▶ *CASE STUDY*

RAGS AND RICHES

GOAL

To introduce the different ways of defining and measuring the multifaceted phenomenon of **development**. You will recognize that certain countries perform better on human welfare than on economic dimensions.

LEARNING OUTCOMES

After completing the exercise, you will be able to:

- Define development in economic and human welfare terms.
- Identify countries where economic and human welfare measures yield different rankings of development.
- Interpret the reasons for these different rankings.
- Consult UN documents and Web sites to identify other development indicators.

SPECIAL MATERIALS NEEDED

- Calculator

BACKGROUND

We are all aware that some countries are better off than others. Because no measures of development are universally accepted, development can mean different things to different people, depending upon how much weight they place on particular dimensions of progress and well-being. Just as individuals can be rich in money but poor in health, family ties, or sense of community, so also can countries rank high in economic terms but low in human welfare terms.

Economic indicators of development measure a country's development by assessing its economic base, comparing such variables as **gross domestic product (GDP)** per capita with percentage of the labor force engaged in agricultural activities. **Human welfare indicators** define development by how well a country is able to provide necessary resources for its citizens and measure development with variables such as life expectancy, female literacy, and infant mortality rates.

Countries that score high on the economic dimension do not always score well on human welfare indicators. Some countries experience rapid economic growth with little improvement in human welfare. Similarly, other countries experience relatively high levels of human welfare without high economic development by purposely allocating resources to meet the basic needs of their citizens. In this exercise, rather than collapsing these differences into a single composite ranking, you will examine development as a multidimensional phenomenon.

You will also be asked to develop your own measures and to justify them. Remember that there are no universally agreed upon indicators of development. What you put in determines what you get out.

The 20 countries (Figure 7.14) examined in these activities allow you to see different stages of development as measured by human welfare and economic variables. They have been selected to provide a broad coverage of political systems, continents, cultures, and, more generally, development strategies (Table 7.2).

▶ CASE STUDY (continued)

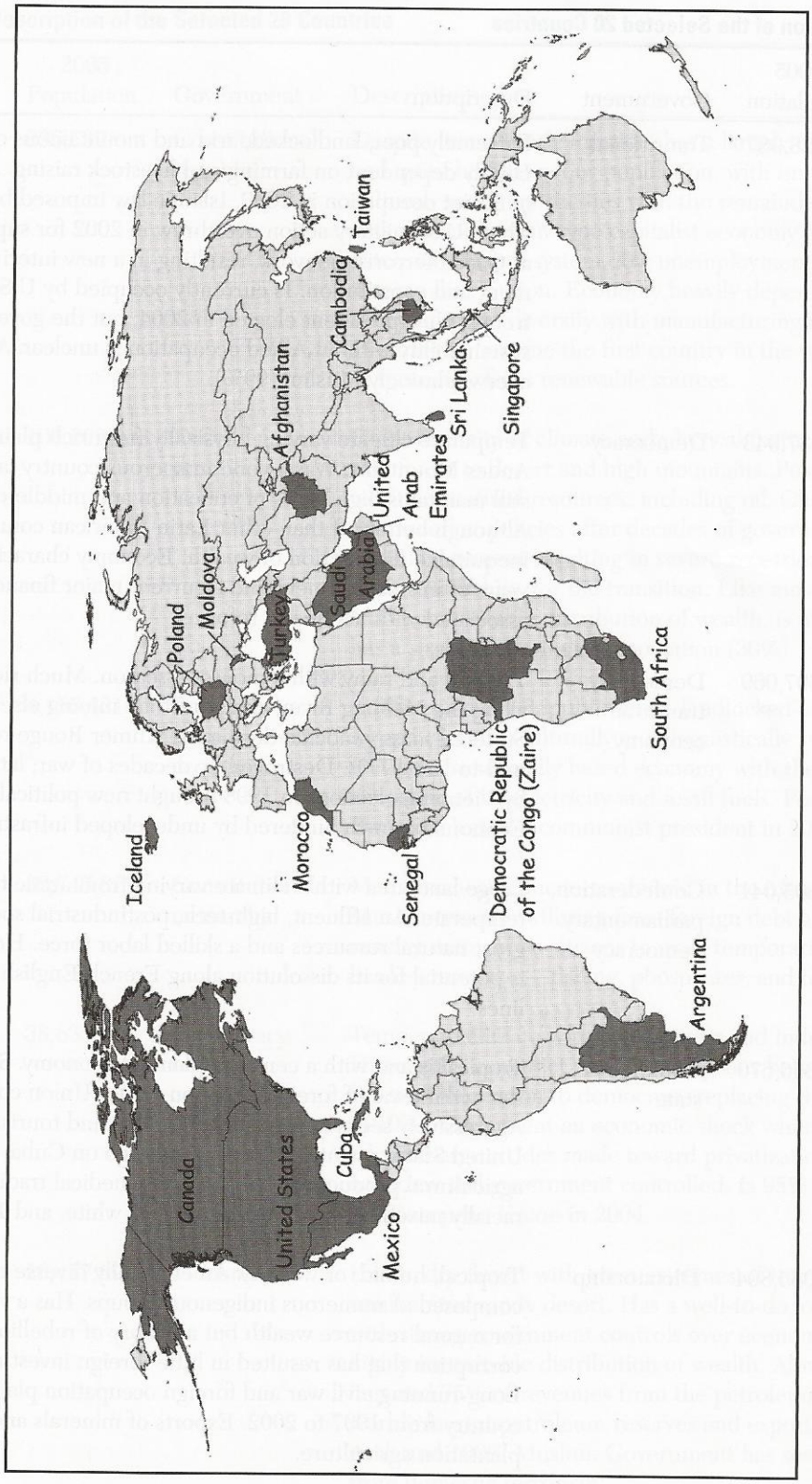

Figure 7.14 Countries selected for this exercise.

TABLE 7.2 Description of the Selected 20 Countries

Name	2005 Population	Government	Description
Senegal	11,126,832	Republic	Tropical, wet-dry climate with multiethnic population of numerous indigenous groups, many of whom are Muslim. Recently made modest economic gains including a steady growth of its GDP and an increase in information technology, but still suffers from serious unemployment and drug abuse in the urban centers.
Singapore	4,425,720	Democracy	A tropical hot and humid island country at the tip of the Malay Peninsula whose location is a focal point for Southeast Asian sea routes that led to excellent international trading links. A prosperous country with an open and entrepreneurial economy whose people are 77% Chinese, 14% Malay, and 8% Indian.
South Africa	44,344,136	Democracy	Mostly semiarid to subtropical on the east coast with a high plateau immediately inland from most of the coasts. Rich in mineral resources. Population of 75% black, 14% white, 8% colored (mixed), and 3% Indian. Officially discriminated against blacks who lacked basic rights of citizenship under the system of apartheid, which ended in 1994. Still racially divided with most whites living on a par with the affluent West but most blacks living in poverty and Third World status. Many hardships created by change to an export-based economy.
Sri Lanka	20,064,776	Democracy	A tropical island at the tip of India with monsoonal rains and ethnicity of 74% Sinhalese, 18% Tamil, and 7% Moor. Has been in near civil war between the Sinhalese and Tamils since the mid-1980s, but with cease-fire signed in 2002. Some terrorism as the groups struggle for power. Economy relies on apparel industry exports and agriculture. Still in transition from state-run economy to export orientation. Religiously, 70% Buddhists and 15% Hindu.
Taiwan	22,894,384	Democracy	An island with tropical monsoon climate. Formerly a province of China that split from it in 1949 and whose status remains contested. Has a sparse natural resource base but a vibrant economy. Known as one of the Asian Tigers. A newly industrialized country (NIC) with rapid industrialization over the past half century.
Turkey	69,660,559	Parliamentary democracy	Mountains and high plateaus with hot summers. Straddles Europe and Asia and controls the strategic straits between the Black Sea and the Mediterranean Sea. Internal tensions between the tradition of Western government and more fundamentalist Muslims. Kurdish minority (20% of the population) want political autonomy. Economy hurt by fiscal deficits and inflation but economic and judicial reforms and a thriving private sector likely to increase prosperity. Has long exported workers to Europe; currently seeking membership in the European Union.

TABLE 7.2 Description of the Selected 20 Countries

Name	2005 Population	Government	Description
United Arab Emirates	2,563,212	Federation	A flat, desert nation that is largely Muslim with a mixed population of Arabs, Iranians, and South Asians. Has one of the world's highest per capita incomes, the result of its oil and natural gas production and its low population. Imports labor from Asia to work in oil and other sectors.
United States	295,734,134	Federal republic	Diverse physical environments with population of 77% white, 12.3% African-American, and 12.5% Hispanic. Most powerful, diverse, and technologically advanced economy in the world. Market-oriented and open. Predominantly Christian (84%), with many minority groups with diverse religious beliefs.

Source: Central Intelligence Agency. *The World Factbook 2005*. www.cia.gov/cia/publications/factbook/

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Rags and Riches: The Dimensions of Development

ACTIVITY 1: ECONOMIC MODEL OF DEVELOPMENT

In this section, you will use two indicators to assess a country's level of economic development. These indicators are GDP per capita and percentage of the labor force engaged in nonagricultural labor. GDP per capita, the most typical indicator of economic development, measures the total goods and services produced by a country divided by its population. Percentage of the population involved in nonagricultural activities is another commonly used indicator of development. Because a subsistence economy is extremely labor intensive, a country with an economy based primarily on subsistence agriculture has few resources to invest in industry and services. As a country develops its technological capabilities, a smaller and smaller percentage of the labor force is needed to produce enough food for the entire population, and a larger and larger percentage of workers are diverted into manufacturing, trade, and services.

You will find values for each of these indicators listed by country in *Columns B* and *D* of Table 7.3 and will calculate a composite economic development ranking for each country based on these two indicators. This index will appear in *Column F*.

A. *Column B* lists GDP per capita for each country; *Column C* lists the rank of countries from highest per capita GDP to lowest per capita GDP. *Column D* lists the percentage of the labor force in nonagricultural activities for each country. *Column E* ranks the countries by values given for *Column D*. Generally, as a country develops, its percentage of workers engaged in nonagricultural activities increases. Therefore, the country with the highest value in *Column D* should be ranked 20 (highest), and the country with the lowest value in *Column D* should be ranked 1 (lowest). In the event of a tie, both countries should receive the same highest ranking. For example, if two countries share the highest value for GDP per capita, both would be ranked 20. The country in third place would receive a ranking of 18. Remember to skip a ranking number after assigning two identical rankings for a tie.

B. *Column F* is a composite economic development ranking for each country based on rankings for GDP per capita and the percentage of the labor force involved in nonagricultural activities. To complete *Column F*, calculate the average of values in *Columns C* and *E*. Example: A country with a GDP ranking of 4 (*Column C*) and a nonagricultural ranking of 3 (*Column E*) would have an economic development ranking (*Column F*) of 3.5. To confirm that you are calculating the values correctly, calculate the composite ranking for the United States; the answer should be 19.5.

TABLE 7.3 Composite Rankings

A Country	B GDP Per Capita* ($US)	C GDP Per Capita *Ranking*	D Non-Agricultural Employment (%)	E Non-Agricultural Employment *Ranking*	F Economic Development *Ranking*	G Infant Mortality Rate per 1,000	H Infant Mortality Rate *Ranking*	I Female Literacy Rate	J Female Literacy Rate *Ranking*	K Human Welfare *Ranking*	L Human Welfare *Ranking* Economic *Ranking*
United States	36,200	20	98%			6.69		97			
Singapore	26,500	19	100%			3.6		90			
Canada	24,800	18	97%			4.95		97			
Iceland	24,800	18	95%			3.53		100			
United Arab Emirates	22,800	16	93%			16.12		80			
Taiwan	17,400	15	92%			6.8		79			
Argentina	12,900	14	88%			17.2		96			
Saudi Arabia	10,500	13	88%			49.59		70			
Mexico	9,100	12	80%			24.52		87			
Poland	8,500	11	73%			9.17		98			
South Africa	8,500	11	70%			61.78		85			
Turkey	6,800	9	60%			45.77		77			
Morocco	3,500	8	50%			46.49		31			
Sri Lanka	3,250	7	62%			15.65		87			
Moldova	2,500	6	60%			42.16		94			
Cuba	1,700	5	76%			7.27		95			
Senegal	1,600	4	30%			55.41		29			
Cambodia	1,300	3	20%			64		22			
Dem. Rep. of the Congo (Zaire)	1,100	2	35%			98.05		68			
Afghanistan	800	1	20%			144.76		21			

Note that these figures are the most recent available; some may supersede those found in the *Country Facts* on your CD.
*Based on purchasing power parity.
Source: Central Intelligence Agency. 2002. *CIA Factbook*. www.cia.gov/cia/publications/factbook/index.html

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Rags and Riches: The Dimensions of Development

ACTIVITY 2: HUMAN WELFARE MODEL OF DEVELOPMENT

Two indicators of a country's human welfare are infant mortality and female literacy rates. The infant mortality rate is the annual number of deaths of infants 1 year of age or younger per 1,000 live births. It is frequently used as a measure of human welfare because it measures a society's ability to provide for its most vulnerable members. MDCs tend to have lower infant mortality rates than do LDCs, because the populations of the former have better housing, diets, education, and health care. The female literacy rate—the percentage of women who can read and write—is also a common indicator of human well-being because literate labor forces can adopt new technologies and interact with the world market. The female literacy rate also reflects the status of women in society. You will find values for each of these indicators listed by country in *Columns G* and *I* of Table 7.3. You will calculate a composite human welfare development ranking for each country based on these two indicators. This index will appear in *Column K*.

A. *Column G* shows infant mortality rates for all 20 countries. In *Column H*, rank these countries by their infant mortality rates. As a country develops, its infant mortality rate generally decreases. As a result, the country with the *lowest* infant mortality rate will be ranked 20, and the country with the *highest* infant mortality rate will be ranked 1. Handle ties by the method described in *Activity 1*, Instruction A.

B. *Column I* displays female literacy rates for all 20 countries. In *Column J*, rank countries according to their female literacy rates. The MDCs generally have higher female literacy rates. Therefore, the country with the highest female literacy rate would be ranked 20, and the country with the lowest female literacy rate would be ranked 1.

C. *Column K* is a human welfare development ranking for each country based on its rankings for infant mortality and female literacy rates. To complete *Column K*, calculate the average of values in *Columns H* and *J*.

D. In *Column L*, subtract the economic development ranking (*Column F*) from the human welfare development ranking (*Column K*). That is, $L = K - F$. This calculation allows you to see how a country ranks differently, depending on whether development is measured economically or with a human welfare model. A country with a negative value in *Column L* has a better ranking for economic development than for human welfare development, and a country with a positive value in *Column L* has a better ranking for human welfare development than for economic development.

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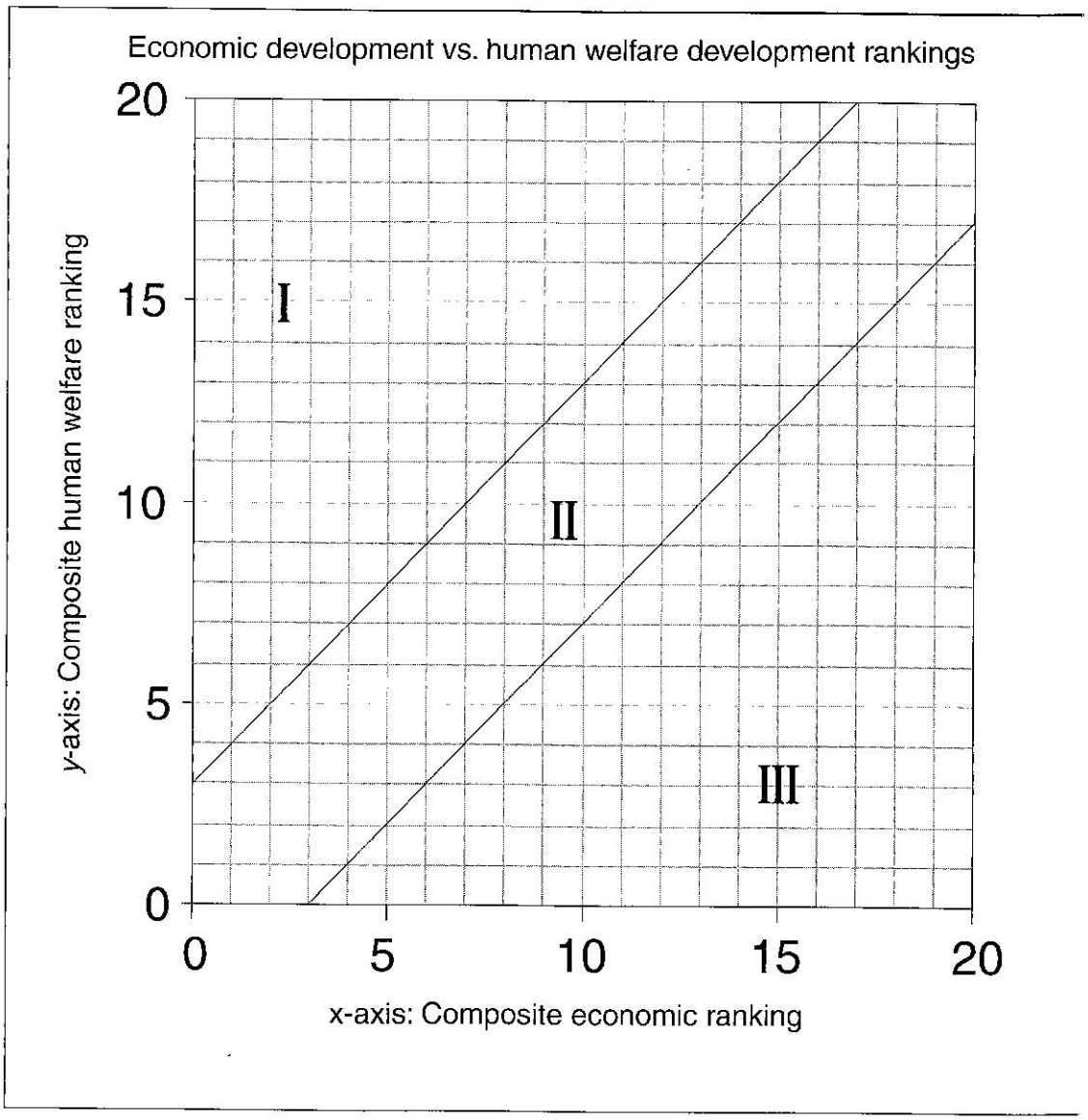
Rags and Riches: The Dimensions of Development

ACTIVITY 3: COMPARING ECONOMIC DEVELOPMENT AND HUMAN WELFARE DEVELOPMENT MODELS

A. Transfer the values from *Column K* of Table 7.3 to *Column C* of Table 7.4 (on page 210). Notice that *Column B* in Table 7.4 has been copied from *Column F* on Table 7.3. The countries in Table 7.4 are in the same order as in Table 7.3.

B. Using the graph on page 206, create a scatter diagram of economic and human welfare development rankings for all 20 countries. Notice that both axes are scaled from 0 to 20. Locate the economic and human welfare ranks for the first country, the United States, in *Columns B* and *C* of Table 7.4. On the x-axis (horizontal) of the grid, locate the economic rank for the United States. On the y-axis (vertical) of the grid, locate the U.S. human welfare rank. Plot a point at the intersection of these rankings with a small abbreviation for the country name beside the point. Thus, you should have a point for the United States at the point (19.5, 17.5) on your scatter diagram. Complete this process for each country and label each point.

C. Notice that points fall into one of three sectors on the scatter diagram. Countries in Sector I have much higher human welfare scores than economic scores. Countries in Sector II have similar economic and human welfare development scores even though they may be low in both dimensions on the lower left or high in both dimensions on the upper right. Countries in Sector III have high economic scores compared to their human welfare measures of development. Also notice the relative position of each country away from the graph's diagonal. This position should reflect values in *Column L* of Table 7.3. Draw in a 45° diagonal line from (0, 0) to (20, 20). Countries with similar economic and human welfare rankings are arranged near or on the 45° line (Sector II). Countries with different rankings are represented by points situated well off the 45° line. Countries with large positive numbers in *Column L* are located far above the diagonal line (Sector I); countries with large negative numbers are located far below the line (Sector III).



3.1. Why do Cuba, Poland, Sri Lanka, and Moldova rank higher on the human welfare than on the economic dimension? (*Hint:* Look at Table 7.2.)

3.2. Why do Saudi Arabia and the United Arab Emirates rank higher on the economic than on the human welfare dimension?

3.3. What are the long-term ramifications of investing heavily in economic production at the expense of human welfare investment?

3.4. What are the long-term ramifications of investing heavily in human welfare at the expense of economic production?