

Chapter 1, Chapter 2 Notes

Africa Physical Features

Africa has a variety of landforms.

Sahara is the world's largest hot desert, covering most of Northern Africa. It stretches from the Red Sea to the outskirts of the Atlantic Ocean. In the south, it stretches to the Sahel.

- The Sahel is the transition zone south of the Sahara and north of the equator that separates the Sahara from tropical rain forests. It has become more of a desert in recent years.
- The savanna is the picture of Africa you see in the movies, with rolling grassland and scattered trees and shrubs. The most famous savanna is the Serengeti, straddling the borders of Kenya and Tanzania. There are 4.5 million square miles of savannas in Africa.
- The central African tropical rainforest in the Democratic Republic of the Congo is the second largest rainforest in the world. About 90 percent of West African coastal rainforests have been deforested because of logging, road building, and poor farming.
- Flowing through west central Africa, the Congo River is the second longest river in Africa, and the fifth longest river in the world. It crosses the equator twice and is surrounded by rainforest.
- The Nile River is the world's longest river (4150 miles). It flows northward out of the mountains of central Africa through eastern Africa into the Mediterranean Sea.
- The Niger River is the principal river of western Africa. It flows into the Atlantic Ocean. Five west African nations depend on it for their water.
- The Atlas Mountains are a range in northern Africa between the Mediterranean Sea and the Sahara Desert. They are located in Morocco, Northern Algeria and Tunisia.
- The Kalahari Desert is a large, arid to semi-arid sandy area in southern Africa covering much of Botswana and parts of Namibia and South Africa. Its dunes range from 20 to 200 feet high and can be 50 miles long.
- Lake Tanganyika is the longest lake as well as the second-deepest lake in the world. It lies in central
- Africa between Tanzania and Congo in the Great Rift Valley.
- Lake Victoria is a headwaters reservoir for the Nile River and the largest lake in Africa. It's the second largest freshwater lake in the world and is quite shallow. Kenya, Tanzania, and Uganda border it.

Chapter 2

Water Pollution Problems

Pesticides, fertilizers, human waste, storm water runoff, mining, and manufacturing byproducts all contribute to water pollution in Africa. Millions hospitalized every year because of unclean drinking water, impacting the economy by reducing the workforce. In rural areas, access to clean drinking water is limited, increasing the risk of water-borne diseases. Unclean water and poor sanitation are a leading cause of child mortality. Many humanitarian organizations provide clean water and help rebuild the infrastructure to maintain a clean water supply. However, as the population grows in some countries, the amount of clean water is actually decreasing.

Polluted water directly harms the fishing industry by either killing the fish or making them unfit to eat. This affects trade by ruining the land for farming and the water for fishing. In 2006 the Niger Delta ranked as one of the most polluted places on Earth. Tons of untreated sewage dumped yearly into Lake Victoria, filling the lake with high levels of poisonous materials. Many coastal beaches, polluted by waste from industry and ship traffic, are no longer safe for swimming. Burning coal for electricity is also a major source of pollution.

Many governments have neglected the problem of clean water.

Few places in rural Africa have plumbing for water or sanitation to purify the drinking water. Women and children walk daily to the nearest stream to collect the water, one bucket at a time.

Climate change, deforestation, and population growth contribute to a water imbalance. Although some parts of Africa have an adequate fresh water supply, the demand for fresh water is increasingly greater than the available supply. Water is scarce in the Sahara and most of the water available there for irrigation is already tapped.

Agriculture used to get 88 percent of Africa's water supply. Now, as more people are moving to cities, the need for water there is increasing. Some countries like Zimbabwe and the Democratic Republic of the Congo once had irrigation systems, but they are now badly in need of repair. Sudan, Madagascar, and Nigeria, however, own the best irrigation systems on the continent and make good use of them. Across the continent, there is a need to capture rainwater so it can be used for irrigation. A drought can wipe out the food supply for a large population. With a system to store water, however, the economy grows as the crops grow.

Lake Chad in Chad has shrunk 95 percent in the last 40 years. The growing urban populations play water tug of war with farmers. Besides water for drinking and hygiene, the industries in cities need water for their businesses. Those who live near a clean, fresh or salt water source are usually healthier due to a good source of protein in fish. Industry in the area also benefits from being able to catch and trade fish.

Since the bulk of African international trade is with countries outside of Africa, African countries with immediate access to water for shipping enjoy a distinct advantage. These countries can trade with world countries and use the profits to build their country's infrastructure.

Many of the landlocked African countries are among the poorest in the world. The people there pay more and wait longer for what they need. Consequently, these countries grow more slowly than their neighbors and trade less.

Some of the rivers have large dams for water distribution and power production.

Everyone involved benefits from increased trade and industry, including those employed at the dam and those who have industries because of this water source. In southeastern Africa, water is Lesotho's major resource, and its people call it white gold. A huge hydropower station was completed there in the late 1990s, allowing Lesotho to meet the needs of its own people and sell surplus water to South Africa. At this point, only a small percentage of hydroelectric potential has been tapped.

Nearly 90 percent of the coastal rainforests in West Africa have been cut down since the 1900s. In the 1990s alone, 13 million acres of African forest were logged, resulting in

widespread deforestation. When the trees are gone, nothing remains to hold the soil in place. The wind blows and the rains pour down and erode what remains of the soil, washing vital nutrients away. The sun then bakes the exposed soil, leaving a soil that is poor in nutrients and unable to sustain agriculture. Each year, millions of tons of soil are lost to erosion.

The transition from fertile land to a desert evolves from poor farming practices, land clearing, overgrazing of livestock, and draining of surface and underground water for industrial and home use. Africa has had these problems for years, plus drought, leading to the steady spread of desert areas.

The Sahel is sandwiched between the Sahara Desert to the north and lush tropical rainforests to the south. The drought from the late 1960s to the early 1980s invited the Sahara desert to invade the Sahel and caused widespread desertification. Making a bad situation worse is the population growth in this area as well as the number of grazing animals. People, animals, and plants compete for an already strained water supply. Desertification is attacking the Sahel from the south, also. Three major reasons are overgrazing, poor agricultural practices, and the slash and burn policy in the rainforest. Large sections of forests are cleared, or deforested, to make room for annual crops. Farmers plant seeds, harvest the produce, and burn the remains. The topsoil blows away, creating huge dunes and suffocating vegetation. Farmers continue to plant more crops, but reap an increasingly smaller harvest since the soil is depleted. Many Africans have less food to eat today than 10 years ago, and the number who suffer from chronic hunger grows daily.