**Figure 10.8**

Rostow's Ladder of Development. This ladder assumes that all countries can reach the same level of development and that all will follow a similar path. Adapted with permission from P.J. Taylor, "Understanding Global Inequalities: A World-Systems Approach," *Geography, 77* (1992): 10–21.

provides no larger context to development. Is a climb up the ladder truly dependent on what happens within one country? Or do we need to take into account all of the other countries, their places on the ladder, and how their actions and global forces affect an individual country's movement on the ladder? The theory also misses the particular conditions that can influence development decisions within an individual country, leaving us to wonder where cultural and political differences fit into the picture.

Rostow's model is still influential, despite all of these criticisms. Even the notion of calling wealthy countries "industrialized" and saying poor countries need to "industrialize" implies that economic development can be achieved only by climbing the same ladder of development that wealthier countries have already climbed. Yet if a poor country quickly industrialized today through foreign investment, it might not reap much economic benefit, but it could experience severe environmental consequences. The wealthier countries we call "industrial" today are really "post-industrial," as post-Fordist production has moved the manufacturing of goods around the world and many of the wealthiest countries have economies built on the service sector, not the industrial sector (see Chapter 12).

**HOW DOES GEOGRAPHICAL CONTEXT AFFECT DEVELOPMENT?**

Development happens in context. It reflects what has happened and what is happening in a place as a result of processes operating at the same time at multiple scales. To understand why some countries are poor and others are wealthy, we need to consider geographical context: the spatial organization, character, and history of a place, and its interactions with the broader world.

Historically, ideas about government and economics diffused from Europe through the world as a result of colonialism, global trade, and the rise of capitalism. The Industrial Revolution and colonialism made colonies dependent on the colonizers and brought wealth to the colonizers. Even after colonialism ended, the economic, political, and social networks created through colonialism persisted. Goods and capital continued to flow from colonies to their former colonizers. The continuation of colonial relationships after formal colonialism ends is called neo-colonialism, whereby major world powers continue to control the economies of the poorer countries, even though the poorer countries are now politically independent states.

Development scholars have produced a number of theories to explain the barriers to development under neo-colonialism; these theories are called structuralist theories. A structuralist theory holds that difficult-to-change, large-scale economic arrangements shape what is possible for a country's development in fundamental ways. The world economy has a set of structural circumstances, such as the concentration of wealth in certain areas and unequal relations among places, which make it very difficult for poorer countries to improve their economic situation. Structuralists argue that developing countries face a very different set of development circumstances, a different context, than those faced by the countries of western Europe that Rostow looked to as models when constructing his modernization model.

**Dependency Theory**

Structuralists have developed a major body of development theory called dependency theory, which holds that the political and economic relationships between countries and regions of the world control and limit the economic development possibilities of poorer areas. Dependency theorists note, for example, that colonialism created political and economic structures that caused the colonies to become dependent on the colonial powers. They further argue that such dependency helps sustain wealth in developed regions and poverty in other areas, even after decolonization occurs.

Dependency theory contends that economic prosperity is extremely difficult to achieve in regions and countries that have traditionally been dominated by external powers because that dependency continues after independence. For example, 14 countries in Central and West Africa have used the CFA
franc as their currency since 1945. They tie the value of their currency to the value of the French franc, and now to the value of the European Monetary Union's euro (France changed to the euro in 2000). The economies of these 14 African countries are tied to the economy of the European Union—they rise and fall together. The CFA franc was set up before African countries gained independence starting in the 1950s and 60s, and the former colonies (12 of the 14 were colonies of France) continue to use the CFA franc because their economies are based on the currency and changing is quite difficult. At the same time, the countries are dependent on France because the French treasury and French parliament set policies that directly affect the economies of 14 African countries.

The countries with the CFA franc had their currency set up by their colonizer during colonialism. Although the United States did not colonize Latin America (except in the Caribbean), several countries in Latin America now recognize that their economy is dependent on the United States and explicitly link their economy to the U.S. dollar. The Economist reported that in 2011, 66 countries have currencies (including China, Saudi Arabia, and Bangladesh) tied to the U.S. dollar. More than 40 countries peg the value of their currency to the U.S. dollar, and 8 countries have abandoned their currency and completely adopted the U.S. dollar. The process of adopting the U.S. dollar as a country's currency is called dollarization.

For the people of El Salvador, dollarization made sense because the economy of El Salvador depends on the economy of the United States (Fig. 10.9). Over 2 million Salvadorians live in the United States, and in 2010, they sent $3.5 billion in remittances to El Salvador. With this flow of American dollars to El Salvador, many transactions occurred in dollars long before the official switch. The United Nations Development Program estimates that 22.3 percent of families in El Salvador receive remittances. In addition, over two-thirds of El Salvador's exports go to the United States. When the Federal Reserve Board in the United States controls the supply of dollars by altering the interest rates or when the U.S. economy enters a recession, the ramifications are felt directly in El Salvador. The greatest disadvantage of dollarization is surrendering the last say over policies that affect your economy to the United States, and the biggest advantage of dollarization is stabilization of the country's currency because the U.S. dollar is a relatively stable currency.

Like modernization theory, dependency theory is based on generalizations about economic change that pay relatively little attention to geographical differences in culture, politics, and society. Not every country is in the same situation at the same time, so they cannot all follow the same path of development, as modernization theory would have it. Likewise, not every country will be affected by a dependent relationship in the same way. Pegging a currency to or adopting the currency of a wealthier country may be beneficial for one developing country but not for another. Although both models provide some insights, neither is greatly concerned with the spatial and cultural context of particular places—central elements of geographical analysis.

**Geography and Context**

As geographers, economists, and other social scientists came to realize that studying economic development divorced from geographical, historical, and political context did not reflect reality, geographers began to search for a development theory that encompassed geography, scale, place, and culture. Immanuel Wallerstein's world-systems theory is attractive to geographers because it incorporates space (geography) and time (history) as well as power relationships (politics) that shape the context in which development takes place. We discussed world-systems theory in Chapter 8, focusing on how the theory provides insights into the political organization...
of space. In this chapter, we focus on how world-systems theory helps us understand the geography of development.

Wallerstein's division of the world into a three-tier structure—the core, periphery, and semiperiphery—helps explain the interconnections among places in the global economy. As discussed in more detail in Chapter 8, core processes generate wealth in a place because they require higher levels of education, more sophisticated technologies, and higher wages and benefits. When core processes are embedded in a place (such as the Telecom corridor in Richardson-Plano, Texas), wealth is generated for the people in that place. Peripheral processes, on the other hand, require little education, lower technologies, and lower wages and benefits. Producing agriculture by hand using little technology may generate a stable food supply in a place, but it does not produce capital, as fewer formal wages, low education, and little research and technology were required to produce the crop in that place.

Core regions are those where core processes are clustered. Core regions have achieved high levels of economic prosperity and are dominant players in the world economy. When peripheral processes are embedded in a place, the processes often generate little wealth for the people in that place. Periphery regions are areas where peripheral processes are concentrated. They are poor regions that are dependent in significant ways on the core and do not have as much control over their own affairs economically or politically. The semiperiphery exhibits both core and peripheral processes, and semiperipheral places serve as a buffer between the core and periphery in the world-economy. Countries of the semiperiphery exert more power than peripheral regions but remain heavily influenced by core regions.

Dividing the world into cores, semiperipheries, and peripheries might seem to do little more than replace developed, developing, and underdeveloped with a new set of terms. But the core—periphery model is fundamentally different from the modernization model because it holds that not all places can be equally wealthy in the capitalist world-economy. World-systems theory also makes the power relations among places explicit and does not assume that socioeconomic change will occur in the same way in all places. It is thus sensitive to geographical context, at least in economic terms.

Geographer Peter J. Taylor uses the analogy of a school of tadpoles to demonstrate these ideas. He envisions different places in the world as tadpoles and explains that not all tadpoles can survive to develop into toads. Rather, those who dominate survive, and the others perish. World-systems theorists see domination (exploitation) as a function of the capitalist drive for profit in the global economy. Thus, capitalists can move production quickly from one place to another around the globe to enhance profits, but places that lose a production facility can suffer. Moreover, their coping capacity can be small if, as is often the case, they earlier abandoned traditional ways and shifted to an export economy when external investment first arrived.

Another benefit of Wallerstein's three-tier structure is that he focuses on how a good is produced instead of what is produced. Rostow looked at what is produced, arguing that in order to develop a country needed to move from agricultural production to industrial manufacturing. Wallerstein disagreed and recognized that a country can produce agriculture using core processes and gain wealth while another country can produce the same agricultural product with peripheral processes and gain almost no wealth. Generating wealth along a commodity chain is not determined by what is produced; it depends on how it is produced. Farmers can grow cotton with rudimentary tools or with $700,000 combines. Using the $700,000 combine produces more wealth because of all that went into the combine: Educated engineers designed it, laborers manufactured it, marketing professionals and salespeople sold it, the John Deere dealership received $700,000 for it, and the educated farmer employs the combine to markedly increase productivity per worker (Fig. 10.2).

Another reason geographers are drawn to world-systems theory is its applicability at multiple scales. For example, Los Angeles can be described as the core of the Southern California region; the Johannesburg area can be described as the core of the South African state; or the central business district can be studied as the core of São Paulo, Brazil.

Compare and contrast Rostow's ladder of development with Wallerstein's three-tier structure of the world-economy as models for understanding development. Choose a product and break down its commodity chain. Which theory, Rostow's or Wallerstein's, better helps you understand where wealth is accumulated along the commodity chain and where it is not?

WHAT ARE THE BARRIERS TO AND THE COSTS OF DEVELOPMENT?

Regardless of which development theory you find the most persuasive, all the theories agree that structures are built into the world-economy, including the concentration of power in core states and entrenched poverty in peripheral states, that inhibit economic development in the periphery.

Conditions within the periphery, such as high population growth rates (see Chapter 2), lack of education, foreign debt, autocratic (and often corrupt) leadership, political instability, and widespread disease (see Chapter 2) hamper development. It is possible to get into the chicken-or-the-egg debate here: Did the structures of the world-economy create these conditions, or do these conditions help to create the structures of the world-economy? Many think that neither argument can stand alone, but understanding both structures and conditions is important for you to form your own opinion.
Social Conditions

Across the global periphery, as much as half the population is 15 years old or younger (see Fig. 10.5b), making the supply of adult, taxpaying laborers low relative to the number of dependents. Low life expectancies and high infant and child mortality rates stem from inadequate nutrition. Despite the UN’s efforts to achieve the Millennium Development Goals, one in four children worldwide had stunted growth in 2012—that is, they do not receive enough calories to grow as tall as they should be for their age. Underweight and stunted children are at risk for “diminished cognitive and physical development” from undernourishment (UN 2014).

Access to public sewage systems, clean drinking water, and health care are low in peripheral countries, making economic development all the more difficult. According to the United Nations, 748 million people still rely on unsafe drinking water from rivers, ponds, and unprotected wells and springs, and 1 billion people still use “open defecation” in 2012. Open defecation spreads disease and is found most often in South Asia, Oceania, and Subsaharan Africa (UN 2014).

Lack of access to education is also a major problem in the periphery. The number of children in the periphery enrolled in primary school, both boys and girls, has increased since 2000, thanks to governmental efforts to increase education. The government of Rwanda eliminated fees for primary education in 2003, guaranteeing 6 years of primary and 3 years of secondary school for all children in Rwanda, and two years later started distributing funds to schools based on the number of students they were educating. Rwanda successfully increased the proportion of students attending school through grade 6, reporting a 95 percent enrollment rate (Republic of Rwanda 2014). Growing education so quickly makes it difficult to establish quality education, and the government reported in 2011 that the quality of education in Rwanda is lagging, as only 5 percent of “pupils met or exceeded curricular expectations in reading and that a majority do not meet expectation in numeracy” (UNDP 2014).

Governments have used innovative policies, including cash transfer policies such as Brazil’s Bolsa Família and South Africa’s Child Support Grant, to create financial incentives for families to enroll and send their children to school. Historically, children would drop out of primary school or have low attendance in order to help their family by earning wages or by working on the farm or providing child or elderly care at home. Children in peripheral countries typically have to pay a fee for attending school, and it was common for a girl to drop out of school to earn wages to pay school fees for her brother. Cash transfer policies seek to undermine the financial incentive to drop out by providing a financial incentive to enroll in school and attend regularly. Girls who live in rural areas and are from poor families remain the least likely to attend primary school (United Nations 2014).

Brazil’s Bolsa Família conditional cash transfer program began in the 1990s, and former President Lula da Silva expanded the scope of the program in 2003. Bolsa Família pays families in cash under the condition that their children enroll and attend school (children cannot miss more than 15 percent of classes) and that they receive medical check-ups. One-fourth of the country, about 50 million people, is enrolled in the program, and Brazil credits the program with bringing “36 million Brazilians out of extreme poverty” (Barnes 2013). Bolsa Família is held up as a model for economic development, as it gives the poor the ability to choose how to spend their financial assistance instead of living within the constraints of separate programs designed to address different aspects of poverty. Conditional cash transfer programs have the added benefit of increasing school attendance for girls and boys alike.

South Africa’s conditional cash transfer program has led to an increase in the number of children receiving primary education. However, the schools are in poor condition, and the quality of education is below par. Data from South Africa’s national literacy and numeracy tests reveal that “only 15% of 12 year olds (sixth graders) scored at or above the minimum proficiency on the language test” and in math, only 12% were proficient (The Economist, South Africa 2012). On the whole, the country of South Africa needs 25,000 new, qualified teachers each year but only 10,000 teachers meet standards (The Economist 2012). The South African economy suffers from having a poor education system because the schools do not produce enough graduates to fill jobs in the South African economy that require an educated workforce.

Lack of education for girls is founded on and compounded by the assumption held not just in the periphery but in most of the world that girls will leave their homes (and communities) when they marry and contribute to their husband’s family and not their own. The views that girls are less important than boys and that girls cost a family money and provide little financial support are at the root of human trafficking. Mike Dotridge, a modern antislavery activist, explains that trafficking happens when “adults and children fleeing poverty or seeking better prospects are manipulated, deceived, and bullied into working in conditions that they would not choose.”

Trafficking is not usually considered slavery because the family does not sell a child; instead, the family sends the child away with a recruiter in the hopes that the child will earn money to send home. Trafficked children are often taken to neighboring or nearby countries that are wealthier and in demand of domestic servants. Others are trafficked across the world, again typically to work as domestic servants. Dotridge explains that the majority of trafficked children are girls and that the majority of girls are “employed as domestic servants or street vendors,” although some girls are “trafficked into prostitution” (see Chapter 3).

Foreign Debt

Shortly after the decolonization wave of the 1960s, international financial institutions (IFIs), including banks, the World Bank, and the International Monetary Fund, began lending
large sums of money to the newly independent states in the periphery and semiperiphery—money earmarked for development projects, especially large infrastructure projects like building highways and dams and building government-owned utility companies to provide electricity and telephone service.

Developing countries were generally able to repay their loans until the world economy shifted in the 1970s. The price of oil rose in the late 1970s, and in the early 1980s commodity prices dropped. Rising oil prices make the production of goods more expensive, and falling commodity prices make it difficult to repay loans as the value of exports declines. The Third World Debt Crisis began as export revenue declined, the cost of oil increased, and state-run companies created in the 1960s and 1970s were found to be both inefficient and draining on government funds.

The World Bank and the International Monetary Fund stepped in to lend more money to developing countries to help them out of the Third World Debt Crisis. The IFIs determined that peripheral and semiperipheral countries needed to restructure their governments and economies in order to develop. To secure the loans, countries had to agree to implement economic or governmental reforms, including privatizing government entities, opening the country to foreign trade, reducing tariffs, and encouraging foreign direct investment. These loans are known as structural adjustment loans, and the set of policies surrounding them came to be known as the Washington Consensus in the 1980s.

Opponents of the Washington Consensus argue that the policies support and protect core country economies at the expense of peripheral and semiperipheral economies. Countries had limited options to reject structural adjustment loans because the hefty cost of servicing debts (cost of repayments plus interest) often exceeded revenues from the export of goods and services (Fig. 10.10). Developing countries also needed to demonstrate they were repaying their debts and restructuring their economies to attract multinational corporations that could offer employment to their people and investment in their economies.

Structural adjustment loans were part of a larger trend toward neoliberalism in the late twentieth century. Neoliberalism derives from the neo-classical economic idea that government intervention into markets is inefficient and undesirable, and should be resisted wherever possible. These ideas were at the heart of the structural adjustment conditions that were attached to loans and refinancing programs. Neoliberal ideas spurred a trend toward transferring economic control from states to the private sector. As a result, the size of the public sector in a number of countries shrank. Corporate control expanded, and state and regional governments had less control over their economic destinies. High debt obligations and related neoliberal reforms arguably contributed to the economic and political crisis in Argentina at the end of 2001 and beginning of 2002. Argentina privatized government sectors in the 1990s and took out loans,

[Image: DEBT RELATIVE TO GDP: What a Country Ows in Debt Compared to What it Produces in GDP.]

[Figure 10.10: External Debt Service as a Percentage of Exports of Goods and Services for Low- and Middle-Income Economies, 2012. Repaying back loans, let alone paying the interest on the loans, is more difficult for countries with debt much higher than their GDP. Data from: World Bank, 2013. http://data.worldbank.org/indicator/DT.DOD.DECT.EX.ZS.]
FIELD NOTE

"Arriving in Argentina during the political and economic upheavals that had begun in 2001, I saw signs of dislocation and trouble everywhere. Beggars pursued pedestrians on the once-fashionable Avenida Florida. Banks had installed protective shutters against angry crowds demanding return of their frozen and devalued deposits. A bus trip on the Patagonian Highway turned into an adventure when masked protesters carrying rocks and burning rags stopped vehicles and threatened their occupants. Newspapers carried reports of starvation in Tucumán Province—in a country capable of producing seven times the food its population needs."

leading to short-term economic growth in the 1990s. In 1999, a recession hit Argentina, and by 2000, the country had a debt equal to 50 percent of its GDP (Blustein 2003) (Fig. 10.11). The IMF extended emergency loans in 2000 and again in 2001. Coupled with unchecked government spending and corruption, Argentina’s economy experienced a meltdown, and the country defaulted on its debt in 2002. More than half the population of 38 million ended up in poverty (McCarthy 2007).

By 2005, internal economic growth and aid from Venezuela put Argentina in a position to work out a complex debt restructuring plan that has pulled the country back from the brink. Argentina's agricultural economy bounced back in 2010 with the rise of corn and soy prices. Argentina's economy is stabilizing, but in cases where countries are facing imminent economic, political, and social meltdown, the only alternative may be to default on loans. Defaulting countries then find themselves in a severely disadvantaged position when it comes to attracting future external investment. And if a substantial number of countries were to default at the same time, a global economic crisis could ensue that would work to the disadvantage of almost everyone.

Political Corruption and Instability

Political corruption and instability can greatly impede economic development. In peripheral countries, a wide divide often exists between the very wealthy and the poorest of the poor. In Kenya, for example, the wealthiest 10 percent of the population controls nearly 50 percent of the country’s wealth, and the poorest 10 percent control less than 1 percent. The disenfranchisement of the poor and the competition among the rich for control of the government (and the potential spoils that go along with that) can lead to extreme political instability within a state—as Kenya experienced in 2007–2008. Add to these factors involvement from outside the country, especially by powerful countries, and the political instability can easily escalate, yielding horrific conditions in which military dictators, selfish megalomaniacs, and corrupt governments can come to power.

Countries of the core have established democracies for themselves; since World War II, they have held regularly scheduled democratic elections. But countries in the periphery and semiperiphery have had a much harder time establishing and maintaining democracies. In the process of decolonization, the colonizing countries typically left governments that reflected political and social hierarchies of the colonial period. Some failed, some were overthrown by military coups, and some saw the consolidation of power around a dictatorial strongman. Many countries in the periphery and semiperiphery have alternated repeatedly between quasidemocratic and military governments. Some argue that without considerable wealth, maintaining a liberal democracy is all but impossible.

Opening the homepage of any major newspaper on any given day will reveal a story somewhere in the world that demonstrates the link between economic stability and political stability. In Afghanistan, economic woes represent one of the greatest threats to the stability of the U.S.-supported government in Kabul. More than half of the population is impoverished, and the government lacks the funds to invest in development. Foreign aid—much of it from the United States—has provided some help, but the slow flow of aid has been
variable and its amount insufficient to address the country’s searing economic problems. Many analysts see this as a key impediment to achieving stability in Afghanistan. As The Economist put it in 2006, “poverty helps the Taliban.”

In places where poverty is rampant, politicians often become corrupt, misusing aid and exacerbating the plight of the poor. In Zimbabwe, the year 2002 left many people starving, as poor weather conditions created a meager harvest. The country’s ruling party, ZANU-PF, headed by Robert Mugabe, demanded cards from Zimbabweans who registered for the “food for work” program—cards demonstrating membership in the ZANU-PF political party. As conditions worsened in subsequent years, the Mugabe government faced increasing resistance. A potential challenger, Morgan Tsvangirai, emerged in 2008. Members of his opposition party were killed and the challenger was harassed, but after a contested election that many believe Tsvangirai won, a power-sharing agreement came into effect that kept Mugabe as president and made Tsvangirai the prime minister. Some stability returned to the country, but continuing tensions make it difficult to address Zimbabwe’s enormous economic problems.

The Zimbabwe case shows that in low-income countries, corrupt leaders can stay in power for decades because the people are afraid to rise up against the leader’s extreme power or because those who have risen up have been killed or harmed by the leader’s followers. Circumstances and timing need to work together to allow a new government to come to power. When governments become excessively corrupt, other countries and nongovernmental organizations sometimes withdraw development aid to the country. Yet when this happens, everyday people often bear the brunt of hardship. Even when the global community cuts off the corrupt government’s aid, core countries and nongovernmental organizations often try to provide food aid to the people. All too frequently, when this type of aid reaches its intended beneficiaries, it is rarely sufficient to meet basic needs or reverse the trajectory of hardship in the country.

Costs of Economic Development

Economic development changes a place. To increase productivity, whether industrial or agricultural, people transform the environment. When a country goes through intensification of industrial production, air and surface water are often polluted. Pollution is not confined to industry. With intensification of agricultural production, the introduction of pesticides and herbicides can have deleterious impacts on the soil and groundwater. Tourism can be just as difficult on the environment—taxing the existing infrastructure beyond its capacities. The costs of tourism often stretch far beyond the environment, affecting ways of life and fundamentally altering the cultural landscape.

INDUSTRIALIZATION

In their efforts to attract new industries, the governments of many countries in the global periphery and semiperiphery have set up special manufacturing export zones called export processing zones (EPZs), which offer favorable tax, regulatory, and trade arrangements to foreign firms. By 2006, 130 countries had established 3500 EPZs, and many of these had become major manufacturing centers (Engman et al. 2007) (Fig. 10.12). Two of the best known of these zones are the Mexican maquiladoras and the special economic zones of China (discussed in Chapter 9). Governments locate such zones in places with easy access to export markets. Maquiladora zones in Mexico

![Figure 10.12](image)

are mainly sited directly across the border from the United States, and the special economic zones of China are located near major ports. These zones typically attract a mix of manufacturing operations, depending on the skill levels of the labor force and the available infrastructure.

The maquiladora program started in 1965 when the Mexican government designated the region of northern Mexico as a maquiladora district, making it a place where raw materials could be shipped into Mexico, manufactured into goods, and then sent back to the United States free of import tariffs. U.S. corporations relocated manufacturing plants to Mexico to take advantage of the program.

Although the maquiladora phenomenon started in 1965, it did not really take off until the 1980s. During the 1980s, American companies recognized the expanding wage and benefit differences between the U.S. and Mexican worker and began relocating to the maquiladora district in northern Mexico. Competition from other parts of the world has since led to the closing of some plants, but some 3000 maquiladoras continue to function, employing 1 million workers and accounting for 50 percent of Mexico’s exports. The maquiladoras produce goods such as electronic equipment, electrical appliances, automobiles, textiles, plastics, and furniture. The plants are controversial both in Mexico and the United States, as corporations that have relocated there avoid the employment and environmental regulations that are in force just a few miles to the north. Many maquiladora factories hire young women and men for low pay and few if any benefits, putting them to work in repetitive jobs, often in environmentally questionable conditions.

In 1992, the United States, Mexico, and Canada established the North American Free Trade Agreement (NAFTA), which prompted further industrialization of the border region. NAFTA took effect January 1, 1994. In addition to manufacturing plants, NAFTA has facilitated the movement of service industries from the United States to Mexico, including data processing operations. Most of the new plants are located in two districts: Tijuana on the Pacific Coast—linked to San Diego across the border—and Ciudad Juarez on the Rio Grande across from El Paso, Texas. In recent years the socioeconomic and environmental contrasts between cities on either side of the U.S.–Mexico border have become increasingly stark. Violent crime has become a particularly serious problem in Juarez, even as El Paso remains comparatively safe, and the slums of Tijuana are a world apart from much of San Diego. Although NAFTA was designed to foster increased interaction in North America, cross-border disparities have worked together with growing U.S. concerns over illegal immigration and the infiltration of foreign terrorists to make the U.S.–Mexico border more tightly controlled and more difficult to cross than in prior decades.

**AGRICULTURE**

In peripheral countries, agriculture typically focuses on personal consumption or on production for a large agricultural conglomerate. Where zones of larger-scale, modernized agriculture have developed in the periphery, foodstuffs are produced for the foreign market and often have minimal impact on the impoverished conditions of the surrounding lands. Little is produced for the local marketplace because distribution systems are poorly organized and because the local population is typically unable to pay for foodstuffs. If the local population owns land, their landholdings are usually fragmented, creating small plots of land that are difficult to farm in a manner that produces much income. Even on larger plots of land, most farmers are equipped with outdated, inefficient tools and equipment. The main crops tend to be grains and roots; farmers produce little protein because high-protein crops typically have lower yields than grain crops. On the farms in the periphery, yields per unit area are low, subsistence modes of life prevail, and many families are constantly in debt.

Impoverished farmers can ill afford such luxuries as fertilizers, and educational levels are typically too low to achieve widespread soil conservation. As a result, soil erosion is commonplace in most peripheral areas. Severe soil erosion in areas with dry or semiarid climates around deserts results in extreme degradation of the land and the spread of the desert into these lands. Although the expansion and contraction of deserts can occur naturally and cyclically, the process of *desertification* is more often exacerbated by humans destroying vegetation and eroding soils through the overuse of lands for livestock grazing or crop production.

Desertification has hit Africa harder than any of the other continents (Fig. 10.13). More than half of Africa's arid or semiarid, and many people farm the marginal, dry lands of the continent. Land ownership patterns, the need for crops and protein sources (both for local consumption and for export), and power differences among groups of people lead some farmers and ranchers to turn marginal, semiarid lands into farm and ranch lands. Lands that are available for farming or ranching may be used more intensively in order to increase agricultural production (see Chapter 13). In semiarid regions, the decision to farm more intensively and increase agricultural production has the unintended consequence of eroding the land, encouraging outmigration, and creating conflict.

In Sub-Saharan Africa over the last 50 years, more than 270,000 square miles (700,000 km²) of farmland and grazing land have become desert, extending the Sahara Desert to the south. Some of the African desertification may be caused by climatic fluctuations, but overgrazing, woodcutting, soil exhaustion, and misuse have undoubtedly accelerated the process.

**TOURISM**

All development strategies have pros and cons, as is well illustrated by the case of tourism. Peripheral island countries in the Caribbean region and in Oceania have become leading destinations for millions of tourists from richer states.
Tourism is now one of the major industries in the world and has surpassed oil in its overall economic value (see Chapter 12). While tourism can bring employment to peripheral countries, tourism may also have serious negative effects on cultures and environments.

To develop tourism, the "host" country must make substantial investments in infrastructure, including airports, cruise ports, roads, and communication systems. Beautiful hotels, swimming pools, and man-made waterfalls are typically owned by large multinational corporations, not locals. The multinational corporations earn enormous profits, most of which are sent back to owners, shareholders, and executives outside of the country. Tourism can create local jobs, but they are often low-paying and have little job security. In tourist zones, many employees work two or three jobs in order to break even.

Tourism frequently strains the fabric of local communities as well. The invasion of poor communities by wealthier visitors can foster antipathy and resentment. Tourism can also have the effect of altering, and even debasing, local culture (see Chapter 4), which is adapted to suit the visitors' taste. In many instances tourism fosters a "demonstration effect" among locals that encourages them to behave in ways that may please or interest the visitors but that is disdained by the larger local community. Some tourism workers consider employment in the tourist industry dehumanizing because it demands displays of friendliness and servitude that locals find insulting.

A flood of affluent tourists may be appealing to the government of a poor country whose elite may have a financial stake in the hotels where they can share the pleasures of the wealthy. Local entrepreneurs have difficulty tapping into tourist revenues because powerful multinational corporations and national governments often intervene to limit: the opportunities of local, small-scale operators in favor of mass, prearranged tourist destinations that isolate the tourist from local society.

Overreliance on tourism can also leave an economy vulnerable if shifting economic circumstances cause a sharp decline in the number of tourists or if natural disasters hit. Because many tourist destinations in poorer countries are beach attractions, natural hazards such as the 2004 tsunami in Southeast Asia can destroy the linchpin of a country's economy (we discuss the tsunami and other natural hazards in greater detail in Chapter 13). Suffering the loss of thousands of people; dealing with the after-effects of sewage, homelessness, orphans, and the destitute; and coping with rebuilding the tourist destinations must occur while the flow of tourist-related income has stopped.

The cultural landscape of tourism is frequently a study in harsh contrasts: gleaming hotels tower over modest, often poor housing; luxury liners glide past poverty-stricken villages: opulent meals are served in hotels while, down the street, children suffer from malnutrition. If the tourist industry offered real prospects for economic progress in low-income countries, such circumstances might be viewed as temporary, unfortunate by-products. However, the evidence too often points in the other direction.