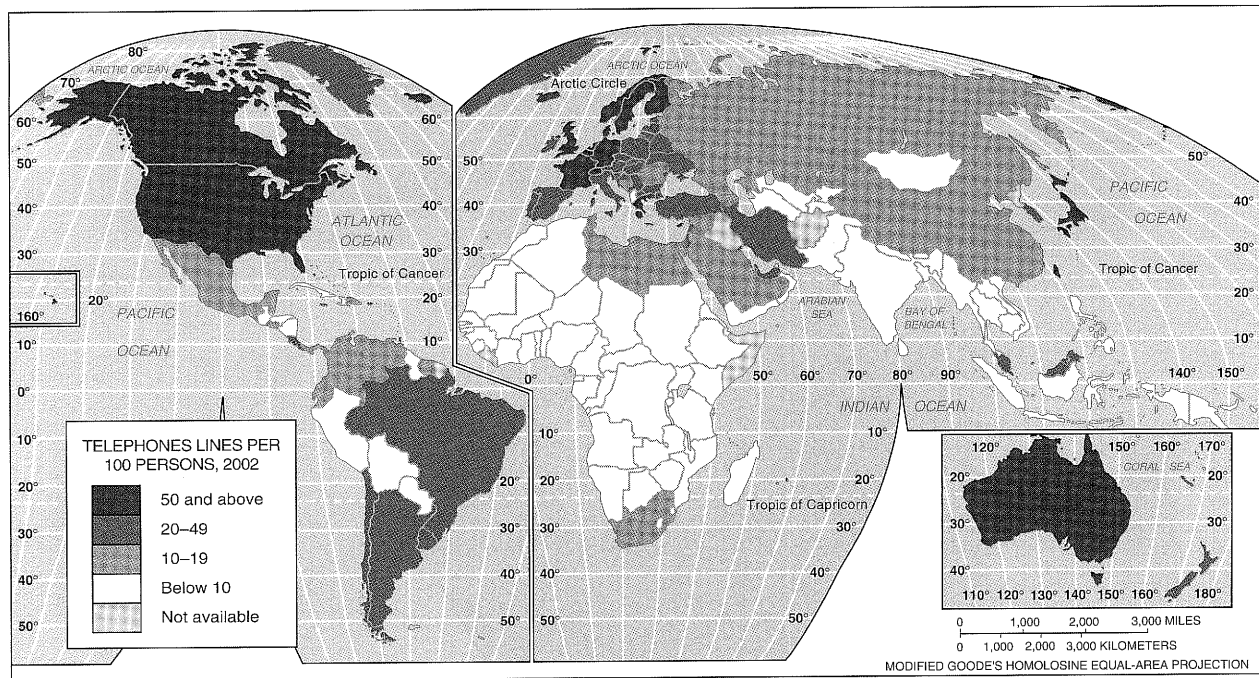


FIGURE 9-4 Main telephone lines per 1,000 persons, 2002. MDCs have several dozen telephone lines per 1,000 persons, compared to less than 10 in some LDCs.

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 consumer goods is more important in urban areas because of the dispersion of homes, factories, offices, and shops.



Education. Schools in more developed countries, such as this high school in Los Angeles (left), are better equipped than schools in less developed countries, such as Somalia.

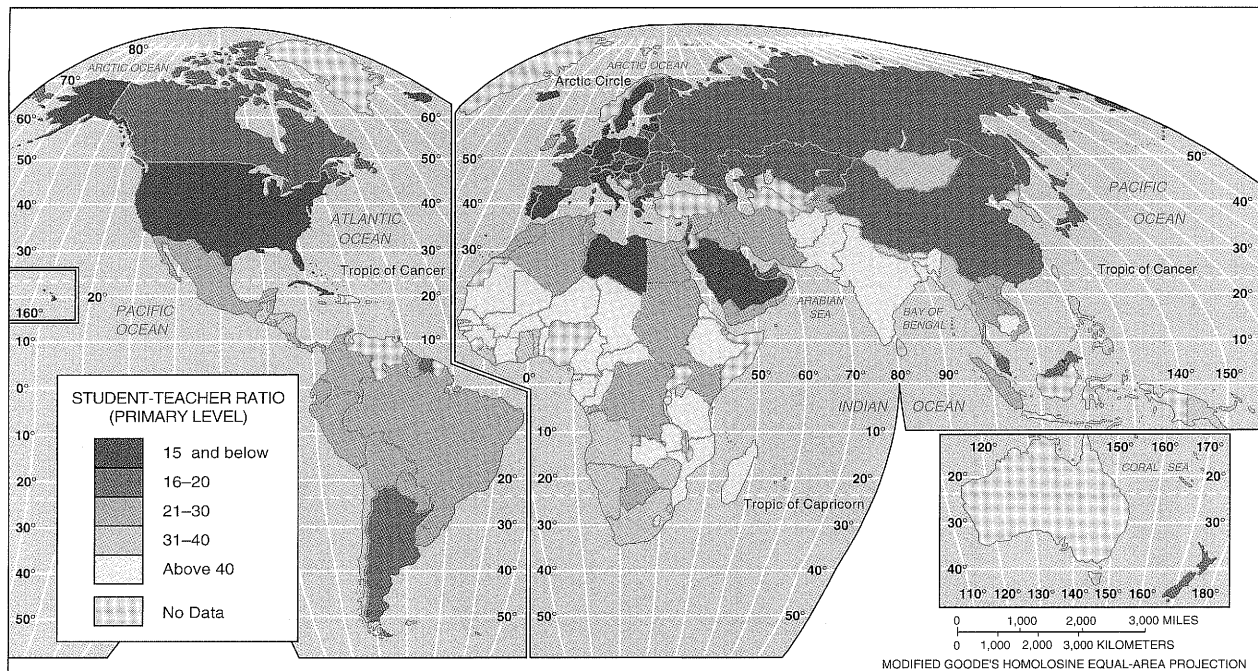


FIGURE 9-5 Students per teacher, primary school. Primary-school teachers must deal with much larger average class sizes in LDCs than in MDCs.

Motor vehicles, telephones, and televisions 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 television. As a result of greater exposure to cultural diversity, people in developed countries display different social characteristics from people in LDCs.

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 9-5).

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 in English, German, Russian, or French.

The **literacy rate** is the percentage of a country's people who can read and write. It exceeds 95 percent in developed countries, compared to less than one-third in many 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 9-13).

Health and Welfare

People are healthier in MDCs than in LDCs. When people get sick, MDCs possess the resources to care for them. These states have better ratios of people to hospitals, doctors, and nurses (Figure 9-6). In many wealthier countries, health care is a public service that is available at little or no cost. The United States, being an exception, still considers health care to be an activity best performed by private, profit-making enterprises.

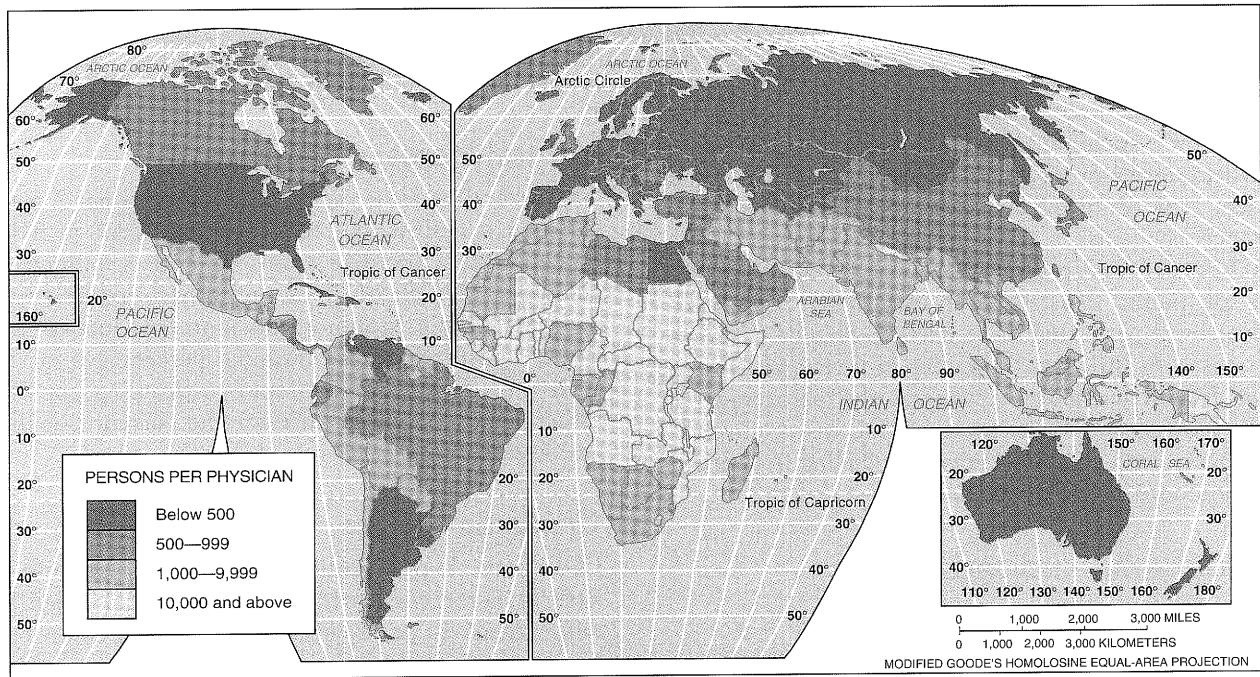


FIGURE 9-6 Persons per physician. People in more developed countries have more access to health care, as shown in ratios between people and hospital beds, nurses, doctors, and other medical indicators. In MDCs, for example, each doctor is available to an average of 500 people, but in LDCs each doctor is shared by thousands.

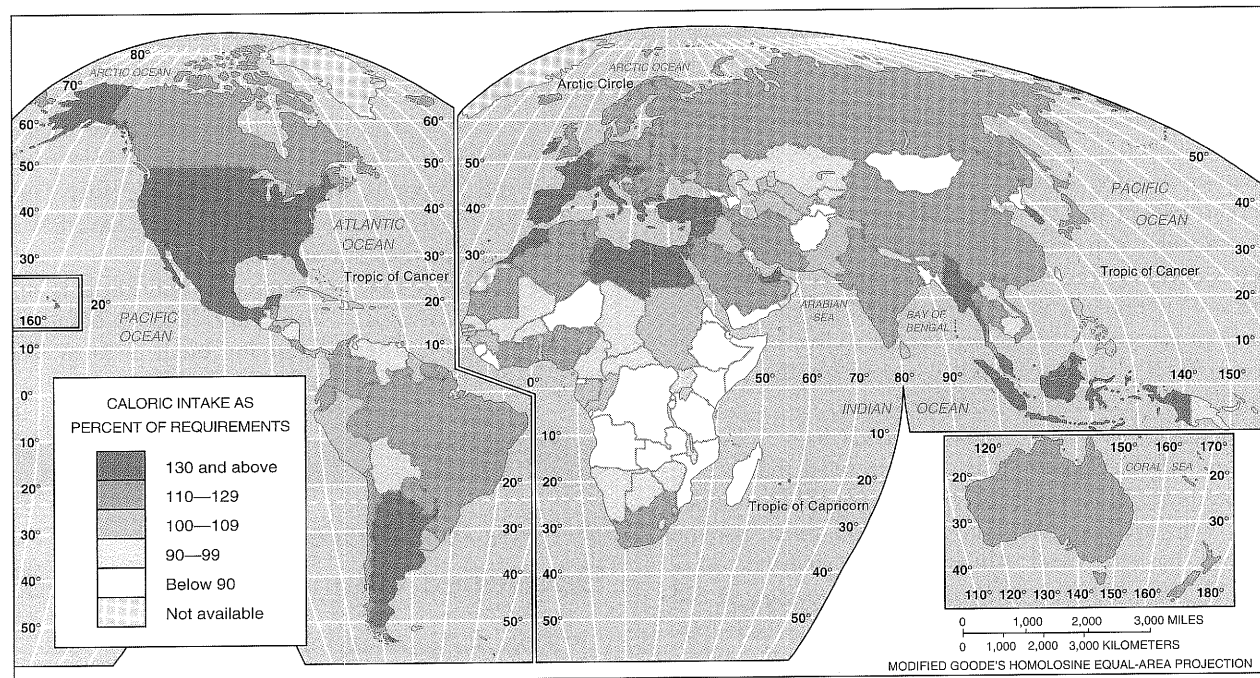


FIGURE 9-7 Daily available calories per capita as a percentage of requirements. Daily available calories per capita (food supply) is the domestic agricultural production plus imports, minus exports and nonfood uses. To maintain a moderate level of physical activity, an average individual requires at 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.

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 less developed

countries of Africa and Asia, most people receive less than the daily minimum allowance of calories and proteins recommended by the United Nations (Figure 9-7).

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. We described several demographic characteristics in Chapter 2. The United Nations's HDI utilizes life expectancy as a measure of development. Others 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 early forties in LDCs compared to their mid-seventies in MDCs (see Figure 2-11). The gap in life expectancy is greater for females than for males. Males can expect to live nine 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 elderly 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 combination of percentage of young and old dependents is lower in MDCs than in LDCs (see Figure 2-15).

Infant Mortality Rate

Better health and welfare also permit more babies to survive infancy in MDCs. About 90 percent of infants survive and 10 percent die in LDCs, whereas in MDCs more than 99 percent survive and fewer than 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 more than 2 percent annually in LDCs and less than 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 exceeds 40 per 1,000 in many LDCs, compared to less than 15 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).

Crude death rate does not indicate a society's level of development. More developed and less developed countries both have annual crude death rates of about 10 per 1,000. Two reasons account for the lack of difference. 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.

The mortality rate for women in childbirth is significantly higher in LDCs. For every 100,000 babies born, fewer than 10 mothers die giving birth in most MDCs, compared with several hundred in LDCs.

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 9-8). Subsequent chapters will show that the nine major regions also differ from each other 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 less developed countries 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.

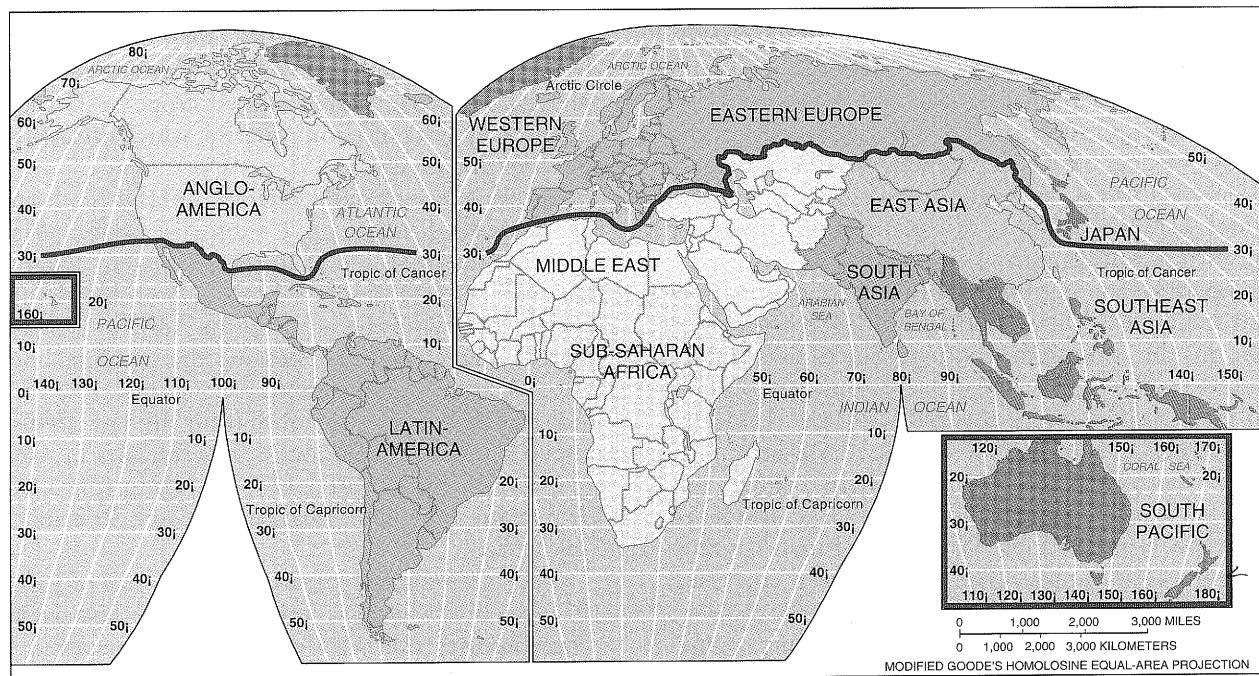


FIGURE 9-8 More and less developed regions. Earth's six less developed regions are Latin America, Southeast Asia, Middle East, East Asia, South Asia, and sub-Saharan Africa. The world's more developed regions are Anglo-America, Western Europe, and Eastern Europe, plus Japan and the South Pacific.

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 quarter century Japan, Western Europe, and less developed countries 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 computing, information, and other 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 0.92. On a global scale, Western Europe displays cultural unity, because nearly all Western Europeans speak an Indo-European language and practice 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 world 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 less developed countries 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.

Now that most colonies have been granted independence, Western Europeans must buy raw materials from other countries. To pay for their imports, Western Europeans provide high-value goods and services, such as insurance, banking, and luxury motor vehicles, such as Mercedes-Benz and Rolls-Royce.

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 0.78. 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. A decade later Eastern Europe's HDI has 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 Western European countries.

Early Communist theorists, such as Karl Marx and Friedrich Engels, believed that communism would triumph in more developed countries 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 those of 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 five-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 five-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

Selling meat in Moscow. With the fall of communism in Russia, private individuals are able to sell products on street corners with little government regulation. This woman has brought meat from her native Ukraine to Moscow, because residents of Moscow are willing and able to pay higher prices for meat than Ukrainians.



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:

- Scarce funds were used to meet annual production targets rather than to invest in long-term improvements in productivity, such as modernizing equipment and redeploying workers to other tasks.
- Despite an abundant supply of productive farmland, Eastern Europe had to import food from the West because of inefficient agricultural practices.
- Orders sent from national government offices hundreds of kilometers away were often not implemented in the factories.
- 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 Czech Republic, Hungary, and Slovenia have converted more rapidly to market economies, taking advantage of their proximity to the relatively developed core region of Western Europe. Because workers in these countries are comparably skilled yet much lower paid compared to their counterparts in Western Europe, some manufactured goods are being exported to wealthier countries in the West. As memories of the Communist era fade, these countries will display social and economic characteristics similar to such Western European countries as Greece, Ireland, and Portugal.

On the other hand, restructuring to market economies has proved painful in Russia and a number of other

Eastern European countries. 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—including 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.

Similarly, the Soviet Union and Yugoslavia broke up in part because republics such as Russia and Slovenia preferred more rapid economic change than did Belarus and Serbia. However, the end of communism in these two countries 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.

CONTEMPORARY GEOGRAPHIC TOOLS

Cleaning Up After Communism in Eastern Europe

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. GIS was a key analytic tool, because a wide variety of information from many sources could 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 2 now in Slovakia. GIS was used to try to understand 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, location 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). Centrally located 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 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 therefore are more likely to divorce? GIS could point to a relationship, but not to an explanation for it.

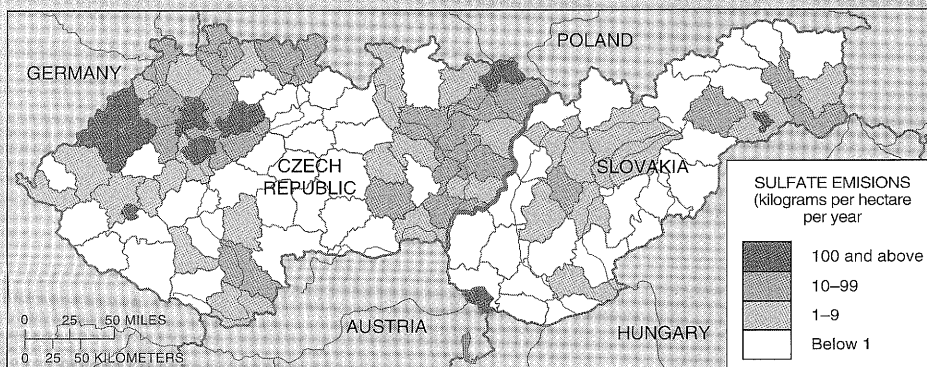


FIGURE 9-1.1 Czech Republic and Slovakia, sulfate emissions.

The region's HDI may have declined because of production cutbacks, higher death rates, and other stresses associated with the end of communism. Alternatively, higher mortality and lower wealth may be because the Communists inflated statistics when they were in power.

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 0.93. 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 0.93. 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 following section briefly describes these six regions in descending order of development level.

The level of development varies widely among the six regions. Latin America has the highest HDI among the regions, followed by East Asia, Southeast Asia, and the Middle East. South Asia has a much lower HDI than do the other Asian regions, and sub-Saharan Africa lags behind all other regions.

Latin America

HDI 0.78. 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 from Curitiba, Brazil, to Buenos Aires, Argentina. This area enjoys high agricultural productivity and 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 0.72. China, the largest country in East Asia, ranks among the world's poorest. However, this does not accurately portray the region's potential for development. Within a few years China is projected to exceed the United States as the world's largest economy, although the U.S. economy would still be much larger on a per capita basis.

Traditionally, most Chinese farmers were forced to pay high rents and turn over a percentage of their crops to a property owner. Farmers in a typical year produced enough food to survive but frequently suffered from famines, epidemics, floods, and other disasters. Exploitation of the country's resources by Europe and Japan further retarded China's development.

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.

To ensure the production and distribution of enough food, the Communist 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.

In recent years such strict control has been loosened. Individuals again are able to own land and control their own production. Farmers have an incentive to work hard, because the sale of surplus crops is their main source of revenue to buy household goods. However, agricultural land must be worked intensively to produce enough food for China's large population, and farmers in the country's less fertile areas may not be able to produce a large surplus.

The Chinese government controls the daily lives of the citizenry more than in other countries, and the people have difficulty obtaining some goods. Nonetheless, most Chinese recognize that they are better off now than before the 1949 revolution, because they have less fear of famine. Because of government controls, China has a much lower natural increase rate than other LDCs, so more of the country's economic growth can contribute to improving the standard of living of the existing population rather than meeting the needs of a rapidly expanding population.

Southeast Asia

HDI 0.71. 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, and frequent typhoons.

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 during the second half of the twentieth century.

Rice, the region's most important food, is exported in large quantities from some countries, such as Thailand and Vietnam, but must be imported to other countries in the region, such as Malaysia and the Philippines. 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.

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 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.

Middle East

HDI 0.66. 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.

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 Gulf. Development possibilities

are limited in countries that lack significant petroleum reserves: Egypt, Jordan, Syria, and others (refer to Figure 14-3 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 ambivalence. 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, sympathy is widespread in the Middle East for those advocating alternatives to U.S.-influenced culture and approaches to development.

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.



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 chromite (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 rain that falls during the monsoon season between May and August. Agricultural output declines sharply 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.

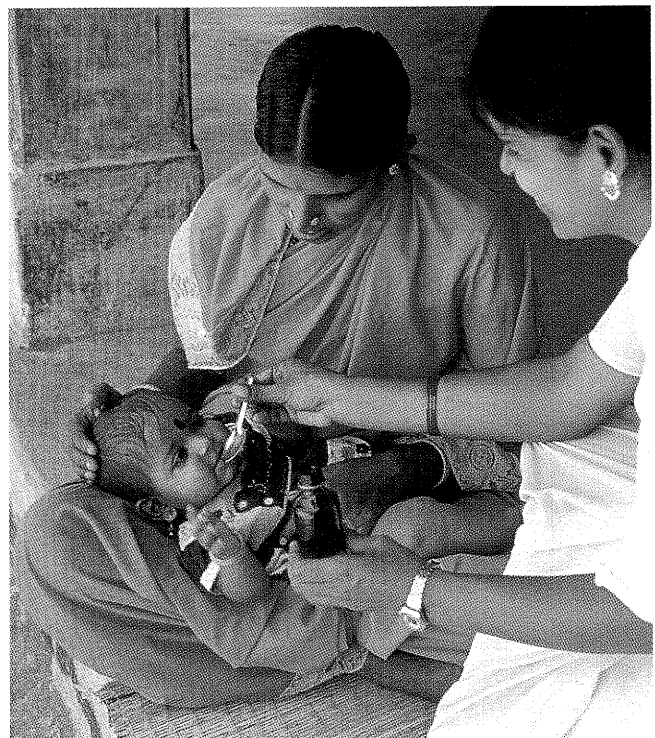
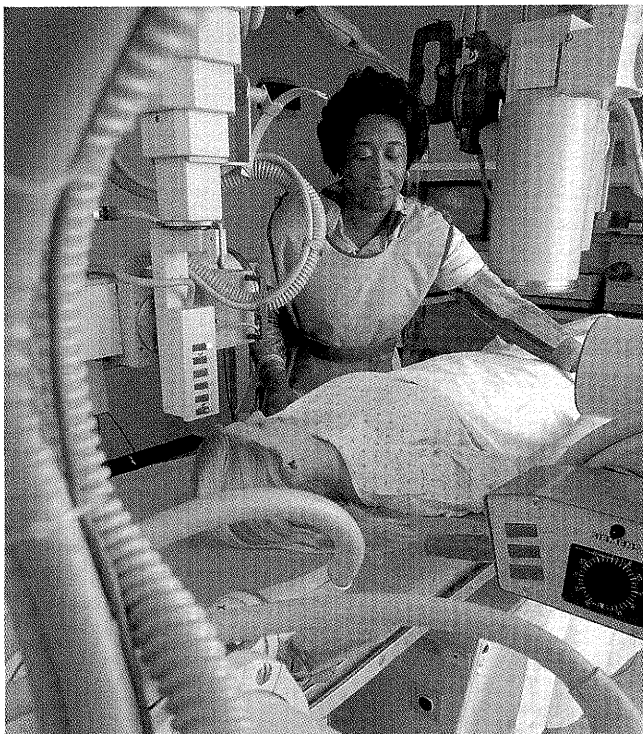
Sub-Saharan Africa

HDI 0.47. 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. The region contains many resources important for economic development, including bauxite in Guinea, cobalt and copper in Congo Democratic Republic and Zambia, iron ore in Liberia, manganese in Gabon, petroleum in Nigeria, and uranium in Niger (Figure 9-9). 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



More developed countries possess better equipped hospitals and more extensive medical technology, such as the CAT-scan to diagnose and treat people's illnesses, than is the case in less developed countries. In this clinic in India, a nurse is administering the polio vaccine to a child.

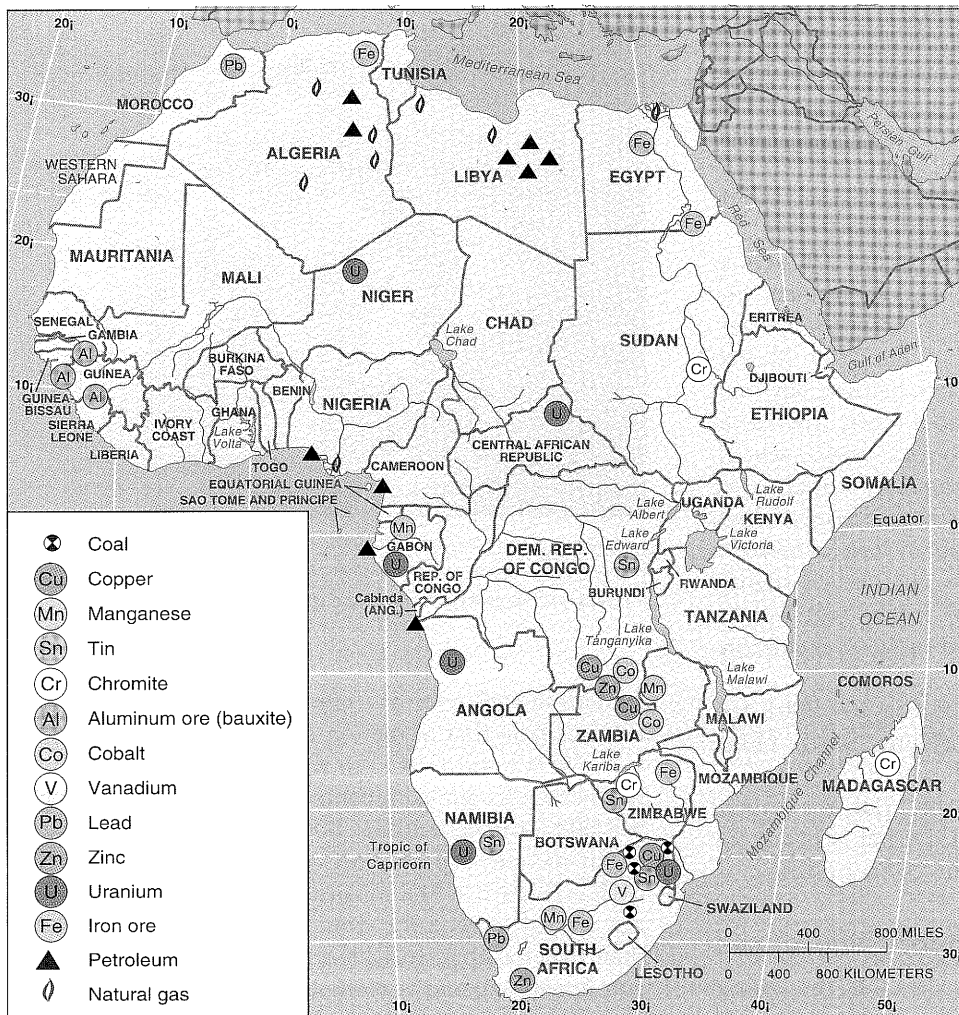


FIGURE 9-9 Minerals in Africa. Several African countries contain minerals important for industrial development. World prices for many of these minerals have declined or failed to rise at the same rate as the prices for industrial products, transportation, and energy.

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 all of the 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.

KEY ISSUE 3

Where Does Level of Development Vary by Gender?

- Gender-related development index
- Gender empowerment

A country's overall level of development masks inequalities in the status of men and women. Gender inequality exists in every country of the world, according to the United Nations. In some countries women have achieved near-equality with men, whereas in other countries the level of development of women lags far behind the level for men. The United Nations has not found a single country in the world where its women are treated as well as its men.

To measure the extent of each country's gender inequality, the United Nations has created two indexes. The **Gender-Related Development Index (GDI)** compares the level of development of women with that of both sexes. The **Gender Empowerment Measure (GEM)** compares the ability of women and men to participate in economic and political decision making.

Gender-Related Development Index

The GDI is constructed in a manner similar to the HDI, discussed in the first two sections of this chapter. The GDI combines the same indicators of development used in the HDI—income, literacy, education, and life expectancy—adjusted to reflect differences in the accomplishments and conditions of men and women.

The GDI penalizes a country for having a large disparity between the well-being of men and women. For example, in both Iran and Mexico approximately two-thirds of youth are enrolled in school. However, Mexico has a higher GDI rating for education, because boys and girls are equally likely to attend school there, whereas in Iran girls are much less likely than boys to attend school.

A country with complete gender equality would have a GDI of 1.0. No country has achieved that level. A high GDI means that both men and women have achieved a high level of development, though women have a slightly lower level than men. A low GDI means that women have a low level of development and the level is substantially below that of men.

The highest ranking country on the basis of 2001 data was Norway, with a GDI of 0.941 (Figure 9–10). Other countries with relatively high GDIs are in Western Europe and North America. As with the HDI, the United States ranks among the leaders in GDI but is not at the very top. The lowest GDIs are in sub-Saharan Africa.

Economic Indicator of Gender Differences

To construct the income portion of the GDI, the United Nations estimates the average income of males and



Market in Mali. In Sub-Saharan Africa, women typically have responsibility for buying and selling in the local markets, in addition to their other household chores, such as cooking, cleaning, and child rearing.

females in each country. The average income of women is lower than that of men in every country of the world, both MDCs and LDCs. In the United States, for example, per capita annual income in 2001 was approximately \$43,000 for males and \$26,000 for females.

An income gap of more than \$15,000 is typical for MDCs (Figure 9–11). In Australia and Sweden, the average annual income for women was “only” \$10,000 less than that for men. In LDCs the disparity between male and female income is relatively low in dollar terms but high on a percentage basis. Earnings for women lag far

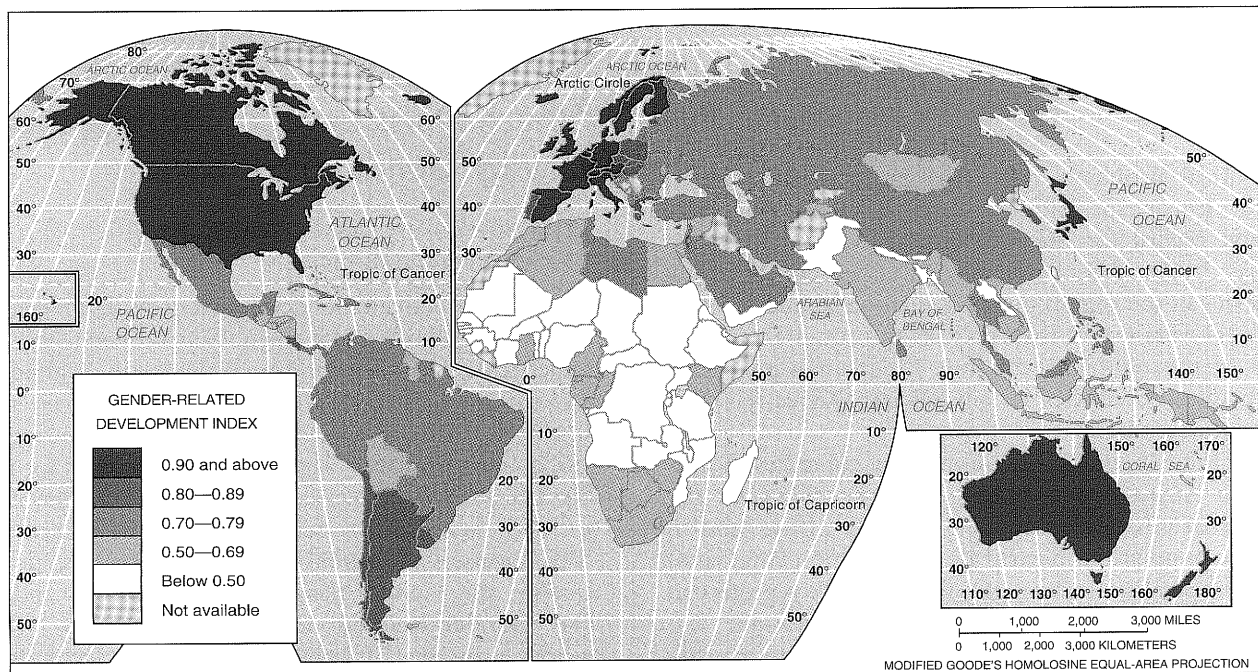


FIGURE 9–10 Gender-Related Development Index (GDI). Similar to the HDI, the GDI combines four measures of development, lowered by the amount of disparity between males and females. A high GDI means that men and women have both achieved high levels of development, though women have a slightly lower level. A low GDI means that women have a low level of development and a level substantially lower than that for men.

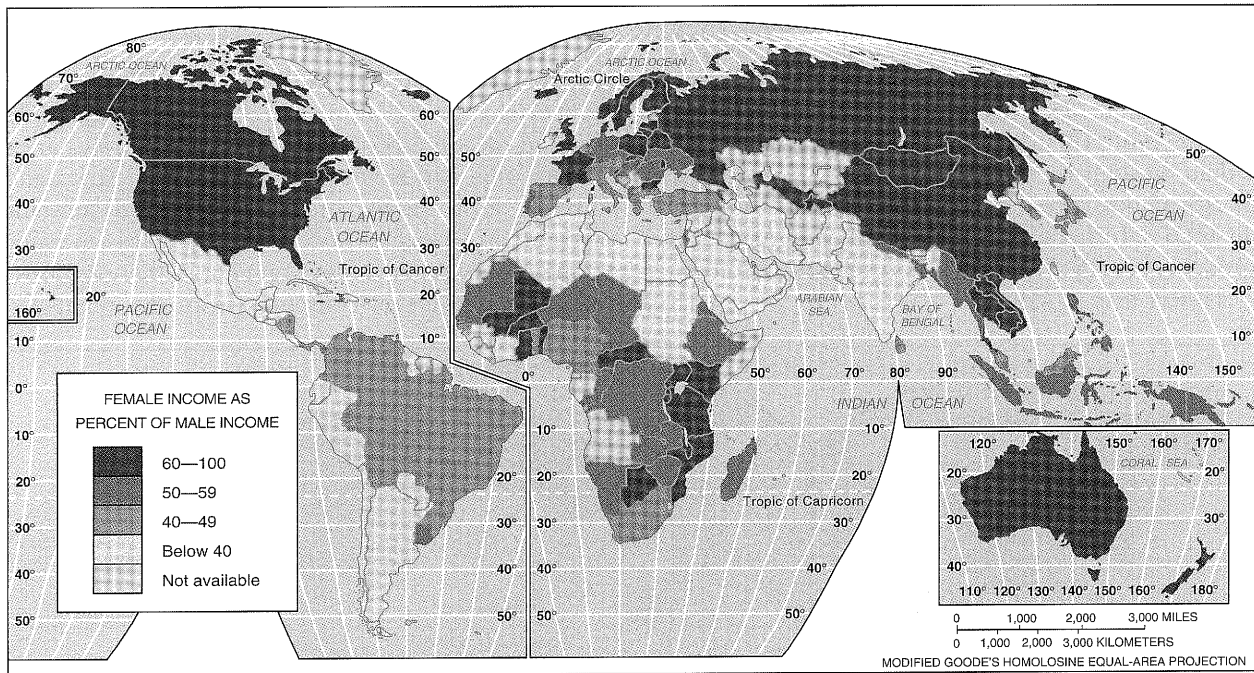


FIGURE 9-11 Difference between female and male income. Females earn lower incomes than males throughout the world. The gender gap in income is relatively high in the Middle East and Latin America.

behind those of men in LDCs, although both figures are much lower than in more developed countries.

Social Indicators of Gender Differences

The two key social indicators of development are education and literacy. Women are less likely to attend school in

LDCs than in MDCs (Figure 9-12). The gap is especially high at the secondary school (high school) level. The ratio of women to men in high school is 99/100 in MDCs, but only 60/100 in LDCs. Stated another way, females—roughly half of the total high school age population in all countries—comprise approximately 50 percent of the actual enrollment in MDCs (as expected) but only 40 percent

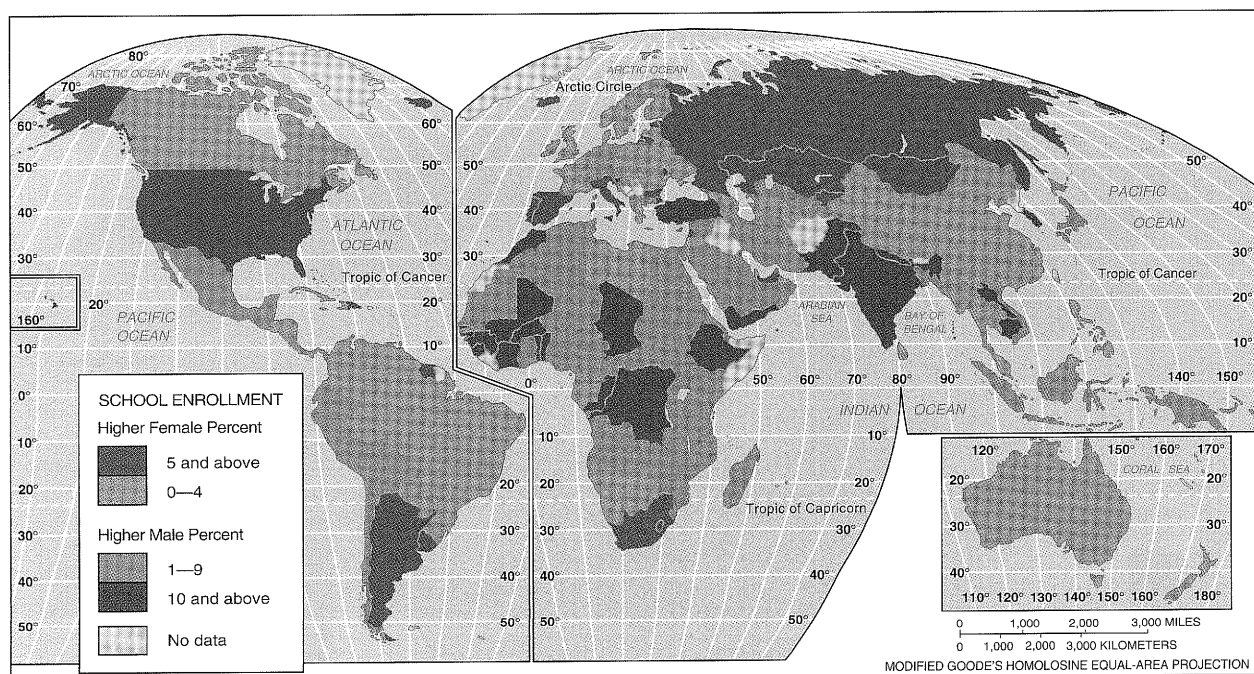


FIGURE 9-12 Difference between female and male education. Girls are equally likely as boys to be enrolled in grade school in more developed countries, but less likely in less developed countries.

in LDCs. The ratio in LDCs has improved over the past quarter century: in 1970 it was only 45/100.

The percentage of females attending school is a key measure of gender disparity in sub-Saharan Africa and the Middle East. In most countries of these regions, fewer than one-third of girls attend school. In contrast, school attendance is nearly universal for both boys and girls in MDCs. In Latin America and much of Asia, boys and girls are equally likely to attend school, but attendance is lower than in MDCs.

Similarly, countries can be divided into three groups according to the other key social indicator of development, literacy (Figure 9–13). In MDCs, literacy is nearly universal among both men and women. In Latin America and Asia, literacy is not universal, but rates are similar for men and women. In sub-Saharan Africa and the Middle East, female literacy is low and substantially lower than for males. Low female literacy is an especially important obstacle to development in these regions. It is both a cause and a consequence of the relatively low

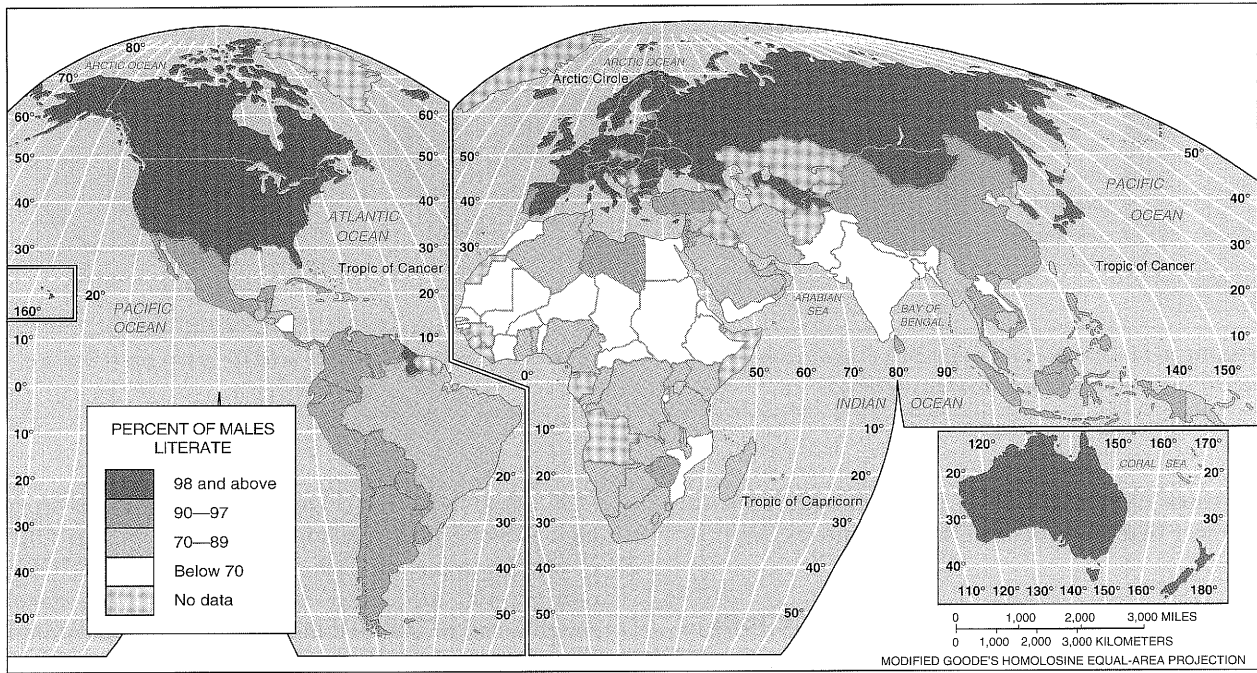
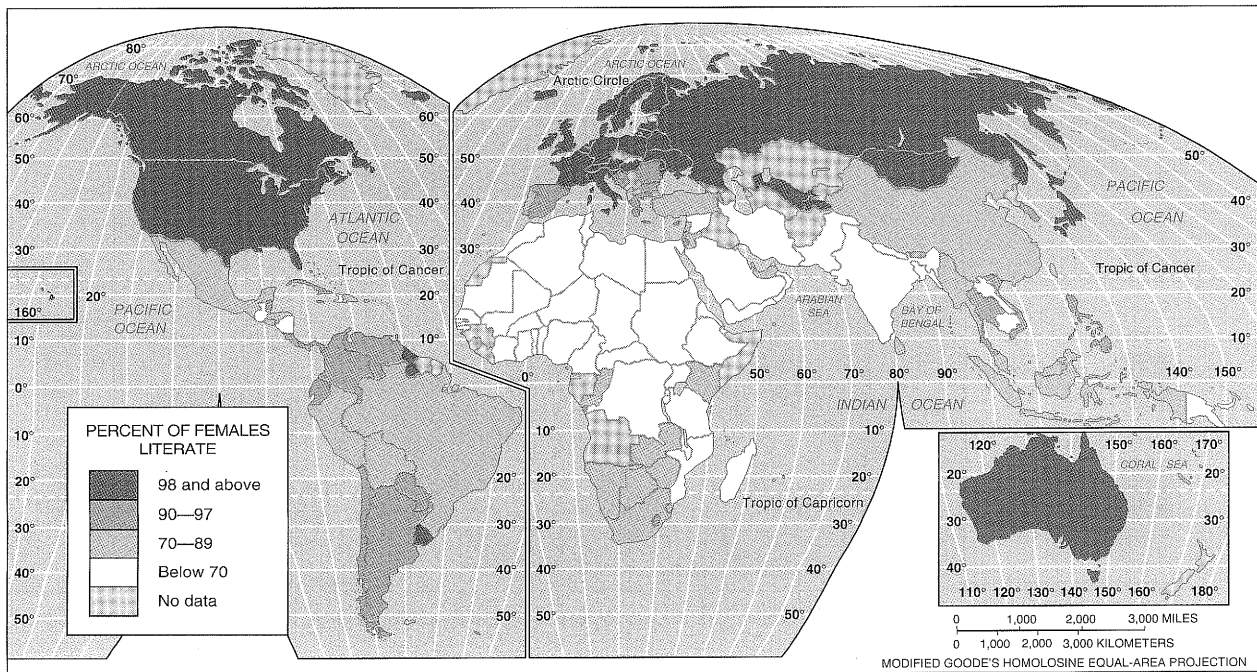


FIGURE 9–13 Literacy rate. In MDCs, all but 1 or 2 percent of adults are able to read and write. In some LDCs, the percentage of women who can read and write is much lower than that for men. The gender gap between male literacy (top) and female literacy (bottom) is relatively high in South Asia and the Middle East.



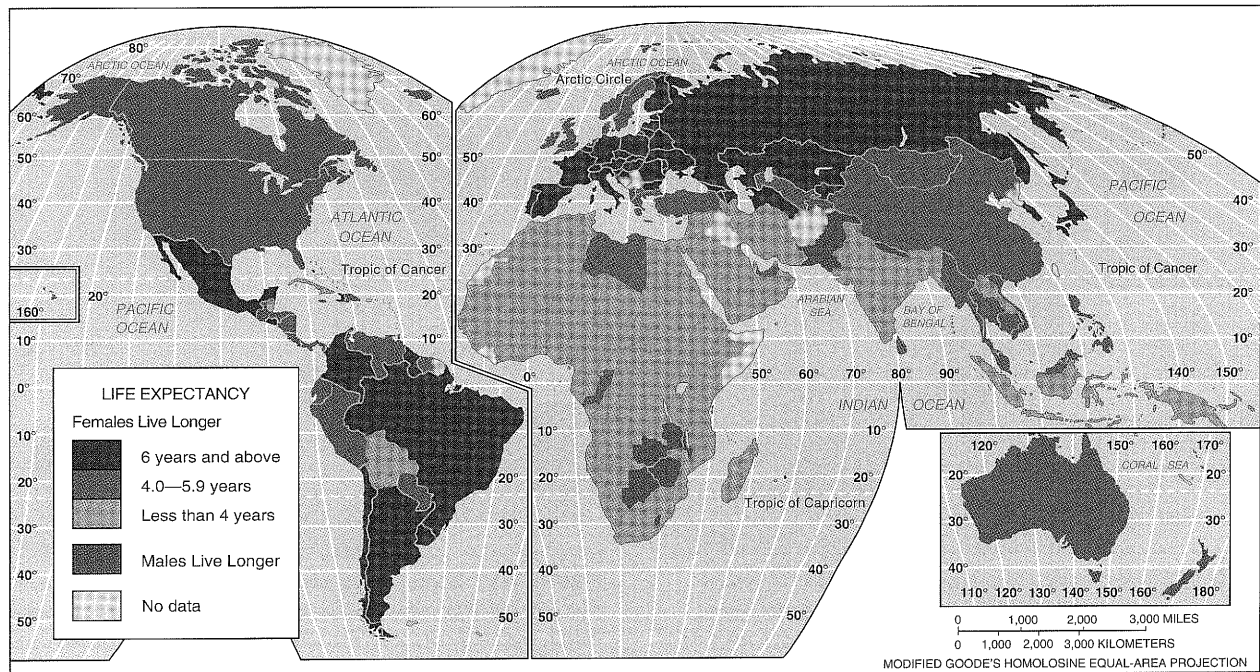


FIGURE 9-14 Difference between female and male life expectancy. A female baby born today is expected to live several years longer than a male baby in more developed countries but only slightly longer in less developed countries. Compare to Figure 2-11.

contribution females are allowed to make to the economy and culture of these regions.

Demographic Indicator of Gender Differences

The demographic development measure in the GDI—life expectancy—displays a different pattern: the gender gap is greater in more developed countries than in less developed ones. In MDCs, a female baby born today is expected to live several years longer than a male baby—six years in the United States, for example—whereas in most LDCs, the gap in life expectancy between females and males is only a year or two (Figure 9-14).

The inability of women to outlive men in LDCs derives primarily from the hazards of childbearing. Women in LDCs bear more children than in MDCs, often under poor medical conditions (see Chapter 2).

Although the status of women is lower than that of men in every country of the world, the United Nations has found that the gap between men and women has been reduced in every country during the past quarter century. Since 1970, the gap has been reduced by two-thirds in LDCs and by one-fourth in MDCs.

Gender Empowerment

The GDI reflects improvements in the standard of living and well-being of women, whereas the GEM measures the ability of women to participate in the process of achieving those improvements. In every country of the world, both MDCs and LDCs, fewer women than men hold positions of economic and political power, according to the United Nations's GEM scoring system.

The GEM is calculated by combining two indicators of economic power (income and professional jobs) and two indicators of political power (managerial jobs and elected jobs). A country with complete equality of power between men and women would have a score of 1.0. As with GDI, countries with the highest GEMs are MDCs, especially in North America, Northern Europe, and the South Pacific (Figure 9-15). Lowest scores are in South Asia and sub-Saharan Africa.

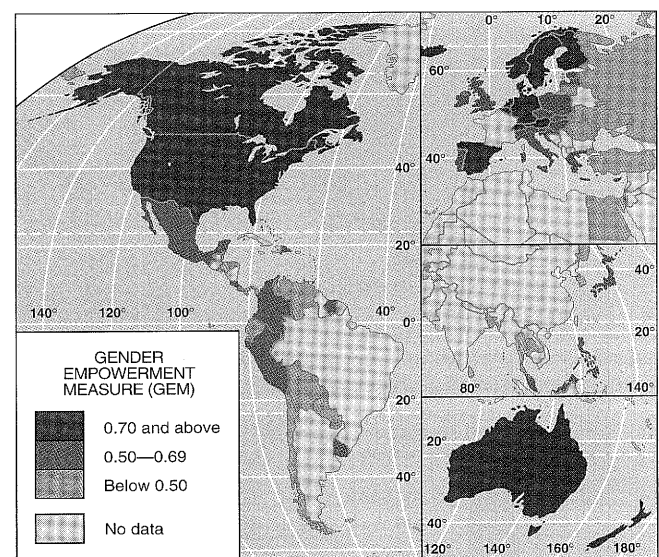


FIGURE 9-15 Gender Empowerment Measure (GEM). The GEM combines two measures of economic power of women and two measures of their political power. Information was not available to calculate the GEM for most LDCs. Compare to Figure 9-11: a country with a much lower GEM than GDI offers women less power than economic resources.

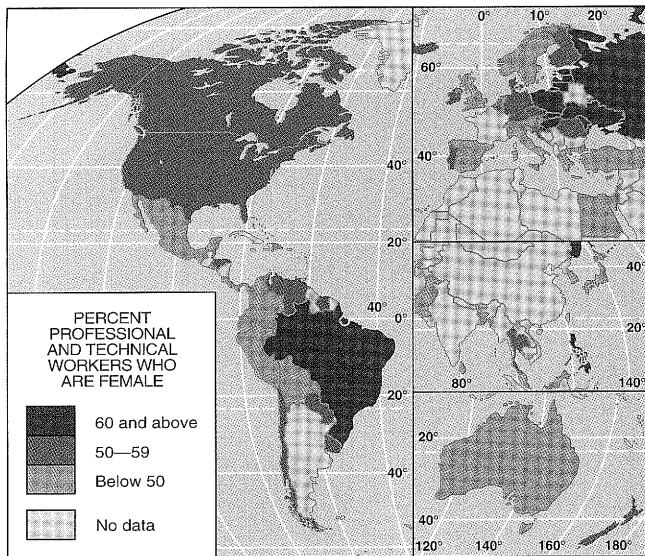


FIGURE 9-16 Women holding jobs as professional and technical workers. More than one-half of top professional and technical workers are women in North America, Northern Europe, and the South Pacific, compared to less than one-fourth in less developed countries.

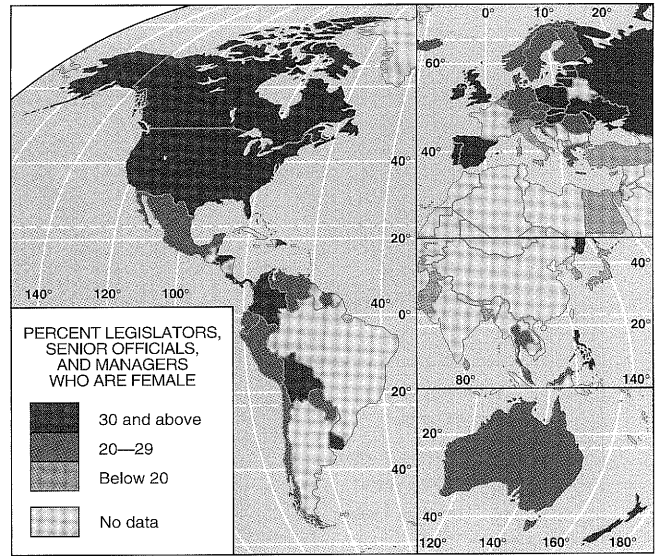


FIGURE 9-17 Women holding jobs as administrators and managers. More than one-third of top administrators are women in North America, Northern Europe, and the South Pacific, compared to less than one-fifth in less developed countries.

Economic Indicators of Empowerment

The percentage of women occupying professional and technical jobs is considered an important measure of the economic power held by women in a country. Professional and technical jobs are regarded by the United Nations as those offering women the greatest opportunities for advancement to positions of influence in a country's economy. Cultural barriers may restrict the ability of women to obtain these jobs in the first place or secure promotions to top-level decision-making positions.

The highest percentages of women in professional and technical jobs are in Northern Europe. More than one-half of professional and technical workers there, as well as in North America, are women (Figure 9-16). In comparison, fewer than one-fourth of professional and technical jobs are held by women in many LDCs.

The United Nations's other key indicator of women's power over economic resources is the share of national income held by women. This is the same indicator included in the GDI (see Figure 9-12). As already discussed,

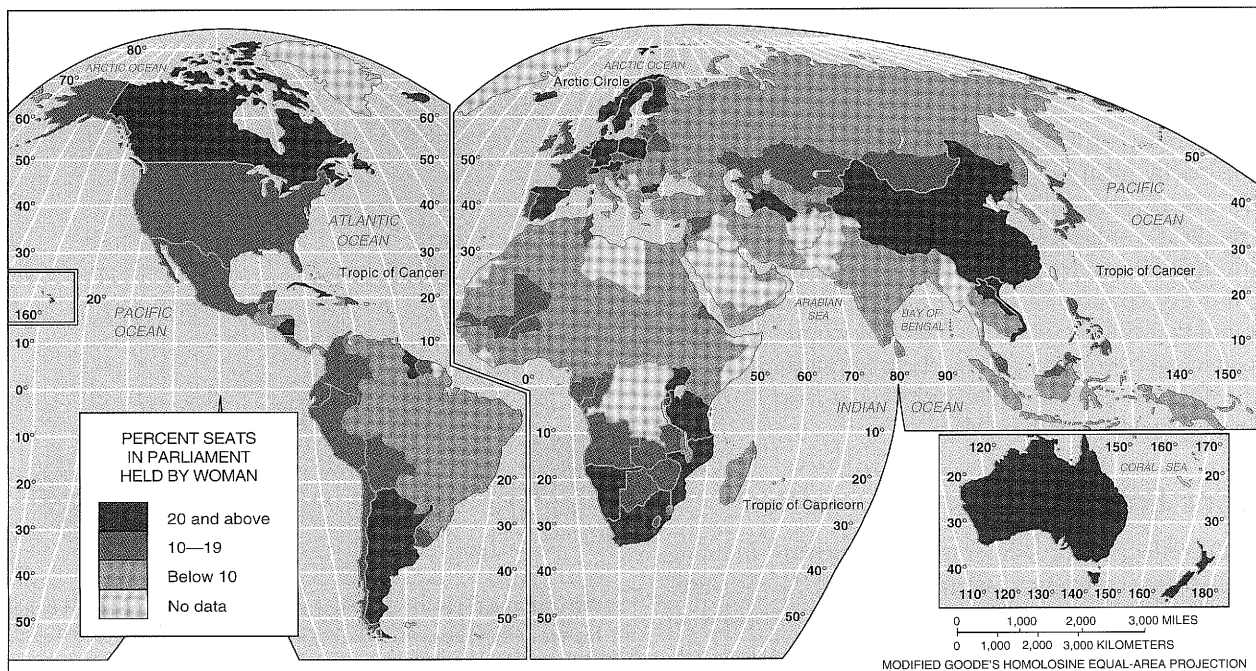


FIGURE 9-18 Women elected to national legislatures. One in three members of parliament in Northern Europe are women, compared to fewer than one in twenty in less developed countries.

average earnings are less for women than for men in every country.

Political Indicators of Empowerment

One indicator of the political power of women is the percentage of the country's administrative and managerial jobs they hold. The United Nations considers professional jobs already discussed to be a key measure of economic power, whereas managerial jobs represent the ability to influence the process of decision making.

As with other indicators, the percentage of managerial jobs held by women is higher in MDCs than in LDCs. The highest percentages are in North America, Northern Europe, and the South Pacific, where more than one-third of the managerial jobs are held by women. Women hold only 10 percent of managerial jobs in other MDCs and less than 5 percent in most LDCs (Figure 9-17).

KEY ISSUE 4

Why Do Less Developed Countries Face Obstacles to Development?

- Development through self-sufficiency
- Development through international trade
- Financing development

The indicators presented in the previous key issues reflect sharp differences in the levels of development of more developed and less developed countries. To promote development, LDCs seek improvements in these indicators. LDCs have in fact made progress, but for many of the indicators the gap between the two is widening rather than narrowing.

Annual GDP per capita during the past quarter century has increased by \$3,000 in less developed countries, compared to \$16,000 in more developed ones. Natural increase has dropped by 20 percent in LDCs but by 83 percent in more developed ones. Infant mortality has dropped by one-half in LDCs but by two-thirds in MDCs (Figure 9-19).

The one-fifth of the world's people living in MDCs consume five-sixths of the world's goods, whereas the 14 percent of the world's people who live in Africa consume about 1 percent. The United Nations recently placed the contrast in spending between MDCs and LDCs in picturesque terms: Americans spend more per year on cosmetics (\$8 billion) than the cost of providing schools for the 2 billion in the world in need of them (\$6 billion), and Europeans spend more on ice cream (\$11 billion) than the cost of providing a working toilet to the 2 billion people currently without one at home (\$9 billion).

To reduce disparities between rich and poor countries, LDCs must develop more rapidly. This means increasing per capita GDP more rapidly and using the additional funds to make more rapid improvements in people's social and economic conditions. LDCs face two fundamental obstacles in trying to encourage more rapid development:

The other key political indicator of empowerment is percentage of women who are elected to public office. No particular gender-specific skills are required to be elected as a representative and to serve effectively. Although more women than men vote in most places, no country has a national parliament or congress with a majority of women. The highest percentages are in Northern Europe, where women comprise approximately one-third of members of national parliaments. Around one in ten national legislators are women in other MDCs, less than one in twenty in LDCs (Figure 9-18). In the United States, 13 percent of the U.S. Senate and House of Representatives are women.

Every country has a lower GEM than GDI. A higher GDI compared to GEM means that women possess a greater share of a country's resources than power over allocation of those resources.

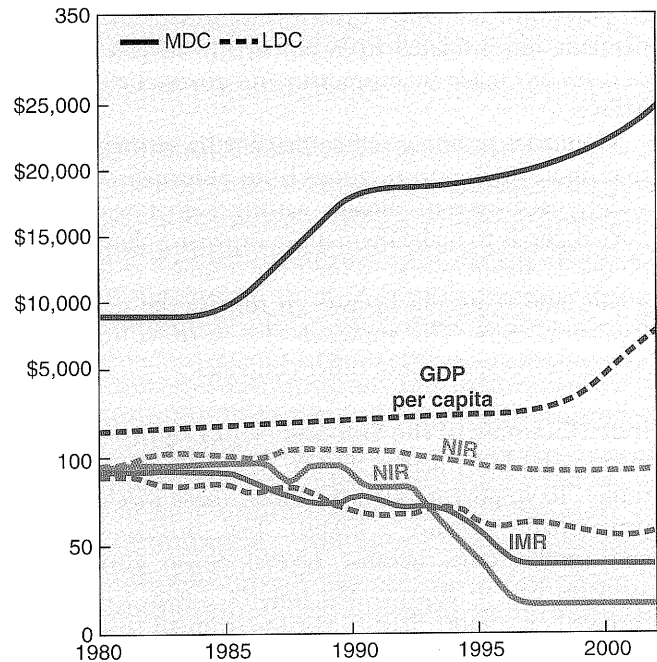


FIGURE 9-19 Progress toward development. IMR and NIR are set to equal 100 in 1980. During the past two decades, GDP per capita has increased more rapidly, and natural increase and infant mortality rates have decreased more rapidly in MDCs than in LDCs.

- Adopting policies that successfully promote development
- Finding funds to pay for development

LDCs chose one of two models to promote development. One approach emphasizes international trade; the other advocates self-sufficiency. Each has important advantages and serious problems. We will examine examples of countries that have tried each alternative, successfully and unsuccessfully.

Development Through Self-Sufficiency

For most of the twentieth century, self-sufficiency, or balanced growth, was the more popular of the development alternatives. The world's two most populous countries, China and India, adopted this strategy, as did most African and Eastern European countries.

Elements of Self-Sufficiency Approach

According to the balanced growth approach, a country should spread investment as equally as possible across all sectors of its economy and in all regions. The pace of development may be modest, but the system is fair because residents and enterprises throughout the country share the benefits of development. Under self-sufficiency, incomes in the countryside keep pace with those in the city, and reducing poverty takes precedence over encouraging a few people to become wealthy consumers.

The approach nurses fledgling businesses in an LDC by isolating them from competition of large international corporations. A country's fragile businesses can be independent and insulated from potentially adverse impacts of decisions made by businesses and governments in the MDCs.

Countries promote self-sufficiency by setting barriers that limit the import of goods from other places. Three widely used barriers include setting high taxes on imported goods to make them more expensive than domestic goods, fixing quotas to limit the quantity of imported goods, and requiring licenses to restrict the number of legal importers. The approach also restricts local businesses from exporting to other countries.

India: Example of the Self-Sufficiency Approach. For many years India made effective use of many barriers to trade. To import goods into India, most foreign companies had to secure a license. The process was long and cumbersome, because several dozen government agencies had to approve the request. Once a company received an import license, the government severely restricted the quantity it could sell in India. The government also imposed heavy taxes on imported goods, which doubled or even tripled the price to consumers.

At the same time, Indian businesses were discouraged from producing goods for export to more developed or other less developed countries. Indian money could not be converted to other currencies.

Businesses were supposed to produce goods for consumption inside India. Effectively cut off from the world economy, businesses required government permission to sell a new product, modernize a factory, expand production, set prices, hire or fire workers, and change the job classification of existing workers.

If private companies were unable to make a profit selling goods only inside India, the government provided subsidies, such as cheap electricity, or wiped out debts. The government owned not just communications, transportation, and power companies, a common feature

around the world, but also businesses such as insurance companies and automakers, left to the private sector in most countries.

Problems with the Self-Sufficiency Alternative

The experience of India and other LDCs revealed two major problems with self-sufficiency:

Inefficiency. Self-sufficiency protects inefficient industries. Businesses can sell all they make, at high government-controlled prices, to customers culled from long waiting lists, so they have little incentive to improve quality, lower production costs, reduce prices, or increase production. Companies protected from international competition do not feel pressure to keep abreast of rapid technological changes.

India's auto industry, for example, has been dominated by Maruti-Udyog Ltd., a joint venture between Suzuki Motor Corporation and the Indian government. Nursed by import duties that rose from 15 percent in 1984 to 66 percent in 1991, Maruti captured more than 80 percent of the Indian market selling cars that would be considered out-of-date in other countries.

Large Bureaucracy. The second problem with the self-sufficiency approach was the large bureaucracy needed to administer the controls. A complex administrative system encouraged abuse and corruption. Potential entrepreneurs found that struggling to produce goods or offer services was less rewarding financially than advising others how to get around the complex government regulations. Other potential entrepreneurs earned more money by illegally importing goods and selling them at inflated prices on the black market.

Development Through International Trade

The international trade model of development calls for a country to identify its distinctive or unique economic assets. What animal, vegetable, or mineral resources does the country have in abundance that other countries are willing to buy? What product can the country manufacture and distribute at a higher quality and a lower cost than other countries?

According to the international trade approach, a country can develop economically by concentrating scarce resources on expansion of its distinctive local industries. The sale of these products in the world market brings funds into the country that can be used to finance other development.

Rostow's Development Model

A pioneering advocate of this approach was W. W. Rostow, who in the 1950s proposed a five-stage model of development. Several countries adopted this approach

during the 1960s, although most continued to follow the self-sufficiency approach.

1. **The traditional society.** This term defines a country that has not yet started a process of development. A traditional society contains a very high percentage of people engaged in agriculture and a high percentage of national wealth allocated to what Rostow called “nonproductive” activities, such as the military and religion.
2. **The preconditions for takeoff.** Under the international trade model, the process of development begins when an elite group initiates innovative economic activities. Under the influence of these well-educated leaders, the country starts to invest in new technology and infrastructure, such as water supplies and transportation systems. These projects will ultimately stimulate an increase in productivity.
3. **The takeoff.** Rapid growth is generated in a limited number of economic activities, such as textiles or food products. These few takeoff industries achieve technical advances and become productive, whereas other sectors of the economy remain dominated by traditional practices.
4. **The drive to maturity.** Modern technology, previously confined to a few takeoff industries, diffuses to a wide variety of industries, which then experience rapid growth comparable to the takeoff industries. Workers become more skilled and specialized.
5. **The age of mass consumption.** The economy shifts from production of heavy industry, such as steel and energy, to consumer goods, such as motor vehicles and refrigerators.

According to the international trade model, each country is in one of these five stages of development. More developed countries are in stage 4 or 5, whereas less developed ones are in one of the three earlier stages. The model also asserts that today’s MDCs passed through the early stages in the past. The United States, for example, was in stage 1 prior to independence, stage 2 during the first half of the nineteenth century, stage 3 during the middle of the nineteenth century, and stage 4 during the late nineteenth century, before entering stage 5 during the early twentieth century. The model assumes that LDCs will achieve development by moving along from an earlier to a later stage.

A country that concentrates on international trade benefits from exposure to consumers in other countries. To remain competitive, the takeoff industries must constantly evaluate changes in international consumer preferences, marketing strategies, production engineering, and design technologies. This concern for international competitiveness in the exporting takeoff industries will filter through less advanced economic sectors.

Rostow’s optimistic development model was based on two factors. First, the developed countries of Western Europe and Anglo-America had been joined by others in Southern and Eastern Europe and Japan. If they could

become more developed by following this model, why not other countries?

Second, many LDCs contain an abundant supply of raw materials sought by manufacturers and producers in MDCs. In the past, European colonial powers extracted many of these resources without paying compensation to the colonies. In a global economy, the sale of these raw materials could generate funds for LDCs to promote development.

Examples of International Trade Approach

When most LDCs were following the self-sufficiency approach, two groups of countries chose the international trade approach during the mid-twentieth century. One such group was along the Arabian Peninsula near the Persian Gulf; the others were in East and Southeast Asia.

Petroleum-Rich Persian Gulf States. Saudi Arabia is the largest and most populous country in the Persian Gulf area; others include Kuwait, Bahrain, Oman, and the United Arab Emirates. This region was one of the world’s least developed until the 1970s, when escalation of petroleum prices transformed these countries overnight into some of the wealthiest per capita.

Persian Gulf countries have used petroleum revenues to finance large-scale projects, such as housing, highways, airports, universities, and telecommunications networks. Recently built steel, aluminum, and petrochemical factories compete on world markets with the help of government subsidies.

The landscape has been further changed by the diffusion of consumer goods. Large motor vehicles, color TVs, audio equipment, and motorcycles are readily available and affordable. Supermarkets are stocked with food imported from Europe and Anglo-America.

Some Islamic religious principles, which dominate the culture of the Middle East, conflict with business practices in MDCs. Women are excluded from holding most jobs and visiting public places, such as restaurants and swimming pools. In some places they are expected to wear traditional black clothes, a shroud, and a veil. All business halts several times a day when Muslims are called to prayers. Shops close their checkout lines and permit people to unwrap their prayer rugs and prostrate themselves on the floor.

The Four Asian Dragons. Also among the first countries to adopt the international trade alternative were South Korea, Singapore, Taiwan, and the then-British colony of Hong Kong. These four areas were given several nicknames, including the “four dragons,” the “four little tigers,” and “the gang of four.”

Singapore and Hong Kong, British colonies until 1965 and 1997, respectively, have virtually no natural resources. Both comprise large cities surrounded by very small amounts of rural land. South Korea and Taiwan have traditionally taken their lead from Japan, which occupied both countries until after World War II. Their

adoption of the international trade approach was strongly influenced by Japan's success.

Lacking natural resources, the four dragons promoted development by concentrating on producing a handful of manufactured goods, especially clothing and electronics. Low labor costs enabled these countries to sell products inexpensively in MDCs.

Problems with the International Trade Alternative

Three problems have hindered countries outside the Persian Gulf and the four Asian dragons from developing through the international trade approach:

1. **Uneven Resource Distribution.** Middle Eastern countries successfully developed through rising petroleum prices. Other countries found that the prices of their commodities did not increase and in some cases actually decreased. LDCs that depended on the sale of one product suffered because the price of their leading commodity did not rise as rapidly as the cost of the products they needed to buy. For example, Zambia has a large percentage of the world's copper reserves, but it has been unable to use this asset to promote development because of declining world prices for copper.
2. **Market Stagnation.** Countries such as the four dragons that depend on selling low-cost manufactured goods find that the world market for many products is expanding slower than in the past. MDCs have limited growth in population, consumer purchasing power, and market size. To increase sales, LDCs may need to capture sales from established competitors rather than share in an expanding market.
3. **Increased Dependence on MDCs.** Building up a handful of takeoff industries that sell to people in MDCs may force LDCs to cut back on production of food, clothing, and other necessities for their own people. Rather than finance new development, funds generated from the sale of products to other countries may have to be used to buy these necessities from MDCs for the employees of the takeoff industries.

Recent Triumph of the International Trade Approach

Despite problems with the international trade approach, it has been embraced by most countries as the preferred alternative for stimulating development. Longtime advocates of the self-sufficiency approach quickly converted to international trade during the 1990s. World wealth (as measured by GDP) has doubled during the past quarter century, whereas world trade has tripled, a measure of the growing importance of the international trade approach.

India, for example, has dismantled its formidable collection of barriers to international trade. Foreign companies are allowed to set up factories and sell in India; tariffs and restrictions on the import and export of goods have

been reduced or eliminated. Monopolies in communications, insurance, and other industries have been eliminated. With increased competition, Indian companies have improved the quality of their products. Maruti now holds less than half of India's car market, and control has been sold to the Japanese company Suzuki.

Countries have converted from self-sufficiency to international trade for one simple reason: overwhelming evidence that international trade better promotes development. The World Bank found that since 1990 per capita GDP has increased more than 4 percent annually in countries strongly oriented toward international trade, compared to less than 1 percent for countries strongly oriented toward self-sufficiency.

In the case of India, under self-sufficiency between 1960 and 1990, GDP grew by 4 percent per year, much lower than in Asian countries that had embraced international trade. In comparison, during the same period, GDP increased 7 percent per year in Thailand, 8 percent in Taiwan, and 9 percent in South Korea. After adopting the international trade alternative in the early 1990s, India's GDP has grown 6 percent per year.

World Trade Organization. To promote the international trade development model, countries representing 97 percent of world trade established the the World Trade Organization (WTO) in 1995. The WTO works to reduce barriers to international trade in two principal ways.

First, through the WTO, countries negotiate reduction or elimination of international trade restrictions on manufactured goods, such as government subsidies on exports, quotas on imports, and tariffs on both imports and exports. Also reduced or eliminated are restrictions on the international movement of money by banks, corporations, and wealthy individuals.

The WTO also promotes international trade by enforcing agreements. One country can bring to the WTO an accusation that another country has violated a WTO agreement. The WTO is authorized to rule on the validity of the charge and order remedies. The WTO also protects intellectual property in the age of the Internet. An individual or corporation can also bring charges to the WTO that someone in another country has violated their copyright or patent, and the WTO can order illegal actions to stop.

The WTO has been sharply attacked by liberal and conservative critics. Liberal critics charge that the WTO is antidemocratic, because decisions made behind closed doors promote the interest of large corporations rather than the poor. Conservatives charge that the WTO compromises the power and sovereignty of individual countries because it can order changes in taxes and laws that it considers unfair trading practices.

Protesters routinely gather in the streets outside high-level meetings of the WTO. Most notably, the 1999 WTO meeting in Seattle drew more than 50,000 protesters. Seattle police and National Guard troops used tear gas and rubber pellets to control the crowd over a three-day period. The city imposed a curfew after downtown stores were damaged.

Financing Development

Regardless of whether self-sufficiency or international trade is preferred, LDCs lack the money needed to finance development. The LDCs generally must obtain funds from more developed countries. These funds come from two primary sources: loans from banks and international organizations, and direct investment by transnational corporations.

Loans. LDCs borrow money to build new infrastructure, such as hydroelectric dams, electric transmission lines, flood-protection systems, water supplies, roads, and hotels. The two major lenders are international lending organizations controlled by the MDC governments—the World Bank and the International Monetary Fund—which together lend about \$50 billion a year to LDCs for development. Money is also lent by commercial banks in more developed countries. The total value of all outstanding loans to LDCs was about \$2.1 trillion in 1996, an increase of about \$1 trillion in a decade.

The theory behind borrowing money to build infrastructure is that new roads and dams will make conditions more favorable for domestic and foreign businesses to open or expand. After all, no business wants to locate in a place that lacks paved roads, running water, and electricity. In principle, new or expanded businesses are attracted to an area because improved infrastructure will contribute additional taxes that the LDC uses in part to repay the loans and in part to improve its citizens' living conditions.

The problem is that many of the new infrastructure projects are expensive failures. In Mali, for example, a French-sponsored project to pump water from the Niger

River using solar energy functioned for only a month. Even when it worked, the project, which cost more than \$1 million, produced no more water than could two diesel pumps that together cost \$6,000. The World Bank has judged half of the projects it has funded in Africa to be failures. In other cases, roads are opened and equipment operates correctly, but new businesses are still not attracted to the area.

Many LDCs have been unable to repay the interest on their loans, let alone the principal. Brazil, Mexico, Argentina, and several other Latin American countries have accumulated the largest debts, although several African countries have very high ratios of debt to income (Figure 9–20). Debt actually exceeds annual income in approximately 30 countries. When these countries cannot repay their debts, financial institutions in MDCs refuse to make further loans, so construction of needed infrastructure stops. The inability of many LDCs to repay loans also damages the financial stability of banks in the MDCs.

MDCs have become more cautious in granting loans. LDCs judged likely to repay debts receive more of the loans and at lower rates of interest. In exchange for canceling or refinancing debts, international lending agencies require LDCs to adopt **structural adjustment programs**, which are economic policies that create conditions encouraging international trade, such as raising taxes, reducing government spending, controlling inflation, selling publicly owned utilities to private corporations, and charging citizens more for services. These programs can be unpopular with the voters and can encourage political unrest. For their part, LDCs demand an increased role in loan-making decisions made by international agencies.

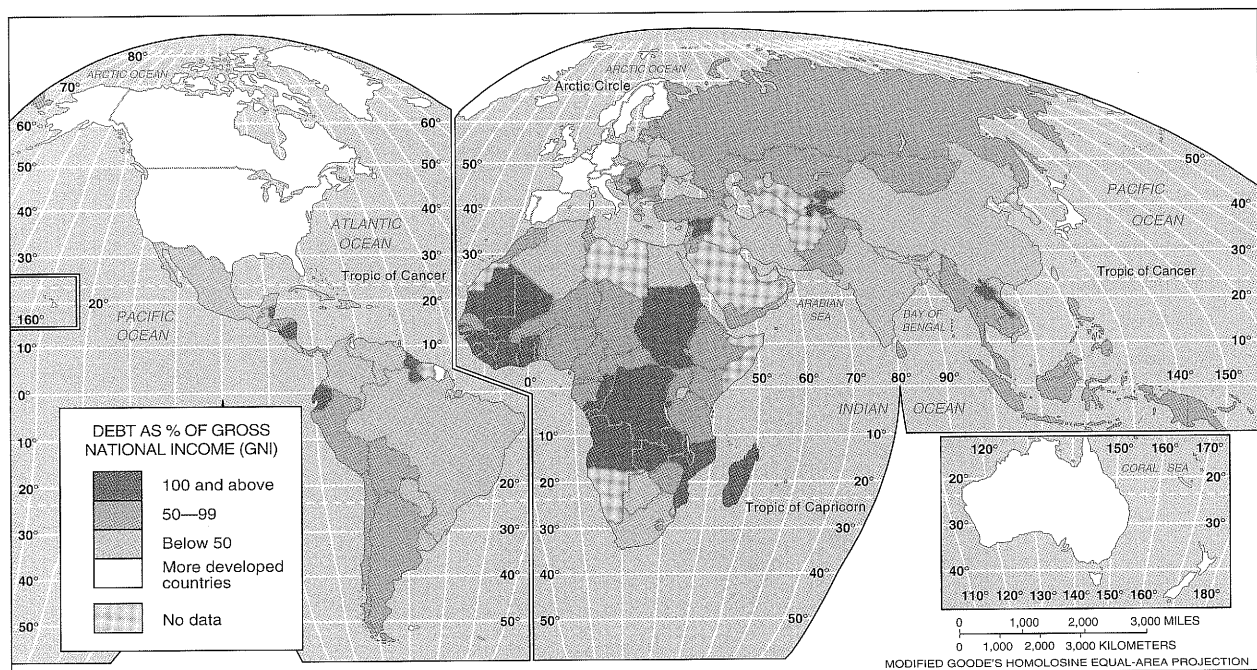


FIGURE 9–20 Debt as percentage of income. To finance development, many developing countries have accumulated large foreign debts relative to their annual GDPs. As a result, a large percentage of their national budgets must be used to repay loans. When LDCs cannot repay their debts, financial institutions in relatively developed countries suffer because they were a major source of the loans.

Global Forces, Local Impacts

Debt Service in Latin America

Latin America faces a special challenge in repaying debts, in part for the same reasons as in other LDCs and in part because of distinctive local conditions. Debt servicing is a particular problem in Latin America because of the region's distinctive colonial legacy and recent development policies. When Spain ruled most of Latin America (and Portugal ruled Brazil), the economy was organized around extracting minerals and other natural resources and shipping them to Europe. Investment was concentrated in ports, as well as roads to get the natural resources to the ports. Health care, education, and other social services were neglected.

After independence (for the most part during the nineteenth century), Latin American countries turned from Spain and Portugal to British and American corporations for financial help. Foreign investment continued to be used to extract natural resources. The practice has been described as switching from colonialism to neocolonialism.

Latin American countries adopted a new policy during the 1950s and 1960s called import substitution industrialization. Economic activity was redirected from extracting natural resources to manufacturing products for local consumption.

Barriers were erected to prevent imports of manufactured goods from the United States and other MDCs. To be sold in Latin America, products such as motor vehicles had to be built there rather than imported.

To finance industrialization, Latin American countries borrowed money from banks in the United States and Western Europe. Banks make money by taking in deposits and loaning out the deposits at profitable interest rates.

Banks were especially eager to loan money to Latin American countries during the 1970s, because they were flush with cash. With rapidly rising oil prices, oil-rich Middle Eastern countries were making hefty deposits in U.S. and European banks. But the increase in oil prices was also causing economic hardship in MDCs, so U.S. and European banks faced limited opportunities to loan money at home.

As in other LDCs, most Latin American countries have been promoting international trade recently. In theory, revenue from exports is used to finance development at home. However, in Latin America much of the export revenue goes to paying the interest on the debt. Exports do not generate enough revenue to reduce the principal on the loan.

Transnational Corporations. A transnational corporation operates in countries other than the one in which its headquarters are located. Initially, transnational corporations were primarily U.S.-owned, but in recent years active transnational corporations have been based in other MDCs, especially Japan, Germany, France, and the United Kingdom.

The flow of investment from one country to another made by private corporations grew rapidly in the late twentieth century, from \$13 billion in 1970 and \$55 billion

in 1980 to \$735 billion in 2001. Much of the investment involved transfers within transnational corporations, such as automotive engines and transmissions manufactured in one country and shipped to a final assembly plant in another country. Refer back to Figure 1-17, which showed the scope of international operations of a major Japanese auto-parts maker, Denso.

Foreign investment does not flow equally around the world (Figure 9-21). Only one-fourth of foreign investment went from a more developed country to a less

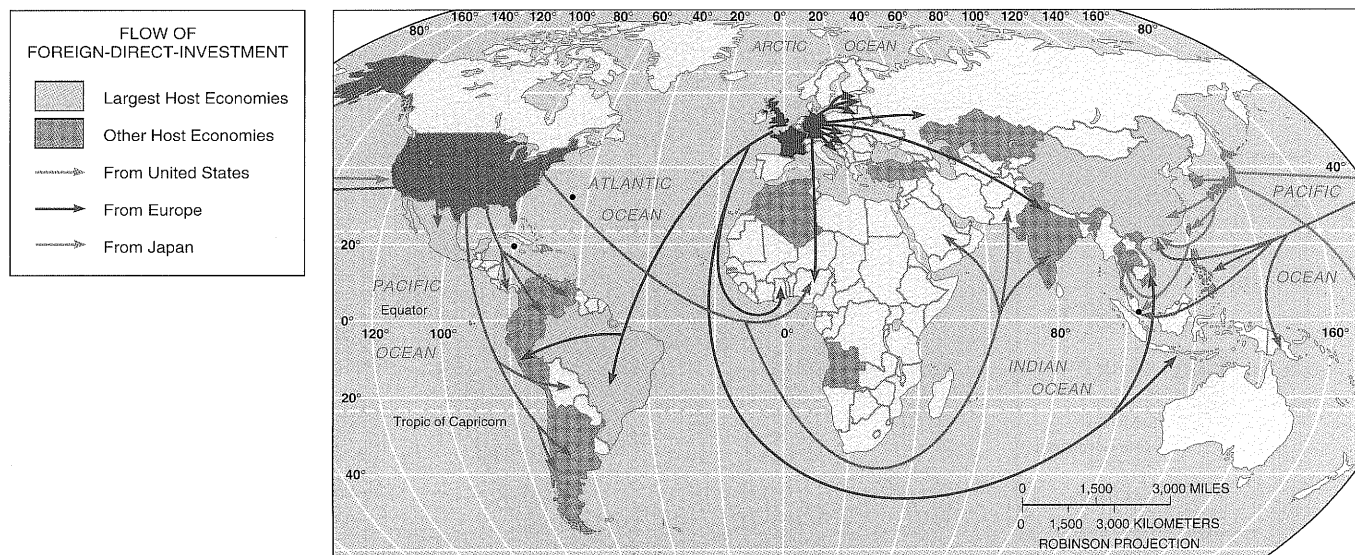
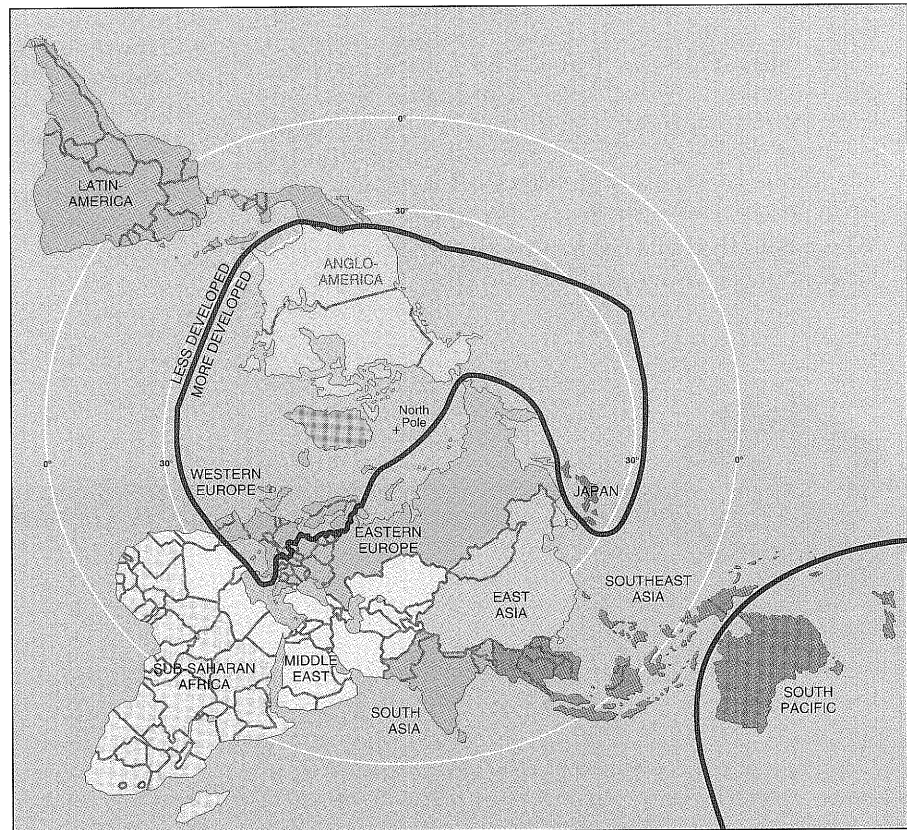


FIGURE 9-21 Major flows of foreign investment. Most transnational companies invest in the three core regions of North America, Western Europe, and Japan. Outside the core regions, the largest amount of investment by transnational corporations is in Latin America (especially by transnationals based in the United States) and in Asia (especially by Japanese transnationals).

developed country in 2001, whereas the other three-fourths went from one MDC to another MDC. One-half of all of the international investment in LDCs was

clustered in three countries: Brazil, China (including Hong Kong), and Mexico. Another one-fourth was in 20 countries, primarily in South America and Asia.

FIGURE 9-22 Core and periphery. Most of the countries that have achieved relatively high levels of development are located above 30° north latitude. Viewed from this north polar projection, more developed countries appear clustered in an inner core, whereas less developed countries are generally relegated to a peripheral or outer-ring location.



SUMMARY

The relationship between the more and less developed regions—described at the beginning of the chapter as a north-south split—appears somewhat different on a north polar projection. MDCs form a triangular-shaped inner-core area, whereas LDCs occupy peripheral locations (Figure 9-22). This unorthodox world map projection emphasizes the central role played by MDCs in the world economy and the secondary role of LDCs.

In an increasingly unified world economy, the MDCs clustered in the core play dominant roles in forming the economies of the LDCs on the periphery. Anglo-America, Western Europe, and Japan account for a high percentage of the world's economic activity and wealth. The LDCs in the periphery have less access to the world centers of consumption, communications, wealth, and power, which are clustered in the core. Development prospects of Latin America are tied to governments and businesses in Anglo-America, those of Africa, the Middle East, and Eastern Europe to Western Europe, and those of Asia to Japan and to a lesser extent Western Europe and Anglo-America.

Yet many people in MDCs oppose increased trade with LDCs, because of alleged unfair labor practices, inadequate environmental safeguards, and unfair pricing of products (see Chapter 11). Many people in LDCs also oppose increased trade, believing that more developed core regions are exploiting

the people and resources of less developed peripheral regions. But from the perspective of others in less developed regions, integration into a world economy through trade with MDCs may be a small price to pay to receive material benefits of development, such as a steady job and a television.

The World Bank projects that China will have the world's largest economy by the year 2020, ahead of the United States and Japan. India and Indonesia are expected to follow, then Germany, South Korea, France, Taiwan, Brazil, Italy, Russia, the United Kingdom, and Mexico. Thus, 7 of the top 14 economies are expected to be in countries currently considered less developed. For that to happen, the world will have to make considerable progress in the next few years toward achieving what the United Nations called for in 1974—"a new international economic order," based on greater equality and economic interdependence between more and less developed countries.

Here again are the key issues concerning development:

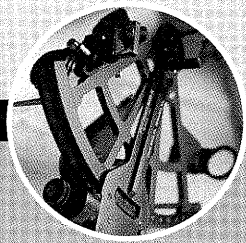
1. **Why does development vary among countries?** Development is the process by which the material conditions of a country's people are improved. An MDC has a higher level of per capita GDP, achieved through a transformation in the structure of the economy from a predominantly agricultural to an industrial and service-providing society. MDCs use

their wealth in part to provide better health, education, and welfare services. Conversely, LDCs must use their additional wealth primarily to meet the needs of a rapidly growing population.

2. **Where are more and less developed countries distributed?** We can identify three more developed regions—Anglo-America, Western Europe, and Eastern Europe—plus two other developed areas—Japan and the South Pacific. Six less developed regions include Latin America, Southeast Asia, the Middle East, East Asia, South Asia, and sub-Saharan Africa. These less developed regions face different prospects for promoting development.
3. **Where does level of development vary by gender?** The United Nations has found evidence of gender inequality in

every country of the world. Women have lower levels of income, literacy, and education than men. Even in countries where women have achieved near-equality with men in living conditions, they still have much less economic and political power.

4. **Why do less developed countries face obstacles to development?** Less developed countries choose between the international trade and the self-sufficiency paths toward development. In either alternative, LDCs may need to borrow considerable sums of money to promote development. The inability of many LDCs to pay back these loans is a source of considerable tension between them and more developed countries.



CASE STUDY REVISITED

Future Prospects for Development

The most fundamental obstacle to development in many LDCs is gender inequality. A precondition for effective nurturing of takeoff industries and effective use of loans is ensuring an effective role for women in the development process. Excluding women is not merely unfair, it wastes a major economic asset.

The United Nations's GDI measures the condition of women and the extent of gender inequality in various countries. As was the case with the HDI, sub-Saharan Africa and South Asia have the lowest GDIs. In these regions, women have relatively low literacy rates, low levels of education, and low life expectancy, but so do men.

Southeast Asia, the Middle East, and East Asia have virtually identical HDIs, but their GDIs are different. Among the three regions, the GDI is relatively high in Southeast Asia and relatively low in the Middle East. This indicates that the status of women is quite low in the Middle East, whereas in Southeast Asia the position of the two sexes is relatively close. Latin America has

a somewhat higher HDI than has Eastern Europe, but Eastern Europe's GDI is much higher, indicating equality between the sexes in the former Communist countries.

One country with a legacy of gender inequality is trying to do something about it. The Grameen Bank, based in Bangladesh, specializes in making loans to women, three-fourths of the borrowers since the bank was established in 1977. The bank has made several hundred thousand loans to women in Bangladesh and neighboring South Asian countries, and only 1 percent of the borrowers—an extraordinarily low percentage for a bank—have failed to make their weekly loan repayments. Several million loans have also been provided to women by the Bangladesh Rural Advancement Committee.

Rabea Rahman borrowed \$90 from the Grameen Bank to buy a cow. Earnings from selling the cow's milk enabled her to buy her son an \$85 rickshaw bicycle so that he could make a living. The smallest loan the bank has made was \$1, to a woman who wanted to sell plastic bangles door to door. Other women have borrowed money to make perfume, bind books, and sell matches, mirrors, and bananas. The average loan is about \$60.

KEY TERMS

Development (p. 299)

Gender Empowerment Index (GEM)
(p. 315)

Gender-Related Development Index
(GDI) (p. 315)

Human Development Index (HDI)
(p. 299)

Gross domestic product (GDP) (p. 300)

Less developed country (LDC) (p. 299)

Literacy rate (p. 303)

More developed country (MDC) (p. 299)

Primary sector (p. 300)

Productivity (p. 302)

Secondary sector (p. 300)

Structural adjustment program (p. 325)

Tertiary sector (p. 301)

Value added (p. 302)