

# The Physical Geography of South Asia





# Chapter Objectives

- Identify the physical features and natural resources of South Asia.
- Discuss the effects of South Asia's climates on life in the region.

# The Land

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## Section 1

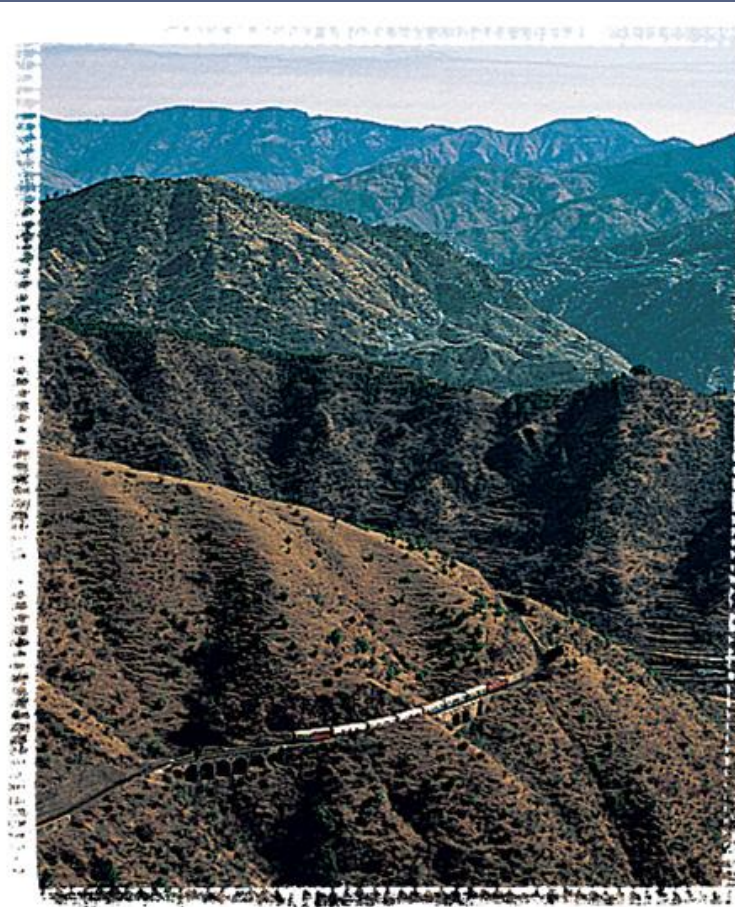
# Objectives

- Identify the major landforms in South Asia.
- Describe the three great river systems of South Asia.
- Explain how the peoples of South Asia use the region's natural resources.

# Terms to Know

- Subcontinent
- alluvial plain
- mica

# A Geographic View



**Train passing through Himalayan foothills**

# Geographic Literacy

South Asia boasts the world's tallest mountains. Within India, Nepal, Pakistan, and Kashmir are 24 mountains that soar above 25,000 feet (7,620 m) high. Of all the continents, Asia alone has mountains of this height.

# A Separate Land

- **Most of South Asia forms a peninsula surrounded by the Arabian Sea, the Bay of Bengal, and the Indian Ocean and is cut off from the rest of Asia by mountains. South Asia also includes Sri Lanka and other smaller islands.**



# A Land of Great Variety

- **The Himalaya** Scientists believe that about 60 million years ago, the Indian **subcontinent** was part of the same large landmass as Africa.
- After breaking away, the subcontinent drifted and smashed into the southern edge of Asia.
- The collision's force created the Himalaya, the ranges that contain the world's highest mountains.
- **Other Northern Landforms** The Himalaya, the Karakoram, and the Hindu Kush form a mountainous barrier between the subcontinent and the rest of Asia.

# A Land of Great Variety

- Invaders, however, used crossing places, such as the Khyber Pass, to enter the region.
- At the foot of the Himalaya lies the fertile Ganges Plain, home to one-tenth of the world's population.
- Three rivers—the Indus, the Ganges, and the Brahmaputra—water the plain.
- **Central Landforms** The Vindhya Range divides India into northern and southern regions, each of which developed a distinct culture.

# A Land of Great Variety

- **Southern Landforms**

- In southern India, two chains of eroded mountains—the Eastern and Western Ghats—form a triangle that holds the Deccan Plateau.
- The mountains' blocking of rainy winds keeps the plateau arid.
- At India's southern tip, the lush Karnataka Plateau receives plenty of precipitation.
- Maldives and Sri Lanka are island countries south of India.
- Sri Lanka once was part of the subcontinent.
- Maldives is a chain of coral atolls and volcanic outcroppings.

# Major River Systems

- **Indus and Brahmaputra Rivers**

- The Indus River, which flows through Pakistan to the Arabian Sea, serves as an important waterway and water source.
- The Indus River valley was the cradle of ancient India, one of the world's earliest civilizations.
- The Brahmaputra River flows east through the Himalaya and then west into India and Bangladesh, where it meets the Ganges River.
- The two rivers form a delta before emptying into the Bay of Bengal.
- The Brahmaputra is a major inland waterway and provides Bangladesh with hydroelectric power.

# Major River Systems

- **Ganges River**

- The Ganges, South Asia's most important river, is fed year-round by water from the Himalaya.
- Therefore, it retains its size even during the dry season.
- During the rainy season, however, it often floods its banks.
- Hindus consider the river's waters to be sacred.
- The Ganges River flows through the Ganges Plain, India's most agriculturally productive area and the world's largest **alluvial plain**.
- The Ganges Plain is also India's most densely populated area.

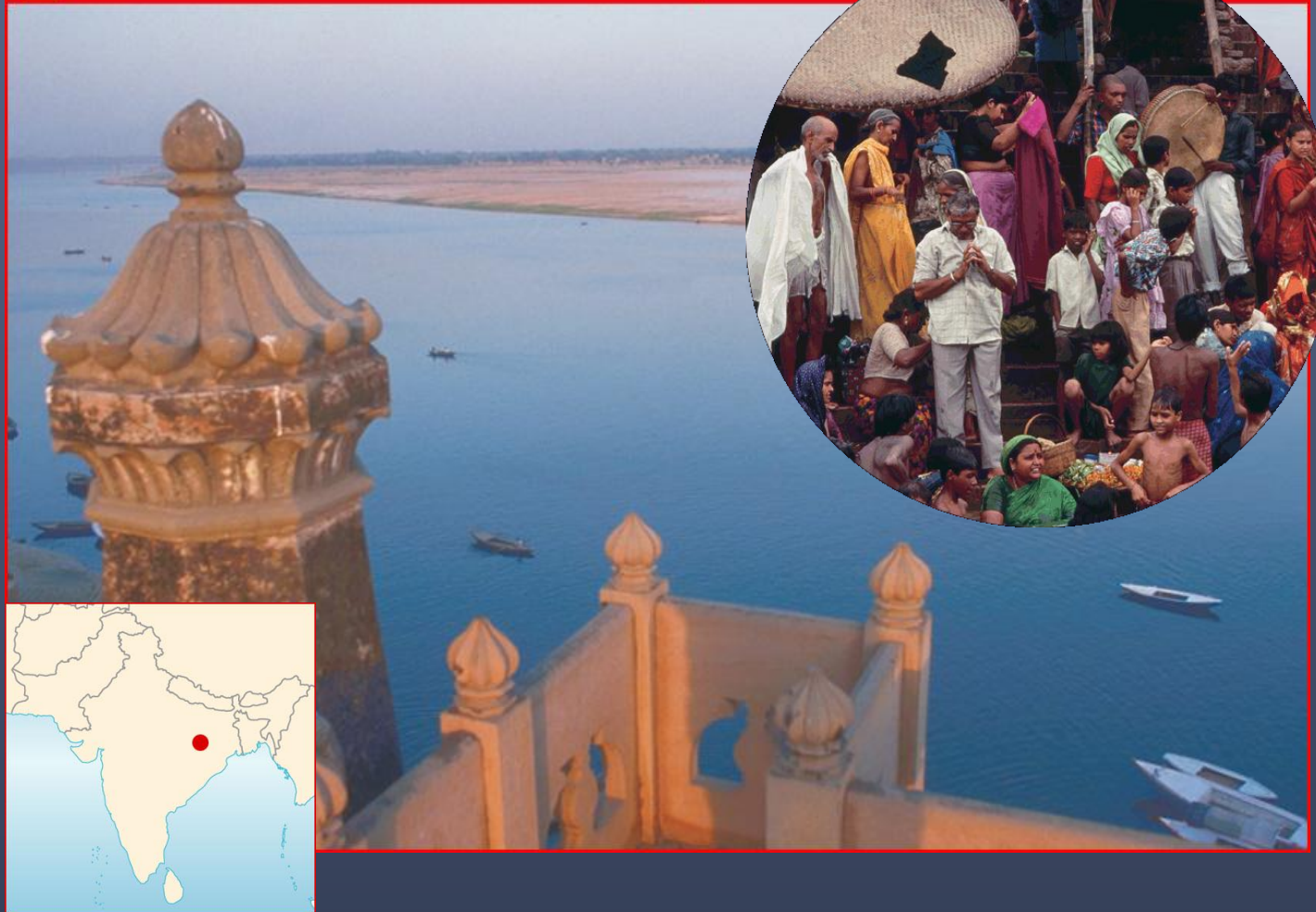


# Major River Systems



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# Natural Resources

- **Water** South Asia's rivers provide the region with hydroelectric power, transportation, drinking water, and fish.
- Although rivers cross national boundaries, countries sometimes cooperate in managing this important resource.

# Natural Resources



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# Natural Resources

- **Energy Resources** South Asia has some oil and natural gas reserves, but most of the region depends largely on hydroelectricity, wood, coal, and imported oil as sources of fuel.
- **Minerals** India is a leading exporter of iron ore and supplies 90 percent of the world's **mica**.
- Sri Lanka is a major producer of graphite and also mines rubies, sapphires, and other valuable gems and stones.
- **Timber** Overcutting threatens Nepal's forests, and the government has begun conservation measures.
- To protect its rain forests, Sri Lanka has banned exports of timber.
- India exports sandalwood, teak, and sal from its rain forests.

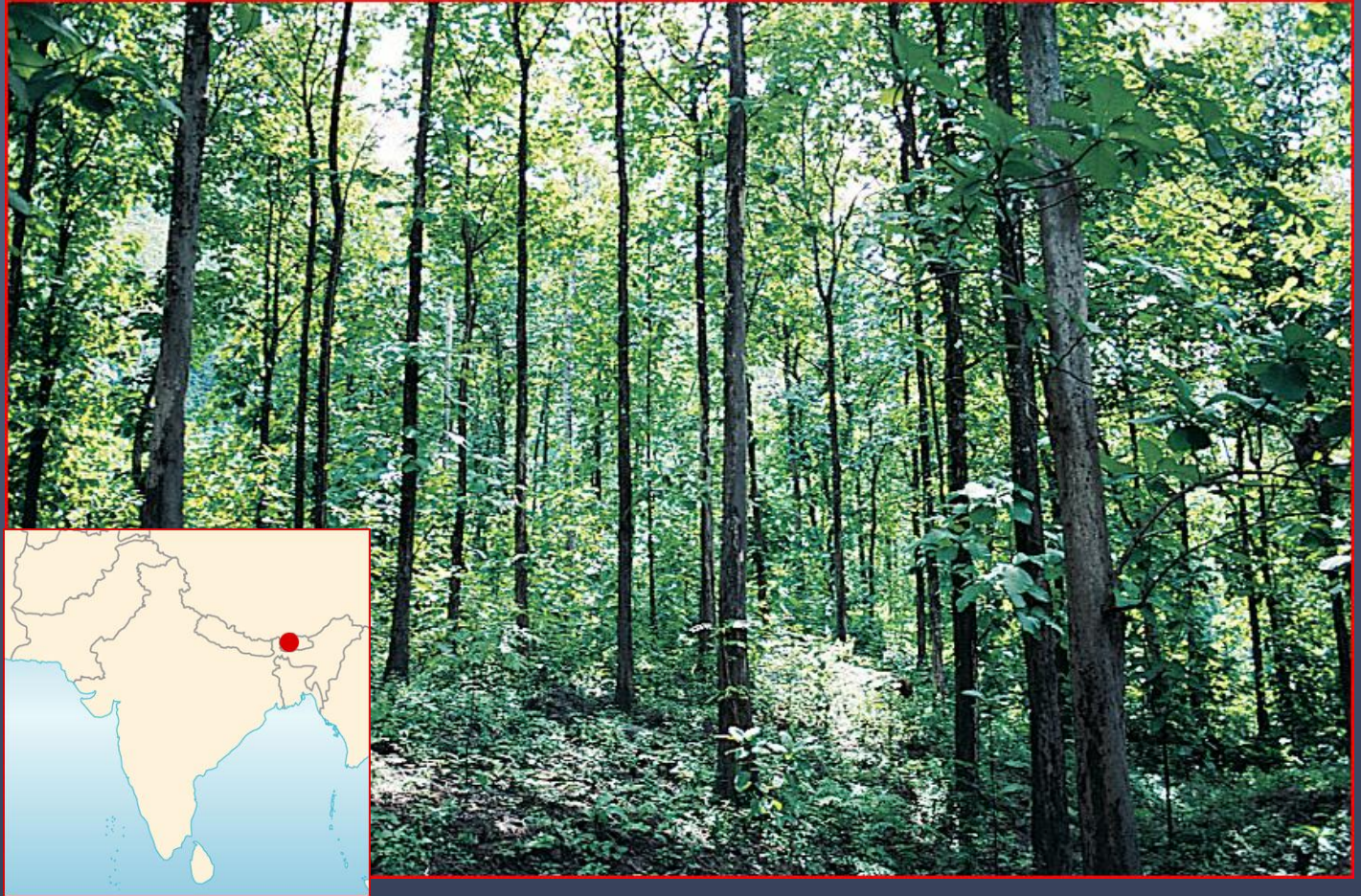


# Natural Resources



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# Climate and Vegetation

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## Section 2

# Objectives

- List the five major climate regions of South Asia.
- Discuss how seasonal weather patterns present challenges to the region's economy.
- Explain how altitude and rainfall affect South Asia's vegetation.

# Terms to Know

- Monsoon
- Cyclone

# A Geographic View



**Rain-swollen Mahandi River, India**

# Geographic Literacy

- Throughout the 1990s, India was shaken by frequent major earthquakes. In 1993, an earthquake in Maharashtra in southern India killed over 9,000 people, according to figures released by the Indian government. Some people believe the death toll may have been as high as 30,000. In January 2001, nearly 20,000 Indians were killed in another devastating earthquake.



# South Asia's Climates

Although much of the subcontinent lies south of the Tropic of Cancer and has a tropical climate, the climates of the northern and western parts of the region vary widely from highlands to deserts.

# South Asia's Climates

- **Tropical and Subtropical Climates**

- The west coast of India, the Ganges Delta, and southern Sri Lanka have tropical rain forest climates.
- The rain forests absorb much of the heavy annual rainfall.
- The central Indian steppe and eastern Sri Lanka have a tropical savanna climate, with wet and dry seasons, grasslands, and deciduous forests.
- A humid subtropical climate extends across Nepal, Bhutan, Bangladesh, and northeastern India.

# South Asia's Climates

- **Highlands Climates** Snow never melts in the Himalayan highlands.
- On the lower slopes, the climate is temperate enough to support deciduous and coniferous forests.
- The foothills support grasslands and stands of bamboo.
- **Dry Climates** Dry climates, which occur along the lower Indus River, produce the Great Indian Desert and the surrounding steppes.
- Dry deciduous forests cover vast stretches of India's interior.

# Monsoons

- South Asia's three seasons—hot, cool, and wet—depend on the seasonal **monsoons** that blow from the north and northeast to produce the cool, dry season and from the south and southwest to produce the rainy season.
- **Monsoon Rains** Monsoon rains are heaviest in eastern South Asia.
- When the rains sweep over the Ganges-Brahmaputra delta, the Himalaya block them from moving north.
- As a result, the rains move west to the Ganges Plain, bringing needed rainfall for crops.

# Monsoons

- **Natural Disasters** Both the high temperatures of the hot season and the heavy rains of the wet season have positive and negative effects.
- Extremely high temperatures and lack of rain can dry out the soil, causing drought.
- Too much rain caused by monsoons brings floods and results in great damage to land and property, as well as loss of human life.
- **Cyclones**, another kind of catastrophic weather event, are equally destructive.



# Summary – Section 1

- The landforms of South Asia include mountains, plateaus, plains, and islands.
- South Asia has three great river systems—the Indus, Brahmaputra, and Ganges—and the world's longest alluvial plain.
- South Asia has few significant oil reserves, but has substantial mineral deposits, including iron ore and mica.

# Summary – Section 2

- South Asia has highlands, tropical, and desert climates.
- The monsoon is a seasonal change in wind direction that brings heavy rainfall to much of South Asia from June to September.
- South Asia's vegetation is affected by elevation, rainfall, and human activity.