The Physical Geography of Africa South of the Sahara
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Chapter Objectives

- Identify the major landforms, water systems, and natural resources of Africa south of the Sahara.
- Describe the relationship between climate and vegetation in the region.
The Land

Section 1
Section Objectives

- Describe the major landforms in Africa south of the Sahara.
- Explain how the land affects the water systems of Africa south of the Sahara.
- List the most important natural resources of Africa south of the Sahara.
Terms to Know

- Escarpment
- cataract
- rift valley
- fault
- delta
- estuary
A Geographic View

Lake Victoria, East Africa
Geographic Literacy

At nearly 27,000 square miles (69,500 sq. km), Lake Victoria is the world’s second-largest freshwater lake, after Lake Superior in North America. Lake Albert, named for Queen Victoria’s husband, Prince Albert, is much smaller, at only a little over 2,000 square miles (5,300 sq. km). However, it is nearly 100 feet deeper than Lake Victoria, which is substantially shallower than most of the world’s other large lakes.
The Landforms

- **Plateaus, Mountains, and Highlands** Africa south of the Sahara is a series of plateaus that rise in elevation from the coast inland and from west to east.

- **The Ruwenzori Mountains**, which form the border between Uganda and the Democratic Republic of the Congo, are one of the few mountain ranges in the region.
Landforms

- **The Great Rift Valley** stretching from Syria to Mozambique, was formed millions of years ago by shifting tectonic plates.
- Volcanic mountains, including Kilimanjaro, rise at its edges, and deep lakes run parallel to its length.
Water Systems

• Africa’s rivers originate high in the plateaus and flow toward the sea. Rapids and waterfalls make it impossible to navigate most of the rivers from mouth to source.

• **Land of Lakes**  Most of the region’s lakes are near the Great Rift Valley.

• Lake Victoria, the largest lake in Africa, lies between the eastern and western branches of the Great Rift.
Water Systems

- **A Lake Meets Many Needs**  The human-made Lake Volta in West Africa was created in the 1960s by damming the Volta River. The lake is a source of hydroelectric power and supplies water for irrigation farming.
- It also has an abundance of fish.
- **River Basins**  The Niger River, the main artery of western Africa, flows 2,600 miles (4,184 km) northeast and then curves southeast.
  - As the river nears the Atlantic Ocean at Nigeria’s coast, it forms a delta 150 miles (241 km) long.
- The 2,900 miles (4,667 km) of the Congo River form the largest network of navigable waterways on the continent.
Water Systems
Water Systems

- **Daunting Physical Barriers** Between the late 1400s and early 1700s, Europeans were limited to trading with Africans from offshore islands or at coastal forts.

- Inland water travel was nearly impossible because of waterfalls, rapids, sandbars, and sometimes dry riverbeds.
Natural Resources

- Mineral resources of the region include oil, uranium, diamonds, and about half the world’s supply of gold.
- Water is an abundant resource for irrigation and hydroelectric power, but irregular and unpredictable rainfall poses a challenge to the control and use of this power.
- Solar power provides a vital source of power to rural areas. Between 1986 and 1996, 20,000 small-scale solar power systems were installed in Kenya.
Climate and Vegetation

Section 2
Objectives

• Relate the geographic factors that affect climate in Africa.
• Identify the kinds of climate and vegetation that are found in Africa south of the Sahara.
Terms to Know

- Leach
- harmattan
- savanna
A Geographic View

Kalahari sand dunes, South Asia
The dry climate of Namibia has contributed to the preservation of the rock art of ancient peoples. Granite caves and rock shelters house a great variety of images of hunters, as well as of giraffes, antelopes, and other animals, painted in warm pigments of red, yellow, ochre, and brown. These caves were first occupied around 800 B.C. Although paintings from this period have long faded, many later ones remain intact.
Tropical Climate

- **Tropical Rain Forest** Dense tropical rain forest covers the land near the Equator in central Africa.
- The region has warm temperatures and receives 60 inches of rain each year.
- Cash crops in rain forest areas include bananas, pineapples, coffee, cocoa, and rubber grown on large plantations.
- Farmers and loggers are clear-cutting so much land that the rain forest may disappear.
Tropical Climate

- **Savanna**, or tropical grassland with scattered trees, covers about half of Africa.
- The **harmattan**—hot, dry air from the Sahara—dries the moisture left from heavy summer rains, while cool, humid air blows in from the southwest.
Tropical Climate
Dry Climates

- **Steppe** A semiarid steppe separates the savanna from the desert.
- The northern edge of the steppe—the Sahel—has natural pastures of grasses, shrubs, and acacia trees.
- **Desertification** Increasing amounts of productive land in the Sahel has turned into desert.
- People have stripped more and more of the steppe’s vegetation for firewood or farming.
- As a result, desertification has advanced, stressing human and animal populations that struggle to survive.
Dry Climates

- **Desert** Isolated parts of southern Africa are deserts.
- The Namib Desert runs along the Atlantic coast of Namibia.
- The Kalahari Desert occupies eastern Namibia, most of Botswana, and part of South Africa.
Moderate Climates

- Coastal areas of South Africa and highlands regions in East Africa enjoy moderate climates with comfortable temperatures and enough rain for farming.
Summary – Section 1

- Africa south of the Sahara is a series of step-like plateaus, rising in a few places to mountains and slashed in the east by a rift valley.
- High elevations and narrow coastal plains characterized by escarpments have made traveling to Africa’s interior very difficult.
- The region’s water systems include numerous long, large, or deep lakes; spectacular waterfalls; and great rivers that drain expansive basins.
- Minerals and water are the region’s most abundant natural resources.
Rainfall, tropical latitudes, nearness to the Equator, ocean air masses, and elevation are the main factors influencing climate variations in Africa south of the Sahara.

The region can be divided into four main climate zones: tropical rain forest, savanna, steppe, and desert.

Moderate climates such as humid subtropical and marine west coast are also found in Africa south of the Sahara.