Help Students Understand the Tensions Between Global Forces & Local Diversity

GLOBALIZATION AND DIVERSITY
GEOGRAPHY OF A CHANGING WORLD
FIFTH EDITION

ROWNTREE LEWIS PRICE WYCKOFF

PEARSON
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 2.3.1 Sustainable Cocoa

This farmer sorts cocoa pods harvested on a sustainable plantation in Brazil’s Amazon region.

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 and development centers on antibiotics that are recognized worldwide.

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 while 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 Pharmaceutical Industries produces both the world’s largest volume of generic drugs and a growing array of its own patented pharmaceuticals.
The Critical Issues & Work of Geography

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.

Tracking Conflict from Space

A U. S. graduate 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 how to think critically and the importance of a scientific approach to problem solving.” 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 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 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?

Women in India carrying water on their heads

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 meet the water needs of her family, Cynthia Koenig, a recent engineering graduate from the University of Michigan, invented the Wello WaterWheel, that has been reduced to only 12 inches in diameter, and can be set up in a few minutes (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, Koenig asked herself, “Is there a better way?”

Koenig decided to do just that. She developed a unique design that fits the needs of her target market, women who carry more than 60 pounds of water back and forth; with the Wello WaterWheel, that has been reduced to only 12 inches in diameter, and can be set up in a few minutes by the women and children of a village. Currently, Wello, which is a nonprofit organization, can deliver a WaterWheel 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.
Review

After reading this chapter you should be able to:

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

Region-specific Learning Objectives set up a structured learning path in the book and MasteringGeography, framing the major learning goals of each chapter.
Many nations within the region face significant environmental challenges and growing pressures on limited supplies of agricultural land and water. The results, from the arid 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 population outstrips water supplies in North Africa's oasis settlements, how might modern agriculture adapt?
2. List ways in which modern technology might address water shortages across the region. Are these 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 many and zones remain almost empty of settlement.

Key Terms

Cultural Coherence

7.5 List the major characteristics and patterns of diffusion of Islam.
7.6 Identify the key modern religious 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 Arab Peninsula.

Culturally, the region remains the hearth of Christianity, the spiritual and cultural home of Islam, and the political and territorial focus of modern Judaism, as well as ancient nations and divisions within religious traditions (especially the schisms between Sunni and Shi’ite Islam), as well as longstanding 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?

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 continues to remain central to international markets. Also likely are moves toward economic diversification and regional integration, which may gradually draw the region closer to Europe and other participants in the global economy.

8. What are likely to be the chief drivers of economic growth in settings such as Istanbul, Turkey, in the next 10–20 years?

DATA ANALYSIS

1. Develop a 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 patterns you see for physicians with the map on the next leaflet (childhood mortality) Figure 7.8b. What similarities and differences do you see? Might these two indicators be a good measure of future local development? How might they predict political stability?

MasteryGeography

Looking for additional review and test prep resources? Visit the South Asia & Southwest Asia and North Africa pages in MasteryGeography to enhance your geographic literacy, spatial reasoning skills, and understanding of this chapter's content by accessing a variety of resources, including MapMatch interactive maps, glossary animations, videos, the News RSS feeds, flashcards, web links, self-study quizzes, and an essay on the historical development of the region, as well as key current events.
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.
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.

“...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 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 Mastering Geography. Approximately 200 video clips for over 30 hours of footage are available to students and teachers and Mastering Geography.

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.

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