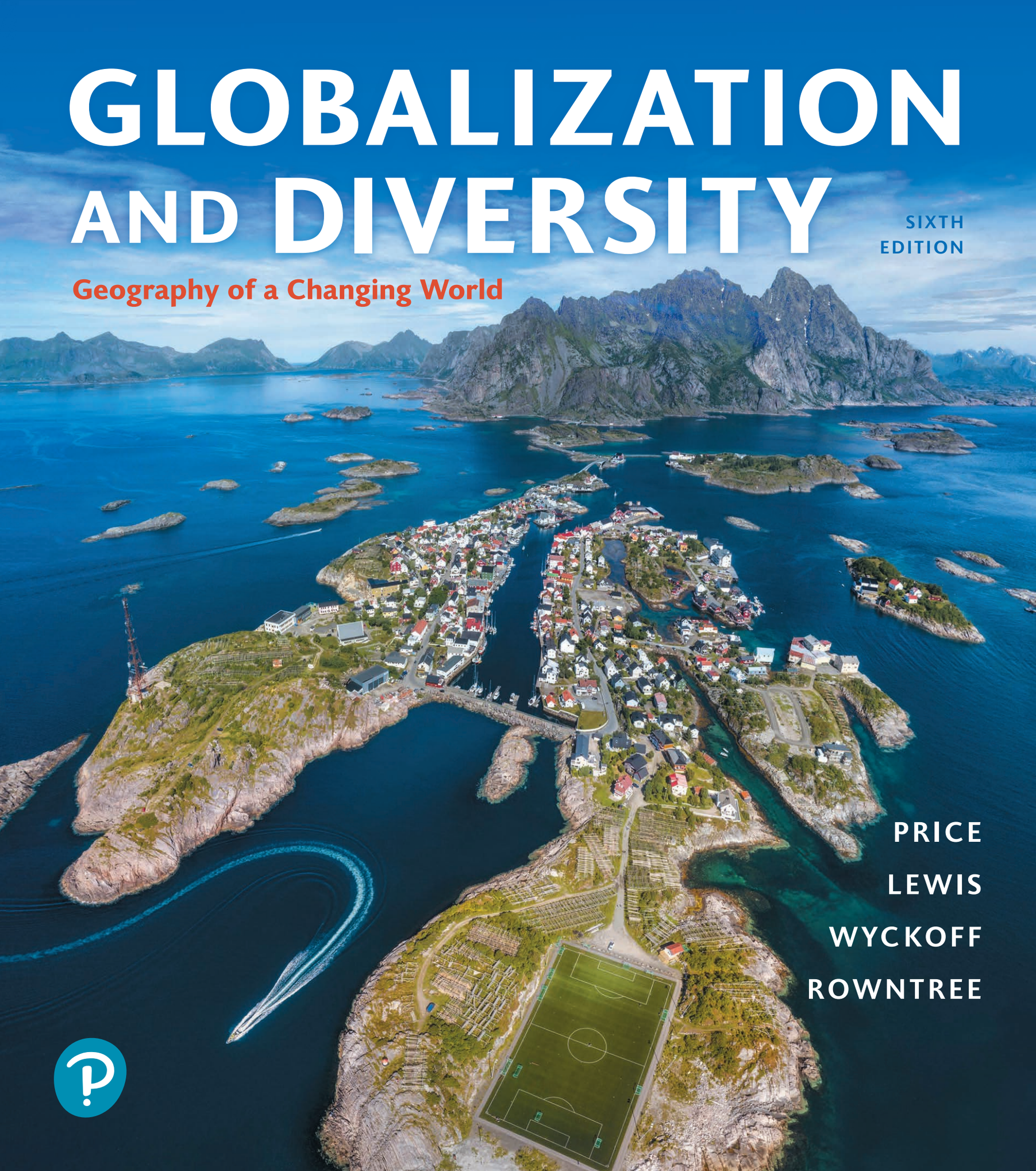
GLOBALIZATION AND DIVERSITY

SIXTH EDITION

Geography of a Changing World



PRICE
LEWIS
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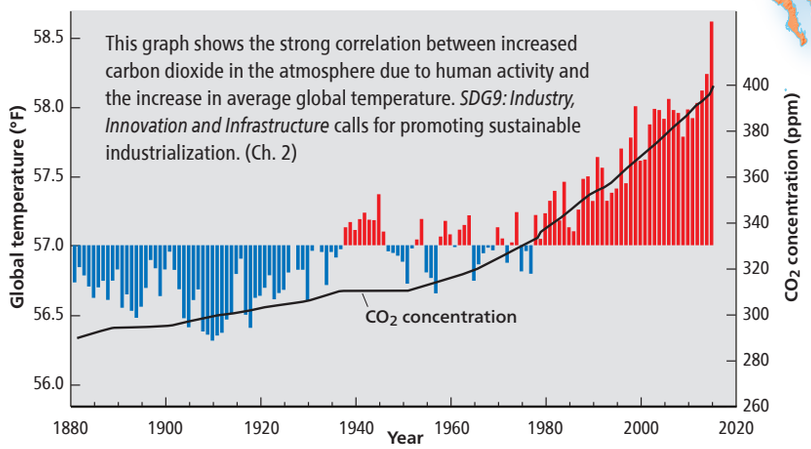
ROWNTREE

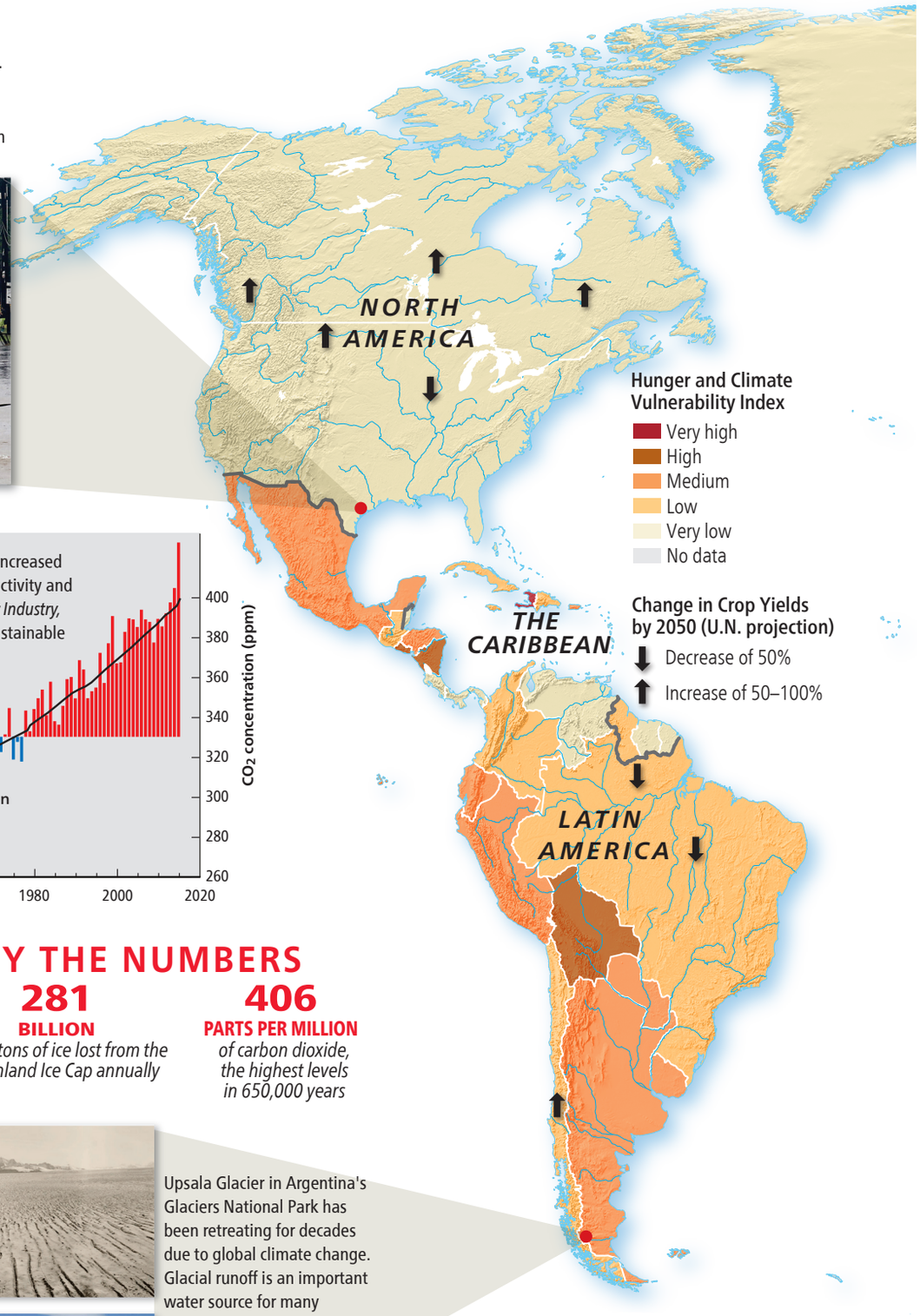
GLOBAL CLIMATE CHANGE, FOOD SECURITY, AND SUSTAINABLE DEVELOPMENT GOALS

Earth's temperature continues to rise due primarily to greenhouse gases (GHG) emitted by human activity. Corresponding environmental changes impact food production as farmlands are damaged or diminished. Food insecurity can lead to poverty, conflict, and mass migration as people look for better living conditions elsewhere.

In 2016, the United Nations adopted Sustainable Development Goals (SDGs) to tackle global issues like climate change and food security through 17 interconnected missions. SDGs challenge every country to promote better living conditions for all while protecting the planet.

Torrential rains from Hurricane Harvey flooded Houston in 2017. Global climate change may lead to more intense storms, threatening rural and urban places alike. *SDG11: Sustainable Cities and Communities* calls for more resilient, sustainable urban practices. (Ch. 3)





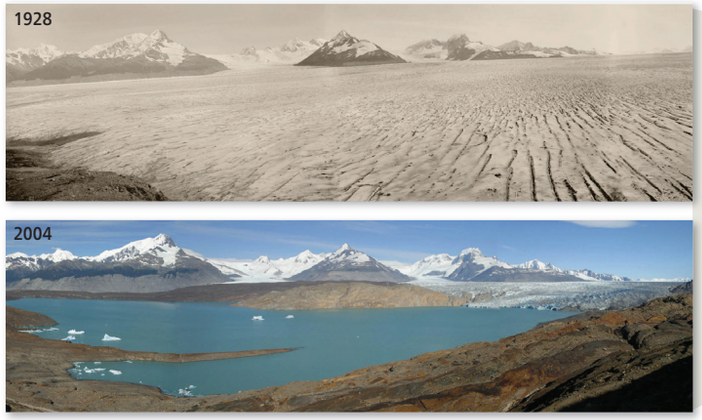
CLIMATE CHANGE BY THE NUMBERS

13.3
PERCENT
decrease per decade of Arctic ice since 1980

7
INCHES
of sea-level rise in the past 100 years

281
BILLION
metric tons of ice lost from the Greenland Ice Cap annually

406
PARTS PER MILLION
of carbon dioxide, the highest levels in 650,000 years

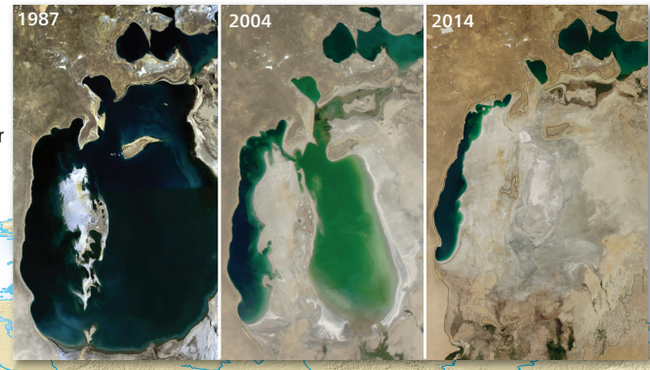


Upsala Glacier in Argentina's Glaciers National Park has been retreating for decades due to global climate change. Glacial runoff is an important water source for many regions. *SDG6: Clean Water and Sanitation* calls for better management of freshwater ecosystems. (Ch. 4)

Map labels indicate Earth's 12 world regions, as defined by *Globalization and Diversity*

Sources: World Food Programme, United Nations FAO, World Health Organization, NASA, NOAA

The Aral Sea has been shrinking due to water diversion, devastating fisheries and farmlands. *SDG2: Zero Hunger* calls for sustainable agricultural practices. (Ch. 10)



EURASIA

EUROPE

CENTRAL ASIA

EAST ASIA

NORTH AFRICA/ SOUTHWEST ASIA

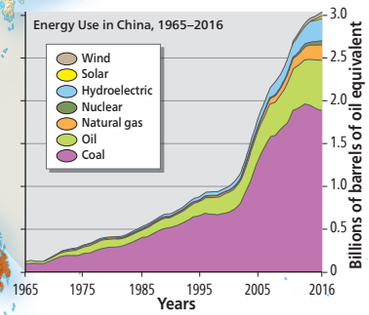
SOUTH ASIA

SOUTHEAST ASIA

SUB-SAHARAN AFRICA

OCEANIA

Most of China's energy demand is still met by burning coal and oil, although use of renewables is steadily increasing. *SDG7: Affordable and Clean Energy* calls for greater integration of renewable energy sources. (Ch. 11)

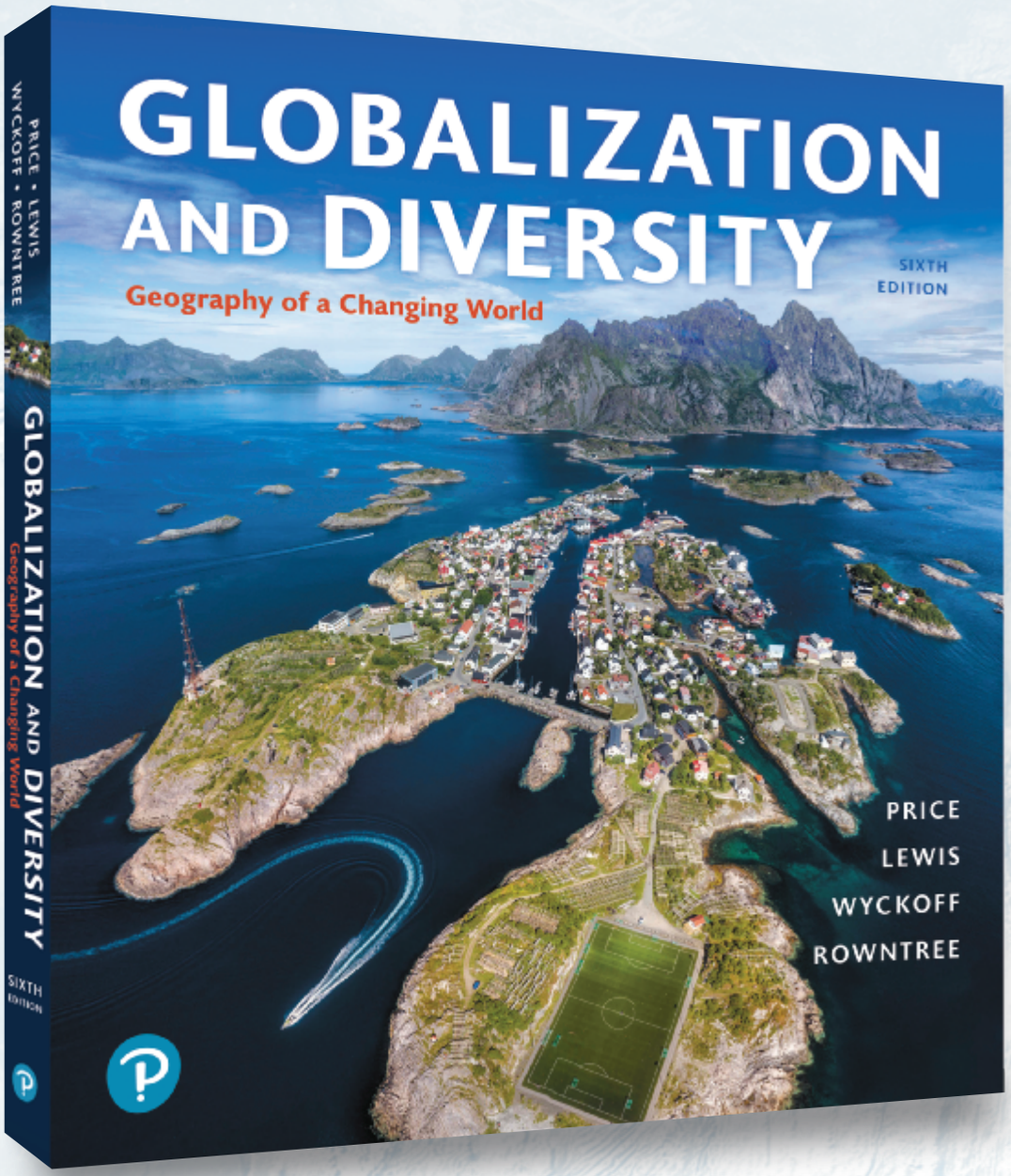


Low-lying parts of Bangladesh suffer repeated flooding due to more intense storms and sea-level rise, threatening the livelihood of millions. *SDG1: Ending Poverty* calls for supporting disaster-prone countries and regions at economic risk. (Ch. 12)

A Senegalese pastoralist moves his herd toward grass and water. Overgrazing combined with drought threatens food supplies in the Sahel. *SDG15: Life on Land* calls for halting and reversing land degredation. (Ch. 6)

Pacific Climate Warriors representing the island states of Oceania march in Bonn, Germany, to protest the loss of land due to sea-level rise. *SDG13: Climate Action* calls for all countries to support coordinated international responses. (Ch. 14)

Empowering Students to Address Global Issues



***Globalization and Diversity,* Sixth Edition**

The sixth edition has a deep emphasis on humanitarian geography and sustainability, and encourages students to explore the sights, sounds, and tastes of world regions with embedded links to online digital resources.

Pearson

How Geographers Help Make the World a Better Place

HUMANITARIAN GEOGRAPHY

Unmasking the Tragedy in Flint, Michigan

▲ Figure 3.1.1 Rick Sadler

Rick Sadler, a geographer and GIS expert at Michigan State University, helped to uncover the roots of the water crisis that has recently plagued Flint, Michigan (Figure 3.1.1). In an effort to save money, the state directed the cash-strapped city to switch its water supply to the local Flint River in 2014. Tragically, the naturally more turbid water was not treated properly. Flint's new water supply corroded lead from delivery and home service lines, resulting in lead poisoning for thousands of residents, including many children. But initially, no one knew the source of the problem. A local pediatrician suspected that the elevated lead levels in Flint children were linked to Flint River water, and called on Sadler to examine the data.

Remapping the Data Sadler quickly realized that the data that state officials used were based on Flint ZIP codes, larger units that did not match city boundaries or represent the residents drinking the tainted water. "One-third of the addresses with a Flint ZIP code weren't in the city," Sadler recalls, and used a different water source. Remapping the data by the actual street addresses of children with elevated lead levels revealed a strong correlation with use of Flint River water. These older homes often house lead pipes that proved vulnerable to corrosion and leaching. Sadler's evidence confirmed the cause of the poisoning.

A Flint native, Sadler has been interested in mapping "as long as I can remember" and enrolled in GIS courses as an undergraduate. After returning to Flint, he became known as "the map guy" while working with different community groups. Sadler says his heart is in issues relevant to the city: "The more I learned about issues that drove Flint's decline...the more I felt compelled to not just understand them, but to uncover some of the spatial patterns—to use the tools that I had learned."

Based on Sadler's findings and intense public outcry surrounding the crisis, Flint returned to a safer water supply. Yet the crisis continues: less than 25 percent of the 20,000 affected lead-rich pipes had been upgraded by 2017, and contaminated water and its associated effects remain a daily challenge for thousands (Figure 3.1.2). Meanwhile, the spatial tools and geographic analysis that Sadler employed to confirm the source of the Flint tragedy have aided legal and criminal proceedings to address liability and seek environmental justice for affected residents.

Sadler notes that GIS is applicable to many public health issues, and that a geographer's multidisciplinary approach can be invaluable: "It's like being a goalie as opposed to being a forward. It's a special position that not everyone does, but it's absolutely essential."

▲ Figure 3.1.2 Flint Residents Receive Bottled Water Volunteers from Full Gospel Churches in Michigan deliver bottled water to residents of Flint.

1. Why do you think ZIP code zones are often used to map U.S. public health issues?

2. Find a map of local ZIP codes and argue why they may or may not be useful in studying environmental or social problems. What might be a better unit of analysis?

GOOGLE EARTH Virtual Tour Video

NEW! Humanitarian Geography features demonstrate how geographic tools and approaches improve the human condition when confronted with current challenges such as natural disasters, disease outbreaks, crisis and humanitarian mapping, and Sustainable Development Goals (SDGs).

UPDATED! Working Toward Sustainability features explore how the theme of sustainability plays out across world regions, looking at initiatives and positive outcomes of environmental and cultural sustainability. All features are integrated with Quick Response (QR) links to Google Earth® Virtual Tour Videos.

WORKING TOWARD SUSTAINABILITY

Saving the Great Barrier Reef

Scientists call it the world's single largest expression of a living organism. Stretching through the azure- and turquoise-tinted waters of the Coral Sea for more than 1400 miles (2300 km) off the coast of Queensland, the Great Barrier Reef (GBR) includes more than 900 small islands and a myriad of underwater coral reefs (Figure 14.1.1). This remarkable ecosystem is home to 1500 species of fish, 400 species of coral, whales, dolphins, sea turtles, sea eagles, terns, and plant species found nowhere else on Earth (Figure 14.1.2). Taking more than 10,000 years to form, the reef has been a UN World Heritage Site since 1981, and much of the area is protected by Australia's Great Barrier Reef Marine Park.

Fighting for Survival Today, however, the GBR is in the fight of its life. Thanks to global climate change, the reef has lost more than half its coral cover since 1985, much of it damaged by warmer ocean temperatures that have accelerated rates of seawater acidification and coral bleaching. Bleaching occurs when the organism experiences increased stress from changing temperature, light, or nutrient conditions. The stressed corals expel helpful algae, causing them to turn white. Bleached corals may survive but are more susceptible to disease and death.

Coastal development also has added to its watery woes: More intensive agriculture in Queensland has produced ocean-bound sediment and increased runoff of toxic agricultural chemicals. Recent plans for expanding coal-loading depots at Abbot Point include potentially dumping waste rock onto the reef, a practice sure to disrupt the purity of local waters. On a hopeful note, the reef contributes to a huge tourist industry in Queensland, amounting to more than $4.8 billion annually. That translates into powerful economic interests that are actually committed to preserving the reef's environmental health.

Adapting to Change Recently, the Australian government pledged over $100 million toward improving reef water quality and toward innovations designed to slow future bleaching episodes. Farmers in nearby Queensland will be paid subsidies to limit runoff of harmful sediments and agricultural chemicals. Another area of investment is the development of a floating, sunscreen-like film that could protect especially vulnerable reefs by limiting the harmful rays of direct sunlight (which hasten the bleaching process). Additional money has been allocated toward targeting the crown-of-thorns starfish which has widely invaded delicate reef systems, making them even more vulnerable to bleaching and death. Scientists are also working to develop new genetic strains of coral that may be more resistant to global climate change and could be used to repopulate damaged settings.

Still, the long-term story for the GBR will probably hinge upon responsible shoreline development along the Queensland coast as well as the further global-scale impacts of ocean warming and acidification that will no doubt affect the region in coming decades. In addition, better aerial surveillance (such as more satellite reconnaissance and use of high-tech drones) of the Marine Park may monitor rogue fishing vessels more effectively in the future. For now, the reef's survival hangs in the balance, a giant poster child for a long list of damaging human impacts that threaten the environmental health of the entire South Pacific.

1. How might economic development in Queensland proceed while at the same time preserving the environmental health of the GBR?

2. Cite a fragile and protected environmental area in your region and briefly outline future prospects for its survival.

▲ Figure 14.1.1 Australia's Great Barrier Reef Off the eastern coast of Australia, the Great Barrier Reef stretches for more than 1400 miles (2300 km) through the Coral Sea.

▲ Figure 14.1.2 Great Barrier Reef's Diverse Ecosystem This undersea view of the Great Barrier Reef features yellow sea-fan corals, acroporas (hard and white corals), and purple anthias (fish).

GOOGLE EARTH Virtual Tour Video

Connecting the Global to the Local

GLOBALIZATION IN OUR LIVES

Putin May Want to Be Your Friend

Russian operatives, Internet trolls, and hackers conducted a sustained campaign to influence the U.S. presidential election in 2016, according to the CIA, FBI, and the National Security Agency. These efforts included running anti-Clinton propaganda on Russian media outlets, hacking Democratic Party emails, and releasing these materials via WikiLeaks, and posting pro-Trump and politically divisive ads on a variety of social media that many of us use every day.

The abuse of social media platforms included Twitter, Facebook, Google, and Instagram, and was a reminder of the vulnerability of these virtual communities. More than 2700 fake Twitter accounts and 36,000 bots churned out pro-Trump tweets and political posts. Russian operatives purchased 80,000 Facebook ads that reached over 125 million users. The Russian-backed "Internet Research Agency" was the source of many of these bogus ads, but a lack of regulations and oversight at the time prevented many people from questioning their veracity or sources. Finally, Facebook CEO Mark Zuckerberg, aware that the Russians had outfoxed him, put in place more security measures designed to catch future abuses (Figure 9.4.1).

Russia's global reach into national elections is nothing new, but the pace of cyber-interference in the world of social media and computer hacking has accelerated since 2014. Russia has also used its superiority in the cyberworld to attempt to influence elections in the United Kingdom, Germany, France, and elsewhere. Has it worked? No one knows, but the next time you jump on your favorite social media site, you may be closer to your Russian comrades than you know.

1. **What geopolitical advantages might Russians hope to gain by interfering with elections in western Europe and the United States?**
2. **Are you vulnerable to being influenced by unethical ads or posts on your social media sites? Why or why not?**

▲ Figure 9.4.1 **Mark Zuckerberg, Facebook CEO** Following the 2016 U.S. Presidential election, Zuckerberg and Facebook were criticized after it was revealed that Russian operatives had misused American social media during the campaign.

NEW! Globalization in Our Lives features explore common familiar commodities, cultural norms, activities, or popular culture that could be in a college student's experience or social network, showing how globalization connects their behavior or consumption across world regions.

UPDATED! Exploring Global Connections features describe unexpected and often surprising connections across world regions, leveraging recent events and coverage of cultural and environmental topics. All features are integrated with QR links to Google Earth Virtual Tour Videos.

EXPLORING GLOBAL CONNECTIONS

South America's Lithium Triangle

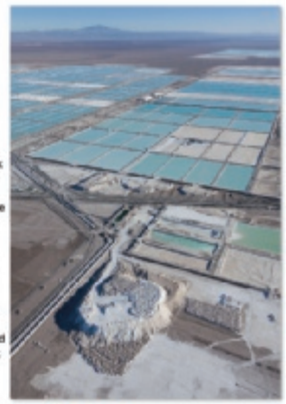
High in a remote corner of the Andes, where Bolivia, Argentina, and Chile meet, is the largest known reserve of lithium in the world. This soft, silver-white metal is an essential element in lightweight batteries, like those that power cell phones and laptops. It is also a key metal for electric vehicle batteries and photovoltaic cells. Companies such as Tesla, Samsung, and Apple are keenly aware of the cost and scarcity of lithium, which could greatly benefit these developing economies. Yet possessing more than half of the world's lithium is only step one—being able to extract it for global markets has been the challenge.

Lithium is found under salt flats in South America's Altiplano region, at elevations of up to 13,000 ft (Figure 4.4.1). Miners must extract the lithium-bearing brine from wells sunk deep below the salt crust and then deposit the liquid into evaporation ponds to let the sun do its work. Once sun-baked, the concentrate is taken for processing into lithium carbonate. South America's lithium boom thus far has been hindered by a lack of technology and capital, as well as national laws that designate lithium a strategic metal and therefore limit investment from foreign companies. Bolivia and Argentina have the largest known reserves, but Australia is the leading producer, followed by Chile. China rounds out the top five lithium source countries.

For decades, Chile has been the region's export leader, sending lithium carbonate primarily to manufacturers in South Korea, China, and Japan. The Atacama salt flats have the highest quality reserves, and ports such as Antofagasta are relatively close (Figure 4.4.2). Moreover, Chile's neoliberal policies have been more open to foreign investment in mining. Argentina is trying to catch up through increased foreign investment in lithium extraction around Jujuy province. In 2016, it produced about half as much lithium as Chile. Bolivia, which may have the largest reserves under the Salar de Uyuni salt flat, has yet to become a significant producer. This is partly due to the state's tight control of the resource and the wariness of foreign investors to engage in this country, which is noted for nationalizing key resources such as natural gas. As far as Bolivians are concerned, they need only look to the nearby mountain of Potosí, whose silver financed Spain's colonization of the Americas, to understand that owning a resource does not mean profiting from it.

1. **What are the factors that make Chile the leading South American exporter of lithium?**
2. **What are the products that you use that need lithium to function?**

▲ Figure 4.4.1 **Lithium Mining in South America** The largest lithium deposits in the world are found where Bolivia, Chile, and Argentina converge. Lithium is a critical metal for lightweight batteries used in cell phones and laptops.



▲ Figure 4.4.2 **Lithium Processing in San Pedro de Atacama, Chile** In the high Atacama desert, lithium-laden brine is pumped out of the ground and into evaporation ponds. Once dried, the powdery substance is shipped and processed into lithium.

GOOGLE EARTH
Virtual Tour Video

A Structured Learning Path to Support Today's Students

Physical Geography and Environmental Issues

China has long experienced severe deforestation and soil erosion, and its current economic boom is generating some of the world's worst pollution problems. Japan, South Korea, and Taiwan, however, have extensive forests and relatively clean environments.

Population and Settlement

Low birth rates and aging populations are found throughout East Asia. China is currently undergoing a major transformation as tens of millions of peasants move from impoverished villages in the interior to booming coastal cities.

Cultural Coherence and Diversity

Despite several unifying cultural features, East Asia in general and China in particular are divided along striking cultural lines. Historically, however, the entire region was linked by Mahayana Buddhism, Confucianism, and the Chinese writing system.

Geopolitical Framework

China's growing power is generating tension with other East Asian countries, while Korea remains a divided nation. As China's global influence grows, Japan, South Korea, and Taiwan are responding by strengthening ties with the United States.

Economic and Social Development

East Asia has been a core area of the world economy for several decades, with China undergoing one of the world's most rapid economic expansions. North Korea, however, remains desperately poor, plagued by widespread malnutrition.

UPDATED! Critical Themes of Geography
Following two unique introductory chapters, each regional chapter is organized into five thematic sections, making navigation and cross-regional comparisons easy for students and instructors. Themes include Physical Geography and Environmental Issues, Population and Settlement, Cultural Coherence and Diversity, Geopolitical Framework, and Economic and Social Development.

UPDATED! Region-specific Learning Outcomes in each chapter's opening pages outline the knowledge and skills that students should gain from each chapter.

LEARNING OBJECTIVES

After reading this chapter you should be able to:

- **11.1** Contrast the physical geographies of the islands of East Asia (Japan and Taiwan) and the mainland.
- **11.2** Describe the main environmental problems China faces today and compare them with environmental challenges faced by Japan, South Korea, and Taiwan.
- **11.3** Explain why China's population is so unevenly distributed, with some areas densely settled and others almost uninhabited.
- **11.4** Summarize the distribution of major urban areas on the map of East Asia and explain why the region's largest cities are continuing to grow.
- **11.5** Describe how religion and other systems of belief both unify and divide East Asia.
- **11.6** Explain the distinction between, and geographical distribution of, the Han Chinese and the other ethnic groups of China, paying particular attention to language.
- **11.7** Outline the geopolitical division of East Asia during the Cold War era and explain how that division still influences East Asian geopolitics.
- **11.8** Identify factors behind East Asia's rapid economic growth in recent decades and discuss possible limitations to continued expansion at such a rate.
- **11.9** Summarize the geographical differences in economic and social development found in China and across East Asia as a whole.

UPDATED! Two Review Questions at the end of each section help students check their comprehension as they read, and are followed by a listing of the key terms from each section, reinforcing the key concepts from each chapter section.

REVIEW

- **11.3** Why does East Asia import so much of its food and natural resources from other parts of the world?
- **11.4** Describe how the urban landscape of China is currently changing.

KEY TERMS anthropogenic landscape, hukou, urban primacy, megalopolis

REVIEW

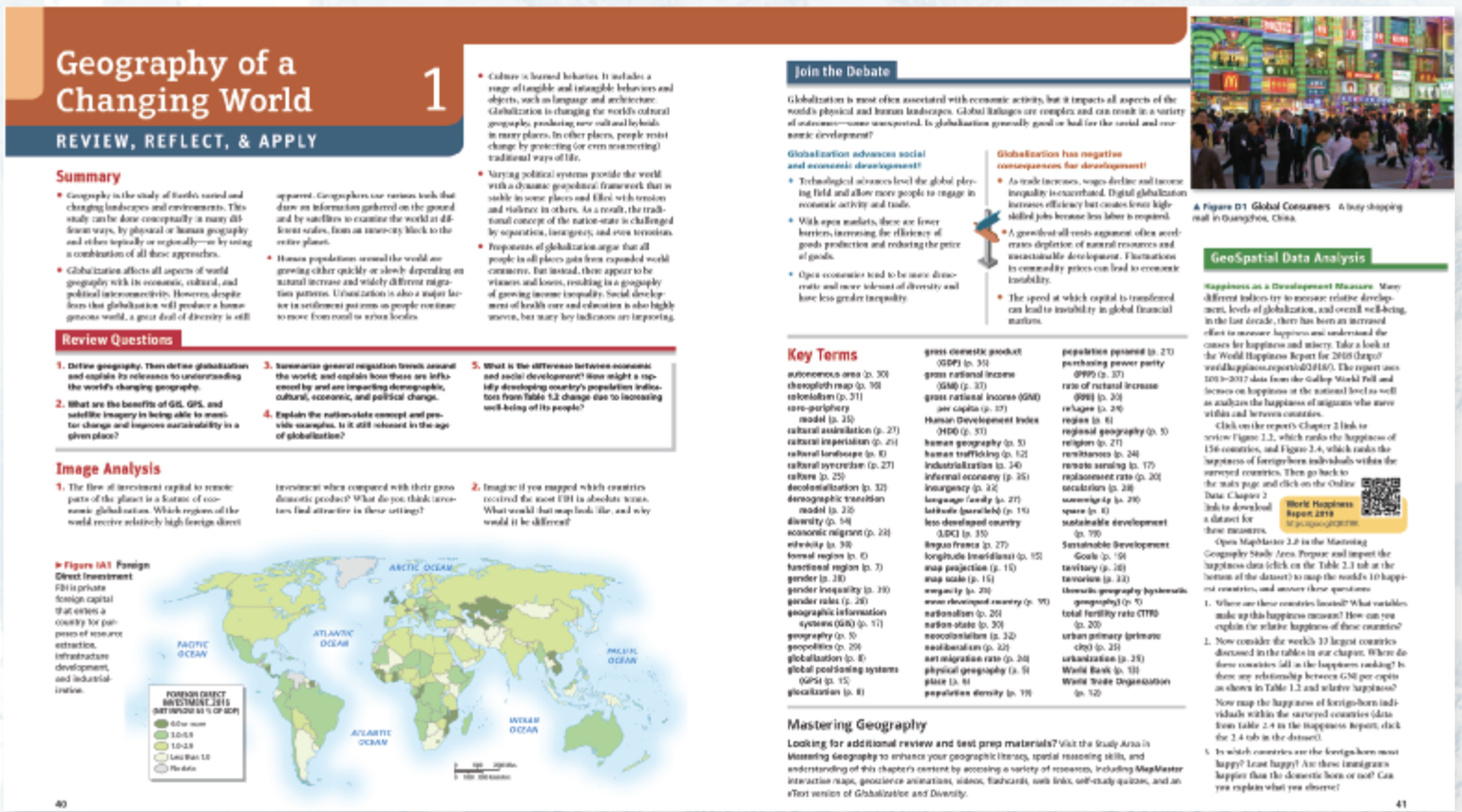
- **11.9** How has the process of economic development been similar in Japan, South Korea, Taiwan, and China since the end of World War II, and how has it differed in each country?
- **11.10** Why do levels of social and economic development vary so extensively from the coastal region of China to its interior provinces?

KEY TERMS chaebol, laissez-faire, Special Economic Zone (SEZ), World Trade Organization (WTO), One Belt, One Road, social and regional differentiation, rust belt

Develop 21st Century Skills

NEW! 2-page Review, Reflect, & Apply Sections at the end of each chapter provide a robust interactive review experience, including a concise chapter summary, *Review Questions* that bridge multiple chapter themes, *Image Analysis* questions, new *Join the Debate* activities, new *Geospatial Data Analysis* activities, as well as QR links to *Geographers at Work* profiles.

NEW! Join the Debate presents two sides of a complex topic to engage students in active debate around the most critical topics of geography today. *Join the Debate* can be used for homework, group work, and discussions.



Geography of a Changing World 1

REVIEW, REFLECT, & APPLY

Summary

- Geography is the study of Earth's varied and changing landscapes and environments. This study can be done conceptually in many different ways, by physical or human geography and either topically or regionally—or by using a combination of all these approaches.
- Globalization affects all aspects of world geography with its economic, cultural, and political interconnectivity. However, despite fears that globalization will produce a homogeneous world, a great deal of diversity is still apparent. Geographers use various tools that draw on information gathered on the ground and by satellites to examine the world at different scales, from an intersection block to the entire planet.
- Human populations around the world are growing either quickly or slowly depending on natural increase and widely different migration patterns. Urbanization is also a major factor in settlement patterns as people continue to move from rural to urban locales.
- Culture is learned behavior. It includes a range of tangible and intangible behaviors and objects, such as language and architecture. Globalization is changing the world's cultural geography, producing new cultural hybrids in many places. In other places, people resist change by protecting (or even reasserting) traditional ways of life.
- Varying political systems provide the world with a dynamic geopolitical framework that is stable in some places and filled with tension and violence in others. As a result, the traditional concept of the nation-state is challenged by separatism, insurgency, and even terrorism.
- Proponents of globalization argue that all people in all places gain from expanded world commerce. But instead, there appear to be winners and losers, resulting in a geography of growing income inequality. Social development of health care and education is also highly uneven, but many key indicators are improving.

Review Questions

1. Define geography. Then define globalization and explain its relevance to understanding the world's changing geography.
2. What are the benefits of GIS, GPS, and satellite imagery in being able to monitor change and improve sustainability in a given place?
3. Summarize general migration trends around the world; and explain how these are influenced by and are impacting demographic, cultural, economic, and political change.
4. Explain the nation-state concept and provide examples. Is it still relevant in the age of globalization?
5. What is the difference between economic and social development? How might a rapidly developing country's population indicators from Table 1.2 change due to increasing well-being of its people?

Image Analysis

1. The flow of investment capital to remote parts of the planet is a feature of economic globalization. Which regions of the world receive relatively high foreign direct investment when compared with their gross domestic product? What do you think investors find attractive in these settings?
2. Imagine if you mapped which countries received the most FDI in absolute terms. What would that map look like, and why would it be different?

▶ Figure IA1 Foreign Direct Investment FDI is private foreign capital that enters a country for purposes of resource extraction, infrastructure development, and industrial review.

40

Join the Debate

Globalization is most often associated with economic activity, but it impacts all aspects of the world's physical and human landscapes. Global linkages are complex and can result in a variety of outcomes—some unexpected. Is globalization generally good or bad for the social and economic development?

Globalization advances social and economic development!

- Technological advances level the global playing field and allow more people to engage in economic activity and trade.
- With open markets, there are fewer barriers, increasing the efficiency of goods production and reducing the price of goods.
- Open economies tend to be more democratic and more tolerant of diversity and have less gender inequality.

Globalization has negative consequences for development!

- As trade increases, wages decline and income inequality is exacerbated. Digital globalization increases efficiency but creates fewer high-skilled jobs because less labor is required.
- A growth-at-all-costs argument often accelerates depletion of natural resources and unsustainable development. Fluctuations in commodity prices can lead to economic instability.
- The speed at which capital is transferred can lead to instability in global financial markets.

Key Terms

autonomous area (p. 30)
choropleth map (p. 30)
colonialism (p. 31)
core–periphery model (p. 35)
cultural assimilation (p. 27)
cultural imperialism (p. 25)
cultural landscape (p. 8)
cultural syncretism (p. 27)
culture (p. 25)
decolonialization (p. 32)
demographic transition model (p. 23)
diversity (p. 14)
economic migrant (p. 28)
ethnicity (p. 30)
formal region (p. 6)
functional region (p. 7)
gender (p. 28)
gender inequality (p. 39)
gender roles (p. 28)
geographic information systems (GIS) (p. 11)
geography (p. 5)
geopolitics (p. 29)
globalization (p. 8)
global positioning systems (GPS) (p. 15)
glocalization (p. 8)
gross domestic product (GDP) (p. 35)
gross national income (GNI) per capita (p. 37)
Human Development Index (HDI) (p. 37)
human geography (p. 5)
human trafficking (p. 52)
industrialization (p. 24)
informal economy (p. 35)
insurgency (p. 32)
language family (p. 27)
latitude (parallels) (p. 15)
less developed country (LDC) (p. 35)
lingua franca (p. 27)
longitude (meridians) (p. 15)
map projection (p. 15)
map scale (p. 15)
megacity (p. 24)
more developed country (p. 35)
nationalism (p. 29)
nation-state (p. 30)
neocolonialism (p. 32)
neoliberalism (p. 32)
net migration rate (p. 26)
physical geography (p. 5)
place (p. 6)
population density (p. 19)
population pyramid (p. 23)
purchasing power parity (PPP) (p. 37)
rate of natural increase (RNI) (p. 20)
refugee (p. 29)
region (p. 6)
regional geography (p. 5)
religion (p. 27)
remittances (p. 28)
remote sensing (p. 12)
replacement rate (p. 20)
secularism (p. 28)
sovereignty (p. 29)
space (p. 6)
sustainable development (p. 39)
Sustainable Development Goals (p. 39)
territory (p. 28)
terrorism (p. 32)
thematic geography (systematic geography) (p. 5)
total fertility rate (TFR) (p. 20)
urban primacy (primate city) (p. 25)
urbanization (p. 25)
World Bank (p. 33)
World Trade Organization (p. 32)

Mastering Geography

Looking for additional review and test prep materials? Visit the Study Area in MasteringGeography to enhance your geographic literacy, spatial reasoning skills, and understanding of this chapter's content by accessing a variety of resources, including MapMaster interactive maps, geoscience animations, videos, flashcards, web links, self-study quizzes, and an eText version of *Globalization and Diversity*.

▲ Figure D1 Global Consumers A busy shopping mall in Guangzhou, China.

GeoSpatial Data Analysis

Happiness as a Development Measure Many different indices try to measure relative development, levels of globalization, and overall well-being. In the last decade, there has been an increased effort to measure happiness and understand the causes for happiness and misery. Take a look at the World Happiness Report for 2018 (http://worldhappiness.report/ed/2018/). The report uses 2015–2017 data from the Gallup World Poll and focuses on happiness at the national level as well as analyzes the happiness of migrants who move within and between countries.

Click on the report's Chapter 2 link to review Figure 2.2, which ranks the happiness of 156 countries, and Figure 2.4, which ranks the happiness of foreign-born individuals within the surveyed countries. Then go back to the main page and click on the Online Data: Chapter 2 link to download a dataset for these exercises.

World Happiness Report 2018

Open MapMaster 2.0 in the Mastering Geography Study Area. Prepare and import the happiness data (click on the Table 2.3 tab at the bottom of the dataset) to map the world's 10 happiest countries, and answer these questions:

1. Where are these countries located? What variables make up this happiness measure? How can you explain the relative happiness of these countries?
2. Now consider the world's 10 largest countries discussed in the tables in our chapter. Where do these countries fall in the happiness ranking? Is there any relationship between GNI per capita as shown in Table 1.2 and relative happiness?

   Now map the happiness of foreign-born individuals within the surveyed countries (data from Table 2.4 in the happiness report; click the 2.4 tab in the dataset).
3. In which countries are the foreign-born most happy? Least happy? Are these immigrants happier than the domestic born or not? Can you explain what you observe?

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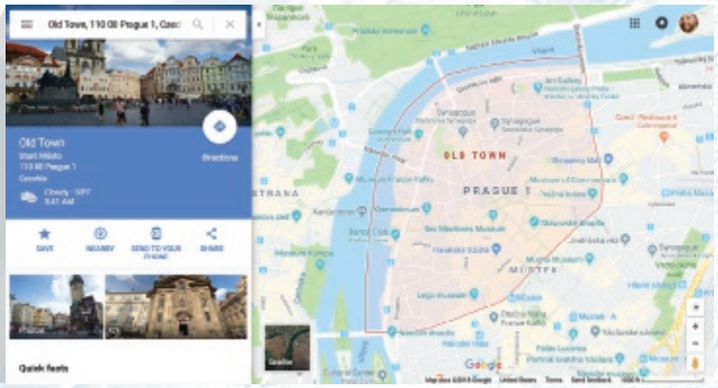
NEW! GeoSpatial Data Analysis activities send students to online data sources to collect, prepare, and analyze spatial data using MapMaster 2.0.

The Sights, Sounds, & Tastes of World Regions

▲ Figure 1.3 The Cultural Landscape Despite globalization, the world's landscapes still have great diversity, as seen in Prague, CANADA (Czech Republic). Red tile roofs, three-to-four-story buildings, organic street patterns, and open squares distinguish this historic capital city. Geographers use the cultural landscape concept to better understand how people interact with their environment.

Explore the SIGHTS of Historic Prague



NEW! Sights of the Region features link photos and maps to dynamic online Google Maps that include community contributed photos, empowering students to explore the places and spaces that make up world regions.

▼ Figure 2.16 Glacier Calving in Antarctica As Earth's climate warms, Antarctica's massive ice sheet is losing volume. Here, a large piece of ice is calving—breaking off—a glacier into the neighboring Southern Ocean.

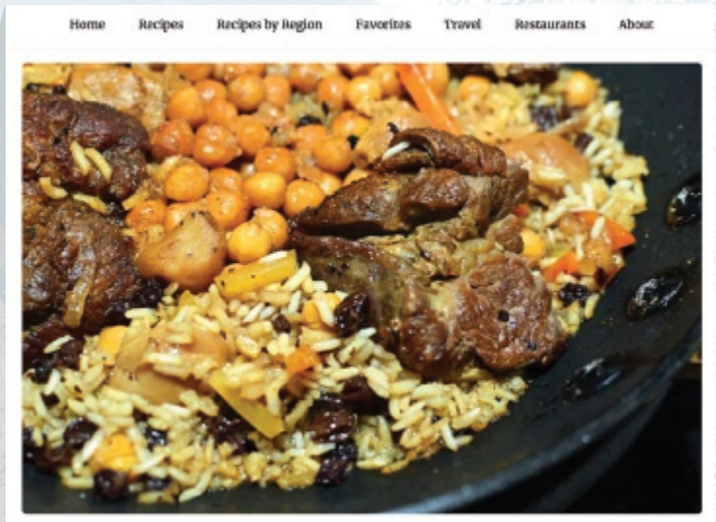
Explore the SOUNDS of a Calving Glacier

VIEDMA GLACIER
Massive Glacier Wall Collapse

NEW! Sounds of the Region features give students access to audio of regional music, language, and nature.

▲ Figure 9.29 Osh This savory Central Asian dish—a mix of rice, meat, vegetables, and spices—is a common sight in Moscow as immigrants from Uzbekistan, Tajikistan, and Kyrgyzstan bring their Central Asian food traditions to the Russian capital.

Explore the TASTES of Uzbek Food



NEW! Tastes of the Region features help students explore the geography and politics of food in each region, and include links to regional dishes and recipes.

MapMaster 2.0: Geospatial Tools in Your Hands

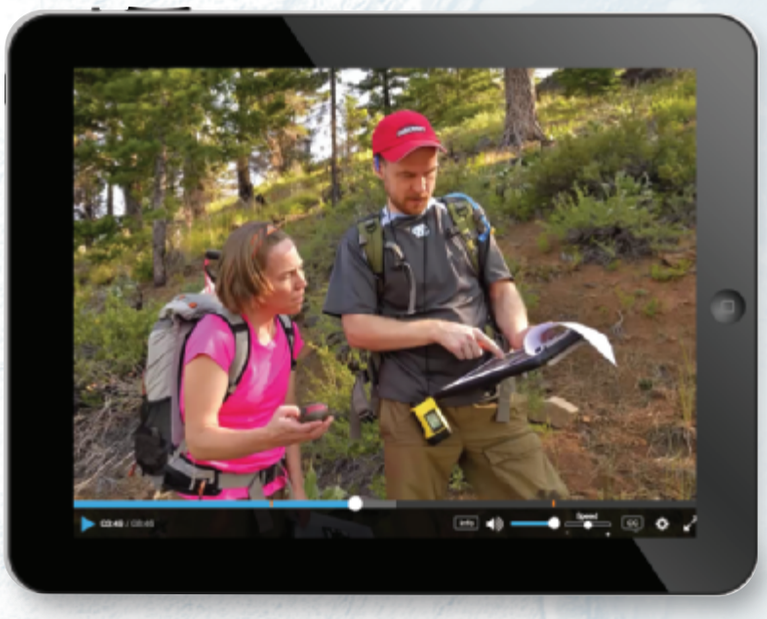
UPDATED! Mastering Geography is the teaching and learning platform that empowers you to reach *every* student. By combining trusted author content with digital tools developed to engage students and emulate the office-hour experience, Mastering personalizes learning and improves results for each student.

NEW! MapMaster 2.0 Interactive Map Activities Inspired by GIS, MapMaster 2.0 allows students to layer various thematic maps to analyze spatial patterns and data at regional and global scales. Now fully mobile, with enhanced analysis tools, MapMaster 2.0 allows students to upload their own data and geolocate themselves within the data. This tool includes zoom and annotation functionality, with hundreds of map layers leveraging recent data from sources such as the PRB, the World Bank, NOAA, NASA, USGS, United Nations, the CIA, and more. Available with assessment in Mastering Geography.

Transport Your Students to World Regions

NEW! Video Activities from sources such as the BBC, Financial Times, and Television for the Environment's *Life* and *Earth Report* series are included in Mastering Geography. These videos provide students with applied real-world examples of geography in action, a sense of place, and allow students to explore a range of locations and topics.

NEW! Google Earth Virtual Tour videos give students brief narrated spatial explorations of places and people around the world, covering critical themes such as globalization and sustainability.



NEW! Mobile Field Trips videos for geography from Michael Collier give students another avenue for exploring U.S. landscapes and the major themes of physical geoscience concepts. These are embedded in the eText and available to assign in Mastering Geography.

Pearson eText:
An Integrated Learning Experience

NEW! Pearson eText is a simple-to-use, mobile-optimized, personalized reading experience available within Mastering. It allows students to easily highlight, take notes, and review key vocabulary all in one place—even when offline. Seamlessly integrated videos and other rich media engage students and give them access to the help they need, when they need it. Pearson eText is available within Mastering when packaged with a new book; students can also purchase Mastering with Pearson eText online.

UPDATED! Customizable for a Changing World
As an instructor you can add your own notes, embed videos and links, share highlights and notes with students, and rearrange chapters and sections to ensure the Pearson eText fits your unique course.

Resources for Instructors & Students

Instructor Resources are now found in Mastering Geography for your convenience. These resources provide everything you need to prep for your course and deliver a dynamic lecture, in one convenient place. Resources include:

Measuring Student Learning Outcomes

All of the Mastering Geography assignable content is tagged to Learning Outcomes from the book, the National Geography Standards, and Bloom's Taxonomy. You also have the ability to add your own learning outcomes, helping you track student performance against your course goals. You can view class performance against the specified learning outcomes and share those results quickly and easily by exporting to a spreadsheet.

PowerPoint & Lecture Assets for Each Chapter

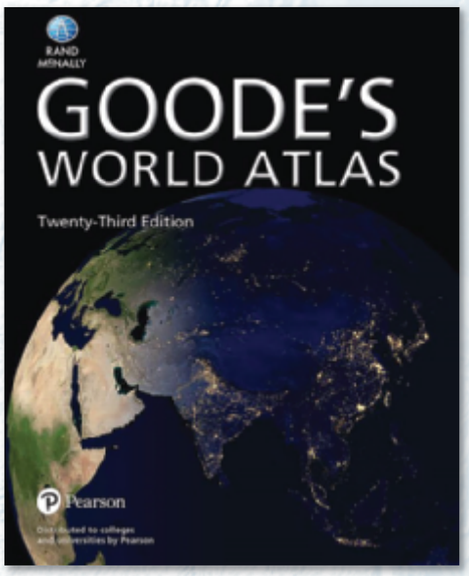
- PowerPoint Lecture Outlines
- PowerPoint Clicker Questions
- All illustrations, tables, and photos from the text in PowerPoint and JPEG formats

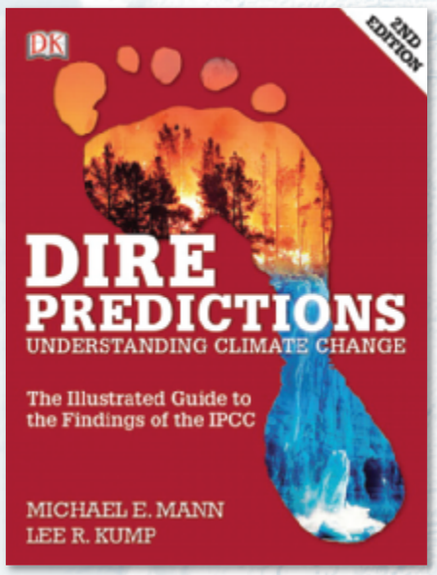
TEST BANK

- The *Test Bank* in Microsoft Word formats
- TestGen Computerized *Test Bank*, which includes all the questions from the *Test Bank* in a format that allows you to easily and intuitively build exams and quizzes

ADDITIONAL RESOURCES

- *Instructor Resource Manual* in Microsoft Word and PDF formats
- Goode's *World Atlas*, 23rd Edition
- *Dire Predictions: Understanding Climate Change*, 2nd Edition by Mann and Kump





GLOBALIZATION AND DIVERSITY

MARIE PRICE
George Washington University

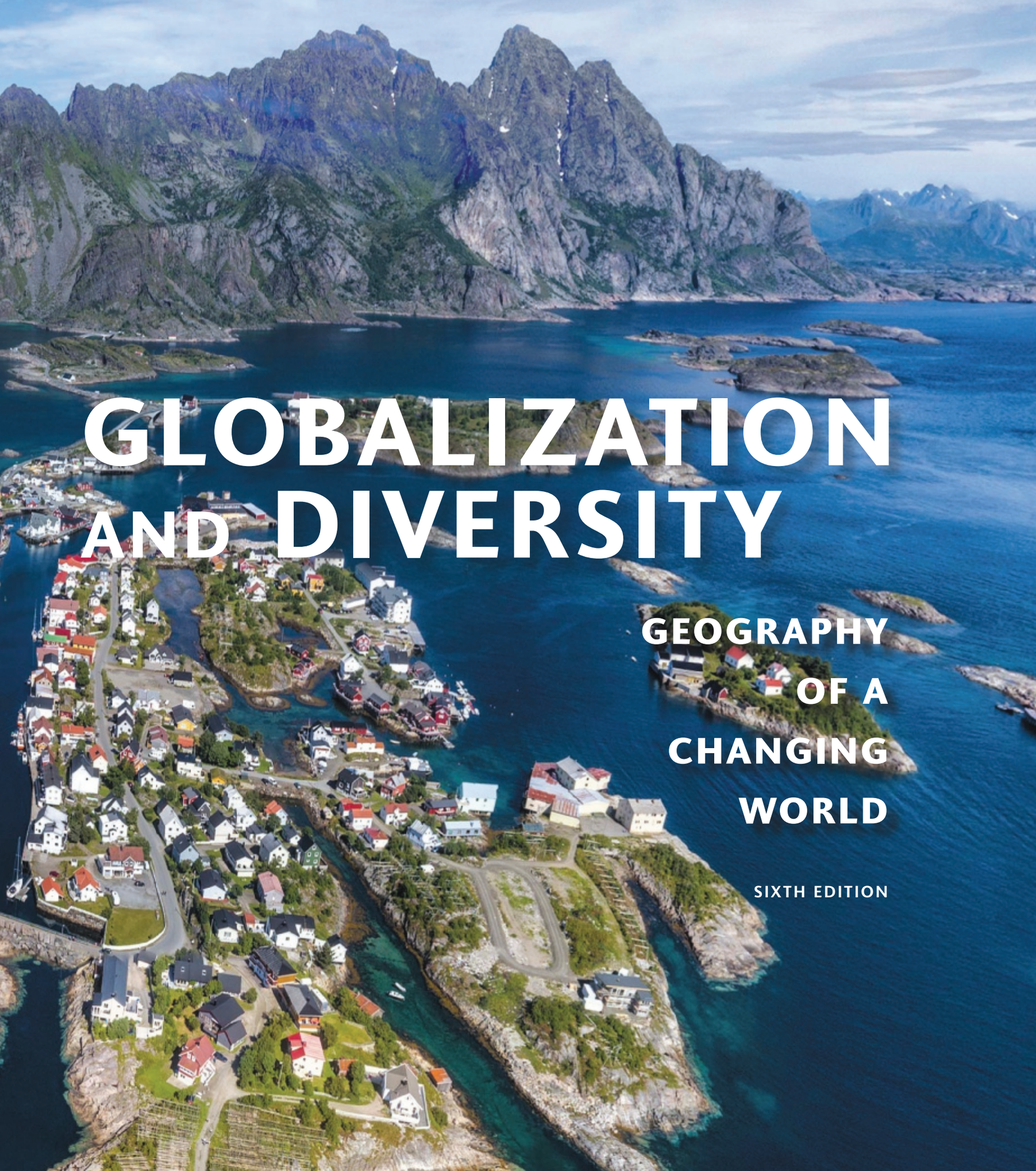
MARTIN LEWIS
Stanford University

WILLIAM WYCKOFF
Montana State University

LES ROWNTREE
University of California, Berkeley

with contributing author
WESLEY REISSER
George Washington University

Pearson



GLOBALIZATION AND DIVERSITY

GEOGRAPHY OF A CHANGING WORLD

SIXTH EDITION

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Cover Photo Credit: Ratnakorn Piyasirisorost / Getty Images

Library of Congress Cataloging-in-Publication Data

Names: Rowntree, Lester, 1938- author.
Title: Globalization and diversity : geography of a changing world / Les Rowntree, University of California, Berkeley, Martin Lewis, Stanford University, Marie Price, George Washington University, William Wyckoff, Montana State University.
Other titles: Globalisation and diversity
Description: Sixth Edition. | Hoboken, NJ : Pearson, [2019] | Revised edition of the authors' Globalization and diversity, [2017]
Identifiers: LCCN 2018053783 | ISBN 9780134898391 (pbk.)
Subjects: LCSH: Economic geography. | Globalization.
Classification: LCC HF1025 .G59 2019 | DDC 330.9--dc23
LC record available at https://lccn.loc.gov/2018053783

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ISBN 10: **0-134-89839-7**; ISBN 13: **978-0-134-89839-1** (Student Edition)
ISBN 10: **0-135-20387-2**; ISBN 13: **978-0-135-20387-3** (Loose-leaf Edition)
www.pearson.com

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Preface

Globalization and Diversity: Geography of a Changing World, sixth edition, is an issues-oriented textbook for college and university world regional geography classes that explicitly recognizes the vast geographic changes taking place because of globalization. With this focus we join the many scholars who consider globalization to be the most fundamental reorganization of the world's socioeconomic, cultural, and geopolitical structure since the Industrial Revolution. That provides the point of departure and thematic structure for our book.

As geographers, we think it essential for our readers to understand and critique two interactive themes: the consequences of converging environmental, cultural, political, and economic systems inherent to globalization, and the persistence—and even expansion—of geographic diversity and differences in the face of globalization. These two opposing forces, homogenization and diversification, are reflected in our book's title, *Globalization and Diversity*.

NEW & UPDATED IN THE SIXTH EDITION

- In this edition we welcome Dr. Wesley Reisser as a NEW contributing author. Dr. Reisser is a scholar and diplomat. He earned his PhD from the University of California, Los Angeles (UCLA) and teaches political geography and energy resources as an adjunct professor at the George Washington University. For over 15 years he has worked at the U.S. Department of State, most recently in the Bureau of Democracy, Human Rights, and Labor. Dr. Reisser brings to *Globalization and Diversity* a strong interest in political geography and human rights, extensive experience in Europe and Southwest Asia, and scholarly work on the social, political, and environmental implications of energy production and consumption.
- NEW ***Humanitarian Geography*** sidebars examine how geospatial tools and geographic analysis contribute to addressing humanitarian issues and natural disasters in each world region. Topics include finding and relocating refugee populations, teaching mapping skills to volunteers to respond to natural disasters or to build legal cases for human rights abuses, or uncovering and addressing environmental challenges. Some of the *Humanitarian Geography* examples feature individual geographers in the field, describing their work and their thoughts on geography's role in humanitarian efforts.
- NEW ***Sights of the Region*** features provide mobile-ready Quick Response (QR) links from photos to online Google Maps, enabling students to browse web maps and community-contributed photos of the diverse geographies featured in the print book. Students use mobile devices to scan Quick Response (QR) codes to get immediate online access and connect print images with dynamic online web maps and photos.
- NEW ***Sounds of the Region*** features provide QR links to sound clips that help give students a sense of culture and natural environments around the world, highlighting language, music, and the soundscapes of both natural and urban environments.
- NEW ***Tastes of the Region*** features in each regional chapter explore culinary traditions and innovations associated with different parts of the world. These QR links to websites or videos provide recipes and other pertinent information on food production and consumption, as well as material on cultural aspects of regional cuisines.
- The NEW end-of-the-chapter format—***Review, Reflect, & Apply***—asks students to answer broad-based questions spanning concepts and regions. Two of the three components of this feature, ***Image Analysis*** and the NEW ***GeoSpatial Data Analysis***, provide concrete exercises based on the analysis of graphic images and demographic or socioeconomic data. *GeoSpatial Data Analysis* features invite students to prepare and visualize data using NEW MapMaster 2.0 in Mastering Geography. The NEW ***Join the Debate*** feature frames two opposing viewpoints on controversial issues and asks students to assess their claims and weigh in on their own. The end of chapter also features NEW QR links to online *Geographers at Work* profiles of geographers who specialize in that world region. Most describe their fieldwork as well as their insights on the discipline.
- NEW ***Mobile Field Trip Videos*** have students accompany renowned geoscience photographer Michael Collier in the air and on the ground to explore iconic landscapes that have shaped North America and beyond. Students scan QR codes in the print book to get instant access to these media, which are also available for assignment with quizzes in Mastering Geography.
- Many NEW ***Key Concepts*** and terms introduced in the first two chapters are revisited in at least two regional chapters. The overall number of terms have been reduced and major concepts that are critical to understanding globalization and diversity in a changing world are emphasized throughout the book.
- NEW chapter opener vignettes and photos highlight recent events and global linkages, with accompanying maps that pinpoint vignette locations. This edition also features more focused and consistent introductions in Chapters 3–14, placed under the heading "Defining the Region."
- UPDATED ***Globalization in Our Lives*** sidebars (previously known as *Everyday Globalization*) explore the daily items we use, from the cell phones that never seem to leave our sides, to the foods we eat, the clothing we wear, the music we listen to, and the technology that connects us to each other and the world.
- UPDATED & REVISED Tables in each chapter present *Population Indicators* and *Development Indicators* for the world's 10 most populous countries (Chapter 1) and for each country in the various world regions (Chapters 3–14). New indicators measuring development include Secondary School Enrollment Rates for males and females and an overall Freedom Rating developed by Freedom House, an independent watchdog organization.

New & Updated Features in Chapter 1: Geography of a Changing World

- This chapter has been retitled and the introduction is focused more sharply on geography in order to better integrate globalization processes and the discipline. In the section *Geography Matters*, the discussion of areal differentiation and connectivity has been revised. A *Mobile Field Trip* QR link, "Introduction to Geography," has been added.
- *Converging Currents of Globalization* section is retitled *Globalization and New Geographies* with new examples and figures, including a new International Migration diagram and new Global Arms Sales maps. The "Thinking Critically about Globalization" discussion has been revised and shortened.
- The thematic sections of this introductory chapter have also been updated, revised, and enhanced with new examples and photos. The *Geopolitical Framework* section introduces the Freedom Rating (included in all chapter data tables) with a new *Freedom in the World* map, while the *Economic and Social Development* section updates the discussion of poverty measures (with a new map of Morocco) and introduces secondary school enrollment (now included in all chapter data tables).
- Several key terms have been added, including *economic migrant, refugee*, and *sustainable development*. Existing sidebars have been revised, and a new *Humanitarian Geography* sidebar titled "Tools for Service" has been added.

New and Updated Features in Chapter 2: Physical Geography and the Environment

- The discussion of plate tectonics in the *Geology* section has been revised and shortened, with new examples and photos. NEW *Mobile Field Trip* QRs link to concise videos on climate change, volcanic activity, and cloud dynamics.
- The ***Global Climates*** section has been revised, with enhanced discussions of both climate change itself and international mitigation efforts. The 2015 Paris Agreement goals are introduced, as are various national climate plans.
- New key terms include *ecosystem*, *geothermal*, *Paris Agreement*, and *watershed*. New sidebars highlight climate change on the Greenland Ice Sheet; Saudi Arabian plans to acquire water rights abroad; developed and developing countries aiming for carbon neutrality, and the problem of plastics pollution.

ORGANIZATION

Globalization and Diversity: Geography of a Changing World is organized around the conventional world regions of Sub-Saharan Africa, Europe, Latin America, East Asia, South Asia, and so on. We have, however, added two distinctive regions that are often excluded from the standard world regional scheme: Central Asia and the Caribbean. Also in this edition Chapter 9 has been renamed Eurasia and Chapter 14, Oceania. Our 12 regional chapters further depart from the treatment found in traditional world regional textbooks by employing a thematic framework that avoids extensive descriptions of each individual country.

Globalization and Diversity opens with two substantive introductory chapters that provide the geographic fundamentals of both human and physical geography. ***Chapter 1: Geography of a Changing World*** begins by introducing the discipline of geography and its major concepts, followed by a section on the geographic dimensions of globalization, including discussion of the costs and benefits of globalization according to proponents and opponents. Next is a section called "The Geographer's Toolbox," where students are introduced to map-reading, cartography, aerial photos, remote sensing, and GIS. This initial chapter concludes with a discussion of the concepts and tabular data that are used throughout the regional chapters.

Chapter 2: Physical Geography and the Environment builds an understanding of physical geography and environmental issues with discussions of geology and environmental hazards; weather, climate, and global climate change; global bioregions and biodiversity; hydrology and water stress; and energy issues. Both introductory chapters introduce key concepts that are revisited in the regional chapters.

Each regional chapter is structured around five geographic themes:

- **Physical Geography and Environmental Issues**, in which we not only describe the physical geography of each region, but also environmental issues, including climate change and energy.
- **Population and Settlement**, where we examine the region's demography, migration patterns, land use, and settlement, including cities.
- **Cultural Coherence and Diversity** covers the traditional topics of language and religion, but also examines the ethnic and cultural tensions resulting from globalization. New to this edition is a focus on regional foodways. Gender issues and popular culture topics such as sports and music (with *Sounds of the Region* QR links) are also included in this section.
- **Geopolitical Framework** examines the political geography of the region, taking on such issues as postcolonial tensions, ethnic conflicts, separatism, micro-regionalism, and global terrorism.
- **Economic and Social Development** explores each region's economic framework at both local and global scales and examines such social issues as health, education, and gender inequalities.

CHAPTER FEATURES

- **Structured learning path.** Every chapter begins with an explicit set of *learning objectives* to provide students with the larger context of each chapter. *Review questions* after each section allow students to test their learning. Each chapter ends with an innovative ***Review, Reflect, & Apply*** section, where students are asked to apply what they have learned from the chapter using an active-learning framework: broad questions integrating material across sections and chapters, image analysis and debate, and mapping real-world data.
- **Comparable regional maps.** Of the many maps in each regional chapter, many are constructed on the same themes and with similar data so that readers can easily draw comparisons between regions. Most regional chapters have maps of physical geography, climate, environmental issues, population density, migration, language, religion, and geopolitical issues.
- **Other chapter maps pertinent to each region.** The regional chapters also contain many additional maps illustrating important geographic topics such as global economic issues, social development, and ethnic tensions.

- **Regional data sets integrated with MapMaster 2.0.** Two thematic tables in each regional chapter provide insights into the characteristics of each region and facilitate comparisons between regions. The first table provides population data on a number of issues, including fertility rates and proportions of the population under 15 and over 65 years of age, as well as net migration rates for each country within the region. The second table presents economic and social development data for each country, including gross national income per capita, gross domestic product growth, percentage of the population living on less than $3.10 per day, child mortality rates, secondary school enrollment, the international gender inequality index and the Freedom Rating. Each table now includes a QR link to MapMaster 2.0 in Mastering Geography, so that students gain experience mapping data and analyzing the map to answer questions about the region.
- **Sidebar features.** Each chapter has four sidebars that expand on geographic themes:
  - New ***Humanitarian Geography*** explores the geospatial tools and geographic analysis employed to address pressing issues such as responses to natural disasters, assistance to refugees, monitoring human rights abuses, and tracking environmental issues.
  - ***Globalization in Our Lives*** (previously known as *Everyday Globalization)* shows examples of how globalization influences our daily lives from the clothing we wear, the foods we consume, the technology we rely upon, and the activities we enjoy.
  - ***Working Toward Sustainability*** feature case studies of sustainability projects throughout the world, emphasizing positive environmental and social initiatives and their results. Each includes a QR link to an online Google Earth Virtual Tour Video.
  - ***Exploring Global Connections*** investigate the many ways in which activities in different parts of the world are linked so that students understand that in globalized world regions are neither isolated nor discrete. Each includes a QR link to an online Google Earth Virtual Tour Video.

ACKNOWLEDGEMENTS

We have many people to thank for the conceptualization, writing, rewriting, and production of *Globalization and Diversity*, sixth edition. First, we'd like to thank the thousands of students in our world regional geography classes who have inspired us with their energy, engagement, and curiosity; challenged us with their critical insights; and demanded a textbook that better meets their need to understand the contemporary geography of their dynamic and complex world.

This is also the first edition of *Globalization and Diversity* in which Dr. Les Rowntree has not contributed new materials and revisions. Dr. Rowntree led this textbook team since its inception in the mid-1990s. After a long and productive career as professor, scholar, and author, he has retired. Dr. Rowntree assembled the author team for this book, and collectively the authors have enjoyed over two decades of fruitful collaboration, scholarship, and friendship.

Finally, we are deeply indebted to many professional geographers and educators for their assistance, advice, inspiration, encouragement, and constructive criticism as we labored through the different stages of this book. Among the many who provided invaluable comments on various drafts and editions of *Globalization and Diversity* or who worked on supporting print or digital material are: Gilian Acheson (S. Illinois Univ., Edwardsville), Joy Adams (Humboldt State Univ.), Victoria Alapo (Metropolitan Comm. College), Dan Arreola (Arizona State Univ.), Bernard BakamaNume (Texas A&M Univ.), Brad Baltensperger (Michigan Tech. Univ.), Max Beavers (Samford Univ.), Laurence Becker (Oregon State Univ.), Dan Bedford (Weber State Univ.), James Bell (Univ. of Colorado), Katie Berchak (Univ. of Louisiana, Lafayette), William H. Berentsen (Univ. of Connecticut), Kevin Blake (Kansas State Univ.), Mikhail Blinnikov (St. Cloud State Univ.), Sarah Blue (Texas State Univ., San Marcos), Michelle Brym (Univ. of Central Oklahoma), Karl Byrand (Univ. of Wisconsin, Sheboygan County), Michelle Calvarese (California State Univ., Fresno), Craig Campbell (Youngstown State Univ.), G. Scott Campbell (College of DuPage), Elizabeth Chacko (George Washington Univ.), Philip Chaney (Auburn Univ.), Xuwei Chen (N. Illinois Univ.), David B. Cole (Univ. of Northern Colorado), Amanda Coleman (N. State Univ.), Malcolm Comeaux (Arizona State Univ.), Jonathan C. Comer (Oklahoma State Univ.), Deborah Corcoran (Missouri State Univ.), Jeremy Crampton (George Mason Univ.), Kevin Curtin (Univ. of Texas at Dallas), James Curtis (California State Univ., Long Beach), Dydia DeLyser (California State Univ., Fullerton), Francis H. Dillon (George Mason Univ.), Jason Dittmer (Georgia Southern Univ.), Jerome Dobson (Univ. of Kansas), Caroline Doherty (N. Arizona Univ.), Vernon Domingo (Bridgewater State College), Roy Doyon (Ball State Univ.), Dawn Drake (Missouri W. State Univ.), Jane Ehemann (Shippensburg Univ.), Steven Ericson (Univ. of Alabama, Tuscaloosa), Chuck Fahrer (Georgia College and State Univ.), Dean Fairbanks (California State Univ., Chico), Emily Fekete (Univ. of Kansas), Caitie Finlayson (Florida State Univ.), Colton Flynn (Univ. of Arkansas, Fort Smith), Doug Fuller (Univ. of Miami), Douglas Gamble (Univ. of North Carolina, Wilmington), Sherry Goddicksen (California State Univ., Fullerton), Sarah Goggin (Cypress College), Mark Guizlo (Lakeland Community College), Reuel Hanks (Oklahoma State Univ.), Megan Hoberg (Orange Coast College & Golden West College), Steven Hoelscher (Univ. of Texas, Austin), Erick Howenstine (N. Illinois University), Tyler Huffman (E. Kentucky Univ.), Peter J. Hugil (Texas A&M Univ.), Eva Humbeck (Arizona State Univ.), Shireen Hyrapiet (Oregon State Univ.), Drew Kapp (Univ. of Hawaii, Hilo), Ryan S. Kelly (Univ. of Kentucky), Richard H. Kesel (Louisiana State Univ.), Cadey Korson (Kent State Univ.), Rob Kremer (Front Range Community College), Robert C. Larson (Indiana S. Univ.), Chi Kin Leung (California State Univ., Fresno), Alan A. Lew (N. Arizona Univ.), Elizabeth Lobb (Mt. San Antonio College), Catherine Lockwood (Chadron State College), Max Lu (Kansas State Univ.), Luke Marzen (Auburn Univ.), Daniel McGowin (Auburn Univ.), James Miller (Clemson Univ.), Bob Mings (Arizona State Univ.), Wendy Mitteager (SUNY, Oneonta), Sherry D. Morea-Oakes (Univ. of Colorado, Denver), Anne E. Mosher (Syracuse Univ.), Julie Mura (Florida State Univ.), Tim Oakes (Univ. of Colorado), Nancy Obermeyer (Indiana State Univ.), Karl Offen (Univ. of Oklahoma), Daniel Olsen (Brigham Young Univ.), Thomas Orf (Las Positas College), Kefa Otiso (Bowling Green State Univ.), Joseph Palis (Univ. of North Carolina),

Jean Palmer-Moloney (Hartwick College), Bimal K. Paul (Kansas State Univ.), Michael P. Peterson (Univ. of Nebraska, Omaha), Richard Pillsbury (Georgia State Univ.), Brandon Plewe (Brigham Young Univ.), Jess Porter (Univ. of Arkansas at Little Rock), Patricia Price (Florida International Univ.), Erik Prout (Texas A&M Univ.), Claudia Radel (Utah State Univ.), David Rain (George Washington Univ.), Rhonda Reagan (Blinn College), Joshua Regan (Western Connecticut State Univ.), Kelly Ann Renwick (Appalachian State Univ.), Craig S. Revels (Portland State Univ.), Pamela Riddick (Univ. of Memphis), Scott M. Robeson (Indiana State Univ.), Paul A. Rollinson (S. Missouri State Univ.), Jessica Salo (Univ. of N. Colorado), Yda Schreuder (Univ. of Delaware), Kathy Schroeder (Appalachian State Univ.), Kay L. Scott (Univ. of Central Florida), Patrick Shabram (S. Plains College), Duncan Shaeffer (Arizona State Univ.), Dimitrii Sidorov (California State Univ., Long Beach), Susan C. Slowey (Blinn College), Andrew Sluyter (Louisiana State Univ.), Christa Smith (Clemson Univ.), Joseph Spinelli (Bowling Green State Univ.), William Strong (Univ. of N. Alabama), Philip W. Suckling (Univ. of N. Iowa), Curtis Thomson (Univ. of Idaho), Suzanne Traub-Metlay (Front Range Community College), James Tyner (Kent State Univ.), Nina Veregge (Univ. of Colorado), Jonathan Walker (James Madison Univ.), Fahui Wang (Louisiana State Univ.), Gerald R. Webster (Univ. of Alabama), Keith Yearman (College of DuPage), Emily Young (Univ. of Arizona), Bin Zhon (S. Illinois Univ., Edwardsville), Henry J. Zintambia (Illinois State Univ.), Sandra Zupan (Univ. of Chicago).

In addition, we wish to thank the many publishing professionals who have made this book possible. We start with Christian Botting, Pearson's Executive Editor for Geosciences, a consummate professional and good friend whose leadership, high standards, and enduring patience has been laudable, inspiring, and necessary. Next in line is Brett Coker, Content Producer, for his daily attention to production matters as well as his graceful and diplomatic interaction with four demanding and often cranky authors. Veronica Jurgena, our outstanding Development Editor, whose insights, guidance, and encouragement (much of it coming from her education as a geographer) have been absolutely crucial to this revision. Also to be thanked are a number of behind-the-curtain professionals: Kristin Piljay, photo researcher; Ben Ferrini, Manager, Rights and Permissions, Erika Jordan, SPi Project Manager, for somehow turning thousands of pages of manuscript into a finished product; and Kevin Lear, *International Mapping* Senior Project Manager, for his outstanding work creating and revising our maps. Thanks are due to Zachary McGinley for his timely production of all data tables.

Not to be overlooked are the many professional geographers and scientists who allowed us to pry into their personal and professional lives so we could provide profiles about them in the various sidebars, both in print and online: Fenda Akiwumi (Univ. of S. Florida), Holly Barcus (Macalester College), Sarah Blue (Texas State Univ.), Laura Brewington (East-West Center), Karen Culcasi (W. Virginia Univ.), Corrie Drummond Garcia (USAID), Carol Farbotko (Commonwealth Scientific and Industrial Research Org.), M Jackson (Univ. of Oregon), Cary Karacas (College of Staten Island), P.P. Karan (Univ. of Kentucky), Weronika Kusek (N. Michigan Univ.), Lucia Lo (York Univ.), Chandra Mitra (Auburn Univ.), Timothy Mousseau (Univ. of S. Carolina), Kelsey Nyland (Michigan State Univ.), Temidayo Isaiah Oniosun (Federal Univ. of Tech, Akure), Diane Papineau (Montana State Library), Rick Sadler (Michigan State Univ.), Rachel Silvey (Univ. of Toronto), Laurence Smith (Univ. of California, Los Angeles), Dmitry Streletskiy (The George Washington Univ.), Brian Tomaszewski (Rochester Institute of Tech.), Gregory Veeck (W. Michigan Univ.), Susan Wolfinbarger (American Association for the Advancement of Science).

Last, the authors want to thank that special group of friends and family who were there when we needed you most—early in the morning and late at night; in foreign countries and at home; when we were on the verge of tears and rants, but needed lightness and laughter; for your love, patience, companionship, inspiration, solace, enthusiasm, and understanding. Words cannot thank you enough: Rob, Joseph, and James Crandall, Marie Dowd, Evan and Eleanor Lewis, Karen Wigen, Linda, Tom, and Katie Wyckoff, Robert Geremia, and Kurt and Susan Reisser.

Marie Price

Martin Lewis

William Wyckoff

Wesley Reisser

About the Authors

Marie Price is a Professor of Geography and International Affairs at George Washington University. A Latin American specialist, Dr. Price has conducted research in Belize, Mexico, Venezuela, Panama, Cuba, and Bolivia. She has also traveled widely throughout Latin America and Sub-Saharan Africa. Her studies have explored human migration, natural resource use, environmental conservation, and sustainability. She is President of the American Geographical Society and a nonresident fellow of the Migration Policy Institute, a nonpartisan think tank that focuses on migration issues. Dr. Price brings to *Globalization and Diversity* a special interest in regions as dynamic spatial constructs that are shaped over time through both global and local forces. Her publications include the co-edited book *Migrants to the Metropolis: The Rise of Immigrant Gateway Cities* (2008) and numerous academic articles and book chapters.

Martin Lewis is a Senior Lecturer in History at Stanford University, where he teaches courses on global geography. He has conducted extensive research on environmental geography in the Philippines and on the intellectual history of world geography. His publications include *Wagering the Land: Ritual, Capital, and Environmental Degradation in the Cordillera of Northern Luzon, 1900–1986* (1992), and, with Karen Wigen, *The Myth of Continents: A Critique of Metageography* (1997). Dr. Lewis has traveled extensively in East, South, and Southeastern Asia. His most recent book, co-written with Asya Pereltsvaig, is *The Indo-European Controversy: Facts and Fallacies in Historical Linguistics* (2015). In April 2009, Dr. Lewis was recognized by *Time* magazine as one of America's most favorite lecturers.

William Wyckoff is a geographer in the Department of Earth Sciences at Montana State University specializing in the cultural and historical geography of North America. He has written and co-edited several books on North American settlement geography, including *The Developer's Frontier: The Making of the Western New York Landscape* (1988), *The Mountainous West: Explorations in Historical Geography* (1995) (with Lary M. Dilsaver), *Creating Colorado: The Making of a Western American Landscape 1860–1940* (1999), and *On the Road Again: Montana's Changing Landscape* (2006). His most recent book, entitled *How to Read the American West: A Field Guide*, appeared in the Weyerhaeuser Environmental Books series and was published in 2014 by the University of Washington Press. A World Regional Geography instructor for 26 years, Dr. Wyckoff emphasizes in the classroom the connections between the everyday lives of his students and the larger global geographies that surround them and increasingly shape their future.

Les Rowntree is currently a Research Associate at the University of California, Berkeley, where he writes about global and local environmental issues. This career change comes after 35 years teaching both Geography and Environmental Studies at San Jose State University. As an environmental geographer, Dr. Rowntree's interests focus on international environmental issues, biodiversity conservation, and climatic change. He sees world regional geography as way to engage and inform students by providing them with the conceptual tools to critically and constructively assess the contemporary world. His current writing projects include a natural history book and website about California's Coast Ranges, and several essays on different European environmental topics. Along with these writings he maintains an assortment of web-based blogs and websites.

Wesley Reisser is an adjunct professor of Geography at the George Washington University specializing in political geography and energy. Since 2003, Dr. Reisser has served at the U.S. Department of State in a variety of positions working on human rights, the United Nations, the Israeli-Palestinian conflict, and responding to crisis situations abroad. Dr. Reisser received the United Nations Association Tex Harris Award for Human Rights and Diplomacy in 2015. Dr. Reisser's first book, *The Black Book: Woodrow Wilson's Secret Plan for Peace* (2013), is the only comprehensive analysis of the maps and plans used by the United States at the end of World War I. His second book, written with his brother Colin, is *Energy Resources: From Science to Society* (2018), the first interdisciplinary textbook on global energy issues. Dr. Reisser is a Councilor of the American Geographical Society, the founding Artistic Director of Washington, DC's central and eastern European Carpathia Folk Dance Ensemble, and is the 2007 World Geography Bowl MVP.

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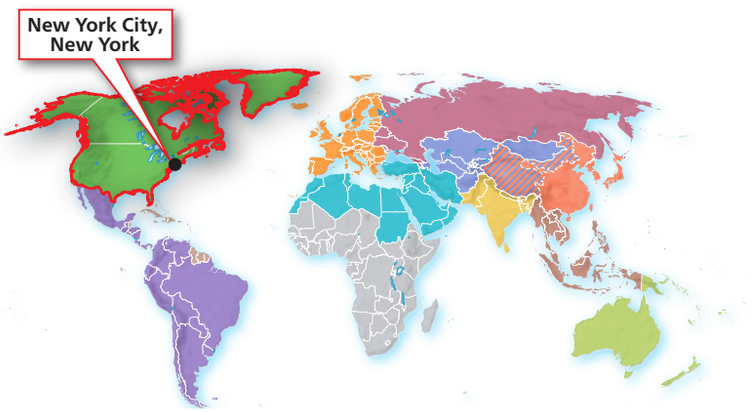
Geography of a Changing World

1

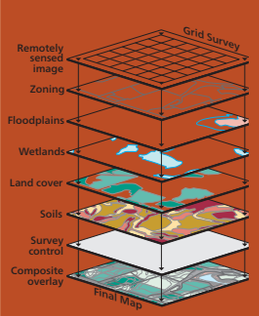


▲ People stroll along New York City's High Line, an elevated park of a former railway, taking in the view of this dynamic urban space. The High Line has become a symbol of repurposing old infrastructure for public uses and gentrification in New York City. It has spurred other cities to consider similar elevated parks. The quintessential global metropolis, New York City encapsulates the processes of globalization and diversity examined in this book.

Geography Matters

Globalization and New Geographies

The Geographer's Toolbox



Population and Settlement

Cultural Coherence and Diversity

Geopolitical Framework

Economic and Social Development

Manhattan, the hub of New York City, has experienced a demographic and economic rebirth in the past two decades. A prominent symbol of the creative redesign of the city is the High Line, an elevated linear park on a former abandoned railroad line, which first opened to the public in 2009. With spectacular views of the skyline, the High Line meanders through neighborhoods such as Chelsea and the Garment District, revitalizing interest in these parts of the city. The park has become a highly desirable place to walk, enjoy green space, observe art installations, or just sit and watch the world go by. Its success has inspired other cities to create "elevated" parks by repurposing outdated or abandoned infrastructure. The High Line has also driven a real estate gold rush, with developers competing to construct luxury properties in neighborhoods that used to be known for gritty tenement buildings.

New York City is the quintessential global city; a center of global finance, marketing, and entertainment, it is also a long-standing immigrant gateway with people from every country of the world. In the city that never sleeps, nearly 40 percent of the population is foreign-born, with the Dominican Republic, China, Mexico, Jamaica, Guyana, and Ecuador being the top sending countries. While its industrial output has declined, New York City has made up for it through financial services and creative industries such as fashion, design, art, advertising, and education. It's a city of 8.5 million, in a metropolitan area of 20 million that attracts 60 million tourists a year. Many businesses and institutions in New York City are leaders in the economic, cultural, and political aspects of globalization. At the same time, globalization has transformed New York City's economy, which has attracted a diverse range of people with varying skills who call this place home.

Through the lens of *geography*, a discipline that examines Earth's physical and human dimensions, *Globalization and Diversity* investigates these global interactions and patterns. The analysis is by world regions, which invites consideration of long-term cultural and environmental practices that characterize and shape these distinct areas. Yet we contend that *globalization*—the increasing interconnectedness of people and places through converging economic, political, and cultural activities—is one of the most important forces reshaping the world today. Pundits say globalization is like the weather: It's everywhere, all the time. It is a ubiquitous part of our lives and landscapes that is both beneficial and negative, depending on our needs and point of view.

While some people in some places embrace the changes brought by globalization, others resist and push back, seeking refuge in traditional habits and places. Thus, globalization's impact is highly uneven across space, which invites the need for a geographic (or spatial) understanding. As you will see in the pages that follow, geographers, who study places and phenomena around the globe and seek to explain the similarities and differences among places, are uniquely suited to analyze the impacts of globalization in different cities, countries, or world regions. In our opening New York City example, consider how millions of migrants over decades have transformed this city by bringing with them different languages, foods, musical traditions, and ways of organizing their environments. Collectively, this diverse yet highly unequal city has been a driving force for cultural, political, and economic change.

Globalization's impact is highly uneven across space, which invites the need for a geographic understanding.

As a counterpoint to globalization, *diversity* refers to the state of having different forms, types, practices or ideas, as well as the inclusion of distinct peoples, in a particular society. We live on a diverse planet with a mix of languages, cultures, environments, political ideologies, and religions that influence how people in particular localities view the world. At the same time, the intensification of communication, trade, travel, and migration that result from global forces have created many more settings in which people from vastly different backgrounds live, work, and interact. For example, in metropolitan Toronto, Canada's largest city, over half of the area's 5.5 million residents were born in another country. Increasingly, modern diversifying societies must find ways to build social cohesion among distinct peoples. Confronting diversity can challenge a society's tolerance, trust, and sense of shared belonging. Yet, diverse societies also stimulate creative exchanges and new understandings that are beneficial, building greater inclusion. The regional chapters that follow provide examples of the challenges and opportunities that diverse societies in an interconnected world experience today. We begin by introducing the discipline of geography and then examine this ongoing diversity in the context of globalization from a geographer's perspective.

LEARNING OBJECTIVES

After reading this chapter you should be able to:

1.1 Describe the conceptual framework of world regional geography.

1.2 Identify the different components of globalization, including controversial aspects, and list several ways in which globalization is changing world geographies.

1.3 Summarize the major tools used by geographers to study Earth's surface.

1.4 Explain the concepts and metrics used to document changes in global population and settlement patterns.

1.5 Describe the themes and concepts used to study the interaction between globalization and the world's cultural geographies.

1.6 Explain how different aspects of globalization have interacted with global geopolitics from the colonial period to the present day.

1.7 Identify the concepts and data important to documenting changes in the economic and social development of more and less developed countries.

Geography Matters: Environments, Regions, Landscapes

Geography is a foundational discipline, inspired and informed by the long-standing human curiosity about our surroundings and how we are connected to the world. The term *geography* has its roots in the Greek word for "describing the Earth," and this discipline is central to all cultures and civilizations as humans explore their world, seeking natural resources, commercial trade, military advantage, and scientific knowledge about diverse environments. In some ways, geography can be compared to history: Historians describe and explain what has happened over time, whereas geographers describe and explain the world's spatial dimensions—how it differs from place to place.

▲ **Figure 1.1 Rio Itaya Settlement in the Amazon Basin** A woman and child peer out the doorway of their newly built waterfront home near Iquitos, Peru. Settlers in the Amazon Basin have relied upon the vast forests and rivers of this region for their food, livelihood, and transport.

Given the broad scope of geography, it is no surprise that geographers have different conceptual approaches to investigating the world. At the most basic level, geography can be broken into two complementary pursuits: *physical* and *human geography*. **Physical geography** examines climate, landforms, soils, vegetation, and hydrology. **Human geography** concentrates on the spatial analysis of economic, social, and cultural systems.

Mobile Field Trip: Introduction to Geography
https://goo.gl/VYnVqW

A physical geographer, for example, studying the Amazon Basin of Brazil, might be interested primarily in the ecological diversity of the tropical rainforest or the ways in which the destruction of that environment changes the local climate and hydrology. A human geographer, in contrast, would focus on the social and economic factors explaining the migration of settlers into the rainforest or the tensions and conflicts over resources between new migrants and indigenous peoples. Both human and physical geographers share an interest in human–environment dynamics, asking how humans transform the physical environment and how the physical environment influences human behaviors and practices. Thus, they learn that Amazon residents may depend on fish from the river and plants from the forest for food (Figure 1.1) but raise crops for export and grow products such as black pepper or soy, rather than wheat, because wheat does poorly in humid tropical lowlands.

Another basic division in geography is the focus on a specific topic or theme as opposed to analysis of a specific place or a region. The theme approach is termed **thematic** or **systematic geography**, while the regional approach is called **regional geography**. These two perspectives are complementary and by no means mutually exclusive. This textbook, for example, utilizes a regional scheme for its overall organization, dividing Earth into 12 separate world regions. It then presents each chapter thematically, examining the topics of environment, population and settlement, cultural differentiation, geopolitics, and socioeconomic development in a systematic way. In doing so, each chapter combines four kinds of geography: physical, human, thematic, and regional geography.

Areal Differences and Connections

As a spatial science, geography is charged with the study of Earth's surface. A central theme of that responsibility is describing and explaining

▶ **Figure 1.2 Areal Differences** The oasis village of Tinghir on the southern slope of Morocco's Atlas Mountains illustrates dramatic landscape change over short distances. Agricultural fields and date palms in the foreground are irrigated by a river that flows from the high mountains. Irrigated land in an arid environment is precious, so the village settlements are nearby in the dry areas. In the background, the desert and mountains loom.

what distinguishes one piece of the world from another. These differences can be about the physical Earth, or about cultural features such as building designs, transportation systems, or language groups. Why is one part of Earth humid and lush, while another, just a few hundred kilometers away, is arid (Figure 1.2)? Or, why are people in one setting more affluent, while those in an adjoining area are poor?

Geographers are not only interested in place differences, but also in how these distinct localities are interconnected within and among each other. This concern for understanding *integration* and *connectivity* is fundamental to geographic analysis. For example, a geographer might ask how and why the economies of Singapore and the United States are closely intertwined, even though the two countries are situated in entirely different physical, cultural, and political environments. Questions of linkages over space are becoming increasingly important because of the new global connections inherent in globalization.

▲ **Figure 1.3 The Cultural Landscape** Despite globalization, the world's landscapes still have great diversity, as seen in Prague, Czechia (Czech Republic). Red tile roofs, three-to-four-story buildings, organic street patterns, and open squares distinguish this historic capital city. Geographers use the cultural landscape concept to better understand how people interact with their environment.

Explore the SIGHTS of Historic Prague
https://goo.gl/1J9dbJ

Scale: Global to Local All systematic inquiry considers *scale*, whatever the discipline. In biology, some scientists study the very small units such as cells, genes, or molecules, while others take a larger view, analyzing plants, animals, or whole ecosystems. Geographers also work at different scales. While one may concentrate on analyzing a local landscape—perhaps a single village in the Philippines—another might focus on the broader regional picture, examining patterns of trade throughout Southeast Asia. Other geographers do research on a still larger global scale, perhaps studying emerging trade networks between southern India's center of information technology in Bengaluru and North America's Silicon Valley, or investigating how the Indian monsoon might be connected to and affected by the Pacific Ocean's El Niño phenomenon. But even though geographers may work at different scales, they never lose sight of the interactivity and connectivity among local, regional, and global scales. They will note the ways that the village in the Philippines might be linked to world trade patterns, or how the late arrival of the monsoon could affect agriculture and food supplies in Bangladesh.

The Cultural Landscape: Space into Place

Humans transform space into distinct places that are unique and heavily loaded with significance and symbolism. **Place**, as a geographic concept, is not just the characteristics of a location; it also encompasses the meaning that people give to such areas, as in the sense of place. This diverse fabric of *placefulness* is of great interest to geographers because it tells us much about the human condition throughout the world. Places can tell us how humans interact with nature and how they interact among themselves; where there are tensions, and where there is peace.

A common tool for the analysis of place is the concept of the **cultural landscape**, which is the tangible, material expression of human settlement, past and present. Thus, the cultural landscape visually reflects the most basic human needs—shelter, food, and work. Additionally, the cultural landscape acts to bring people together (or keep them apart) because it is a marker of cultural values, attitudes, history, and symbols. As cultures vary greatly around the world, so do cultural landscapes (Figure 1.3).

Geographers are also interested in spatial analysis and the concept of space. **Space** represents a more abstract, quantitative, and model-driven approach to understanding how objects and practices are connected to and impact each other. For example, a geographer interested in economic development may measure income inequality and examine how it differs from one location to another to better understand how poverty might be addressed. Similarly, a geographer interested in the impacts of climate change might model the effects of sea-level change on coastal settlements based on different warming scenarios. An appreciation for space and place is critical in understanding geographic change.

Regions: Formal and Functional

The human intellect seems driven to make sense of the universe by lumping phenomena together into categories that emphasize similarities. Biology has its taxa of living organisms, while history marks off eras and periods of time. Geography, too, organizes information about the world into units of spatial similarity called **regions**—each a contiguous bounded territory that shares one or many common characteristics.

Sometimes, the unifying threads of a region are physical, such as climate and vegetation, resulting in a regional designation like the *Sahara Desert* or *Siberia*. Other times, the threads are more complex, combining economic and social traits, as in the use of the term *Rust Belt* for parts of the northeastern United States that have lost industry and population. Think of a region as spatial shorthand that provides an area with some signature characteristic that sets it apart from surrounding areas. In addition to delimiting an area, generalizations about society or culture are often embedded in these regional labels.

Geographers designate two types of regions: formal and functional. A **formal region** is defined by some long-term aspect of physical form, such as a climate type or mountain range. The Rocky Mountains or the Amazon Basin are two examples of formal regions. Cultural features, such as the dominance of a particular language or religion, can also be used to define formal regions. Belgium can be divided into Flemish-speaking Flanders and French-speaking Wallonia. Many of the maps in this book denote formal regions. In contrast, a

▶ Figure 1.4 U.S. Rust Belt The Rust Belt is an example of a functional region. It is delimited to show an area that has lost manufacturing jobs and population over the last four decades. By constructing this region, a set of functional relationships is highlighted. **Q: In what formal and functional regions do you live?**

functional region is one where a certain activity (or cluster of activities) takes place. The earlier example of North America's Rust Belt is such a region because it encompasses a triangle from Milwaukee to Cincinnati to Syracuse, where manufacturing dominated through the 1960s and then experienced steady decline as factories shut down and people left (Figure 1.4). Geographers designate functional regions to show changing regional associations, such as the spatial extent of a sports team's fan base or the commuter shed of a major metropolitan area like Los Angeles. Delimiting such regions can be valuable for marketing, planning transportation, or thinking about the ways that people identify with an area.

Regions can be defined at various scales. In this book, we divide the world into 12 *world regions* based on formal characteristics such as physical features, language groups, and religious affiliations, but also relying on functional characteristics such as trade groups and regional associations (Figure 1.5). In Chapter 3, we will begin with a region familiar to most of our readers—North America—and then move on to Latin America, the Caribbean, Sub-Saharan Africa, North Africa and Southwest Asia, Europe, Eurasia, and the different regions of Asia, before concluding with Oceania. Each regional chapter employs the same five-part thematic structure—physical geography and environmental issues, population and settlement, cultural coherence and diversity, geopolitical framework, and economic and social development.

Some of these regional terms are in common use, such as Europe or East Asia. Understandings and characteristics of these regions have often evolved over centuries. Yet the boundaries of these regions do shift. For example, during the Cold War, it made sense to divide Europe into east and west, with eastern Europe closely linked to the former Soviet Union. With the 1991 collapse of the Soviet Union and the expansion of the European Union in the 2000s, that divide became less meaningful. In this edition, the regions of Europe (Chapter 8) and Eurasia (Chapter 9, which includes Russia) reflect

▼ Figure 1.5 World Regions The boundaries shown here are the basis for the 12 regional chapters in this book. Countries or areas within countries that are treated in more than one chapter are designated on the map with a striped pattern. For example, western China is discussed in both Chapter 10, on Central Asia, and Chapter 11, on East Asia. Also, three countries on the South American continent are discussed as part of the Caribbean region because of their close cultural similarities to the island region.

this long-standing west–east divide. Working at the world regional scale invariably creates regions that are not homogeneous, with some states fitting better into regional stereotypes than others. Yet understanding world regional formations is an important way to explore the impact of globalization on environments, cultures, political systems, and development.

REVIEW

1.1 **Explain the difference between place and space in geographic understanding and analysis.**

1.2 **How is the concept of the cultural landscape related to place?**

1.3 **How do functional regions differ from formal regions?**

KEY TERMS geography, physical geography, human geography, thematic geography (systematic geography), regional geography, place, cultural landscape, space, region, formal region, functional region

Globalization and New Geographies

One of the most important features of the 21st century is **globalization**—the increasing interconnectedness of people and places. Once-distant regions and cultures are now increasingly linked through commerce, communications, and travel. Although earlier forms of globalization existed, especially during Europe's colonial period, the current degree of planetary integration is stronger than ever. In fact, many observers argue that contemporary globalization is the most fundamental reorganization of the world's socioeconomic structure since the Industrial Revolution (see *Exploring Global Connections: A Closer Look at Globalization*).

Economic activities may be the major force behind globalization, but the consequences of globalization affect all aspects of land and life: Human settlement patterns, cultural attributes, political arrangements, and social development are all undergoing profound change. Because natural resources are viewed as global commodities, the planet's physical environment is also affected by globalization. Financial decisions made thousands of miles away now affect local ecosystems and habitats, often with far-reaching consequences for Earth's health and sustainability. For example, gold mining in the Peruvian Amazon is profitable for the corporations involved and even for individual miners, but it may ruin biologically diverse ecosystems and threaten indigenous communities.

The Environment and Globalization

The expansion of a globalized economy is creating and intensifying environmental problems throughout the world. Transnational firms conducting business through international subsidiaries disrupt ecosystems around the globe with their incessant search for natural resources and manufacturing sites. Landscapes and resources previously used by only small groups of local peoples are now considered global commodities to be exploited and traded in the world marketplace.

On a larger scale, globalization is aggravating worldwide environmental problems such as climate change, air pollution, water pollution, and deforestation. Consequently, it is only through global cooperation, such as the United Nations treaties on biodiversity protection or greenhouse gas reductions, that these problems can be addressed. Environmental degradation and efforts to address it are discussed further in Chapter 2.

Globalization and Changing Human Geographies

Globalization changes cultural practices. The spread of a global consumer culture, for example, often accompanies globalization and frequently hurts local economies. It sometimes creates deep and serious social tensions between traditional cultures and new, external global culture. Television shows and movies available via satellite, along with online videos and social media such as Facebook and Twitter, often implicitly promote Western values and culture that are then imitated by millions throughout the world (Figure 1.6).

Fast-food franchises are changing—some would say corrupting—traditional diets, with explosive growth in most of the world's cities. Although these foods may seem harmless to North Americans because of their familiarity, they are an expression of deep cultural changes for many societies and are also generally unhealthy and environmentally destructive. Yet some observers contend that even multinational corporations have learned to pay attention to local contexts. **Glocalization** (which combines globalization with locale) is the process of modifying an introduced product or service to accommodate local tastes or cultural practices. For example, a McDonald's in Japan may serve shrimp burgers along with Big Macs.

Although the media give much attention to the rapid spread of Western consumer culture, nonmaterial culture is also dispersed and homogenized through globalization. Language is an obvious example—American tourists in far-flung places are often startled to hear locals speaking an English made up primarily of movie or TV clichés. However, far more than speech is involved, as social values also are dispersed globally. Changing expectations about human rights, the role of women in society, and the intervention of nongovernmental organizations are also expressions of globalization that may have far-reaching effects on cultural change.

▼ Figure 1.6 Global Communications The effects of globalization are everywhere, even in remote villages in developing countries. This rural family in a small village in southwestern India earns a few dollars a week by renting out viewing time on its globally linked television set.

A Closer Look at Globalization

Globalization comes in many shapes and forms as it connects far-flung people and places. Many of these interactions are common knowledge, such as the global reach of multinational corporations like H&M and Zara transforming how young people dress. Others may be rather surprising. Who would expect to find Bosnians transforming a St. Louis neighborhood, or Filipino contract workers employed in nearly every world region? Would you predict that Saudi investors are leasing large tracts of land in the arid U.S. Southwest for hay exports to the Arabian Peninsula?

Indeed, global connections are ubiquitous and often complex—so much so that understanding the many different shapes, forms, and scales of these interactions is a key component of the study of world geography. To complement that study, each chapter of this book contains an *Exploring Global Connections* sidebar that presents a globalization case study.

The Chapter 4 sidebar, for example, explains how and why a remote area of the South American Andes has become a focus for foreign capital investment to extract lithium. This lightweight medal is essential for the small batteries that run laptops and cell phones, and this is the region of the world where the largest reserves of lithium are concentrated (Figure 1.1.1). Other examples include Dubai Airport as a global travel hub (Chapter 7); India's expanding video game industry (Chapter 12); and the spread and influence of the Armenian diaspora (Chapter 9). A Google Earth virtual tour video supplements each sidebar.

▲ **Figure 1.1.1 Lithium Triangle** The world's largest lithium deposits lie where the three countries of Bolivia, Chile, and Argentina converge. Lithium is a critical metal for lightweight batteries used in cell phones and laptops.

1. **Consider complex global connections based on your own experiences. For example, what food from another part of the world did you buy today, and how did it get to your store?**
2. **Now choose a foreign place in a completely different part of the world, either a city or a rural village, then suggest how globalization affects the lives of people in that place.**

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In return, cultural products and ideas from around the world greatly impact U.S. culture. The large and diverse immigrant population in the United States has contributed to heightened cultural diversity and exchange. The internationalization of American food and music, and the multiple languages spoken in American cities, are all expressions of globalization (Figure 1.7).

Globalization also clearly influences population movements. International migration is not new, but increasing numbers of people from all parts of the world are now crossing national boundaries, legally and illegally, temporarily and permanently. The United Nations (UN) estimates that there are over 250 million immigrants in the world (people who live in a country other than their country of birth). Figure 1.8 shows the major migration flows from regions of origin designated as Africa, Asia, Europe, Latin America and the Caribbean, North America, and Oceania. One of the most striking aspects of the figure is that many of the largest international flows are