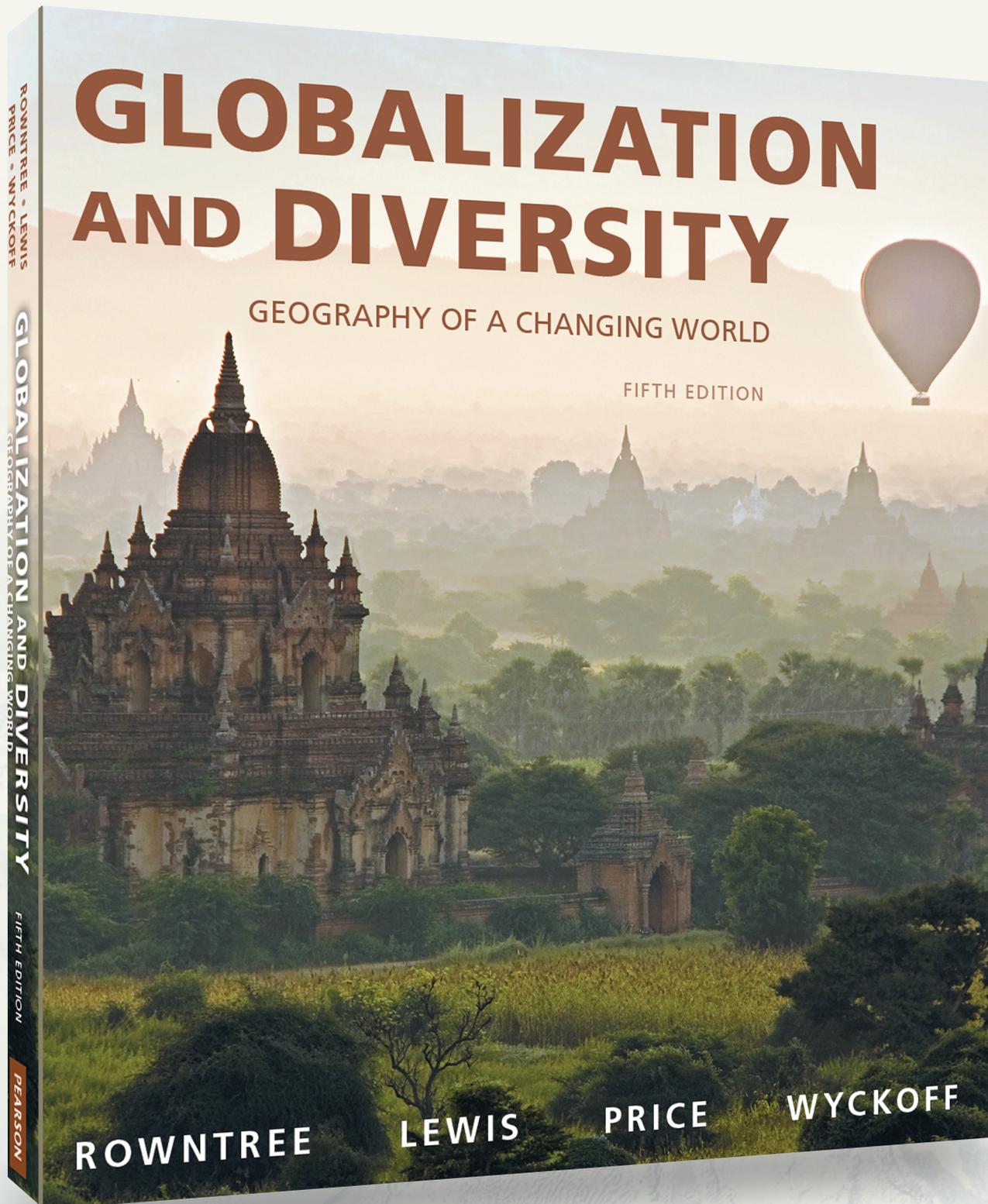


# Help Students Understand the Tensions Between Global Forces & Local Diversity



PEARSON

# Global Forces & Local Diversity

**NEW! Everyday Globalization** features explore everyday products and commodities that we commonly use and consume, tracing global vs local links and the implications of consumption and behavior. Critical thinking questions ask students to reflect on their experience, behavior, and interaction with these products and commodities.



## EVERYDAY GLOBALIZATION

### The Rainforest and Your Chocolate Fix

Your chocolate bar comes from the tropical rainforest, and satisfying your sweet tooth could be either destroying or saving the rainforest, depending on how the cocoa was grown. Cocoa, chocolate's main ingredient, comes from cacao trees, which grow exclusively in equatorial rainforests—mainly in Ghana and other African countries, but also in the Amazon Basin of South America. Cacao trees prefer the shade of higher rainforest trees, which is good news. But to meet the ever-increasing demand for chocolate, cacao is also cultivated for short periods of time in the full sunlight of newly cleared rainforest plots. That's the bad news—because this method of cacao farming is a major factor in the destruction of African rainforests.

So what's a rainforest-loving chocolate lover to do? Easy: Take an extra 30 seconds and read the candy bar label to see whether there's any mention of shade-grown and/or sustainably farmed cacao trees. After that, it's up to you.

1. Identify other foods you eat that come from tropical rainforests, and describe how their cultivation affects the forests.
2. What are the different ways you eat chocolate, and where is that cocoa grown?



**Figure 7.3.1 Sustainable Cocoa** This farmer sorts cocoa pods harvested on a sustainable plantation in Brazil's Amazon region.



## EVERYDAY GLOBALIZATION

### Popping Pills from Israel

Every year U.S. doctors write more than 2.5 billion prescriptions for generic pharmaceuticals. Few people realize how many of these drugs are actually manufactured in Southwest Asia—specifically, Israel. When you reach for that generic antibiotic (amoxicillin), painkiller (oxycodone), or anti-inflammatory (naproxen), you may well be taking pills manufactured halfway around the world. Israel is home to seven research universities and a host of companies that focus on the biological sciences and innovations in the pharmaceutical industry.

The largest player in Israel's generic drug industry is Teva Pharmaceutical Industries (Figure 7.4.1). The company estimates that it manufactures 73 billion tablets a year and that one in six generic prescriptions in the United States is filled with a Teva (Hebrew for "nature") product. Today Teva is the largest global manufacturer of generic pharmaceuticals, as well as an innovative producer of its own proprietary drugs. The result is that Israel has emerged as one of the planet's key focal points in an industry that seems destined to grow along with the world's insatiable demand for affordable pharmaceuticals.

1. For the American public, describe some of the benefits and drawbacks of depending on a global geography of prescription drugs.
2. Visit a local pharmacy and select two over-the-counter medications. Can you find out who manufactured them and where they came from?



**Figure 7.4.1 Teva Headquarters, Petah Tikva, Israel** Employing thousands of skilled workers, Teva Pharmaceuticals Industries produces both the world's largest volume of generic drugs and a growing array of its own patented pharmaceuticals.



## EXPLORING GLOBAL CONNECTIONS

### The Libyan Highway to Europe

Google Earth (HQ)  
Virtual Tour Video  
<http://goo.gl/Mb0mHp>

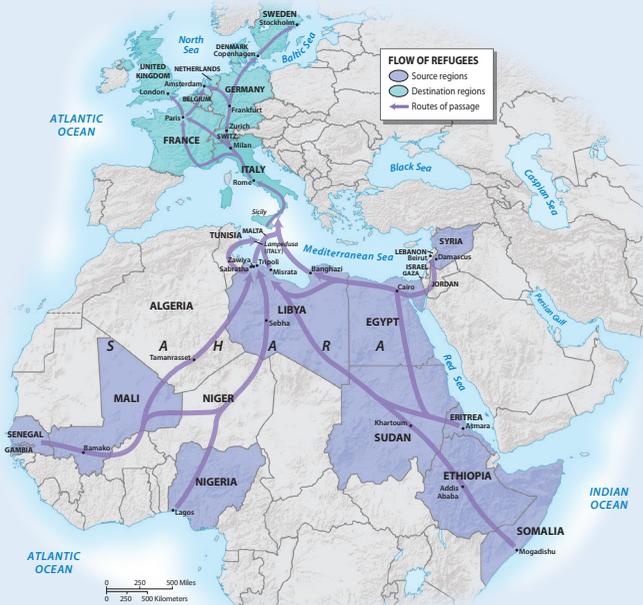


Revolutions bring many unintended consequences. When Libyan dictator Muammar al-Qaddafi was overthrown in 2011, few experts believed it would dramatically reorient and enhance one of the world's most diverse flows of refugees. The newly formed Libyan Highway has truly international implications that reach from Syria and Nigeria to Italy and Sweden (Figure 7.2.1).

**A Highway for Refugees** All of the critical variables in the creation of the highway fell into place in 2014. First and foremost, Libya itself ceased to truly exist as multiple political forces vied for power, essentially ending any effective control over the country. Migrants and smugglers were free to make trip arrangements without much fear of government interference.

Second, an unregulated extralegal industry designed around transporting desper-

**Figure 7.2.1 Libyan Highway to Europe** The map shows some of the overland routes across North Africa that converge on Libyan ports, as well as general routes across the Mediterranean that take desperate migrants to Europe.



**UPDATED! Exploring Global Connections** features explore the often-surprising connections between places and people around the world. Mobile-ready Quick Response (QR) codes link to narrated **Google Earth Virtual Tour Videos** that explore landscapes related to each feature.

# The Critical Issues & Work of Geography

## GEOGRAPHERS AT WORK

### Tracking Conflict from Space

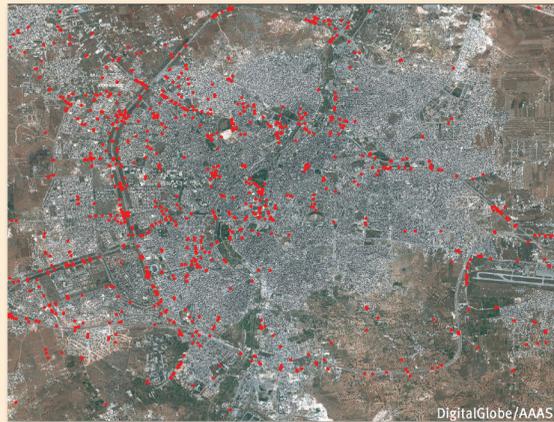


**Figure 1.4.1 Susan Wolfinbarger**

As an undergraduate at Eastern Kentucky University, Susan Wolfinbarger took a world regional geography class, and was mesmerized: "There are so many things you learn in geography, and the methods of analysis can be applied to different careers and research." Years later, with a PhD in Geography from the Ohio State University, Wolfinbarger directs the Geospatial Technologies Project at the American Association for the Advancement of Science (AAAS) (Figure 1.4.1). Her group uses high-resolution satellite imagery to track conflicts and document issues of global concern, such as human rights abuses and damage to cultural heritage sites.

Most people have used Google Earth satellite images to look at places. Wolfinbarger's team employs a time series of such images in order to assess events such as destruction of villages. Interpreting images and quantifying findings is a challenge, but, she says, "Geography taught me not just mapping but statistics and surveying . . . it gave me a great toolkit to apply to any topic." Much of her analysis is used by human rights organizations such as the European Court of Human Rights and the Inter-American Court of Human Rights.

Wolfinbarger's team analyzed the increase in roadblocks in the Syrian city of Aleppo (Figure 1.4.2). Roadblocks demonstrate a decline in the circulation of people and goods in this densely settled city, which is a major problem. The Geospatial Technologies Project



**Figure 1.4.2 Monitoring Aleppo** This image shows the city of Aleppo in May 2013, where over 1000 roadblocks were detected. Roadblocks are an indicator of ongoing conflict and potential humanitarian concerns because they restrict the movement of people and goods throughout the city. In a nine-month period from September 2012 to May 2013, the number of roadblocks doubled.

has also documented heritage sites at risk from damage and looting, especially in the Southwest Asia, and is developing training materials so that others can use this technology.

Geographers are at the cutting edge of applying satellite imagery to a broad spectrum of human rights issues. Wolfinbarger notes, "There are a lot of ways that geographers can contribute to things happening in the world,

and a lot of opportunities out there other than academic jobs. Everyone wants a geographer!"

1. Suggest ways that satellite imagery could be used to document not just conflict but environmental change.
2. Government agencies are constantly developing and using satellite technology. How might a citizen or non-governmental group in your city or state use this kind of analysis?

**NEW! Geographers At Work** features look at how geography is practiced in the real world, profiling active geographers who are using the unique tools and techniques of geography. These features emphasize the diverse issues and places that geographers explore, emphasizing the different career and research opportunities of geography, and the interesting and important real-world problems that contemporary geography addresses.

## UPDATED! Working Toward Sustainability

features explore how the theme of sustainability plays out across world regions, looking at initiatives and positive outcomes of environmental, cultural, and economic sustainability. Mobile-ready Quick Response (QR) codes link to narrated **Google Earth Virtual Tour Videos** that explore landscapes related to each feature.

**NEW & UPDATED!** Expanded coverage of **Climate Change, Sustainability, Gender Issues, Food, Art, Music, Film, Sport, and Geopolitics** in each regional chapter.



## WORKING TOWARD SUSTAINABILITY

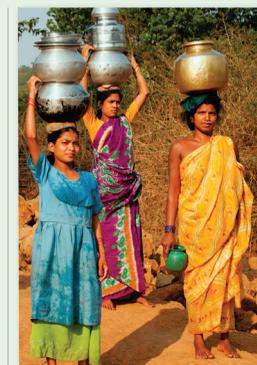
### Women and Water in the Developing World

Google Earth Tour  
Sahel region Africa  
<https://goo.gl/cce3E1>

Women and children bear the burden of water problems in most developing countries. Not only are children the most vulnerable to waterborne diseases, but also adult females (mothers, aunts, grandmothers, and older siblings) are the major caregivers for these sick children, adding yet another time-consuming task to their already busy days.

Further, women and older girls are the primary conveyers of water from wells or streams to their village homes. Every person requires about 5 gallons (18 liters) of water per day for their hydration, cooking, and sanitation needs; consequently, this amount (multiplied by the number of people in a family) must be carried each day from source to residence. In addition, women and children are responsible for supplying water for kitchen gardens that provide the family's food. At a global level, the water source for about a third of the developing world's rural population is more than half a mile (1 km) away from residences. To meet water needs, women spend about 25 percent of their day carrying water. A recent United Nations study estimated that in Sub-Saharan Africa about 40 billion hours a year are spent collecting and carrying water, the same amount of time spent in 1 year by France's entire workforce.

Besides the time expenditure, water is heavy, and most of it is carried by hand. In Africa, 40-pound (151-liter) jerry cans are common; in northwest India, women and girls balance several 5-gallon (19-liter) containers on their heads to lessen the number of trips made (Figure 2.4.1). (Note that 40 pounds is about the weight of the suitcase you check with the airlines on a typical trip. Try carrying it on your head through the airport parking lot someday.) After years of carrying water,



**Figure 2.4.1 Women in India carrying water on their heads**

women commonly suffer from chronic neck and back problems, many of which complicate childbirth. Additionally, girls' water-carrying responsibilities often interfere with their schooling, resulting in a high dropout rate and furthering female illiteracy in rural villages.

**Toward a Solution: The Wello WaterWheel**  
After studying the water-carrying issue in semiarid northwestern India, Cynthia Koenig, a recent engineering graduate from the University of Michigan, invented the Wello WaterWheel, a barrel-like 13-gallon (50-liter) rolling water container that greatly reduces women's water-carrying duties (Figure 2.4.2).



**Figure 2.4.2 Woman using Wello WaterWheel**

Previously in that part of India, women and girls were spending 42 hours per week carrying water back and forth; with the Wello WaterWheel, that has been reduced to only 7 hours a week. Using this time-saving device has also reduced the school dropout rate for young girls in the region. Currently, Wello, which is a nonprofit organization, can deliver a WaterWheel from its factory in Mumbai to a rural Indian family for a mere \$20. In the last year, thousands of Wello WaterWheels have been purchased by international aid organizations and donated to villages in Rajasthan, moving them closer to a sustainable existence.

1. List the social costs incurred when the responsibility for providing water falls to the women and children of a village.
2. List the probable social benefits to a village where clean water is readily available instead of requiring transport over long distances by women and children.

# Structured to Facilitate Learning



## PHYSICAL GEOGRAPHY AND ENVIRONMENTAL ISSUES

The region's vulnerability to water shortages is likely to increase in the early 21st century as growing populations, rapid urbanization, and increasing demands for agricultural land consume limited supplies.



## POPULATION AND SETTLEMENT

Many settings within the region continue to see rapid population growth. These demographic pressures are particularly visible in fragile, densely settled rural zones as well as in fast-growing large cities.



## CULTURAL COHERENCE AND DIVERSITY

Islam continues to be a vital cultural and political force within the region, but increasing fragmentation within that world has led to more culturally defined political instability.



## GEOPOLITICAL FRAMEWORK

The Arab Spring uprisings in the early 2010s jolted the geopolitical status quo in Tunisia, Egypt, Libya, Yemen, and Bahrain. Internal instability and the growth of ISIL have produced extensive bloodshed in Syria and Iraq. Prospects for peace between Israel and the Palestinians remain murky, and Iran's growing political role is seen by many as a threat both within and beyond the region.



## ECONOMIC AND SOCIAL DEVELOPMENT

Unstable world oil prices and unpredictable geopolitical conditions have discouraged investment and tourism in many countries. The pace of social change, especially for women, has quickened, stimulating diverse regional responses.

## The Critical Themes of Geography

Following two unique introductory chapters, each regional chapter is organized into five thematic sections: **Physical Geography and Environmental Issues, Population and Settlement, Cultural Coherence and Diversity, Geopolitical Framework, and Economic and Social Development.**

**UPDATED!** *Region-specific Learning Objectives* set up a structured learning path in the book and MasteringGeography, framing the major learning goals of each chapter.



## Learning Objectives

After reading this chapter you should be able to:

- 7.1 Explain how latitude and topography produce the region's distinctive patterns of climate.
- 7.2 Describe how the region's fragile, often arid setting shapes contemporary environmental challenges.
- 7.3 Describe four distinctive ways in which people have learned to adapt their agricultural practices to the region's arid environment.
- 7.4 Summarize the major forces shaping recent migration patterns within the region.
- 7.5 List the major characteristics and patterns of diffusion of Islam.
- 7.6 Identify the key modern religions and language families that dominate the region.
- 7.7 Identify the role of cultural variables in understanding key regional conflicts in North Africa, Israel, Syria, Iraq, and the Arabian Peninsula.
- 7.8 Summarize the geography of oil and gas reserves in the region.
- 7.9 Describe traditional roles for Islamic women and provide examples of recent changes.

**UPDATED!** *Review Questions and Key Terms* at the end of each section help students check their comprehension of key concepts as they read.



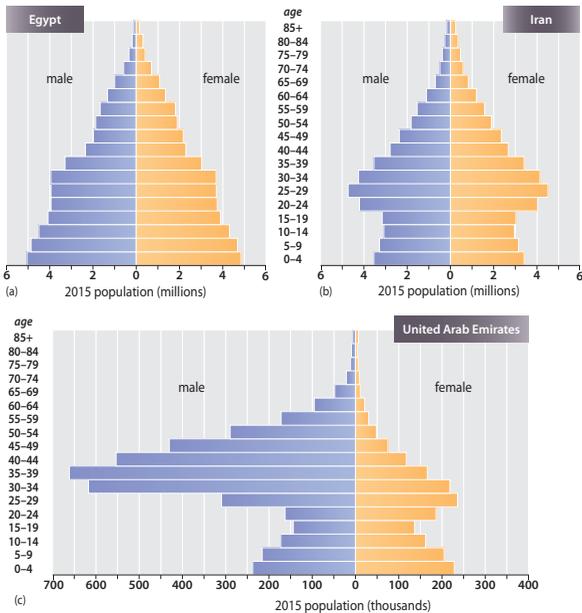
## Review

- 7.1 Describe the climatic changes you might experience as you travel on a line from the eastern Mediterranean coast at Beirut to the highlands of Yemen. What are some of the key climatic variables that explain these variations?
- 7.2. Discuss five important human modifications of the Southwest Asian and North African environment, and assess whether these changes have benefited the region.

**KEY TERMS** Arab Spring, sectarian violence, ISIL (Islamic State of Iraq and the Levant) Islamic fundamentalism, Islamism, culture hearth, Organization of Petroleum Exporting Countries (OPEC), Maghreb, Levant, salinization, fossil water, hydropolitics, choke point

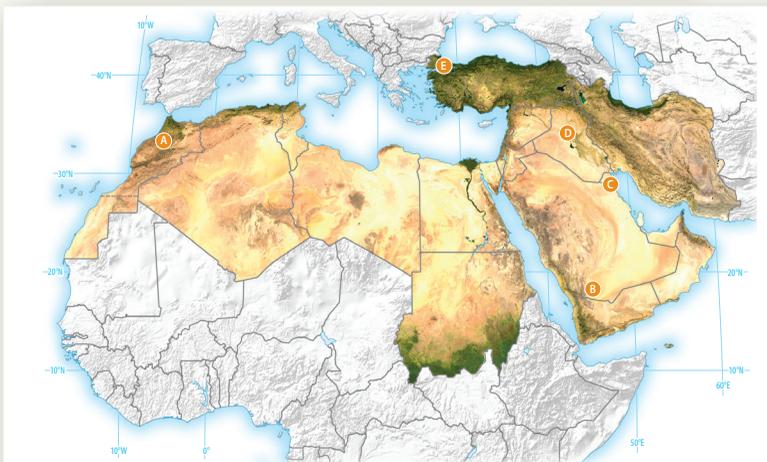
# Data-Rich, Visual Explorations of Earth's People & Places

**Figure 7.27 Population Pyramids: Egypt, Iran, and United Arab Emirates, 2015** Three distinctive demographic snapshots highlight regional diversity: (a) Egypt's above-average growth rates differ sharply from those of (b) Iran, where a focused campaign on family planning has reduced recent family sizes. (c) Male immigrant laborers play a special role in skewing the pattern within the United Arab Emirates. **Q:** For each example, cite a related demographic or cultural issue that you might potentially find in these countries.



**NEW! Visual Analysis Questions** within each chapter section give students more opportunity to stop and practice visual analysis, data analysis, and critical thinking as they read.

**NEW! End-of-Chapter Review** features provide highly-visual and interactive reviews of each chapter, organized around learning outcomes and incorporating satellite-based imagery, photos, and GIS-built maps. This active-review section revisits the key issues from the region at multiple spatial scales, links to constantly updated resources at the **Author Blogs**, and presents students with **NEW conceptual, visual, & Data Analysis activities**.



## Review

### Physical Geography and Environmental Issues

- 7.1 Explain how latitude and topography produce the region's distinctive patterns of climate.
- 7.2 Describe how the region's fragile, often arid setting shapes contemporary environmental challenges.
- 7.3 Describe four distinctive ways in which people have learned to adapt their agricultural practices to the region's arid environment.

Many nations within the region face significant environmental challenges and growing pressures on limited supplies of agricultural land and water. The results, from the eroded soils of the Atlas Mountains to the overworked garden plots along the Nile, illustrate the environmental price paid when population growth outstrips the ability of the land to support it.

1. If populations outstrip water supplies in North Africa's oasis settlements, how might residents adjust?
2. List ways in which modern technology might address water shortages across the region. Are there limits or challenges to this approach?



### Population and Settlement

7.4 Summarize the major forces shaping recent migration patterns within the region.

The population geography of Southwest Asia and North Africa is strikingly uneven. Areas with higher rainfall or access to exotic water often have very high physiological population densities, whereas nearby arid zones remain almost empty of settlement.

3. Briefly describe the population density and land-use patterns you might be likely to see out the plane window on a flight between Riyadh (Saudi Arabia) and San'a (Yemen).
4. How might very low population densities impose special problems for maintaining effective political control across all portions of nations such as Saudi Arabia, Libya, and Algeria?



### Cultural Coherence and Diversity

- 7.5 List the major characteristics and patterns of diffusion of Islam.
- 7.6 Identify the key modern religions and language families that dominate the region.
- 7.7 Identify the role of cultural variables in understanding key regional conflicts in North Africa, Israel, Syria, Iraq, and the Arabian Peninsula. Culturally, the region remains the hearth of Christianity, the spatial and spiritual core of Islam, and the political and territorial focus of modern Judaism. In addition, important sectarian divisions within religious traditions (especially the schism between Sunnis and Shiites), as well as long-standing linguistic differences, continue to shape the local cultural geographies and regional identities.
- 5. Why is Islam both a powerful unifying and a divisive cultural force in the region?
- 6. Why does Saudi Arabia remain such a pivotal part of the Islamic world?



### Geopolitical Framework

- 7.8 Summarize the geography of oil and gas reserves in the region.
- Political conflicts have disrupted economic development. Civil wars, sectarian violence, conflicts between states, and regional tensions work against initiatives for greater cooperation and trade. Perhaps most important, the region must deal with the conflict between modernity and more fundamentalist interpretations of Islam.
7. How likely is it that the cultural and religious divisions in Iraq will be healed in 5-10 years?
  8. Work with other students in the class to organize a debate on whether a renewed oil boom in the Iraqi economy might spur greater or reduced levels of sectarian violence within the country.



### Economic and Social Development

- 7.9 Describe traditional roles for Islamic women and provide examples of recent changes.
- Abundant reserves of oil and natural gas, coupled with the global economy's continuing reliance on fossil fuels, ensure that the region will remain prominent in world petroleum markets. Also likely are moves toward economic diversification and integration, which may gradually draw the region closer to Europe and other participants in the global economy.
9. What are likely to be the chief drivers of economic growth in settings such as Istanbul, Turkey, in the next 10-20 years?
  10. Write an essay comparing and contrasting the challenges of producing sustained economic growth in Turkey and Saudi Arabia between 2020 and 2030.



### KEY TERMS

- Arab League (p. 242)
- Arab Spring (p. 219)
- brain drain (p. 248)
- choke point (p. 204)
- culture hearth (p. 220)
- domestication (p. 226)
- exotic river (p. 228)
- Fertile Crescent (p. 226)
- fossil water (p. 224)
- Greater Arab Free Trade Area (GAFTA) (p. 245)
- Haji (p. 233)
- hydropolitics (p. 224)
- Levant (p. 220)
- Maghreb (p. 220)
- medina (p. 229)
- monotheism (p. 233)
- Organization of the Petroleum Exporting Countries (OPEC) (p. 220)
- Ottoman Empire (p. 234)
- Palestinian Authority (PA) (p. 241)
- pastoral nomadism (p. 226)
- physiological density (p. 226)
- Qur'an (p. 233)
- salafization (p. 223)
- sectarian violence (p. 219)
- Shiite (p. 233)
- Suez Canal (p. 239)
- Sunni (p. 233)
- theocratic state (p. 233)
- transhumance (p. 226)

## DATA ANALYSIS



Health care is often considered a basic human right in more developed portions of the world, but large parts of Southwest Asia and North Africa are poorly served by health-care providers. The World Health Organization (WHO) gathers data on the number of physicians per 1000 population, which can be used as a measure of access to health care as well as social development. According to recent data, the United States had about 2.5 physicians per 1000 and Germany about 3.9. Go to the WHO website ([www.who.int](http://www.who.int)) and access the data/interactive atlas page on physicians per 1000 population.

1. Make your own data table and map showing the regional pattern of health-care access across Southwest Asia and North Africa.
2. In a few sentences, summarize the general patterns and trends you see. How would you explain some of the major variations you observe across the region?
3. Compare the pattern you see for physicians with the map in the text on childhood mortality (Figure 7.44). What similarities and differences do you see? How might these two indicators be a good measure of future social development? How might they predict political stability?

## MasteringGeography™

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, In the News RSS feeds, flashcards, web links, self-study quizzes, and an eText version of *Globalization and Diversity*.

## Authors' Blogs

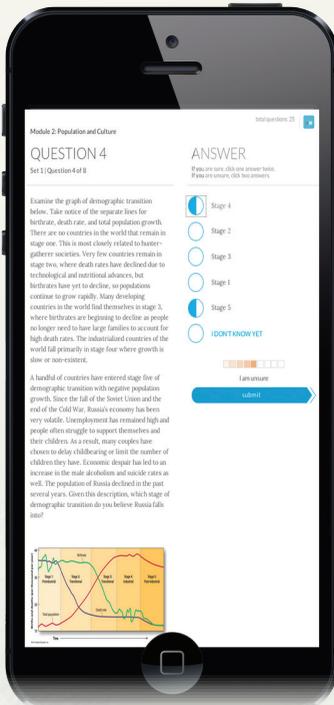
Scan to visit the Author's Blog for field notes, media resources, and chapter updates

Scan to visit the GeoCurrents Blog

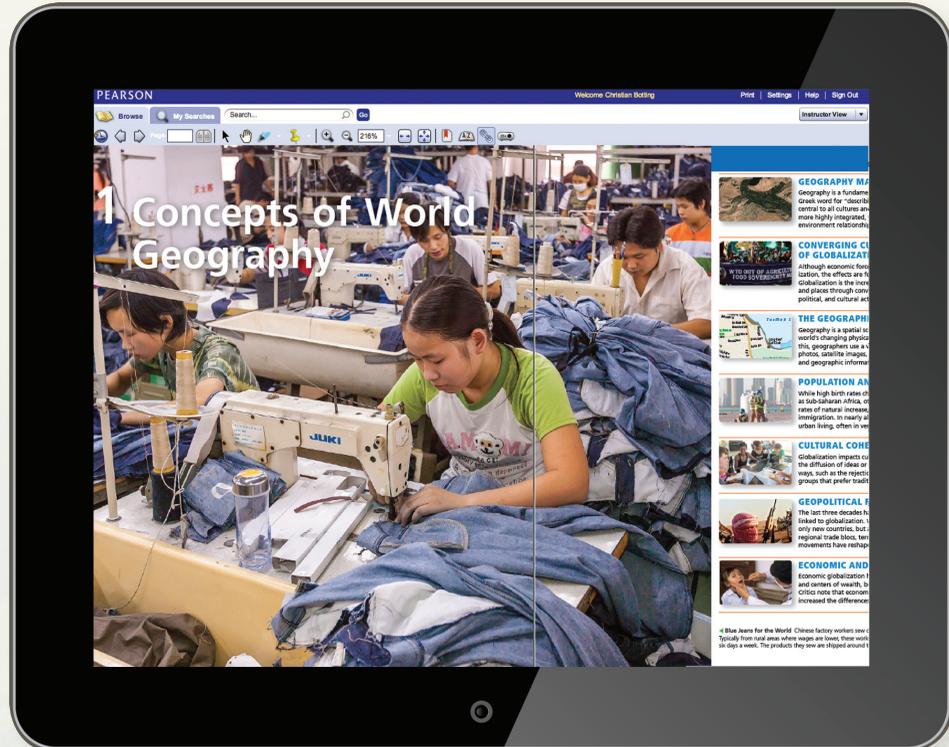
# Continuous Learning Before, During, and After Class

## BEFORE CLASS

Mobile Media & Reading Assignments Ensure Students Come to Class Prepared.



**NEW! Dynamic Study Modules** personalize each student's learning experience. Created to allow students to acquire knowledge on their own and be better prepared for class discussions and assessments, this mobile app is available for iOS and Android devices.



## Pearson eText in MasteringGeography

gives students access to the text whenever and wherever they can access the internet. eText features include:

- Now available on smartphones and tablets.
- Seamlessly integrated videos and other rich media.
- Fully accessible (screen-reader ready).
- Configurable reading settings, including resizable type and night reading mode.
- Instructor and student note-taking, highlighting, bookmarking, and search.

## Pre-Lecture Reading Quizzes are easy to customize & assign

Reading Questions ensure that students complete the assigned reading before class and stay on track with reading assignments. Reading Questions are 100% mobile ready and can be completed by students on mobile devices.

# with MasteringGeography™

## DURING CLASS

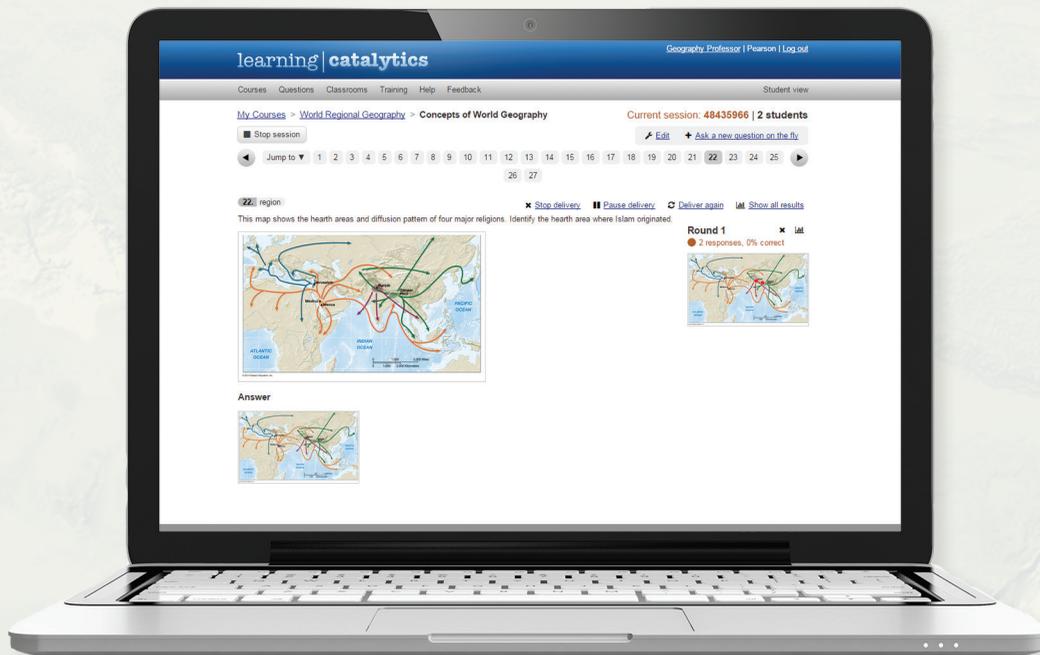
### Learning Catalytics™ & Engaging Media

What has Teachers and Students excited? Learning Catalytics, a 'bring your own device' student engagement, assessment, and classroom intelligence system, allows students to use their smartphone, tablet, or laptop to respond to questions in class. With Learning Catalytics, you can:

- Assess students in real-time using open ended question formats to uncover student misconceptions and adjust lecture accordingly.
- Automatically create groups for peer instruction based on student response patterns, to optimize discussion productivity.

*"My students are so busy and engaged answering Learning Catalytics questions during lecture that they don't have time for Facebook."*

*Declan De Paor, Old Dominion University*



### Enrich Lecture with Dynamic Media

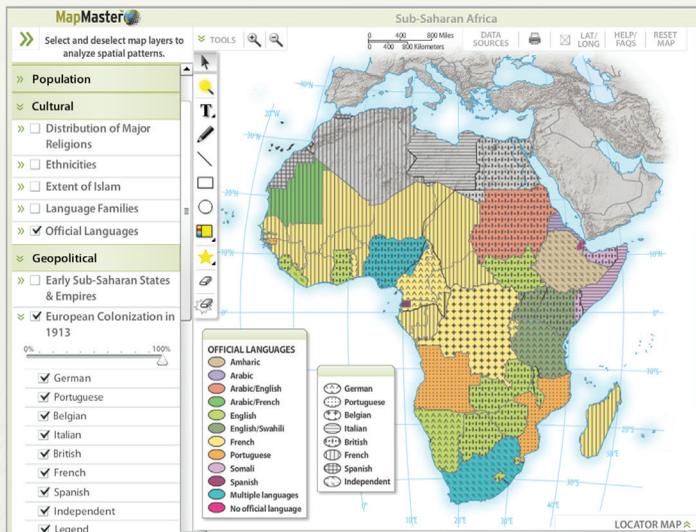
Teachers can incorporate dynamic media from MasteringGeography into lecture, such as Videos, MapMaster Interactive Maps, and Geoscience Animations.

# Mastering Geography™

**MasteringGeography** delivers engaging, dynamic learning opportunities—focusing on course objectives and responsive to each student’s progress—that are proven to help students absorb world regional geography course material and understand challenging geography processes and concepts.

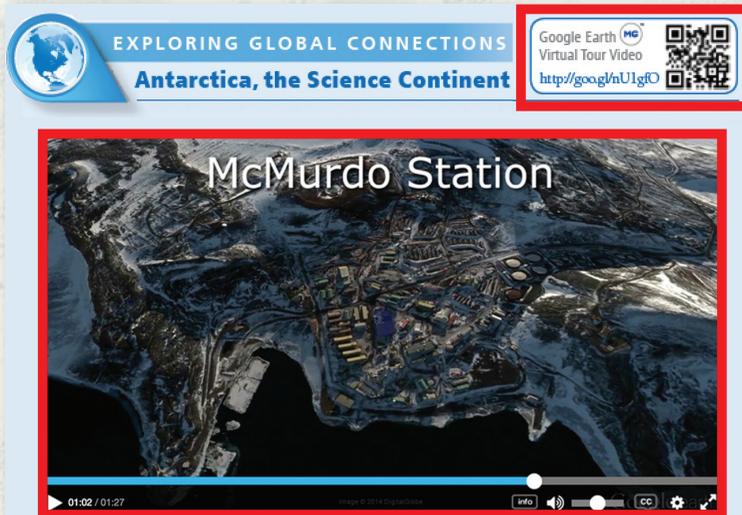
## AFTER CLASS

Easy to Assign, Customizable, Media-Rich, and Automatically Graded Assignments

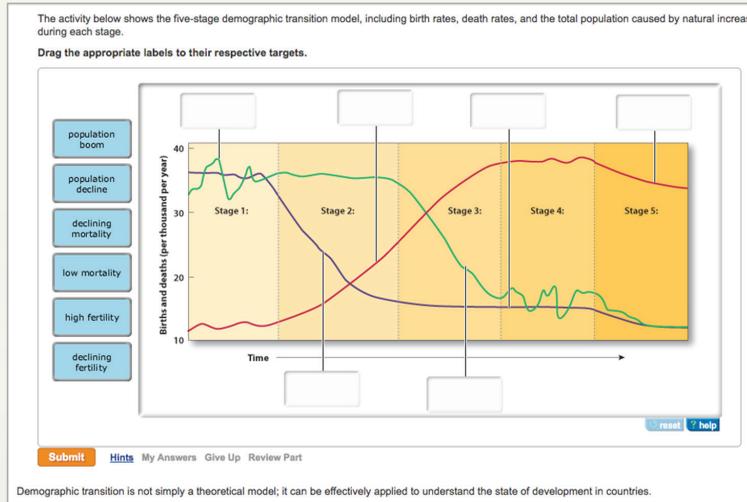


**NEW! Geography Videos** from such sources as the BBC and *The Financial Times* are now included in addition to the videos from Television for the Environment's *Life and Earth Report* series in **MasteringGeography**. Approximately 200 video clips for over 30 hours of footage are available to students and teachers and **MasteringGeography**.

**UPDATED! MapMaster Interactive Map Activities** are inspired by GIS, allowing students to layer various thematic maps to analyze spatial patterns and data at regional and global scales. This tool includes zoom and annotation functionality, with hundreds of map layers leveraging recent data from sources such as NOAA, NASA, USGS, United Nations, and the CIA.

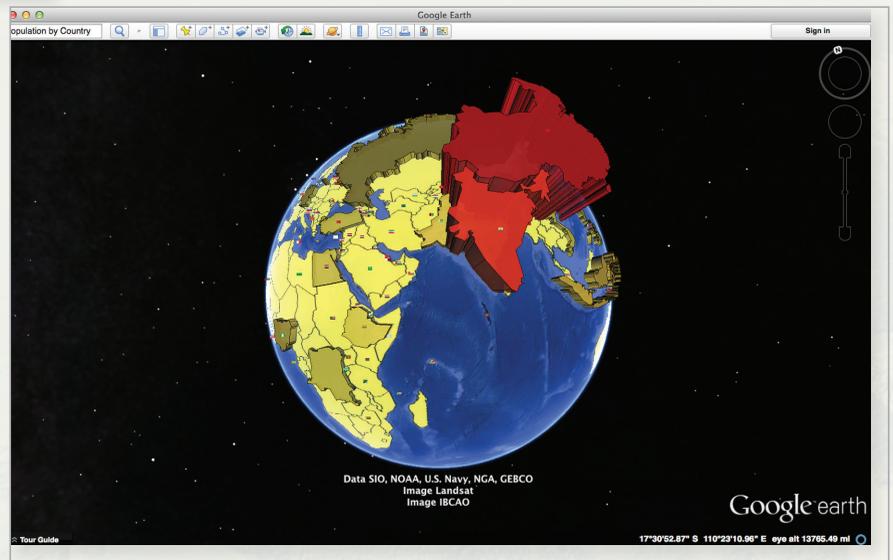


**NEW! Google Earth Virtual Tour Videos** enhance *Exploring Global Connections* and *Working Toward Sustainability* features with brief, mobile-ready, narrated video explorations of landscapes related to each feature.



**NEW! GeoTutors** Highly visual and data-rich coaching items with hints and specific wrong answer feedback help students master the toughest topics in geography.

**UPDATED!** **Encounter** (Google Earth) activities provide rich, interactive explorations of regional geography concepts, allowing students to visualize spatial data and tour distant places on the virtual globe.



### Map Projections

#### Map Projection Properties: Exploring Projections

Introduction Earth's Graticule Map Projection Properties Map Projection Classes Using Map Projections

Distortion on Projections Equal Area Projections Conformal Projections Compromise Projections Exploring Projections

Robinson Compromise Eckert Equal Area

Globe Mercator Conformal

CONTINUE

#### Exploring Projections

Let's compare the ways different landmasses are depicted on different projections.

Select the highlighted landmasses on the globe and compare the shape and area depictions on the three map projections.

Click the arrows to navigate the globe.

Click CONTINUE to go to the questions.

00:20 00:42

REPLAY PREVIOUS PAUSE NEXT

**Map Projections** interactive tutorial media helps reinforce and remediate students on the basic yet challenging introductory map projection concepts.