

CHAPTER 1

OVERVIEW: GEOGRAPHY AND DEVELOPMENT IN AN ERA OF GLOBALIZATION

Learning Objectives:

- Define “development” and list the various ways in which it can be interpreted.
- Describe the major economic revolutions and show how they inform our understanding of development.
- Explain population growth through human history and link this to development.
- Identify and characterize the major “players” in the globalization process.
- Discuss the environmental challenges facing the world today and connect these challenges to human activities and the development process.
- Define “environmental stewardship” and outline this concept in the context of development.
- Describe cultural attributes and processes and how these influence development.
- Evaluate the role of per capita income in the development process and suggest other measures.
- Characterize the actual and potential role women play in development.
- Examine the role of different energy sources in sustainable energy futures, particularly for populations currently without access to electricity.

This chapter defines the book’s two major themes—development and globalization—as characteristics to differentiate world regions and identifies four dynamic spatial variables associated with them: people, the natural environment, culture, and history. The two major themes and the four variable components of change permeate the following chapters, which focus on the various world regions distinguished for the most part by their relative levels of development.

Three sets of human transitions that alter the fundamental structure of society are discussed—economic revolutions, population change, and globalization. Globalization is defined broadly as a growing integration and interdependence of world communities through a vast network of trade and communication links influenced by technology, global capitalism, neoliberal economic theory and policies, transnational corporations, countries, labor, consumers, and regulatory organizations and civil movements.

Essential questions related to the central theme of describing and explaining the causes and consequences of disparity in economic achievement among regions of the world are: How do physical environment systems and human cultural systems influence development? What are the geographic patterns of different levels of economic development found throughout the world? What measures are used to quantify development? What theories help us understand developmental processes?

People conduct their activities within the framework of natural environment systems, which they modify as they build cultural systems. Global patterns of the following natural environment systems are described: climate, vegetation, soils, landforms, and minerals. Emphasis is placed on relationships among these physical environment components and the potential for development, which raises the issue of sustainability of the natural environment.

Global spatial patterns of human cultural systems are examined in relationship to the opportunities and challenges of the natural systems where they occur. The advantages of certain areas for population concentration are addressed. The places of origin (culture hearths) of the world's major cultural systems are identified; and the spatial diffusion patterns of information about discoveries, inventions, and innovations from these hearths are explained as early forms of globalization. The constructive and limiting influences of the cultural components of language, religion, and political ideology on development are discussed.

Strengths and weaknesses of various criteria used to measure economic development and the global pattern of the more- and the less-developed regions of the world that they reveal are identified. Characteristics of the more-developed and the less-developed regions are summarized, and the global patterns of the two types of regions are illustrated with a map. Explaining the factors that produced the patterns on this map is a major objective of the book.

Five prominent theories designed to promote understanding of why regional variations in levels of development occur are introduced. Although neither of these ideas adequately explains why development occurs or why development generates scarcity and disparity, each one provides a basis for understanding the geography of development.

List of Figures/Tables

Have students view the following key figures/tables in this chapter, and ask them the following discussion questions:

Figure/Table	Title
1-6 (Diagram)	World population growth.
<ul style="list-style-type: none">• What is the “J-Curve” of population change?• When did the global population “explosion” begin, and to what factors do you attribute the growth?• Which countries have been contributing the most to world population growth?	

- 1-7 (Map) World population distribution.
- Where are the largest areas of dense population in the world, and why do you think they are densely populated?
 - Where are the largest areas of sparse population in the world; why do you think they are sparsely populated; and do these areas have high physiologic densities?
- 1-9 (Diagram) Model of demographic transition.
- How does population change differ among the stages in the demographic transition model?
 - How does urbanization affect the demographic transition?
- 1-10 (Map) World population growth rates.
- Why is the population growth rate so high in central Africa?
- 1-11 (Diagram) Malthusian theory.
- How would Neo-Malthusians alter the Malthusian model?
- 1-22 (Map) Climatic regions of the world.
- What are the two most important elements of climate classification?
 - Which climate class occupies the most area in the world?
- 1-39 (Map) World per capita GNI PPP, 2013.
- Why is GNI PPP considered to be the best indicator of economic well-being?
 - What economic characteristics are spatially associated with high GNIs?
 - What economic characteristics are spatially associated with low GNIs?

Discussion Topics

- Discuss the meaning of “development” in local, regional, and global contexts.
- Discuss the development consequences of replacing human labor with technology at local, regional, and global scales.
- Discuss the environmental challenges facing the world today and connect these challenges to human activities and the development process.
- Discuss the relationship between sustainability and development with regard to natural resources.
- Discuss the “environmental stewardship” role of each player in the global economy.
- Discuss the relative usefulness of the various material and non-material measures of development.
- Discuss the role of transnational capitalists in local, regional, and global contexts.
- Discuss the diabolical irony of the fact that fossil fuel–driven global warming may lead to a new Arctic oil and gas boom and more burning of fossil fuels, undermining the road to cleaner, renewable energy sources.

- Discuss how removing barriers to opportunity and advancement for women will contribute to development in less-developed countries where such barriers exist.

Representative Answers to Chapter Questions

Stop & Think:

- The development process is not strictly economic and does not necessarily mean “growth.” Explain.

“Development” implies continuing improvement in quality of life. Processes associated with intended economic growth in an area may diminish the natural resources (natural capital) and pollute the air, water, and land to the detriment of human health and well being. Instead of economic development and growth, such processes reduce the quality of life in an area. Social, political, and psychological changes in an area may lead to improvements in quality of life and, therefore, development that is not simply economic and which may enhance opportunities for economic development and growth. The concept of “economies of scale” suggests that at some point economic growth may yield diminishing returns.

- What is the power of the “surplus” to effect change, not just in economic terms but in social conditions?

Surpluses lower risks and increase leisure time. The agricultural revolution produced surplus food which freed people from the time-consuming tasks of hunting and gathering for subsistence. Surplus food production generated leisure time, which engendered specialization of labor and, therefore, opportunity for life in sedentary rather than nomadic communities. Sedentary communities represented improvement in quality of life, which is one way to define development.

- How can one argue that increasing productive capacity in a country is a bad thing? If an increase in productive capacity in a country undermines the country’s natural resources (air, water, soil, natural vegetation, minerals, ...), the long term consequence will be decline in productive capacity. Such capacity reducing actions are called “externalities,” and their ultimate effect is to reduce productive capacity. That is the argument of the neo-Malthusians who contend that much of the increases in productive capacity in the world wrought by technology has undermined the food-producing capacity of major parts of the earth while encouraging population growth in those areas. More people and less productive capacity is a bad thing.

- What is a “revolution”? Can the globalization process be considered a revolution? A relatively rapid, systemic, and enduring transformation of society is a human revolution. It may be political, economic, or social. Modern globalization is an accelerated version of the spatial interaction among regions of the world that has been taking place for economic purposes since the first voyages of discovery and exploration.

The rapidity with which information and transportation technology allows communication among the producers, traders, and consumers of the goods, services, and ideas of the modern world and the movement of these products enhances the operation of the global capitalism that drives the modern global economic revolution.

- Where are the densest population concentrations in the world? What desirable environmental attributes attract people to these places?

China, the Indian subcontinent, and Europe are three of the largest areas of dense population. These areas have climates (long growing season, adequate precipitation, ...) and land surface forms (plains, river floodplains and deltas, estuaries) that have supported agricultural production for millennia or have locations that favor trade for food.

- Give examples of how cultural values can impact the direction of development.
1. Conservative societies that are bound by traditions may not be willing, or predisposed, to allow changes needed to promote development; whereas, liberal societies that are predisposed to change include such inclination among their traditions. 2. A society whose predominant religion includes strict inherited class structure (Hindu India, for example) suppresses human development of large segments of society therefore limiting the growth (development) of potential producers and consumers and massing wealth in the hands of a few. 3. A society that does not have a written constitution that specifies human rights is at the mercy of its rulers who may or may not promote opportunities for development. The absence of the rule of law is a characteristic of most less-developed countries. 4. Societies that limit the role of women also limit development. Enhancing the status of women is a surefire way to promote development in any society, especially less-developed ones.

- Why is it important to find a balance between economic development and maintaining the health of environmental resources?

If a society does not treat its natural resource endowment as “natural capital” rather than “stuff” to be exploited, it will destroy that endowment (“kill the goose that lays the golden eggs”). This principle extends to natural resources acquired from foreign sources, which suggests that global capitalists must promote the sustaining of natural capital globally.

- Explain the significance of monitoring environmental change and the need to control wastes from economic activities.

Whereas monitoring actual and potential environmental change (soil erosion; air, water, and land contamination; line of sight amenities; ...) caused by economic activities makes sense, it is equally, if not more, wise to prevent such change! “Don’t blow smoke into your terrarium” is an excellent metaphor for what may be the best way to avoid waste and unwanted anthropogenic environmental change. Paul Hawken’s book *The Ecology of Commerce* (Harper, 1993) offers an excellent discussion of the need for employing precautionary strategies when impacting natural resources (natural capital) for economic gain. Of course, the “elephant in the room” in the matters of environmental change and

waste are global population growth, especially in less-developed regions, and rising affluence in both the more-developed and rapidly developing regions.

- Why may simply increasing per-capita income not lead to improved development in a region?

“Per-capita income” is a crude measure of development that does not explain how that income is distributed among all of the people in a region. How egalitarian is the society? If the income from economic activities is not invested in human development (opportunities for improvement), the region will not develop, although the wealthy who control the economy will gain wealth.

- Name five countries that you think belong to the global “core” and five that are found in the global “periphery.”

Global “core” countries include the United States of America, Canada, the United Kingdom, Australia, and Germany. Global “periphery” countries include Ukraine, Russia, Saudi Arabia, Iran, and North Korea.

Understanding Development in an Era of Globalization:

1. Why is the term “development” often difficult to define and explain?
 - The term “development” generally refers to improvement in the quality of human life in a region, and what that means varies according to cultural values, which vary significantly among regions of the world. Within a single culture the term may pertain to improvements in the general social, political, economic, or even psychological circumstances.
2. How has the development process been facilitated by several major human transitions? In what ways have these transitions contributed to the improvement of the human condition?
 - Three human transitions that have facilitated the development process are the ongoing revolutions in agriculture, manufacturing, and information technology. The first two have dramatically increased the production of food, fiber, and manufacturing goods, including transportation equipment; and the third one, along with transportation equipment, has fomented the globalization process characterized by global trade. These human transitions have increased the material wealth of humans, although at great cost to natural ecosystems and at uneven rates among regions of the world. Science has yielded the discoveries, inventions, and innovations for these revolutions which have caused the world as a whole to be better fed, equipped, and served than ever before, although at varying levels from place to place.

3. How is population change related to the development process?
 - According to the demographic transition model economic development leads to more sustainable levels of population numbers. Economic development may be either or both a cause or consequence of social and political development. Nevertheless, development in general has been slow to happen in less-developed regions of the world, although imported technology has contributed to a precipitous decrease in the death rate. The birth rate in the less-developed regions has been decreasing in recent years but much more slowly than the death rate; and the result is increased demand for already scarce resources, which hinders development in any of its forms.
4. What is the globalization process and who are its major “players”?
 - In its broadest sense, globalization refers to a growing integration and interdependence of world communities through a vast network of trade and communication links. Its major players are transnational corporations and capitalists, labor, consumers, regulatory organizations (including the World Trade Organization, the World Bank, the International Monetary Fund, and the Association of Southeast Asian Nations), and nongovernmental organizations.
5. Why are river valleys and coastlines desirable locations for many economic activities?
 - River valleys and coastlines are desirable locations for many economic activities because they act as natural accessibility resources for assembling raw materials and distributing products. They facilitate spatial interaction at a relatively low cost.
6. Can technology expand the limits of land use in a given environment?
 - Technology may enhance the productivity of land in a given environment. For example, chemical fertilizer, herbicides, pesticides, modified seeds and plants, irrigation, and land management practices dramatically increase yields in the “corn belt” region of the United States. Similarly, plants and seeds developed by the modern Green Revolution make it possible to grow varieties of food and fiber crops in erstwhile harsh environments.
7. How are global warming, melting ice sheets, and sea level rise linked?
 - Global warming is a consequence of increased CO₂ levels in the atmosphere, which slows the release of terrestrial radiation to space and, therefore, warms the lower reaches of earth’s atmosphere. The warming melts arctic ice sheets, which raises sea levels. Furthermore, organic material buried under ice sheets is exposed by the melting and releases methane to the atmosphere where it is converted to CO₂ and generates a positive feedback loop that increases the warming phenomenon and, therefore, sea level rise. Low-lying coastal areas are threatened by rising sea levels.

8. What measures have been used to define development? What are their strengths and weaknesses?
- Per capita income
 - Strength—useful indicator of development progress when combined with non-material indicators such as death and infant mortality rates and dietary consumption.
 - Weakness—as an average, affected by extremes and may not, therefore, account for uneven distribution of wealth.
 - Gross National Income Purchasing Power Parity (GNI PPP)
 - Strength—uses “international” dollars to take into account a country’s purchasing power relative to other countries; indicates true value of income in a given country by indicating how much a person’s income can actually buy.
 - Weakness—as for the “per capita income” measure, an average affected by extremes and may not, therefore, account for uneven distribution of wealth within a country.
 - Percent of employment by economic sector (primary, secondary, tertiary)
 - Strength—indicates economic well-being by value added; primary activities, especially agriculture, are relatively low value added, whereas, secondary and tertiary activities are higher with tertiary being the highest; this measure suggests degree of labor specialization, which is associated with economic development (degree increases from primary to tertiary).
 - Weakness—may not reflect social value of an economic sector in a country.
 - Per capita inanimate energy consumption
 - Strength—the degree to which a country is able to supply inanimate energy from internal sources or to import it is an important indicator of applied modern technology and of productivity.
 - Weakness—may not reflect distribution of wealth within a country or the impact of modernization on a traditionally non-modern society; may mask important cultural attitudes of less materialistic cultures.
 - Life expectancy
 - Strength—may be the ultimate indicator of development; all cultures value the preservation of life, and life expectancy is to some extent a measure of economic activity.
 - Weakness—cannot think of one.
 - Food supply—calories and protein
 - Strength - number of calories as indicator of dietary quantity and protein supply as indicator of dietary quality
 - Weakness—cannot think of one, except that data for this measure is difficult to attain, especially in countries with large subsistence agriculture populations.
 - Human Development Index (HDI)
 - Strength—uses combination of material and non-material measures of development (life expectancy at birth, educational attainment, and income).

- Weakness—limited availability of and inconsistency in collection of data (true for all measures discussed above)
9. What theories do geographers draw on to explain how the development process works?
- Neo liberalism, environmental determinism, cultural determinism, dependency (core-periphery model), circular causation, Rostow's stages of economic growth.
10. In what ways does gender inequality affect development?
- In many traditional societies women are prohibited from holding offices of authority, and females worldwide occupy only twenty percent of seats in national legislatures.
 - Education has often been denied to girls by male authorities who fear that knowledge removes women from their traditional home-centered lives; hence, literacy rates among adult women are far lower than those of their male counterparts in many less-developed countries, and men continue to be given preference in admissions to trade schools and universities.
 - Because women in many countries are treated legally as minors in the care of their husbands, they are also subject to laws that limit or even prohibit their ability to travel, file for divorce, inherit land, or secure loans and other financial services.
 - Most women in less-industrialized countries have traditionally worked in the informal economic sector—jobs such as street and market vending, small business operation, and domestic work not covered by national labor and employment laws such as cooking, cleaning, and child care; thus limited in their earning potential, many women have no hope for economic advancement.
 - Women fortunate enough to receive an education and secure good career positions tend to be paid less for the same work than their male counterparts.
 - The majority of the world's adults living in poverty are women; because women are the primary caregivers to children, this situation has grave implications worldwide for child health and nutrition.

Geographers@Work:

1. You have been retained by a government to design a national development plan. Use your knowledge of geography to give your plan a character that is different from the one created by an economist or engineer.

The conventional wisdom planning model begins with goal formulation and proceeds first to analysis of the situation. Goal formulation requires input from all individuals whose actions will be needed to implement the plan. I will examine the geographic patterns of population diversity within the country to identify where to seek input for planning across the range of diversity in the country. After articulating planning goals I will identify the country's physical and human geography characteristics relative to the planning goals. This analysis will identify where opportunities and challenges to the plan

are located. Once I have identified consensus planning goals and current circumstances relative to those goals I will proceed with proposing alternative courses of action (alternative plans) to achieve the goals. Whether this procedure differs from that of an engineer or economist is up to them, as I view the task as a geographer.

2. You want to become a member of the “Transnational Capitalist Class.” Design a strategy that will take you to this goal.

After earning a bachelor’s and master’s degree in geography with an emphasis in economic geography I will earn a degree in international business and law. I would choose academic programs that included opportunities for studying abroad and internships or cooperative work in multinational corporations. This academic preparation should increase my knowledge of how the global economy works. Then I would seek employment with a multinational corporation and work my way up in the organization to become a member of the transnational capitalist class.

3. Plan a tourist resort that will draw visitors but not overwhelm and destroy the natural and cultural assets that are the region’s primary attractions.

Japan limits the number of people who may travel to national shrines. This common sense practice keeps the tourist attractions from being overrun, a challenge for a growing number of tourist destinations whose attractions are their natural and cultural assets. The title of a recently published book describes the problem in glaring detail - *Overbooked*.

Let’s assume that the tourist resort in this task is a national historic site located in the Blue Ridge Mountains section of the southern Appalachian Highlands in the state of Tennessee. Because this historic site is cherished by most citizens of the United States most of them would like to visit it. Although located in a mountainous region the site is near well-traveled tourist routes from the densely settled Bos-Wash megaregion to southeastern coastal areas. The historic site has a great opportunity to capture a lot of the passersby who are motivated to learn firsthand about this place.

The remoteness of the historic site has allowed its surroundings to be relatively untouched by economic development and population growth. Most of the residents in the area have lived there their entire lives as did many generations of their families before them. The historic site has for many years offered the major economic activity in the area aside from near subsistence agriculture. The economic development potential of the area for tourism is great.

The term “tourist resort” implies luxury accommodations for elite vacationers; but that will not be the case here. Instead, the tourists will be interested in the historical value of the place, and “resort” will mean a pleasant alternative to the increasingly “overbooked” tourist attractions.

Visitors will be attracted to the historic site by their keen interest in its story from the past. With financial and administrative assistance and cooperation from the National Park Service and the Appalachian Regional Commission, accommodations will be made

available by reservation only so as not to “overbook” the site or its nearby residents and the natural environment. Lodging will be available exclusively to historic site visitors at cost-basis rates at a hotel to be constructed in a nearby town. Transportation between the hotel and historic site will be provided. To maintain year-round full-capacity-occupancy a continuous advertising campaign will be employed to encourage visitors. Participation in the construction of the hotel, maintenance of the historic site, educational program presentation at the site, and transportation to the site by the federal government is justified by the idea that the citizens of the country should be aware of its heritage, which is represented by the historic site. This project will become part of the economic base of the area around the historic site and, therefore, will increase via the multiplier effect.

4. Devise strategies that city planners might use to cope with storm and flood hazards.
 - One strategy is to implement zoning restrictions on building in flood prone areas.
 - Second, implement a building code that meets the “low probability, high consequence” flood and storm potentials of the area.
 - Third, implement land use planning standards that mitigate storm water runoff.
5. An international agency wants you to think “outside the box” to find ways to lift a country out of poverty. List your recommendations.
 - Establish the rule of law and public institutions to support it.
 - Provide high quality free public education from pre-school through undergraduate college that promotes specialization of labor.
 - Secure a reliable source of surplus food for your people.
 - Develop reliable transportation and communication infrastructure, and ensure public access to it.
 - Encourage “no strings attached” foreign direct investment in projects that educate and offer meaningful employment for your people and bring money into the country. Protect your natural capital from foreign exploitation.
 - Make getting out of the poverty box the country’s number one goal to be achieved as soon as possible.

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Learning Catalytics

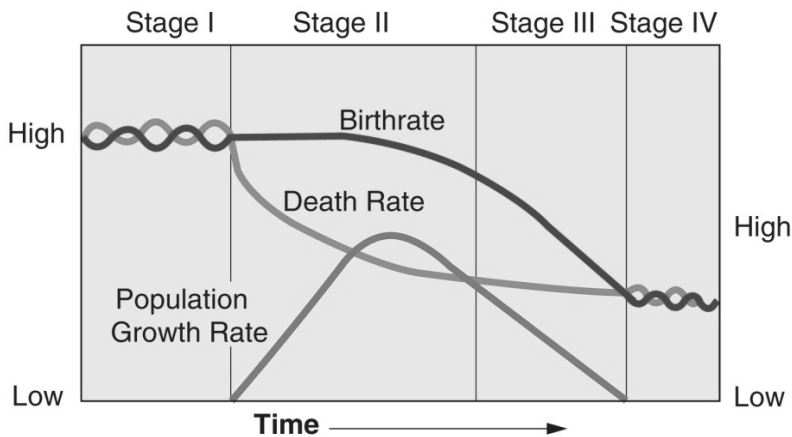
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Idea for Learning Catalytics activity:

- Upload the following diagram of the Demographic Transition Model and have students mark the part of the model that is most affected by improving the status of women in a society.



Major Changes in Chapter 1 from the Tenth Edition

- The chapter introduction is new and is followed by a list of learning objectives or outcomes.
- Various section headings within the chapter have been reworded, but the meanings remain the same. Some section sub-headings have been removed, although the content remains.
- The first paragraph following a section heading is totally or partially new.
- The **Stop & Think** question after each sub-section is new. There are ten of them in this chapter.
- Some content has been reworded and is more concise, but a significant amount of supplementary content (i.e., examples of main ideas) has been omitted.
- Throughout the chapter statistics have been updated.

- Table 1-1 has been changed to show the 10 rather than the 20 largest urban agglomerations.
- Figure 1-7 has been changed to a smaller map with dasymetric shading rather than dots to illustrate world population distribution.
- Figure 1-14 has been changed.
- Figure 1-16 has been changed.
- In the section on environment the discussion of landforms has been placed before the discussion of climate.
- The sub-section “Resource Management Opportunities and Constraints” is new, but it includes similar topics included in the tenth edition.
- Figure 1-25 has been expanded to two photographs.
- Figure 1-26 has been expanded to two photographs.
- Figure 1-27 is new.
- Figure 1-30 is new.
- The topic of sustainability is discussed in greater detail under the new section heading “Environmental Health and Development.”
- Figure 1-35 is new.
- Figure 1-36 is new.
- The sub-section “Tracking Change and Managing Wastes” is new.
- Figure 1-37 is new.
- Figure 1-38 is new.
- Figure 1-42 is new.
- Figure 1-46 is new.
- Figure 1-47 is new.
- Figure 1-48 is new.
- The Geography in Action features that were in the Tenth edition have been replaced.