



Landforms and Resources

A HUMAN PERSPECTIVE Angola's rebel leader Jonas Savimbi kept his forces fighting by bargaining with arms dealers and haggling with international diamond traders. Diamonds—one of the world's most precious and valuable gems—have enriched some of Africa's countries, including Botswana and South Africa. However, in other diamond-rich countries such as Angola, people use diamonds to fund costly and bloody civil wars. Rebel groups in Angola and the Angolan government sold diamonds on the world market and then used the money from the sale to buy weapons. The sale of diamonds funded a war that killed more than 500,000 Angolans and left more than 4 million homeless. A country's or continent's resources are used for a variety of purposes.

A Vast Plateau

Africa's shape and landforms are the result of its location in the southern part of the ancient supercontinent of *Pangaea*, which you read about in Chapter 2. About 200 million years ago, *Pangaea* began to break up. Over thousands of years, North and South America, Antarctica, Australia, and India drifted into their current positions. Present-day Africa, however, moved very little.

AFRICA'S PLATEAU A huge plateau covers most of Africa. It rises inland from narrow lowlands along the coast. Except for the coasts of Mozambique and Somalia, much of the continent lies at least 1,000 feet above sea level. This plateau is Africa's most prominent physical feature. As a result, geographers sometimes refer to Africa—the world's second largest continent—as the “plateau continent.”

BASINS AND RIVERS Throughout this plateau lie several huge **basins**, or depressions, which you'll notice on the map on the right. Each basin spans more than 625 miles across and is as much as 5,000 feet deep. Water collects in the Chad Basin, and rivers flow through the Sudan, Congo, and Djouf basins.

Main Ideas

- A large plateau covers most of Africa.
- Africa's natural resources made it appealing to European colonizers.

Places & Terms

basin

Nile River

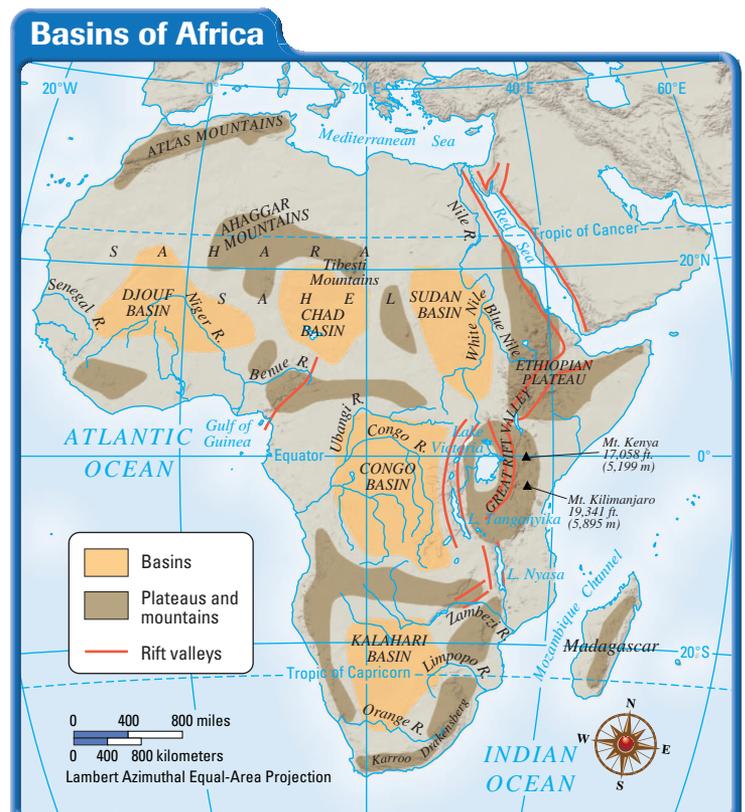
rift valley

Mount Kilimanjaro

escarpment

CONNECT TO THE ISSUES

COLONIALISM Africa's valuable resources still attract the world's industrialized countries.



SKILLBUILDER: Interpreting Maps

- 1 **REGION** Which basin contains the most complex river system?
- 2 **LOCATION** Which basin lies completely south of the equator?

The world's longest river, the **Nile River**, flows more than 4,000 miles through Uganda and Sudan and into Egypt. Its waters have provided irrigation for the region for thousands of years. More than 95 percent of Egyptians depend on the Nile for their water. In fact, the average population density along the Nile is more than 3,320 people per square mile. Compare that to the average population density of 177 people per square mile in all of Egypt.

Africa's rivers contain many waterfalls, rapids, and gorges. These features make the rivers less useful for transportation than shorter rivers on other continents. The 2,900-mile-long Congo River forms the continent's largest network of waterways. But a series of 32 cataracts, or waterfalls, makes large portions of that river impassable.

Furthermore, meandering courses also make Africa's rivers difficult to use for transportation. For example, the Niger River begins in West Africa and flows north toward the Sahara, where it forms an interior delta and turns to the southeast. It then cuts through Nigeria and forms another huge delta as it empties into the Gulf of Guinea. 



Using the Atlas

 Use the physical map on page 403 to find out what other rivers in Africa follow winding courses.

Distinctive African Landforms

Africa does not have a long chain of mountains, such as the Rocky Mountains in North America or the Himalayas in Asia. However, Africa's valleys and lakes add to the continent's varied landscape.

RIFT VALLEYS AND LAKES The continent's most distinctive landforms are in East Africa. As the continental plates pulled apart over millions of years, huge cracks appeared in the earth. The land then sank to form long, thin valleys—called **rift valleys**. The rift valleys, which you can see on the map on page 415, show that the eastern part of Africa is pulling away from the rest of Africa. These rift valleys stretch over 4,000 miles from Jordan in Southwest Asia to Mozambique in Southern Africa.

PLACE Masai tribespeople climb the walls of the Great Rift Valley in Tanzania. **How were the rift valleys formed?**





Making Comparisons

B How is Lake Victoria different from Lake Tanganyika?

A cluster of lakes formed at the bottoms of some of these rift valleys. These African lakes are unusually long and deep. Lake Tanganyika, the longest freshwater lake in the world, stretches about 420 miles and reaches a depth of more than 4,700 feet.

However, Africa's largest lake, Lake Victoria, sits in a shallow basin between two rift valleys. It is the world's second largest freshwater lake but is only 270 feet deep. **B**

MOUNTAINS Africa contains mainly volcanic mountains. Mount Kenya and **Mount Kilimanjaro**, Africa's highest mountain, are both volcanoes. Volcanic activity also produced the Ethiopian Highlands, the Tibesti Mountains in the Sahara, and Mount Cameroon in West Africa. In addition, volcanic rock covers the Great Escarpment in Southern Africa. An **escarpment** is a steep slope with a nearly flat plateau on top. The Great Escarpment marks the edge of the continent's plateau in Southern Africa.

Africa's Wealth of Resources

The story of Africa's natural resources is at once a story of plenty and one of scarcity. Africa has a huge amount of the world's minerals. But many African countries lack the industrial base and money to develop them.

A WEALTH OF MINERALS Africa's minerals make it one of the world's richest continents. African nations contain large amounts of gold, platinum, chromium, cobalt, copper, phosphates, diamonds, and many other minerals. For example, South Africa is the world's largest producer of chromium. Chromium is an element used in manufacturing stainless steel.

South Africa also produces nearly 80 percent of the world's platinum and nearly 30 percent of the world's gold. Another important resource, cobalt, is used in high-grade steel for aircraft and industrial engines. African nations produce about 42 percent of the world's cobalt, mostly from the Democratic Republic of the Congo and Zambia. Ores and minerals account for more than half of the total value of Africa's exports.

Africa's great mineral wealth, however, has not meant economic prosperity for most of its population. In the 19th and 20th centuries, European colonial rulers developed Africa's natural resources for export to Europe to manufacture goods there. As a result, many African nations have been slow to develop the infrastructure and industries that could turn these resources into valuable products. **C**

OIL RESOURCES Libya, Nigeria, and Algeria are among the world's leading petroleum producers. Other countries, such as Angola and Gabon, have huge untapped oil reserves. Libya, Nigeria, Algeria, and Angola combine to produce over seven percent of the world's oil.

Angola illustrates why valuable resources don't always benefit most Africans. Recently discovered offshore oil deposits will likely enable

Connect TO THE Issues

ECONOMIC DEVELOPMENT

Oil Pipeline

The people of Chad and Cameroon gaze out at the construction of a new 665-mile oil pipeline with a sense of hope and worry. With new income from the oil, Chad plans to improve education, social services, and its infrastructure.

However, leaders are concerned because past African oil exploration has caused corruption, civil wars, poverty, and serious environmental damage.

Furthermore, people in Cameroon worry because the pipeline travels through otherwise untouched tropical rain forest. This pipeline represents a test for new African development policies.

AFRICA

CONNECT TO THE ISSUES

ECONOMIC DEVELOPMENT

C Why hasn't Africa's mineral wealth translated into wealth for most of its citizens?

Angola to surpass Nigeria as Africa’s most oil-rich country. American oil companies pay Angola a fee for drilling rights and the oil. However, the Angolan government spends the money on an ongoing civil war. This war is caused in part by ethnic divisions resulting from years of colonialism. Angola invests little money in schools, hospitals, or other public infrastructure. **D**



Seeing Patterns

D How does Angola make money from its resources?

Diversity of Resources

From rain forests to roaring rivers, Africa possesses an incredible diversity of resources.

MAJOR COMMODITIES After oil, coffee is the most profitable commodity in Africa. Even though few Africans drink coffee, the continent grows 20 percent of the world’s supply.

Lumber is another important commodity. Nigeria leads African nations in lumber exports and ranks eighth worldwide in that area. However, logging is depleting Africa’s forests.

Every year loggers clear an area of land in Africa about twice the size of New Jersey. Other major commodities include sugar, palm oil, and cocoa. Côte d’Ivoire is the world’s largest exporter of cocoa beans, the main ingredient in chocolate.

Agriculture is the single most important economic activity in Africa. About 66 percent of Africans earn their living from farming. In addition, farm products account for nearly one-third of the continent’s exports. Farmers benefit from Africa’s climate, which you will read about in the next section.



MOVEMENT Kenyan workers carry coffee berries to a pulping machine.



Assessment

1 Places & Terms

Identify and explain where in the region these would be found.

- basin
- Nile River
- rift valley
- Mount Kilimanjaro
- escarpment

2 Taking Notes

PLACE Review the notes you took for this section.

Landforms	
Resources	

- What types of landforms are found in Africa?
- What kinds of resources does Africa possess?

3 Main Ideas

- Why is Africa called the “plateau continent”?
- What are some of Africa’s distinctive landforms?
- Why do you think Africa’s abundance of natural resources has not translated into economic wealth for most of its population?

4 Geographic Thinking

Seeing Patterns How has Africa’s physical geography affected its ability to use its resources for economic development? **Think about:**

- its use of rivers for transportation

S See Skillbuilder Handbook, page R8.



EXPLORING LOCAL GEOGRAPHY Examine a physical map of your state or region. Then study the map on page 403 to determine which African country has the most similar physical geography to your region or state. Create a **Venn diagram** identifying which physical features your state or region has in common with that country and the features that are different.