

## 6. SUB-SAHARAN AFRICA

Africa is a large, complex, and often misunderstood world region, with common perceptions ranging from a fertile tropical forest rife with exotic diseases to an idyllic game reserve or from a harsh landscape devastated by war and drought to a place where rich cultural traditions reach back to the dawn of humanity. Africa has great mineral wealth and agricultural potential but is ranked lowest among world regions on indicators of economic development, social and health conditions.

The continental land mass called Africa straddles the equator, stretching 8000 kilometers (5000 miles) miles from the Mediterranean in the north to the southern tip at about 35 degrees south latitude (**Figure 6.1**). At its widest, Africa spans 7400 kilometers (4600 miles) from Senegal on the Atlantic coast to Somalia on the Indian Ocean. The total area is 30365000 square kilometers (11,724,000 square miles). Geographers have argued that the countries of North Africa that border the Mediterranean Sea - Morocco, Algeria, Tunisia, Libya, and Egypt - have more in common with the Middle East than with the other countries of Africa that lie south of the Sahara desert. North Africa is considered to share characteristics with the Middle East that include similar physical environments of dry climates and human geographies that reflect a dominant Arabic language and ethnicity and Islamic religion.

Sub-Saharan Africa has been defined and divided from North Africa based on common historical, physical and social characteristics that include a legacy of European colonialism and slavery, a tropical climate and the darker skin of many inhabitants. The race-based definition of sub-Saharan Africa has been used by Africans and non-Africans to identify the region as "Black Africa". It includes 43 mainland countries, 5 island nations and the French territory of Reunion. The region includes large populations growing their own food and living in small rural villages with less than 30% living in urban areas. Sub-Saharan Africa has an area of 22 million square kilometers (8.5 million square miles) and a population of 600 million. In this text, we discuss North Africa with the Middle East because of shared characteristics and because one chapter on the whole of Africa would be very large. However, the physical and human links across the continent of Africa are such that several sections of this chapter, including the section on humans and the environment that follows, discuss broader patterns across the whole continent and refer to Africa as a whole rather than Sub-Saharan Africa specifically.

We recognize that the geographical, racial, ethnic and religious basis for dividing Africa into these two world regions is somewhat artificial and controversial, oversimplifying both the cultural and historical distinctiveness of the two regions, the overlaps between them and the great variety that they contain. For example, the Sahara desert is a large area, rather than a clear dividing line, and includes territory from both North and Sub-Saharan African countries (**Figure 6.1**). The River Nile links the North African countries of Egypt and the Sudan through a long fertile corridor to the sub-Saharan countries of Ethiopia, Uganda, Kenya, Tanzania, Rwanda, Burundi, the Central African Republic and the Democratic Republic of the Congo (formerly Zaire). There are considerable populations of Arab or European ethnicity or Islamic beliefs in Sub-Saharan Africa, and significant numbers of black Africans and people with non-Islamic religious beliefs in North Africa. Traders have linked the economies of North and Sub-Saharan Africa for centuries and the Organization of African States includes members from throughout the African continent. The Sudan exemplifies the challenges of treating Africa as two distinct world regions because the north part of the country is dominated by an Islamic and Arabic culture whereas the south hosts a predominantly black and Christian population. We discuss the Sudan, the largest country on the African continent in Chapter 5.

The world region of Sub-Saharan Africa is frequently divided into subregional clusters of countries that share common geographical characteristics and has some distinctive landscapes that include parts of several countries. Commonly discussed subregions include West Africa, East Africa, Central Africa, and Southern Africa as well as the distinctive landscapes of Equatorial Africa, the Horn of Africa, the Indian Ocean Islands, and the Sahel (**Figure 6.3**).

Figure 6.1: Chapter Opening map of Africa

### **ENVIRONMENT AND SOCIETY IN AFRICA**

The continent of Africa is the heart of the ancient super continent called Pangaea, the southern part of which broke off to form Gondwanaland about 200 million years ago (see Chapter 2). The theory of plate tectonics tells us that when the regions that we now know of as Latin America and Asia broke away from Gondwanaland, the high plateau that remained became the continent of Africa.

Figure 6.2: Satellite Image of Africa

Figure 6.3: Major subregions of Africa - political map with text, boundaries and shading to show major regions

Half of the African continent is composed of very old crystalline rocks of volcanic origin that hold the key to Africa's tremendous mineral wealth (**Figure 6.4**). Ancient tropical swamps became sedimentary rocks containing oil and other fossil fuels. These include coal in southern Africa, Nigeria and the Congo basin and oil and gas in West Africa, particularly Nigeria and Gabon. Iron and manganese are found in western and southern Africa, and most of the world's known chromium is found in Africa especially in Zimbabwe and South Africa. Vast copper reserves are located in the Copper Belt of Zambia, where they are accompanied by cobalt, and the southern Congo; and bauxite, important in making aluminum, is found in a belt across West Africa. Gold is found in several regions of Africa including Ghana and Zimbabwe, and in South Africa, where as much of half of the world's gold reserves are found in the region around Johannesburg. South Africa is very famous for diamonds, also found in Botswana, Namibia, at the edges of the Congo basin and in Sierra Leone in West Africa.

Figure 6.4: Mineral map - this map shows the location of the most important regions of mineral development in Africa including oil, gold and diamonds.

These mineral resources have played important roles in African history. Gold was important in West Africa from early times, worn and traded by the kings and leaders, including Mansu Musa of the empire of Mali who took so much gold on a pilgrimage to Mecca in 1324 that it depressed prices worldwide. Gold and diamonds spurred European colonial grabs for Africa and conflicts between colonial powers and with indigenous groups. Together with oil, gold, and diamonds, they continue to incite conflict within contemporary Africa, and to amplify international and Multinational Corporation interest in African economies. While these resources bring billions of dollars into Africa, they also make national and regional economies vulnerable to fluctuations in world market prices, especially where minerals dominate exports. In Africa as a whole exports of mining products were valued at \$US 44.7 billion in 1998, about 42% of total exports. Most of the mining occurs in the Sub-Saharan African region. The distribution of mineral wealth is uneven, with South Africa (gold and diamonds) and Nigeria (oil) accounting for more than half of total value. Sub-Saharan countries with mineral exports accounting for more than one-half of total earnings in 1998 include Angola (90% oil), Botswana (72% diamonds), Gabon (75% oil), Niger (65% uranium), and Nigeria (95% oil).

### ***[Commodities and consumption: Diamonds in Sub-Saharan Africa]***

#### **Landforms and landscapes**

Where the continental plates tore away from Africa during the breakup of Gondwanaland, they left steep escarpments that joined the high plateau to the new

oceans. Most of the rivers that had drained to the inland lakes of the super continent eventually found outlets to the sea. Because the continent was tearing apart, the tensions created trenches and volcanic activity, in contrast to other regions where colliding plates caused uplift and folding into high mountain ranges such as the Andes and Himalayas.

Africa is still mainly a plateau continent, with elevations of about 1000 feet (approximately 300 meters) in the east, tilting up to more than 5000 feet (approximately 1500 meters) in the eastern part of the continent (**Figure 6.5**). Escarpments, especially on the western edge of the plateau, fall to narrow coastal plains. Where rivers descend to the coastal plains, they often cut deep valleys back into the plateaus and drop over rapids and waterfalls such as Victoria Falls on the Zambezi River in southern Africa (Figure). This poses a serious problem for navigation by boat into the continent, but also offers the potential for hydroelectric development. This potential has been realized through major dams on many rivers in Africa including the Kariba on the Zambezi, Akosombo on the Volta, and Aswan on the Nile (see Geography Matters on Large Dams).

Figure 6.5: Map of major landforms in Africa including escarpments, mountain ranges, rivers, rift valley, dams, lakes, wetlands and waterfalls Based on map in Geography of sub-Saharan Africa p.5

The routes of Africa's major rivers reflect the legacies of inland drainage on the super continent, because many of them flow away from the coast and into inland wetlands and deltas before shifting back towards the ocean. For example, the immense Congo river, second only to the Amazon in terms of overall discharge, flows north before turning west towards the rapids that bring it down to the Atlantic. The Niger River flows north towards the Sahara into a large inland delta, before turning south towards its exit to the sea in Nigeria. The Nile, discussed in more detail in Chapter 5, flows into the vast wetland known as the Sudd. Several river systems still drain to inland basins including the Okavango of southern Africa and Lake Chad in the Sahel.

The higher areas of the plateau are important to humans for their cooler temperatures and higher rainfall, and include the High Veld of southern Africa, the highlands of Kenya and Ethiopia, and the Jos plateau of West Africa. Volcanic peaks such as Kilimanjaro (5895 meters, 19340 feet), Kenya/Kirinyaga (5200 meters, 17058 feet) and the Virungas (4507 meters, 14787 feet) rise from the eastern plateau, which is also split by a deep trough where tectonic processes continue to pull the eastern edge of Africa away from the rest of the continent (**Figure 6.6**). This trough, which runs more than 6000 miles from Jordan and the Red Sea in the north to Mozambique in the south, is called the **Rift Valley** and ranges from 30 to 60 miles wide. It has two major branches, and is filled with deep elongated lakes including Lake Tanganyika at 1473 meters deep (4832 feet). Lake Victoria, the third largest lake in the world, lies between two branches of the rift valley. The age, size and depth of these lakes have produced diverse freshwater ecosystems with important fisheries.

Figure 6.6 African landscapes a) Rift Valley map and picture b) Lake Malawi c) Mount Kilimanjaro

African soils tend to be of low fertility because of the great age of the underlying geology and because of high rainfall that leaches (washes out) nutrients from exposed soils. Soil fertility tends to be higher in regions of recent volcanic activity, such as the East African highlands, and in wider river valleys where sediments settle and create alluvial (river) soils. Desert regions can have saline or alkaline soils that are toxic to crops. The tropical soils of wetter zones, such as the central Africa forests, lose their fertility rapidly once the forest is cleared and the soil is exposed to the elements. Between the dry and wet zones, such as between the coastal and Sahel regions of West

Africa, soils have more organic material and are important for crops and pasture. In some regions high iron and aluminum content is toxic to most crops.

### **Climate and Society**

Most of Sub Saharan Africa lies between the tropics of Cancer and Capricorn and has a tropical climate with warm temperatures (over 70 degrees F) and little frost except in highland areas (**Figure 6.7**). The climate is dominated by two major features of the atmospheric circulation - the Intertropical Convergence Zone (ITCZ) and the Sub Tropical High (see Chapter 2). As in Latin America and Asia, the ITCZ is a zone of rising air where moisture condenses and produces heavy rainfall. In Africa the ITCZ produces intense rainfall of more than 60 inches a year over the Congo basin. The Sub Tropical High is a zone of descending air that generates dry and stable air that causes desert conditions over the Sahara and Kalahari. The regions between these two features experience seasonal rainfall as the ITCZ and Sub tropical high shift northwards in April-September and southwards in October-March. During December the southward shift of the ITCZ low pressure brings strong dry winds out of inland Africa. These winds, called the **Harmattan**, are often full of dust and create stressful hot, dry conditions. In July, the northward shift allows the southwestern trade winds to blow onto the west African coast, bringing seasonal rains to places such as Mali.

Figure 6.7: Map of climate and vegetation zones of Africa

This general pattern is modified by the regional effects of mountains, lakes and ocean currents. The cold Benguela current creates cool, dry conditions along the coasts of Angola and Namibia and promotes desert conditions. Cold water and stable winds that blow along rather than across the coast also promote dry conditions in countries such as Somalia in the Horn of Africa. High altitude regions, such as the East African highlands, have higher rainfall and more moderate rainfall, favorable to agriculture and human settlement. South Africa reaches more temperate latitudes and experiences a mild Mediterranean climate with dry conditions from October-March and rainfall from the westerly wind belt in April-August.

The semiarid regions of Africa have highly variable rainfall and frequent droughts that pose great challenges to agriculture and water resources management. Some of this variation is connected to the changes in Pacific ocean temperatures known as El Niño (see chapter 8). In Africa, El Niño is associated with severe droughts in southern Africa. Geographer Sharon Nicholson has reconstructed African climate variability over several centuries using instrumental records as well as diaries and other observations and shows extensive periods of drought in many regions (**Figure 6.8**). Her work, together with that of Alayne Street-Perrott, shows that over longer time spans Africa has experienced significant changes in climate, including a period about 6000 to 10000 years ago when the Sahel was much wetter than it is now .

Figure 6.8: Graphic and pictures on climate change in Africa. Photo of hippo and wet conditions in Sahel plus graph of lake levels over last 20,000 years. Probably from Grove.

### **Ecosystems**

African ecosystems, as in the rest of the world, are closely tied to climate conditions, but also reflect a complex evolutionary history and physical geography that has produced great diversity, unique plants, and perhaps the most charismatic community of animal species. The major ecosystems are the forests (20% of the land area), the savanna woodlands and grasslands (40%), the deserts (38%), the Mediterranean and montane (mountain) zones (2%).

The Congo basin hosts the world's second largest area of rainforest (after the Amazon) of almost 2.6 million square kilometers (1 million square miles). Other important forests are found along the West African coasts, the coasts of Kenya and on

the island of Madagascar (**Figure 6.9**). These forests have great biodiversity, including monkeys and apes such as chimpanzees and gorillas, and tropical hardwoods of significant economic value. The forest and their biota are threatened by demands for timber, firewood, poaching, forage and cropland discussed later in this chapter.

Figure 6.9: Map and pictures of ecosystems a) Congo rainforest b) baobab in Savanna c) fynbos of Southern Africa

Drier regions have mixed wood and grasslands with open stands of trees interspersed with shrubs and grasses. The baobab tree is an important symbol of this landscape which is found in West Africa centered on Guinea and southern Africa near the Zambezi. The **savanna** grasslands are found where there are long dry seasons and provide expansive grazing areas for both wildlife and livestock. Grassy plains such as the Serengeti of Tanzania have some of the densest concentrations of wild hoofed grazing mammals (ungulates) in the world, together with their predators such as the big cats. The larger herbivores include elephants, giraffe, zebra and rhinoceros. Desert regions have very sparse and seasonal vegetation for the most part, with drought resistant vegetation such as acacias and woody scrub. The Mediterranean climates of South Africa have produced a unique ecosystem dominated by *fynbos* shrubland, adapted to dry periods through waxy or needlelike leaves and long roots and with a wide diversity of other plants including the striking *protea* flower. Finally, the highland or *montane* vegetation is found on mountain ranges such as the volcanoes of East Africa or the Drakensberg highlands of southern Africa.

As in other world regions, African ecosystems show clear **vertical zonation** on mountain slopes because of higher rainfall and cooler temperatures at higher elevations. A hike up the slopes of Mount Kenya reveals how vegetation and human land use change along this environmental gradient (**Figure 6.10**).

Figure 6.10: Vertical zonation of vegetation and land use on Mount Kenya

Africa's ecologies are notable for several pests and diseases that can have devastating impacts on human populations. Several of these diseases have reservoirs in certain wild species and are then transferred to humans or their domesticated animals by *vector* (transmission) organisms such as mosquitoes, flies and snails. Some diseases are believed to have originated in Africa and to have spread globally as pandemics. **Malaria**, a disease from a parasite transmitted to humans by mosquito bites causes fever, anemia and often fatal complications and it affects about 400 million people in sub-Saharan Africa each year, killing more than 3/4 million (**Figure 6.11**). Some Africans are resistant to malaria because they carry what is known as the sickle cell gene but this benefit is also associated with risks of serious anemia. Early European explorers and settlers were very vulnerable to malaria and suffered as much as 75% mortality in some regions. The discovery in 1820, that *quinine*, an extract from the cinchona tree, thought to have been brought to Europe from Peru by Jesuit priests, could partly control malaria, facilitated colonialism and also allowed treatment of some local residents. But it did not cure the disease and after World War II several new synthetic drugs such as chloroquine became popular cures. Unfortunately several strains of the malaria parasite have developed resistance to these drugs and there is still no certain and cheap cure for the disease.

Figure 6.11: Maps of diseases - from WHO Web site a) schistosomiasis b) trypanosomiasis c) malaria

Yellow fever also has a mosquito vector and a reservoir in monkey populations. Mortality in Africa has been reduced through immunization but many poor or remote people still do not have access to vaccines and as many as 20,000 people died in an outbreak in Senegal in the 1960s.

The most recent pandemic, thought to have emerged in central Africa, is HIV - the *Human Immunodeficiency Virus* that results in many cases in fatal *Acquired Immunodeficiency Syndrome* or **AIDS**. The devastating impact of AIDS in Africa is discussed later in this chapter. There is also great concern about the potential impacts of some emerging viruses in central Africa, specifically *Ebola fever* that causes severe bleeding and kills more than 50% of its victims. So far, outbreaks such as that which occurred in the Congo in 1995 and killed almost 250 people have been contained.

Another problem disease is *schistosomiasis* (also called bilharzia) associated with a parasite that causes gastrointestinal diseases. Passed to humans who are exposed to a snail vector by working or bathing in slow moving water, the disease is not fatal but reduces general health and energy levels. One of the unintended consequences of the construction of dams and irrigation canals in Africa has been the spread of schistosomiasis in the stagnant or slow moving water systems (see Geography Matters on dams). The **World Health Organization** (WHO) estimates that 160 million people are infected in sub-Saharan Africa.

Another disease associated with African environments is *river blindness* (onchocerciasis) transmitted by the bite of the black fly that passes on small worms whose larvae disintegrate in the human eye and cause blindness. The eradication of river blindness has been relatively successful in West Africa by controlling fly populations with pesticides and treating victims with drugs. WHO estimates that 18 million people are infected, and 250,000 blind as a result of this disease in sub-Saharan Africa.

Finally, the **tsetse fly** of the African woodland and scrub regions, with a reservoir in wild animals, is associated with both human and livestock diseases. In humans, the bite of the tsetse fly causes sleeping sickness or trypanosomiasis with fever and infection of the brain that leads to lethargy and frequently death. Half a million people are infected in sub-Saharan Africa according to the WHO. It can be treated in early stages and through a variety of pest control measures including burning of brush, removal of wild animal reservoirs, sterilization and pesticides. In domestic animals the tsetse fly bite causes a disease called nagana, similar to sleeping sickness, that causes fever and paralysis in cattle and horses. This prevented the introduction of livestock into many parts of Africa and protected habitats for wild species. Areas above 150m (480 feet), those with a long dry season and those without woodland are free from tsetse flies (see **Figure 6.11**). In the 1890s, rinderpest, a cattle disease originally from India, decimated the cattle herds of Africans and European settlers, prior to the development of a vaccine in the 20<sup>th</sup> century.

Many of these debilitating diseases are associated with the tropical climate and diverse ecologies of Africa and their spread may have been facilitated by the expansion of human populations and the transformation of natural environments through deforestation and irrigation. Reducing the human toll from these diseases is a major challenge for scientific research, African governments, charitable organizations, and the United Nations World Health Organization (WHO) that has targeted Africa for extra funds and programs.

There are several creatures in Africa of great ecological and human interest because of the damage they cause to food supplies and property. Large grasshoppers called **locusts** congregate during droughts and then as conditions improve they multiply and swarm across the continent eating all leaves and crops in the areas where they land (**Figure 6.12**). In 1889 a massive swarm of locusts flying east from Egypt was estimated at 2000 square miles in size. Earlier in the century locust swarms caused devastation and famines in regions bordering the Sahel and in East Africa and international efforts were made to control them through pesticides. The risks of locust

outbreaks are still closely monitored by the International Locust Organization and African governments. A similar problem is caused by a species of bird (similar to a sparrow) called the *Quelea*, that flocks in groups of up to 2 million pairs and often destroys grain crops and, by roosting, breaks branches. Africans have made tremendous efforts to control this "feathered locust" with poisons, diseases, electronic devices and dynamite. One of Africa's most important and numerous organisms is the **termite**, an insect that lives in wood or the soil and often builds towering mounds. By consuming dead plant and animal remains termites perform valuable work in recycling organic matter and creating soils in the ecosystem, rather like the earthworm in temperate regions. However, termites also destroy wooden buildings, cloth and paper, and create holes that are hazards for farm implements and livestock. They are so numerous that they are extremely difficult to control and require applications of costly and sometimes risky pesticides.

Figure 6.12: Pictures and maps of pests a) locusts b) termite mounds c) quelea flocks

The Food and Agricultural Organization has estimate that less than 30% of Sub-Saharan Africa has soils beneficial for agriculture and that the continent also suffers from severe climatic constraints as well as an environment that is prone to pests and diseases. However, Africa, as the birthplace of the human species, is also the region where humans first adapted to the constraints of the physical environment, finding sustenance through hunting wild animals, fishing, gathering plants, and domesticating a number of important crop and livestock species.

There is some disagreement about whether cattle were domesticated in Africa or introduced from the Middle East and Asia about 8000 years ago. Archaeological sites from this period have evidence of livestock living in conjunction with humans, and also of domesticated and cultivated grains including sorghum. The highlands of Ethiopia are considered one of the centers of **domestication** producing coffee, millet, and an important local cereal called *teff*. Other important crops domesticated in Africa include yams, oil palm, cow pea and African rice.

Traditional peoples developed several strategies for adapting to low soil fertility including **shifting cultivation** and symbiotic relationships with pastoralists. As in other regions of the world, many Africans use **slash and burn** agriculture to clear patches of forest, shrubs or grassland through burning and then take advantage of the ash to fertilize their crops. When, after a few years the nutrients are exhausted, farmers move on to a new area and leave the previous plot to return to forest or other vegetation. After a long fallow (rest) period, they return, clear and burn the land again. **Bush fallow** is a modification of shifting cultivation where crops are rotated around a village and fallow periods are shorter. Soil fertility is maintained through planting fallow plants or by applying household waste to the fields. Where household compost is used to grow crops within the community the technique is called "compound farming" and is popular in forest as well as some urban areas.

Intercropping, the planting of several crops together, is a technique for keeping the soil covered to reduce erosion, evaporation and leaching. Where one of the crops, such as beans, can capture nitrogen intercropping also improves soil fertility.

**Floodplain farming** is also important in regions such as the inland delta of the Niger river and the Sudd wetlands along the Nile River in the Sudan (**Figure 6.13**).

Geographer Bill Adams describes how more than 500,000 people make a living from growing crops, grazing livestock and fishing along the Niger, adjusting activities as the flooded area expands from 5000 to 25000 square kilometers during and following the wet season.

**Pastoralism** is the human activity adapted to drier regions of Africa. Nomads, such as the Bedouin, migrate with their animals in search of pastures in the arid

landscapes of the Sahel and North Africa. Other groups such as the Fulani of West Africa, move their herds seasonally, moving to wells and rivers in the dry season and northwards to take advantage of new pastures in the wet season. This practice of seasonal herd movements is called **transhumance**. In some regions, farmers let herds graze on their harvested fields in the dry season, fertilizing the land with animal manure in a mutually beneficial (symbiotic) relationship with pastoralists.

Figure 6.13: Map and pictures of pastoralists and of agriculture a) map of major agricultural regions b) picture of slash and burn c) farming in Niger delta d) pastoralists

### SUB-SAHARAN AFRICA IN THE WORLD

Sub-Saharan Africa's role in the world begins with evidence of human origins on the continent more than 100,000 years ago, and continues with the development of major trading societies from about 5000 years ago and the incorporation into a European dominated colonial system about 500 years ago. Colonialism included the worldwide trade in African slaves, resulting in a diaspora of African peoples that has continued to influence the culture and societies of other world regions. It also resulted in political boundaries that split ethnic groups or clustered enemies within one territory. Peoples from other world regions, including Europe and Asia came to Africa under colonial rule and resulted in hierarchies of power and politics that included the racial discrimination associated with apartheid in South Africa and tensions over land distribution at independence where white farmers held the best land in Southern and Eastern Africa. Most of Sub-Saharan Africa was under European colonial domination in 1900 and did not become independent until after 1950. Independence also coincided with the height of Cold War tensions between the United States and former Soviet Union, and the associated interventions of the superpowers in African political struggles and civil wars.

At the end of the twentieth century much of Sub-Saharan Africa is still struggling with the transition to independent and democratic government and with economies that are dependent on a narrow set of exports to other world regions. A series of natural disasters, development failures and wars has seriously hindered the ability of agricultural production to feed growing populations, with large numbers of poor people unable to grow or purchase food or find alternative employment. Yet, as we will see, some countries and sectors within those countries have been able make considerable progress according to economic and social measures and are actively debating the most appropriate way to participate in the global economy.

International statistics consistently portray sub-Saharan Africa as the major world region with a very low level of economic development as measured by a total GNP of \$322 billion and an average per capita GNP of \$510, about 1% of total global GNP and compared to world average per capita GNP of \$4890 (**Table 6.1**). Africa is also singled out for attention by many international agencies bilateral programs and receives the highest amount of development assistance per capita of any world region. The World Bank identifies sub-Saharan Africa as "the most important development challenge of the 21<sup>st</sup> century".

Table 6-1 : Africa compared to other regions (data from World Bank 2000).

	Sub-Saharan Africa	Latin America and Caribbean	South Asia	World
Population (million)	642	509	1329	5975
Area (million square km.)	24.3	20.5	5.1	133.5
GNP billion US\$	320.6	1954.9	581.1	29232.1
% of World GNP	1.09	6.69	1.99	
GNP per capita \$	500	3840	440	4890
Life expectancy (m/f)	49/52	67/73	62/63	65/69
Value of exports (US\$ million)	89935	335772	70864	
Value of imports (US \$ million)	104277	393251	89001	
External Debt (\$US millions) 1998	230132	766019	163775	
Development Assistance \$ per person 1998	21	4	9	

### Human origins and early African history

Africa is often called the "cradle of mankind" because archaeologists have shown that the earliest evidence of the human species "homo sapiens" is found in Africa. Fossilized footprints of an earlier ancestor, the hominid (human like) *australopithecus*, were found by Mary Leakey at Laetoli in Tanzania and dated to 3.7 million years ago, with 2 million year old stone tools found at several sites in Ethiopia and East Africa including the famous site at Olduvai Gorge in Tanzania (**Figure 6.14**). Anatomically modern humans, who walked upright and had larger brains, have been dated to about 100,000 years ago from sites in Southern Africa and along the Rift Valley and many scholars now believe that these humans are the genetic ancestors of all modern humans and thus the most basic link between Africa and the world.

For most of human history in Africa the only record of history is from scattered archaeological sites. More detailed written accounts begin with the development of complex societies in the Nile Valley about 5000 years ago with sophisticated irrigation systems, hieroglyphic writing, and the hierarchical social organization of the Egyptians under their king or pharaoh (see Chapter 5).

Figure 6.14: Map of early African history showing Olduvai, Carthage, Aksum, Gao, Ghana, Songhai, Kanem, Mali, Mogadishu, Malindi, Mombasa, Zanzibar, Great Zimbabwe, Ibadan, Madagascar, Nile Valley

From this time onward, explorations, military campaigns and trading begins with Sub-Saharan Africa from bases in the Nile Valley and North African coast such as the Phoenician city of Carthage (in today's Tunisia). About 2500 years ago the famous Greek geographer Herodotus described accounts of Saharan trade in salt and of kingdoms to the south of Egypt and by 2000 years ago (0 AD) the Roman empire had extended to most of North Africa. By 500 AD some Indonesians had settled on the island now known as Madagascar, introducing yams and bananas to mainland Africa, and a strong kingdom had emerged at Aksum in Ethiopia and had adopted Christianity. Over many centuries the Bantu people had been migrating out from West Africa into most of Sub-Saharan Africa along with technologies such as iron smelting. Between 500 and 1000 AD several other important power centers with links to Roman and Arabic empires

developed, including the kingdom of Ghana (in present day Mali) where gold was mined and traded with Berber merchants from the Sahara and North Africa in exchange for salt. Trade also linked the Mediterranean coast with the kingdoms of Gao, Songhai (located in Niger), Kanem (near lake Chad) and Mali, eventually converting many in these empires to the Islamic faith. The east coast of Africa was brought into the Arab system around AD1100 through a series of trading posts that included Mogadishu, Malindi, Mombasa and Zanzibar - cities that still exhibit the legacy of Arab and Islam culture in their architecture, language and religious traditions.

### **[Sense of Place: Zanzibar]**

The ruins of Great Zimbabwe provide another example of highly complex African society prior to contact with Europe (**Figure 6.15**). In the 14<sup>th</sup> century this city was a center of metal production, pottery and religion and of trade in gold with coastal ports constructed of massive stonework housing 20,000 Shona people. Another important center was the Yoruba walled and gated city of Ibadan. Nigeria?

Figure 6.15: Photos of pre European architecture a) great Zimbabwe b) Ibadan?

The European and colonial tendency to discount indigenous achievements has been especially unfair in the case of Africa. Geographer Lucy Jarosz uses examples from explorers accounts of Africa to show how they constructed a vision of Africa as the "dark" continent by using words such as "uncivilized", "savage" and "primitive" to describe the landscapes and societies of Africa.

### **The Colonial period in Africa**

With the development of better ships in the fifteenth century (AD 1400-1500) contacts with Spain, Portugal and China were added to the regular interaction between the Middle East and Africa. The Portuguese traded for gold from coastal settlements in West Africa, and in 1497 the famous Portuguese explorer Vasco de Gama rounded the Cape of Good Hope at the southern tip of the African continent en route from Portugal to India. Over the 1500s Portugal dominated trade along both the west and east coasts of Africa and had made contact with empires in Mali, Congo, and Zimbabwe (**Figure 6.16**). By 1600 most parts of Sub-Saharan Africa were in some sort of contact with the rest of the world through **mercantile** trading networks set up by the Arabs in the Sahel and Horn of Africa, and the Portuguese along Atlantic coasts and in southern Africa. In return for salt, horses, cloth and glass, Sub Saharan Africa provided gold, ivory and slaves. Cities such as Timbuktu (in present day Mali) were centers for long distance caravans with large populations and literate intellectuals and traders. African slaves had been in demand among the Arabs for several centuries and were used as servants, soldiers, courtiers and concubines.

Figure 6.16: Map of colonial exploration in Africa

European colonialism took some time to establish control in Africa and for many years only the coastal ports and trading posts were under mainly Portuguese command. One of the main reasons for European reluctance to move inland was the reputation of Africa as the "*White Mans Grave*" because so many Europeans were rapidly killed by malaria, yellow fever and sleeping sickness to which they had no immunities. The strength of African armies was also a disincentive with resistance from many inland groups and attacks on ports.

Nevertheless, the coastal regions made enormous profits for European traders. The Portuguese started to take slaves for their own use on new sugar cane plantations on the Atlantic islands of Madeira and Cape Verde and in 1530 the first slaves were shipped to the Americas to work on plantations in Brazil. By 1700 50,000 slaves were being shipped each year to the Americas to provide labor on colonized lands and new plantations whose potential indigenous labor supply had been decimated by European diseases (see Chapter 8). **Slavery** was an important income source for some African

coastal kingdoms such as Dahomey and Benin who captured their enemies or raided inland and sold them to the slave traders. It is estimated that from 1500 to 1870 12 million slaves were shipped to the Americas from Africa of which 2 million died in transit. The majority of slaves were male and the conditions of capture and transport were inhuman with hundreds packed into the holds of ships with little food and brutal control by traders. Attempts to abolish slavery were led by abolition movements led by Quakers in Britain and the US from the end of the eighteenth century. The British abolished the slave trade with their colonies in 1807 and emancipated (freed) slaves in the Caribbean in 1834. Slavery in the Americas was abolished in most countries by the 1850s and the slavery issue was key in the US Civil war and the 1863 Emancipation Proclamation. (see chapter 7). Although slavery was banned in most countries after about 1870, people are still sold into servitude in countries such as Mauritania and the Sudan.

The European names for regions along the west coast of Africa clearly indicate the commodities that they provided from the Ivory Coast in the west, to the Gold Coast (now Ghana) and Slave Coast (Nigeria and Benin) to the east. The exchange has been called the "**Triangular Trade**" with guns, alcohol and manufactured goods shipped to Africa and exchanged for slaves that were sent to the Americas and exchanged for gold, silver, tobacco, sugar and rum to be sold in Europe (**Figure 6.17**).

Figure 6.17: The slave trade

The banning of slavery in Britain in 1772 resulted in the freeing of slaves in several regions under British control and a large group of liberated slaves was shipped back to Africa to settle in Freetown, the present capital of Sierra Leone. The American Colonization Society subsequently settled 12,000 free American slaves in 1822 at Monrovia, in Liberia. The British continued to intercept slave ships in the nineteenth century and to settle them in Sierra Leone. The descendants of these settlers, who were from many different regions of Africa, retained a separate identity from local cultural groups, and some of the tensions still emerge in civil wars in these two countries.

European settlement in southern Africa was encouraged by the more temperate climate and the strategic significance of the trading routes around the southern tip of the continent. The Dutch established a community at Cape Town in 1652, which became surrounded with small farms growing wheat and raising cattle for supplying ships and the Cape communities. The settlers developed a modified version of Dutch, Afrikaans, as their language, belonged to the strict puritan Christian Calvinist religion, saw themselves as superior to black Africans, and became known as the Boers (Dutch for farmer). As their military and trading power grew in the 1800s, the British took control of the Cape trading route and British immigrants were encouraged to settle at the Cape from about 1820, mainly in Cape Town and Durban. When the British imposed laws on the Boers, including the banning of slavery in 1834, the Boers decided to move north of the Orange river in a great trek, settling on the high pastures known as the *veld* in what is now known as the Free State. Some also migrated eastward into the Natal region where they came into conflict with the powerful Zulus. As we will see, the geography of this colonial settlement has framed the 20<sup>th</sup> century politics of South Africa.

Interest in Africa increased dramatically after 1850 with growing competition between European powers for colonial control and the discovery that quinine could suppress malaria. Explorers and missionaries moved into the interior in search of territory, the source of the Nile, and souls to convert.

**[GEOGRAPHY MATTERS: The RGS and the explorers]**

By 1880, new knowledge of African resources, including gold and diamonds, competition between European powers to dominate global empires and markets, and reduced risk of African diseases produced new interest in Africa. In 1882, the British claimed Egypt, prompting the French to exert their dominion over West Africa in Senegal

and Gabon. The Portuguese made efforts to consolidate their holdings in Mozambique and Angola. Inspired by the reports of the explorer Stanley, the personal crusade of King Leopold II of Belgium to establish colonies in Africa focused attention on the Congo basin; and Germany sought colonies where they had missionaries in what is now Togo, Cameroon, Namibia, and Tanzania. Pressure from commercial companies and even missionaries drove these imperial ambitions and incorporated Africa into the emerging global capitalist economy.

The role of private companies in the colonization of Africa was important because European governments granted exclusive concessions for trade and resource exploitation in Africa. These companies were often given the right to police, to conscript or tax local populations and included the Royal Niger Company and British South Africa Company with royal charters in the late 1800s.

This hasty **Scramble for Africa** culminated in the **Berlin Conference** of 1884-85 convened by the German chancellor Otto von Bismark to negotiate European territorial claims in Africa. Of the thirteen countries represented, not one participant was invited from Sub-Saharan Africa, even though more than 80% of Africa was at that time under African rule. The Berlin conference allocated African territory among the colonial powers, according to prior claims and to a set of rather arbitrary boundaries that paid little respect to existing cultural, ethnic, political, religious or linguistic regions (**Figure 6.18**). The British claimed what is now known as Gambia, Ghana, Nigeria and Sierra Leone in West Africa; Kenya, Uganda, Sudan and part of Somalia in East Africa; and southern Africa except for German South West Africa (Namibia), Portuguese Mozambique and Angola, and the independent Boer region of South Africa. Germany also claimed German East Africa (Tanzania) and Cameroon, and France and Belgium split the Congo. Italy took Somalia and Eritrea, and coastal regions of Libya, with ambitions for Abyssinia (now Ethiopia). The Spanish obtained a small coastal region of northwest Africa, with most of the remaining territory of West and North Africa allocated to the French.

Figure 6.18: Map of colonial Africa

The next twenty years saw some rearrangement and consolidation of the European colonies. The British created protectorates with several southern Africa peoples in what is now Botswana, Zambia, Zimbabwe and Malawi and expanded their control over the Sudan. The French took control of many regions along the Niger, and the Italians unsuccessfully invaded Abyssinia. In southern Africa, British entrepreneurs, including the ambitious Cecil Rhodes, responded to the discovery of gold and diamonds between 1867 and 1886 by acquiring the mines at Kimberly and the Rand and sparking a gold and diamond rush. Growing tensions between the British and Afrikaans eventually resulted in the Boer War (1899-1902) and the eventual control of much of southern Africa by the British.

By 1914 almost all of Africa was under European colonial control except for Abyssinia, Liberia, and some interior regions of the Sahara desert. A number of battles were fought in Africa during the First World War, but Germany's eventual loss redistributed the German colonies to Britain, France and Belgium. Tanzania and South West Africa were assigned to the British, Rwanda and Burundi to Belgium, and the Congo to France. Togo and Cameroon were each split between Britain and France. Italy's longstanding imperial ambitions in Africa were temporarily achieved with Mussolini's conquest of Abyssinia (Ethiopia) in 1936, but the British soon moved to evict Italy from Africa, returning Ethiopia and Libya to independent rule by monarchy and taking over the Italian portion of Somalia.

All this reshuffling of African territory among European states overshadows the considerable and everyday impacts of colonial rule on African landscapes and peoples.

The most general and enduring impacts of colonialism include the establishment of political boundaries, the reorientation of economies, transport routes, and land use towards the export of commodities, improved medical care, and the introduction of European languages, land tenure, taxation, education and governance. As noted earlier, many of the new colonial boundaries divided indigenous cultural groups and in some cases placed traditional enemies within the same country. For example the Yoruba were divided between Nigeria and Benin, and Nigeria itself included several competitive groups including the Yoruba in the southwest, the Ibo in the southeast, and the Hausa in the north.

Mining activities were expanded in many regions, especially in southern and central Africa, with large amounts of gold, diamonds and copper extracted and exported by European companies. New roads and railways were constructed from inland to the coasts to speed the export of crops and minerals, but few efforts were made to link regions within Africa. For example, a rail line from St. Louis to Dakar facilitated the export of peanuts from Senegal and another from Kumasi to the coast speeded the export of gold and cocoa from the Gold Coast (Ghana). The line from Mombasa via Nairobi to Kisumu on Lake Victoria in Kenya linked the inland to the coast. The resulting infrastructure facilitated trade beyond but not within Africa (**Figure 6.19**).

Figure 6.19: Transport map showing how railways linked to coast

Plantations were established to produce crops such as rubber, and a variety of means, including taxation and intimidation, were used to persuade peasant farmers to produce peanuts, coffee, cocoa or cotton for global markets. In the temperate climates of the East African highlands and southern Africa, more attractive to European immigrants, the best land was transferred to white settlers for tea and tobacco plantations, livestock ranches and other farming activities. By 1950, the geography of African agriculture illustrated this export orientation with vast rubber plantations owned by the Firestone Corporation in Liberia, cocoa dominating the cropland of Ghana and the Ivory Coast, cotton in the Sudan, peanuts in French West Africa, and tea and coffee in East Africa (**Figure 6.20**). The British established "marketing boards" for several commodities with the goal of improving quality and smoothing out price fluctuations.

Figure 6.20: Export agriculture in Africa - map if possible but also some photos

Traditional African land tenure systems of communal land and flexible boundaries were forced into privately owned and bounded plots, and traditional decision making and legal systems were often replaced with European managers and courts.

Some African groups actively resisted European colonial expansion and policies. For example, the Ashanti kingdom in central Ghana fought British expansion as did the Zulu's in southern Africa and local people forced to work on cotton plantations in East Africa. More passive forms of resistance were widespread including pilfering and poaching as well as "go slow" work habits and false compliance with colonial rules. Anthropologist James Scott has shown how these **everyday forms of resistance** are still used by those who are trying to show their opposition to exploitation and repression in sub-Saharan Africa and elsewhere.

The impacts and process of colonial rule varied between European powers. For example, the British chose a paternalistic **indirect rule** for most of their African colonies, making pre-existing power structures and leaders responsible to the British Crown and colonial administrators in a decentralized and flexible administrative structure. For example, local leaders were required to collect taxes, sometimes a *hut tax* based on the number of dwellings in a community, sometimes a *poll tax* based on the number of residents. In order to obtain money to pay taxes people had to produce crops for sale to the Europeans, an indirect way of transforming economies and land use to commodity production. Foreign ownership of land was prohibited in some cases and traditional

legal systems were used to resolve local conflicts. The British, preceded by missionaries, also introduced some European style schools, and by the 1940s a select group of Africans were attending to overseas universities and given posts in government administration. The French colonial policy was one of **assimilation**, encouraging elites to see themselves and evolve into French provincial citizens with allegiance to France, but with agriculture and mining under close supervision from the French capital in Paris. By 1946 there were about 20 Africans, elected from West Africa, in the French parliament. The Belgian and Portuguese modes of colonialism are described as much harsher with **direct rule** and often ruthless control of land and labor. In the Congo local people were forced to gather rubber, kill elephants for ivory and build public works under threat of death or severe punishment. These authoritarian forms of control, with little political participation, dominating official ideology, and frequent use of armed force, provided an unfortunate model for leadership in independent Africa.

The legacies of the colonial period in specific regions and sectors will be discussed in more detail later in this chapter. Given the dramatic impact of the colonial period on contemporary Africa, it is important to note that in most of Africa, colonialism only lasted 80 years from about 1880 to 1960.

### **Independence**

The period of decolonization in sub-Saharan Africa was rapid and ranged from relatively peaceful handovers to well prepared African leaders to more violent transitions to divided or unprepared local leadership. South Africa was consolidated as an independent state - the Union of South Africa - in 1910. The British decision to grant India and Pakistan independence in 1947 gave hope to Africans, led by several foreign educated activists such as Kwame Nkrumah of Ghana and Jomo Kenyatta of Kenya (**Figure 6.21**). A *Pan-African* movement, led by black activists from the West Indies and the U.S., including WE Du Bois and Marcus Garvey, also promoted independence. The sixth Pan African Congress of 1945 brought together leading African nationalists, including Nkrumah and Kenyatta, to discuss independence, supported by many Africans who had fought for the allies in the Second World War who demanded more equal treatment. During the war, which was fought partly in East and North Africa, 80,000 Africans fought for France and more than 400,000 for Britain. Another element in the transition to independence was the formation of organized nationalist groups within key African countries such as the Tanganyika, Zimbabwe and Kenya African National Unions that provided the basis for political parties. The first sub-Saharan African country where power was handed over to local populations was Ghana in 1957, followed rapidly by Nigeria in 1960.

Although most of the British handovers were relatively peaceful, countries with significant white settler populations endured more violent transitions. In Kenya, about 3000 white settlers controlled more than 2.6 million hectares of the best land, especially in the highlands, adjacent to overpopulated Kikuyu farms. They also dominated government and policy in the interests of the 60,000 white residents. The *Mau-Mau* rebellion between 1952 and 1956 resulted in 100 white and more than 10,000 black African deaths prior to independence in 1963.

In Southern Rhodesia (now Zimbabwe) the population of about 1/4 million white settlers, led by Ian Smith, made a *Unilateral Declaration of Independence* (UDI) in 1965, rather than consider the possibility of rule by the 6 million black African majority. Only after 15 years of conflict and international trade embargoes did an independent Zimbabwe emerge with shared power in 1980.

Figure 6.21: Pictures of independence leaders Nkrumah, Kenyatta, Nyere

The transition in French West Africa and French Equatorial Africa occurred dramatically in 1960, with France recognizing the independent countries of Mauritania,

Mail, Niger, Senegal, Upper Volta (now Burkina Faso), Ivory Coast (now Cote d'Ivoire), Togo, Dahomey, Chad, Central African Republic, Cameroon, Gabon and the Congo. In most cases strong economic and cultural ties were maintained with France, the franc remained the currency, and French troops were stationed in most countries. Britain also continued to invest in former colonies, especially in larger development projects some of which were initiated before independence such as the project to build a hydroelectric dam on the Volta River in Ghana. One of the groups to benefit from decolonization were the transnational corporations who preferred to deal directly with African economies rather than through the mediation of colonial powers and their monopoly companies and marketing boards.

Belgium left the Belgian Congo suddenly in 1960, with chaos in their wake as the army mutinied, separatist groups tried to form governments in the wealthier provinces, and a US sponsored army officer Joseph Mobutu won a military coup to depose independence leader Patrice Lumumba. In Rwanda and Burundi independence from Belgium in 1962 left a legacy of tension between ethnic groups because the Belgians had favored the Tutsi over the Hutu majority.

Portugal hung onto its colonies of Angola and Mozambique until 1974 by which time some groups demanding independence had come under the influence of the Soviet Union and Cuba. Along with Namibia, independence groups in Angola, Mozambique and Guinea sought help from the United Nations to free themselves from colonial rule, or in the case of Namibia the control of South Africa. The best known of these underground independence movements were the MPLA (People's Liberation Movement of Angola), FRELIMO (Mozambique Liberation Front) and SWAPO (the South West African People's Organization).

### **South Africa**

The case of South Africa merits particular attention because of the policies of **apartheid**, the international response and regional implications, and the significance of the eventual transition to black majority rule.

The history of racial segregation in South Africa is a long one, dating back to the establishment of a supply station by the Dutch East India Company in Cape Town in 1652. The Dutch, whose settlement developed slowly at first, were segregationists and attempted to prevent contact between whites and aboriginal peoples. By 1806, Britain had established political control over the Cape. Like the Dutch, the British set about expropriating land and setting up defensible boundary lines between the European immigrant settlements and the largely Bantu-speaking Nguni and Sotho people. The Boer (the Dutch farm settlers, also called Afrikaners) policies of strict racial segregation between blacks and Afrikaners included the establishment of native reserves and the mandate that blacks needed permission to enter or live in white areas - called the *pass laws*. Native peoples were incorporated into the economy as servants, squatter tenants, or semifeudal serfs. Ultimately, the "Fundamental Law," established in 1852, legally enshrined the inequality between blacks and whites.

British policies promoted more mixing with blacks who were intentionally exposed to white value systems and institutions, but still sought a cheap and docile workforce for farms and mines. The first half of the twentieth century witnessed the strengthening and extension of the Boer principles of racial segregation through territorial segregation. Black ownership of land was restricted, as was black settlement activity. In addition, the permanent residence of blacks in white urban areas was prohibited. The Natives (Urban Areas) Act codified this latter restriction, defining blacks as temporary urban residents who were to be repatriated to the tribal reserves if not employed. It also established that blacks, while within urban areas, were to be physically, socially, and economically separated from the white population.

The intention was for the tribal reserves to operate as independent economies supporting the black population and separate from the operations of the white economy. Unfortunately, low wages for black laborers as well as high rates of landlessness among blacks living on the reserves undermined the viability of an independent subsistence economy. The reserves were unable to support the black migrant labor system so necessary to the success of the white economy. In addition, blacks increasingly flowed into the urban areas for work, creating a growing and permanent black population in the white cities.

By 1946, blacks were the largest racial group in the urban areas, a direct result of the demand for black labor in the growing urban manufacturing sector. Clearly, territorial segregation was becoming increasingly ineffective as a method of separating the races. By midcentury, the policies of segregation were abandoned, and new policies of apartheid were introduced. By the mid-1940s, the separation and unequal treatment of races—white, colored (of mixed race) and black (or African)—were ubiquitous practices with a loose set of laws, practices, and procedures to uphold them. When the Anglo South African political groups lost control of national political power to Afrikaans parties in 1946, segregationist practices became more solidly codified. In the wake of their victory, the Afrikaners imposed strict racial separation policies transforming apartheid from practice to rule.

By 1960, whites were a minority in every South African city. The government introduced the apartheid system to allay the fears of some whites. **Apartheid** was a system of control of the movement, employment, and residences of blacks. Its main vehicle was the creation of **homelands**, a new version of the tribal reserves (**Figure 6.22**). Comparisons have been drawn between the homelands policy and the establishment of Indian reservations in North America, especially where the land provided was of poor quality. The pass system was revived as well, which further restricted the movement of blacks in white urban areas.

Figure 6.22: The different scales of apartheid - maps of South African homelands, residential segregation in Cape Town and a picture of separate building entrances(Reference David Smith Living under Apartheid).

For nearly 40 years, apartheid was the method of control of a white minority over a black majority through processes that were fundamentally geographical in the spatial separation of races by marriage, within buildings, the city, in employment, and within the countryside. Through containment of urban blacks, regional decentralization of employment, and the suppression of dissent, Afrikaners attempted to maintain white supremacy while they continued to exploit black labor to fuel a burgeoning economy. Leaving the homeland areas as well as entering the “proclaimed areas”—all urban areas of the country—was strictly controlled by a permission and pass system. Legislation to remove blacks from urban areas was also enacted. Industrial decentralization, though encouraged, was not a successful strategy and instead fostered the settlement of blacks in homeland townships close to white urban areas, such as Soweto near Johannesburg. This enabled the white-controlled cities to have cheap (black) labor close by, without having to pay for the housing, infrastructure and services for the black population. Separate entrances to public buildings, schools, restrooms and park benches were provided for different races.

Protests against apartheid were also quickly and ruthlessly repressed, with African National Congress leaders like Nelson Mandela being jailed and activists such as Steve Biko killed. The South African government also intervened in civil wars and independence struggles in neighboring countries, normally taking an anti-communist or pro-white position. International pressure contributed to the end of apartheid including international sports boycotts that threatened white South Africa's passionate devotion to

rugby and cricket, and constraints on investment as well as voluntary investment bans by some major international corporations. A number of white South Africans were also vocal in their opposition to the system.

The late 1980s saw the beginning of the end of apartheid in South Africa—Nelson Mandela was freed from jail, and President P. W. Botha agreed to the sharing of political power between blacks and whites. In 1994, South Africa held the first election in its history in which blacks were allowed to vote, and Nelson Mandela was elected the first black president. In 1996 a new South African constitution was signed into law and took effect in early 1997. The constitution includes one of the world's most comprehensive bills of rights and prohibits discrimination based on race, gender, pregnancy, marital status, ethnic or social origin, color, sexual orientation, age, disability, religion, conscience, belief, culture, language, or birth.

### **The Cold War and Africa**

Independence movements and transitions in Africa coincided with the global tensions associated with the Cold War between the U.S. and the Soviet Union. Several of the independence leaders had been introduced to socialist ideas during education overseas and many other Africans found communist and socialist ideas of equity and state ownership appealing after the repression, foreign domination and inequality of colonial rule. In countries with relatively peaceful transitions to independence such as Ghana, socialism took a populist form, focusing on state control of the economy and non-alignment in foreign policy. In Tanzania, president Julius Nyerere developed the concept of an **African Socialism** based on the traditional values of communal ownership and kinship ties to extended family expressed as *ujamma* (familyhood). He believed that a socialist system of cooperative production would be more compatible with African traditions than individualistic capitalism. He focused on rural development and self reliance in agriculture, moving rural residents into village collectives, instigating campaigns for free and universal education and literacy.

In Angola and Mozambique, where the Portuguese fiercely repressed independence movements, revolutionary movements espousing leftist ideals attracted the interest of the Soviet Union, China and Cuba who provided military and economic assistance and trained young Africans in their universities. In Angola, early ties between the MPLA and the Portuguese communist party led rebels to seek arms from the USSR and China and to accept an offer of military training from Cuba. After the Portuguese colonial government fell in a coup in 1974, and a three party governing coalition of independence movements collapsed, Angola became a focus for a Cold War power struggle. The United States provided funds to the pro western groups and the Soviet Union and Cuba continued to support the MPLA government (**Figure 6.23**).

Tensions escalated after South Africa responded to Angolan support for rebels in Namibia by sending troops towards Angola and supporting antigovernment and anticommunist rebels in the mid 1970s. Angola reacted by moving further into the Soviet sphere, signing a treaty that allowed the Soviets to use Angolan ports and airports, and placing abandoned land and mines under state control. Other African countries supported the Marxist Leninist government of Angola in opposition to South Africa. By the 1980s there were 50,000 Cuban advisors and troops and millions of dollars worth of Soviet military aid flowing into the region. Only when South Africa agreed to grant Namibia independence did Angola agree to reduce Cuban and Soviet presence and to seek peace with the pro western rebel groups.

Figure 6.23: Map of the Cold War in Africa showing regions of intervention by the Soviet Union, Cuba, the US, and South Africa.

After independence in 1975 Mozambique was similarly caught in Cold War competition. The leftist FRELIMO government fought a civil war against groups

supported by anticommunist white governments in Rhodesia (now Zimbabwe) and South Africa. Over time FRELIMO shifted away from dependence on Soviet aid and strict Marxist policies of collective farming and suppression of religion. With the reduction in Cold War tensions and the beginnings of majority black rule in South Africa, peace was achieved in 1992 after 30 years of war.

The Cold War had a different manifestation in the Horn of Africa where independent countries came into conflict and sought arms and assistance from the superpowers. Somalia had sought Soviet aid as early as 1962 because the US was, at that time, supporting Ethiopian and Kenyan regimes who were resisting Somali expansion. In 1969, the regime of Siad Barre officially espoused *scientific socialism* with a mass literacy campaign and attempts to break Somalis' traditional allegiances to their clans. In Ethiopia, the emperor Haile Selassie had ruled for more than 40 years over an economy organized on semi-feudal lines where the concentration of land and wealth contributed to periodic famines. Growing demands for reform grew during the 1960s and culminated in a takeover by a council of junior military officers (the "Derg") in 1974 led by Major Mengistu. Mengistu promoted an Ethiopian socialism of self reliance and widespread land reform in support of peasants and workers. Only when Somalia invaded the Ogaden region of Ethiopia (where many ethnic Somalis lived) did Mengistu turn to the Soviets and Cubans for assistance hosting an estimated 17,000 Cuban advisors and troops and receiving more than \$13 billion in Soviet aid between 1977 and 1990.

Africa provided fertile soil for Cold War rivalry as newly independent nations searched for political ideals, dealt with civil wars and incursions from their neighbors, and sought assistance to develop their economies. In many countries, millions of dollars were expended on arms and other military assistance, thousands were killed, and rural areas were abandoned. One of the most tragic legacies of the civil war in Mozambique was the more than 1/2 million land mines in the countryside that continued to kill, maim and inhibit agriculture. On a more positive note, the literacy campaigns and land reforms of countries such as Tanzania improved conditions for many poor people, and non-military aid from both the US and Soviet Union did mitigate some famines and assist some development projects.

### **Development, Debt and foreign aid**

Development theorists agonized over prescriptions for African development in the late twentieth century. **Modernization theory** was seen as a solution in the 1950s, explaining African underdevelopment in terms of the lack of industrialization and proposing solutions of technology transfer, training, and large projects for power generation, often supported by international assistance. Modernization projects included road construction, the Volta and Aswan dams and several harbors. Geographers such as Peter Gould monitored the diffusion of modernization in Africa by tracing the expansion of transportation networks and electrification.

The **dependency theory** perspective that argued that African resources had been exploited by the colonial powers was represented by Walter Rodney's classic 1972 text "How Europe Underdeveloped Africa" and by the analysis of famous Egyptian economist Samir Amin including his 1971 book on neo-colonialism in West Africa. These texts argued that the dominant capitalist powers of England and other European colonial powers transformed the political and economic structures of Africa to serve their interests in obtaining cheap raw materials and in doing so undermined local agriculture and social development.

Many countries emerged from colonialism with their economies and trade dependent on the production of just a few products (**Figure 6.24**).

Figure 6.24: Dependency on exports in Africa

The **terms of trade** for products produced by African countries, including minerals and export crops such as cocoa and coffee, deteriorated over the last part of the twentieth century, meaning that their value on the world market decreased in comparison to manufactured and other goods that were being imported by African countries. A farmer had to produce twice as much and work harder in 1990 to produce enough coffee to sell for money to purchase a bag of fertilizer compared to 1960.

For dependency theorists the remedy was to reduce the dependency on export revenue by creating local capacity to produce goods through policies of *import substitution*. Several African nations adopted strict import substitution policies that included subsidization of local industry and protection against foreign imports through tariffs and other mechanisms. As in Latin America, import substitution was a mixed success and faced greater challenges because of Africa's generally low level of infrastructure, skills, domestic markets and investment capital. While it fostered the development of some industries, particularly small scale manufacturing in African capitals, it also led to inefficiency and poor quality.

Both modernization and import substitution required capital that was not easily available in Africa and so many countries looked outside the regions to borrow money. Because many African countries had poor commercial credit ratings, most loans were made through bilateral arrangements with governments such as the United States, or through multilateral agencies such as the World Bank. Borrowing grew rapidly during the 1970s and by 1980. Although some funds were invested in infrastructural, industrial and agricultural development, considerable sums were used to purchase arms or were diverted by ruling elites for their own fortunes.

The total debt of sub-Saharan Africa, at \$219 billion in 1997 according to the World Bank, is only 1/3 of that of Latin America and Asia, but is huge as a percentage of national Gross National Product (GNP) in most African countries. In Ethiopia, the Congo's, Cote d'Ivoire, Angola, Mauritania, Mozambique and Zambia the total debt exceeded GNP in 1997 (**Table 6.2**). Many countries were paying more than five times the value of their exports to service their debt each year.

#### Table 6-2: Debt and Aid in Africa

As in other regions, the multilateral agencies responded to the debt crisis by first stabilizing the loans through extending payment periods and adjusting interest rates, and then by demanding **structural adjustment programs**. These programs required devaluation of currencies (to promote exports), liberalization of trade (by removing tariffs), reduced public spending, and the privatization of government held companies. The first country to accept structural adjustment was Ghana in 1983, but by 1990 30 countries had implemented programs under the guidance of the International Monetary Fund. In many of these countries the impacts of structural adjustment were severe, sending food prices spiraling and increasing unemployment as governments cut public sector jobs. Kenya and Nigeria both fired more than 150,000 government employees in response to IMF policies. IMF- imposing misery and famine

The structural adjustment programs fit within the broader program of neoliberalism promoted by the United States. But neoliberal policies of free trade clashed with the special concessions that had been granted to Africa by the European Community. The **Lomé convention**, named after the capital of Togo where it was first signed in 1975, is an agreement between the European Economic Community (EEC) and 66 countries, 43 in sub-Saharan Africa, to provide economic assistance and trade concessions to promote exports of certain key commodities. The convention includes access to European markets, stabilization of export earnings on selected commodities, industrial technology transfer, project financing and development aid. But such

preferential treatment has been criticized by the US and nations in other regions who seek to compete for European markets.

The destitution created by economic crises, structural adjustment and war in Africa prompted the multilateral and other agencies to try and cushion the impacts of restructuring in Africa with programs for poverty alleviation. This assistance built on several decades of humanitarian and economic assistance to those regions of Africa suffering from disasters and war. Africa is the largest recipient of what is called **foreign aid**, receiving 1/3 of the global total, equivalent to about 10% of the regions total Gross National Product and averaging about \$34 per capita for each member of the population. In some countries, foreign aid, also called Official Development Assistance, is more than 50% of the GNP and reaches \$100 per capita in Senegal.

As the millennium approached an international campaign was organized to pressure for debt relief, especially for the poorest countries in Africa. Official recognition that many of the countries had debt burdens that would permanently cripple development led to several debt relief programs. In 1996, the World Bank and International Monetary Fund (IMF) introduced the *Heavily Indebted Poor Countries (HIPC)* initiative to restructure and forgive part of the debt of poor countries who, over a five year period, showed a willingness to pursue neoliberal economic policies of reduced government spending and free trade. Mozambique was one of the first of about a dozen African countries who qualified for this form of debt relief. The HIPC program was severely criticized because of its policy conditionally (explain this) (it told countries how to run their economies) and because the debt reductions were too small. An international protest movement, called the *Jubilee* initiative, petitioned to cancel the majority of debts owed by poorer countries by the year 2000. In 2000 several European countries and the US did cancel bilateral debts owed by many countries in Africa and the IMF increased the amount of debt relief under HIPC.

## **PEOPLES OF AFRICA**

The population of sub-Saharan Africa was estimated at about 657 million (including the Sudan) in 2000 and averaged a higher birth rate, at more than 41 births per 1000 population per year, than any other continent. The overall population growth rate was about 2.5% a year, with a doubling time of about 27 years. The Population Reference Bureau has projected the 2025 population at just over 1 billion.

The total fertility rate (the average number of children born to a woman during her lifetime) is high in most of sub-Saharan Africa, reaching more than 6 children per woman in most regions except southern Africa. As a result, between 40 and 50% of the population of most African countries is under age 15. This has major implications for future population growth as this cohort starts to have children and makes demands on education and employment systems.

What are the reasons for high fertility and birth rates in Africa and what are the prospects for slowing population growth? Population geographers and other researchers have focused on the study of African **demography** in trying to understand these questions. They have found that although religious beliefs about contraception and access to contraception may play a small role, other factors are much more important. Children are valued in Africa for many logical reasons including their ability to work in agricultural fields, as herders, and in household work including care for younger siblings, and for the possibility of financial or other gain when they marry. Children are also the main source of security in old age in countries where there are few pensions or public services for the aged, and it is traditional for younger generations to respect and care for their elders. Large families are also often perceived as prestigious and ensuring family lineage, and in regions of ethnic strife as a way of securing votes, warriors, or political power. Even though infant mortality rates have improved with

better nutrition and healthcare in much of Africa, many African families have internalized the need to have many children in order to ensure that some survive to adulthood.

Many studies have also shown that conditions for women have a strong influence on fertility rates, with lower age of marriage, minimal female education and literacy, and low rates of female employment all contributing to higher fertility rates. Fertility rates tend to be lower in urban areas with high rates of female education, employment, and later ages for marriage. In Kenya, for example, women with secondary or higher education have a total fertility rate of 4.9 compared to women with little or no schooling at more than 7.0 and in Nigeria the difference is 4.2 compared to 7.2 children per woman.

Population projections for several African countries have been revised downwards because of the high mortality and infection rates associated with the AIDS epidemic (see Geography matters: AIDS in Africa). In Zimbabwe and Botswana, where infection rates are as high as 25%, estimates of average life expectancy have been revised down by 20 years and population growth rates reduced or even reversed (**Figure 6.25**). Overall population projections for Africa for 2025 have been adjusted down by 200 million people.

#### Figure 6.25: Population projections for Africa

Nigeria is the most populous country in Africa with 123 million people in 2000, followed by Ethiopia with 64 million, Congo (DR) with 52 million, South Africa with 43 million, Tanzania with 35 million, and Kenya with 30 million. Overall population density (the number of people per unit area) is relatively low at 27 people per square kilometer (74 people per square mile), about half the global average density. The density of population per unit of arable land is sometimes considered a better indicator of population pressure on land resources because it measures the ability of land to support its population or its **carrying capacity**. By this measure Sub-Saharan Africa appears much more densely populated with an average of 400 people per hectare of arable land approximating the global average.

**Figure 6.26** shows Africa with a mostly scattered rural population, with the greatest density along the West African coast, the southeast coast of South Africa, the highlands of East Africa and along major rivers. Population concentrations tend to be associated with better soils and climates, with colonial centers for mining and export crops, and with coastal ports.

#### Figure 6.26: Africa Population density

##### Urbanization

Although Africa is the most rural of world regions, it has been urbanizing rapidly over the last 40 years. In 1960, the urban population of sub-Saharan Africa was only 17 million people, about 20% of the overall regional population. The World Bank estimated that in 1997, the urban population had reached 198 million people, 32% of the total, and was growing at about 5% per year. This is more urban than most of Asia, but much less than Europe or the Americas. The level of urbanization varies greatly by country, with South Africa with 50% of its people living in urban areas, in contrast to Tanzania at 26% and Ethiopia at 16%. East Africa has lower level of urbanization (19%) than Southern (46%) or Western Africa (33%).

About 30% of Africa's population live in the largest city in their country - a significant level of **urban primacy** but somewhat less concentrated than in Latin America. Lagos and Johannesburg are the two largest cities with populations of about 11 million and 2.5 million. Geographer David Simon uses several indicators to identify those cities of greatest regional importance and links to global system in Africa including the presence of stock markets, large numbers of embassies, air traffic, and headquarters of international or regional organizations and corporations. According to these criteria

Johannesburg, Nairobi and Lagos lead with more than 70 embassies and 40 regional or international headquarters in each city.

Although urban growth is partly driven by overall population growth, cities have been growing twice as fast as general populations and fertility rates tend to be less in urban areas. As in many other regions, the major driver of urban growth is migration from rural areas to the cities and the factors pushing people from rural areas and pulling them to the cities are somewhat similar. People are leaving rural areas because of poverty, lack of services or support for agriculture, scarcity of land, disasters, and civil wars. Urban areas are more attractive because they offer jobs, higher wages, better services (including education and electricity), and entertainment. Urban areas have benefited from the **urban bias** of both colonial and independent governments in Africa who tended to invest disproportionately in capital cities which housed centralized administrative functions, and where food prices were kept down to reduce wage demands and to decrease the risk of civil unrest.

There has been some outmigration from African cities as a result of civil unrest and economic crises. For example, people left Mogadishu in Somalia and Kigali in Rwanda when fighting reached the cities. Government spending cuts as a result of IMF restructuring resulted in job losses in Lagos, Nigeria and Nairobi, Kenya of more than 150,000 in each city. Another downside of city life is the problems of servicing the rapidly growing urban areas. For example, Accra, Ghana, often considered one of the more livable cities in sub-Saharan Africa, has a population of 1.7 million of whom only 12% have connections to the sewer and more than 15% of the population do not have drinking water.

The majority of the sub-Saharan African population are classified racially as Negroid although the negative connotations of this term mean that many people prefer to define themselves as of the "black" or "African" race. Some regions of Africa do contain substantial populations that originally migrated from other regions including many Arabs in East and West Africa and Europeans and Asians in Southern and Eastern Africa. Many people are also of mixed race and may not be clearly classified. The presence of people of Arabic origin in sub-Saharan Africa, especially in the Sahel, Sudan and coast of East Africa, originates with several waves of migration beginning as far back as the 7<sup>th</sup> century AD and associated with trading, the spread of Islam and the expansions of Arabic and other Islamic empires into Africa. European populations (totaling about 6 million, living mainly in South Africa) derive mainly from the colonial period, especially the migrations of "white" settlers to southern Africa and the Kenyan highlands. Asian populations (totaling about 1 million) include descendants of those migrating from Indonesia to Madagascar (the Malagasy), and of the indentured laborers brought to southern and eastern Africa from South Asia, especially India, by the British to work on plantations and railroad construction.

### **African diaspora**

Migration into Africa from other regions is overwhelmed by the immense African diaspora and out migration from Africa to other regions. Millions of black Africans were captured and sent as slaves, initially to the Middle East, but more significantly to the Americas where their descendants comprise a high percentage of the populations in Brazil, the Caribbean and the United States. A second wave of out migration (or in the case of Afro-Caribbean secondary migration) is associated with the aftermath of colonialism where many Africans retained British Commonwealth passports or French citizenship and moved to Britain and France (or other Commonwealth countries such as Canada) in search of work (see Europe Chapter). Another secondary migration, of Asians who had settled in East Africa, was associated with Ugandan dictator, Idi Amin's

decision in 19?? to evict all Asians from Uganda because of their dominant role in commerce.

Other recent out migrations from Africa include movements of white populations from South Africa and other countries to Europe, North America and Australia, and a "brain drain" of 20,000 African intellectuals per year to universities and companies in the core regions of Europe and the Americas. There are also African refugee populations in several world regions such as large numbers of Ethiopians and Nigerians in the United States.

Contemporary migration within Africa is mainly associated with movements in search of work, and with refugees fleeing famine, floods, and violent conflict (**Figure 6.27**). Labor migrations emerged during the colonial period when land alienation and taxes forced people to look for other work, and employment became available on mines and plantations. Sahelian residents migrated to work in peanut, cotton and cocoa producing areas in Senegal, Nigeria and Ghana, and in East Africa Hutu and Kikuyu moved to work on Kenyan and Ugandan coffee and tea plantations and European farms. The most significant labor migration of the last 100 years is from southern Africa, especially Botswana and Zimbabwe, into South Africa to work in the mining industry. In 1960 more than 350,000 foreign workers were employed in South Africa. These migrations have disrupted family life and the remittances that are sent back by workers have become an important contribution to local and, in the case of countries such as Botswana and Lesotho, national economies.

Figure 6.27: Interregional migration in Africa

Geographers such as David Rain and Michael Mortimore have also documented more traditional and longstanding **circular migrations** that respond to seasonal availability of pasture, droughts and wage employment. In Niger, many people move to regional centers such as Maradi in the dry season and return to their villages to plant crops when the rains begin. Pastoralists move their herds south in the dry season seeking water, pasture and the possibility of grazing on harvested cropland or on wetlands. These migrations are a rational response to the spatial and seasonal variations in environmental conditions.

The United Nations High Commission on Refugees (UNHCR) estimated that as of January 1999 there were more than 6 million refugees in Sub-Saharan Africa, more than one third of the world total and the largest number of any world region. UNHCR reports that 3.3 million were official international refugees - involuntary migrants who have crossed a national frontier - with the remainder displaced within their country. War in Liberia and Sierra Leone drove more than 685000 people into neighboring countries and civil war and famine have forced more than 400000 Somalis and 340000 Eritreans from their homes. Other refugees include those from conflicts in Rwanda and Burundi. The refugee populations place serious burdens on neighboring countries who lack the resources to feed and resettle the impoverished and starving arrivals. Guinea, for example, absorbed almost half a million refugees from Liberia and Sierra Leone, and Tanzania a similar number from Burundi. Most international refugees are housed in camps, supported by international organizations and charities. Disease spreads rapidly in the crowded conditions of the camps, and food supplies are sometimes interrupted or diverted by military groups and governments. Longstanding conflicts and loss of livelihoods at home, mean that many refugees spend long periods in the camps with little hope of return. However, more peaceful conditions and carefully monitored repatriation have resulted in the return of refugee populations to countries such as Rwanda and Mozambique.

Some of the most desperate migrants are people forced to move within their own country because they do not fall under international definitions or assistance for

refugees. UNHCR estimates that there are 700000 internally displaced people in the Democratic Republic of the Congo, most of them inaccessible to relief organizations.

Figure 6.28 : Refugee maps from Horn and Central Africa (State of Worlds refugees)

### Religion

Traditional African religions have been described as **animist** (worship of nature) but this over generalizes the wide variety of local religious beliefs in Africa. While natural symbols, sacred groves of trees, and landforms may have important religious significance, many African religions also feature a belief in a supreme being, several secondary gods or guardians, good and evil spirits, and ancestor worship. Ancestors, priests or witchdoctors mediate and interpret the wishes of the gods and spirits and rituals ensure the stability of society and relations with the natural world.

Christianity spread via north Africa and Ethiopia from about AD 300, but the pace of conversion accelerated rapidly under European colonial rule and the missionaries, with the influence of Dutch puritans in southern Africa, Catholicism in French colonies, and Anglican beliefs in the British colonies. Islam is the third major religion in sub-Saharan Africa and dominates in the Sahel, the northern Sudan, and some East African coastal communities. It was spread by traders and drew some fierce defenders among West African groups such as the Fulani who went to war to eradicate animistic beliefs. As in Latin America, traditional religion has blended with Christianity and Islam, to create **syncretic** forms where local traditional rituals are incorporated into Christian services. Another parallel to Latin America is the recent rapid spread of evangelical Christianity in many regions of Africa.

Religious differences have fueled political conflict in some regions of Africa, most notably where Muslims and Christians were forced into the new colonial national boundaries. Tensions exist between northern Islamic groups such as the Hausa and southern Christians in West African countries bordering the Sahel such as Nigeria.

### Language and ethnicity

The geography of languages in Africa is incredibly complex with more than 800 living languages, 40 of them spoken by more than 1 million people (**Figure 6.29**). The dominant indigenous languages, spoken by 10 million or more, are Hausa (the Sahel), Yoruba (Nigeria), Ibo (Nigeria), Swahili (East Africa), and Zulu (southern Africa). Hausa and Swahili are known as the trade languages, spoken as second languages by many groups to facilitate trade, together with several pidgin languages such as Wes Kos (West Coast) that merged English or French with local versions during the colonial period. English, French, Portuguese and Afrikaans are also spoken in regions of recent colonial control and education systems or white settlement, and Arabic is common towards north Africa. Arabic has strongly influenced Swahili along the East coast of Africa. Because most countries have no indigenous African language as dominant, they have often chosen a European language for official business and school systems. The countries with the most coherent overlap between their territory and a dominant African language are Somalia (Somali), Botswana (Tswana) and Ethiopia (Amharic).

Figure 6.29: Language map of Africa

The indigenous languages of Africa have been grouped into larger language families including the AfroAsiatic languages of north Africa, including Somali, Amharic and Tuareg; the Nilo-Saharan languages that include Dinka, Turkana and Nuer in East Africa; and the largest Niger-Congo group that includes Hausa, Yoruba, Zulu, Swahili and Kikuyu. A small family are the Khoisan languages spoken by the bushmen of southern Africa which have a distinctive "click" vocalization.

The multiplicity of languages and dialects reflects the large number of distinct cultural or ethnic groups in Africa. Some writers use the term "tribe" to define these groupings and describe Africa as a "tribalist" society. The term tribe is used to describe

group affiliation based on shared kinship, language and territory, and while it is used by many groups to identify themselves, other groups see the term as negative (related to colonial perceptions of savagery) and now prefer to use the term ethnic group. Groups are often led by chiefs and some are monarchies with kings or queens.

The largest ethnic groups in Africa are associated with the dominance of certain languages such as Hausa, Yoruba and Zulu but almost all groups, however large or small, were either split geographically by colonial national boundaries or grouped together with their neighbors, enemies, or others with whom they shared no affinity. Attempts to consolidate ethnic groups across boundaries and struggles for power between groups within countries are a major cause of conflict in contemporary Africa.

For example, tensions between the Ibo and Yoruba in Nigeria led to civil war when the Ibo declared the independence of eastern Nigeria as Biafra in 1967. The conflict, which drew international attention and intervention because of starvation in Biafra and the presence of oil in the region, resulted in as many as a million deaths (mainly from hunger and disease) and lingering ethnic resentments. Another evident tension is between the ruling Kikuyu and other ethnic groups in Kenya where opposition political parties have organized around ethnicity and threaten violence in the face of perceived election corruption and bias towards Kikuyu regions and individuals. Ethnic rivalries also play a role in several other regional conflicts discussed later in this chapter.

### **Culture**

It is hard to draw cultural generalities from a continent as large and diverse as Africa. Those who do generalize highlight the importance of the extended family, ties to the land, oral tradition, village life, and music in traditional African culture. The importance of the extended family is linked to the supremacy of kinship ties in social relations and obligations and to a widespread respect for elders as sources of wisdom. Kinship ties going back multiple generations in the same region may define "clan" allegiances and may drive primary loyalties, as in contemporary Somalia where inter clan conflict has dominated recent political events. Different extended families are often linked through intermarriage, with a transfer of wealth, sometimes in the form of cattle, from the husband to the wife's family as a mark of respect and value of the woman's labor and companionship.

The tie to the land is connected to traditional forms of **land tenure** in Africa where in many regions land was viewed as given by the spirits or held in trust for ancestors and future generations. The Elesi of Odogbolu (a traditional leader) in Nigeria expressed this as "the land belongs to a vast family of which many are dead, few are living, and countless members are still unborn". This gave land a communal nature such that it could not be bought or sold by individuals. In some cases, land rights are held by the extended family or the community rather than the individual and in others the chief or king controls land. For example, in Ghana, land rights are vested in the "stool", the seat of the king. Because many of these land tenure traditions were alienated during colonialism - taken over by colonial settlers or reallocated by administrators - some independent governments recovered this land and kept it as state land.

Traditions of reciprocity, where a gift is given in order to obtain a favor, and of helping family members, are a major source of cultural confusion according to African historian Ali Mazrui. He suggests that these traditions provide an explanation for the way in which some leaders have favored family members with jobs in their administrations, and for the use of bribes when making requests from government officials. He also notes that under colonialism, local residents stealing from the government was seen as a legitimate form of resistance to the perception that foreigners were robbing Africa of resources and funds through taxation.

Africa is associated with a rich tradition of music and the arts that has increasingly influenced other regions of the world. Slavery was one way in which African musical, artistic and food customs spread around the world, especially to the Americas. Traditional music of the West African Sahel may have influenced the development of American blues and the West African coastal traditions influenced Afro-Caribbean music styles such as the Cuban rumba (**Figure 6.30**).

Africa is often associated with music from percussion instruments, especially drums. Other instruments with metal keys that are plucked or tapped, as well as flutes and harp like stringed instruments are also commonly used in traditional and popular music. Such musical traditions vary widely across the continent and include the complex rhythms of women drummers in Tanzania, of xylophone players in Uganda, and the chanting of the Zulu of southern Africa. In West Africa, oral traditions are associated with the singers and storytellers, some of whom receive the respected name of *griots*.

Figure 6.30: African instruments and musicians

African popular music mixes indigenous influences with those of the west, especially those of the US and the Caribbean. For example, the *highlife* music of West Africa derived from Caribbean calypso and military brass bands, adding stronger percussion, soul influences, and exchange between lead and background singers to emerge as the now internationally popular *juju* or Afrobeat sounds of Nigeria's King Sunny Adé and Fela Kuti. In French West Africa, singers such as Youssou N'Dour blend traditional African beats with powerful vocals and in South Africa, singers such as Miriam Makeba received international recognition in the 1950s, presaging the popularity of acappella South African black musicians such as Ladysmith Black Mambazo. Popular musicians have often expressed political opinions against apartheid or corruption.

African art is also incredibly varied and includes painting, metalwork and sculpture (**Figure 6.31**). Artists were often seen as important specialists in traditional Africa, often under the patronage of kings and producing works of spiritual value. The masks and wood sculptures of the Dogon and Bambara peoples of West Africa are now collected around the world while maintaining cultural significance within the region. *Kente cloth* designs from northern Ghana have become meaningful in African-American identity and clothing. As interest in travel and world culture has grown, artists and others have started to produce for sale to tourists and to international distributors, including some organizations that try to ensure fair trading principles of returning as much value as possible to local people.

Figure 6.31: African arts and crafts

## **REGIONAL CHANGE AND INTERDEPENDENCE**

Contemporary Africa faces challenges as a world region and as a collection of diverse countries and communities. The most important issues include issues of political stability, economic and social inequality, agricultural capacity, environmental conservation and degradation, and health (especially AIDS). Intertwined among these issues are interregional questions about economic integration, refugee flows, and development strategies.

### **Politics and peace**

The search for peace in Africa has been frustrated by the legacies of colonial frontiers and the Cold War, ethnic rivalries, and the special interests of powerful individuals and sectors. While some countries were able to create (or recreate) a sense of national identity following independence, others are still coping with internal struggles, contested nationalisms and claims on land beyond their current borders. Although the end of the Cold War and the end of apartheid in South Africa opened new prospects for peace and cooperation, there are continuing wars and precarious coalitions in several regions of Africa. Geographers Ian Yeboah and Samuel Aryeetey-Attoh identify multiple

causes for continuing political instability in Africa including ethnic conflict, poor leadership, outside interference, and the legacies of recent independence struggles and racist government. They note the frequency of military coups with Ghana, Nigeria and Uganda all experiencing at least 5 coups since independence just under 50 years ago. They are also concerned about the number of elected leaders who eventually drifted towards one party states and dictatorships with repression and restrictions on freedom of speech. Yeboah and Aryeetey-Attoh do see signs of optimism emerging in the political geography of Africa with many countries moving towards democratic elections in the 1990s and the reduction in tensions associated with the end of the Cold War and of apartheid in South Africa. They, and others, point to the relative success of Botswana, where after independence, government structure included a strong role for traditional chiefs and public input into government. Economic growth, especially in the diamond and beef industries, the lack of civil unrest, and relatively democratic decision making have all contributed to improved social conditions with literacy at 70% and per capita incomes averaging \$3000 per capita.

However, the scars of conflict and **genocide** are still raw in the countries of Rwanda and Burundi where tensions between the majority Hutu and powerful Tutsi peoples erupted into civil war in 1994 (**Figure 6.32**). The ethnic divisions between these two groups were created or exacerbated by the Belgian colonists, who defined those owning more than 10 cattle as Tutsi and gave them control over the peasant agricultural Hutu. The Tutsi received education, training and other benefits, while the Hutu were taxed heavily and given few privileges. The rapid withdrawal of Belgium resulted in a Hutu majority government and a population who harbored resentment against the Tutsi minority (about 20% of the population of the two countries). In Burundi, Tutsis maintained power until the late 1980s, but with several internal military coups, and severe repression of Hutu uprisings. Both countries have predominantly agricultural economies, dependent on exports of coffee and tea. Prior to the outbreak of civil war in 1994, Rwanda was beginning to benefit from environmental tourism associated with endangered populations of mountain gorillas in the forests and this was reducing the threat of deforestation as local people began to perceive benefits from conservation.

#### Figure 6.32: Rwanda and Burundi

Tensions increased after 1989, when international market prices for coffee dropped precipitously, and when Tutsi rebels, with the aid of Uganda, invaded Rwanda in 1990. Burundi finally moved towards multiparty and multiethnic government in 1993 but the new president was killed in a coup, where subsequent ethnic violence killed more than 200,000 and sent 800,000 refugees into neighboring countries. When in 1994 a plane crash killed the presidents of Rwanda and Burundi, some Hutus blamed Tutsis and moderate Hutu's and initiated a massacre in which more than 500,000 died in Rwanda and many Tutsis fled to neighboring countries where rebel forces were organized. When these Tutsi rebels won control of Rwanda and Burundi, thousands of Hutu fled to avoid retribution. Two million refugees ended up in Zaire (DR Congo) and thousands in Uganda, Kenya and Tanzania. The prospect of reconciliation in these two countries is unimaginable because the memories of violence are so fresh and the divisions so deep. The international community has been accused of ignoring signs of imminent massacres and then having delayed responses, to the misery of refugees. As of 2000, considerable energy was being focused on reconciliation and peace, with attempts to form multiparty and multiethnic governments with the mediation of respected leaders such as Nelson Mandela of South Africa and Julius Nyerere of Tanzania.

Other conflicts seem even harder to resolve. In Liberia and Sierra Leone civil wars produced conditions of anarchy in the late 1990s. The economies of these two countries are dependent on a very narrow range of exports with volatile prices, rubber in

the case of Liberia and cocoa in Sierra Leone. The resettlement of freed slaves from other regions who saw themselves as an elite has also caused conflict with the indigenous residents and there is also considerable resentment of urban wealth by rural residents. In the 1990s, struggles for power between opposition power groups within the countries were fueled by arms and capital obtained through the sale of diamonds (see Culture and Consumption) with many ordinary people fleeing as refugees.

The cost of wars in sub-Saharan Africa has been a hindrance to investments in other forms of development. The Stockholm International Peace Research Institute reports that military expenditures by governments in sub-Saharan Africa ranged between 6.6 and 9.5 billion dollars in the 1990s and that many governments were spending more on arms and the military than on education or health.

These conflicts are occurring within the context of a new post-Cold war international political geography where the United Nations, African regional security forces, and the United States are all playing new roles. The United Nations Peacekeeping Forces operate under the authority of the UN Security Council to help establish and maintain peace in areas of armed conflict with the permission of disputing parties. In Africa, UN forces, with their distinctive pale blue helmets, have been deployed in Angola, DR of Congo, Sudan, Ethiopia, Eritrea, Rwanda, Burundi, Somalia, Sierra Leone, Liberia and Guinea Bissau (**Figure 6.33**). The success of these missions has been mixed after initial success in monitoring transitions to peace in Mozambique and Namibia, with the most tragic failures to prevent massacres in Rwanda and Sierra Leone or to establish peace in Somalia and the DR Congo, and with inadequate human or financial resources to sustain several operations. The US has been reluctant to send troops to Africa after negative publicity about their involvement in Somalia (more detail) and UN forces are increasingly composed of soldiers from poorer countries. The US has been widely criticized for allowing foreign aid to be used for arms sales and for refusing to ban the sale of military hardware, including land mines. African leadership, especially from South Africa and Nigeria, in promoting peace within the region is of growing importance, including negotiations led by former South African president Nelson Mandela, and a West African peacekeeping force and monitoring group, ECOMOG, led by Nigeria under the auspices of the Economic Community of West African States (ECOWAS). The current head of the United Nations, Kofi Annan, is from Ghana and is particularly concerned to improve conditions in Africa.

#### Figure 6.33: UN peacekeeping in Africa

ECOWAS is one example of programs for economic integration and political cooperation in sub-Saharan Africa, established in 1975 to promote trade and cooperation with West Africa (**Figure 6.34**). African integration was the dream of several independence leaders, most notably Ghanaian Kwame Nkrumah who called for a Union of African States in his famous 1961 speech "I speak of freedom." Nkrumah believed that only by joining together could independent Africa reach its full potential. Unable to convince others that complete unity was desirable, Nkrumah was able to lead the establishment of the Organization of African Unity (OAU) in 1963. The OAU, based in Addis Ababa, Ethiopia, promotes solidarity among African states, the elimination of colonialism, and cooperative development efforts. It was successful in mediating boundary disputes between Somalia, Ethiopia and Somalia in the 1960s and in pressuring for the end of the Apartheid regime in South Africa.

In southern Africa, economic integration has been promoted since 1979 through the **Southern African Development Community** (SADC) which promotes trade and development coordination, especially the improvement of transport links (Figure). South Africa finally joined in 1994 with the advent of black majority rule in South Africa. Similar regional programs have included the East African Cooperation (EAC) and East

African Economic Union between Kenya, Uganda and Tanzania, fraught with political tensions, and the larger Common Market for East and Southern Africa (COMESA).

Figure 6.34: Map of regional blocks in Africa

### **Social and economic inequality**

The roots of political unrest in Africa also lie in the large regional and social inequalities in many countries. Sub-Saharan Africa ranks low on many measures compared to other world regions (**Table 6.3**). Life expectancy averages 20 years below the world average of 70 years and is lower than any other world region, and GDP per capita is about \$1600 compared to a \$6500 world average. The UN estimates that 42% of sub-Saharan Africans are poor as measured by income and 40% according to the more general measure of human poverty that combines life expectancy, literacy, and access to basic services such as clean water. Conditions in Africa are also difficult for children with an infant mortality rate of 106 deaths per 1000 children born (double the world average) and with low levels of child nutrition and immunization.

Table 6-3 : Social Indicators

Within Africa, these generally gloomy average statistics do hide some regions with much better conditions. For example, the UN ranks Mauritius, South Africa, Swaziland, Botswana, Gabon, Ghana, Zimbabwe, and Lesotho higher on the Human Development index (life expectancy, literacy, education and GDP per capita) than other regions of Africa. Life expectancies in these countries are generally above 50 (except for Botswana and Zimbabwe where AIDS has caused life expectancy to drop) and levels of literacy, education and income are also higher than the continental averages. These countries also tend to have higher levels of basic service provision. For example, in South Africa, Zimbabwe and Botswana, 80% of more of the population have access to safe drinking water. In almost all countries life expectancy, incomes and services are better in urban than in rural areas.

Conditions have also shown improvements over the last 25 years. For example, GDP per capita has increased from \$780 in 1970 to \$1590 in 1998, life expectancy has increased from 45 to 49 years and infant mortality has dropped from 138 to 106 deaths per 1000 children born. Literacy has shown dramatic changes, increasing from 38% in 1980 to 61% in 1999. Check this data for constant dollars and declines.

But the lowest 24 countries on the Human Development Index are all in Africa. Sierra Leone, for example, has a life expectancy of only 38 years and an annual GDP per capita averaging \$458, mainly as a result of the loss of life and economic collapse associated with civil war. Low levels of life expectancy reflect some of the deficiencies in service provision in Africa where an average of 46% of the population lack access to safe drinking water and 52% lack sanitation. Two thirds of the population lack safe drinking water in Ethiopia, Angola, Congo and Sierra Leone.

Economic and social conditions show great geographical and social variation within Africa countries. The core locations - urban areas, the formal sector and cash crop producers - generally have longer life expectancies, better service access, and higher incomes than the periphery that includes rural areas and the informal and subsistence agricultural sectors.

Income concentration is high in many parts of sub-Saharan Africa, with the richest 20% of the population receiving more than 60% of overall income in most of southern Africa, the Central African Republic and Sierra Leone. The GINI index of income concentration ranges from 32 in Ghana (less concentrated) to more than 50 in Southern Africa and much of the Sahel. More than 50% of the population earn less than \$1 a day in most of West Africa except Cote d'Ivoire. GINI explanation?

Women in Africa also tend to have less education and lower incomes than men but live slightly longer in most countries (**Table 6.4**). The average female income is

about \$1150 less than men, and female literacy rates are 52% for women compared to 68% for men. Gender differences in Africa demonstrate the process of the **feminization of poverty** whereby more than 2/3 of all people who join the ranks of the poor are women. Women are more likely to be poor, malnourished and otherwise disadvantaged because of inequalities within the household, the community and the country. Patriarchy and cultural traditions mean that women may be required to eat less and later than men in the family and to bear disproportionate responsibility for heavy household work such as collecting fuelwood and water. Women are less likely to receive an education and overall pay rates are lower in the workplace (explain which). Women are also disadvantaged by many traditional and modern institutions that define property rights. Land may be passed on only to male children, and new land titles are often granted to male household heads. Development policies for agricultural training and technology to make work easier have been directed at men. The work of geographers such as Judy Carney and Rick Schroeder have shown how women's rights to rice lands and to trees have been threatened by new development projects. Although some African governments and development agencies have recognized these disparities and directed programs at improving conditions for women, poverty reduction among women has been patchy and partial.

#### Table 6-4: Women in Africa

There are places in Africa where significant numbers of women are seen as powerful especially in urban areas where female entrepreneurs have been successful. The best known examples are the women who control the markets in Ghana and the women who control the cloth trade in Togo, so wealthy that they are called the Mama Benz because of the cars that they own.

The allocation of land is also very skewed in many African countries with a few people owning large areas of better land. Some countries have implemented extensive land reforms to try and increase productivity and quell social unrest.

The problems of unequal distribution of land are dramatized in the case of Zimbabwe, where at independence in 1980 President Mugabe promised to redistribute land owned by more than 5000 mainly white farmers. Twenty years later these large farms still occupy about 70% of the best land, and have large areas lying fallow or in ranches. According to government figures some 4, 400 whites own 32% of Zimbabwe's agricultural land - around 10 million hectares - while about one million black peasant families farm 16 million hectares in plots mostly less than one hectare. Although title to the lands was given to white settlers by the colonial governments, many black Africans believe that these lands were seized unfairly and should be returned to the indigenous owners. In 2000, Mugabe's threat to confiscate the land was accompanied by invasions of squatters onto more than 500 farms, and by international and internal attempts to resolve the conflicts by compensation for land that is transferred. Critics of Mugabe argue that previous land redistribution failed because peasant farmers did not have the knowledge or resources to succeed in commercial and export oriented farming and that many farm workers are at risk from losing their jobs. But resentment at colonial land expropriation and racially based land policies are widespread, and several other African governments supported Mugabe's policies. New post-apartheid governments in South Africa have faced similar challenges in deciding how to provide better land to black peasant farmers without provoking serious conflicts with longstanding white landholders who control. More than 50,000 households have acquired land through government subsidies in South Africa - in some cases through buying shares in farms where they were formerly workers.

## Development debates

Africa provides an arena for struggles over development and the case studies for some of the best known failures and successes of development. As discussed earlier, sub-Saharan Africa was a focus of modernization in the pre and post independence periods, with many development projects that sought to transfer northern technology into Africa including large dams and Green Revolution technologies. African countries such as Nigeria and Zambia then sought to reduce their dependency on expensive imports by seeking to develop national manufacturing industries and protectionist policies. And, in the most recent era of development thinking, Africa has shifted to the more neoliberal policies of free trade guided by international agency and bilateral demands for economic restructuring.

Within these broad strategies, Africa provides examples of many less obvious shifts and debates in development policy including those about the role of women, indigenous technology, credit and social organizations. An early call for paying attention to women in Africa was that of economist Esther Boserup, whose 1952 book, *Women's Role in Economic Development*, documented the importance of women as farmers and resource managers in Africa. Geographers such as Anne U. White, Janet Momsen, and Judy Carney subsequently documented the work of African women in providing the basic needs of families through food preparation and collecting wood and water; as income generators in crafts and community work, and as agricultural producers in both subsistence and commercial sectors. They also showed distinctly gendered spaces in the African landscape, with parts of the home, the market, and certain trees and crops reserved primarily for women's lives and work. A 1996 study by the UN Food and Agriculture Organization (FAO) found that women's contribution to the production of food crops ranges from 30 per cent in Sudan to 80 per cent in the Republic of Congo and that women are responsible for 70 per cent of food production, 100 per cent of food processing, 50 per cent of animal husbandry and 60 per cent of agricultural marketing.

Those who understood the importance of women's work in African communities and economies criticized development policies that ignored, undervalued or displaced women. They also showed how women were often disproportionately affected by environmental degradation as deforestation and drought made the work of collecting wood, water and food more difficult.

Development policies gradually began to incorporate these ideas. The "Women in Development" (WID) approach focused on women's productive roles with projects that provided technology, credit and training to women. This approach was criticized for ignoring women's reproductive roles and the larger social processes such as discriminatory land tenure policies that shape women's lives. In the 1980s, the **Gender and Development (GAD)** approach was promoted as linking women's productive and reproductive roles and trying to understand the gender related differences and barriers to better lives of both men and women. Development agencies such as the World Bank incorporated elements of both approaches into programs that supported education, credit and land titling programs for women, women's organizations and recognition of women's work.

Another trend in development thinking in Africa is the promotion of **microfinance programs** which provide credit and savings to the self employed poor, including those in the informal sector, who cannot borrow money from commercial banks. Based on the demonstrated success of the Grameen Bank program in Bangladesh (see Chapter 11) that provided small loans to thousands, African micro finance projects provide loans and safe savings opportunities to people who want to start or expand their businesses.

Examples include loans to purchase sewing machines, food processing equipment, agricultural supplies and shop inventories.

Governments and development agencies have also realized that development requires more than purely financial capital. Projects seem to be most successful in communities that have high levels of **social capital** - networks and relationships that encourage trust, reciprocity and cooperation that share and expand on initial investments.

Another shift in development thinking has been the increasing appreciation of, appropriate, intermediate or **indigenous technology**, especially in agriculture. Researchers such as Paul Richards and Robert Chambers documented how colonial administrators and development institutions systematically devalued local knowledge, substituting imported European ideas about the appropriate management of soil and forests. Case studies showed how the substitution of new mono crop permanent systems in place of traditional shifting multiple cropping resulted in increases in soil erosion, pest damage and nutrient losses. These criticisms also emerged in attempts to transfer the **Green Revolution** packages of improved seeds, irrigation and agricultural chemicals to sub-Saharan Africa. Many farmers could not afford the new technologies or wished to grow basic crops such as millet, yams and sorghum for which improved varieties had not yet been developed. However others, in Zimbabwe for example, were able to increase their yields of maize and to benefit from the new technologies. New approaches to agricultural development take more account of local expertise, asking farmers how they cope with climate variability and soil management. Local knowledge has also been valued in health programs where indigenous healers can make important contributions to the treatment of disease.

**Sustainable development** (see Chapter 1) is also a priority for Africa where past development projects have caused serious environmental problems and where many people depend directly on renewable resources, especially the productivity of agriculture and on safe water supplies. The definition of sustainable development in Africa has ranged from narrow criteria of development that does not damage the environment for future generations or that is economically efficient to broader conceptions of development that is equitable and ecologically beneficial.

### **Agriculture**

The challenges of agricultural development are an important theme across all of sub-Saharan Africa where most of the population still work in agriculture which provides the foundation of food supplies and export earnings. Agriculture employs about 60% of the labor force in Africa and produces over 40% of the regional GDP, and up to 95% of the export revenue in some countries. Per capita agricultural production has fallen in the last 20 years because growth in agricultural production has not kept up with the growth in population but of even greater concern is that the benefits of agricultural growth have not benefited the incomes or nutrition of many of Africa's residents. As discussed earlier in the chapter, many regions have become dependent on food aid. Exports have declined relative to imports (get data- **Figure 6.35**).

#### **Figure 6.35 : Agricultural trends in Africa**

Analyses of the reasons for agricultural problems in sub-Saharan Africa have blamed environmental degradation, lack of infrastructure, government policy and international market structures. While several of these factors are discussed later in this chapter in the context of particular regions, continent wide challenges, identified by geographer Godson Obia, include improving infrastructure for roads and storage and providing adequate incentives and rewards to local producers. Difficulties of getting crops to the market on Africa's dirt roads, especially in the rainy season, means that farmers risk having to store grain and other products in granaries that are vulnerable to

pests and molds. Governments have controlled food prices to keep wages and unrest down in urban areas and this has reduced the prices paid to farmers. In Zimbabwe, maize (corn) prices paid to black farmers were suppressed in order to benefit the mostly white commercial maize producers and they were also banned from farming wetland areas. When these restrictions were removed maize production in Zimbabwe soared to levels that allowed export to neighboring Mozambique. The marketing boards established by colonial powers have smoothed out price fluctuations but have also kept the profits when world prices are good. International market volatility and a lack of information has made it difficult for farmers to move into new types of crops, and the general decline in terms of trade has also made it difficult to make a living in agriculture.

One often overlooked success story is urban agriculture in Africa. In cities such as Lusaka (Zambia) and Kinshasa (Zaire) more than half of the residents cultivate gardens, either in their homes or on unused land in the city including traffic medians and airport perimeters. Crops produced from these urban plots are an important contribution to urban food security and incomes.

### **Environment**

Environmental degradation and conservation in Africa are high priority issues for most international organizations as well as for many African governments and local residents. Important regional issues include wildlife conservation, desertification (see the Sahel below), deforestation (see Madagascar), and urban pollution (see Lagos).

The rich biodiversity of Africa is valued by local residents, tourists and international environmental groups alike but differing views about its protection have resulted in many controversies about conservation. Traditional African societies hunted and gathered wild species for food and also incorporated wildlife into spiritual beliefs. While human populations were low, and hunting technologies less effective, wildlife populations varied mostly with climate. As population, technology and land use changed, especially after colonialism, human activity began to modify habitat and wildlife numbers in particular regions. Europeans contributed to the decimation of African wildlife through indiscriminate hunting expeditions, the elimination of animals along railroads and near farms, and through resettlement of local people into regions where they came into conflict with wildlife that encroached on their herds and fields. In 1909, the then recently-retired US President Theodore Roosevelt led an expedition that killed 5,000 animals, many for museums, including nine white rhinos, known even then to be in danger of extinction. Some wildlife habitat was set aside as hunting reserves, or was protected because of the presence of the tsetse fly. The first reserve was the Virunga National Park (originally the Albert National Park and before that a hunting reserve for Belgian colonialists), established in Zaire in 1925. Colonial administrators created the first Serengeti game reserve in 1929, to protect it from European lion hunters. When the Masai Mara reserve was created in Kenya 1961, white hunters had reportedly reduced its lion population to just nine animals.

### **Figure 6.36: Parks in Africa**

Currently more than ten percent of sub-Saharan Africa is under some sort of protected status and five percent is in parks or wildlife reserves (**Figure 6.36**). The major parks in East and Southern Africa, such as Serengeti in Tanzania and Kruger in South Africa, have become high profile international tourist destinations bringing in millions of dollars to national economies and employing many local people. The parks are not without problems or criticism. Parks have been criticized for providing inadequate benefits to local people who may have lost traditional grazing and hunting rights, or whose crops are destroyed by marauding wildlife. In some parks, too much tourism and high animal densities have destroyed fragile habitat or poaching has pushed some species close to extinction. The case of elephant and rhino conservation provides

an important illustration of debates about conservation in Africa and the related international attention and intervention.

Elephants draw attention because of their size, intelligence and value of ivory and meat. The hunting of elephants for their ivory tusks and trade in this precious commodity - known as "white gold" - has been carried on for centuries. In Africa, herds had been hunted to extinction in the north of the continent hundreds of years before the Europeans arrived with their guns. Pressure on herds in East and Southern Africa grew with 19<sup>th</sup> century colonialism. In Victorian England, every middle-class drawing room was filled with ivory knick-knacks, while "the ivories" became a slang term for dice and piano keys; and by the end of the nineteenth century some of Africa's elephant populations were significantly diminished. A second surge in demand occurred in the 1970s when prices for ivory soared with international financial instability and growing demand in Asia. Exports rose from 200 tonnes in the 1950s to nearly 1,000 tonnes in the 1980s. The precipitous decline in most African elephant populations was a direct consequence of illegal killing, fuelled by the ivory trade (**Figure 6.37**). One estimate has it that 70,000 elephants were being killed every year from the mid-1970s through the 1980s. The situation was aggravated by war and civil unrest, especially where firearms became available to unpaid soldiers and desperate refugees in regions where herds lacked strong protection. The population of elephants in sub-Saharan Africa dropped from an estimated 2.5 million in 1970 to less than 500,000 in 1995, mainly as a result of poaching for ivory, but also because of competition between people and elephants for land, including areas opened up for agriculture or cleared by tsetse eradication and deforestation.

Elephants were listed under the **Convention on International Trade in Endangered Species (CITES)** as a category two species, in need of protection in 1977. But mounting international pressure against the perceived slaughter of elephants resulted in moving elephants to category one, the most serious danger of extinction in 1990 and a worldwide ban on the sale of ivory. The ban was opposed by countries in Southern Africa who had seen a less serious decline in their elephant populations, and who were funding parks and conservation from the money that they earned from ivory and hide sales. Efforts to protect elephants, including the ivory ban, were partly successful and elephant populations recovered in some regions. However, poaching continued in some areas, and in others elephant populations grew beyond the carrying capacity of the parks. A study in Amboseli in Kenya showed the impact of concentrating too many elephants in a small area as elephants retreated from poaching pressure at the edge of the park and began to overgraze vegetation in the core, threatening other browsing species and compacting soil. In southern Africa, park managers culled elephants to protect habitat for other species, but could not sell the ivory that they obtained from culling or catching poachers. After a long and heated series of negotiations, the ban on ivory sales was lifted in 1997, but only for South Africa, Zimbabwe, and Namibia and for carefully controlled sales to Japan.

#### Figure 6.37: Elephant and rhino

The rhino is under much greater threats, especially from poachers who hope to sell rhino horn for dagger handles in the Middle east, especially Yemen, and for highly valued medicinal powders in Asia. Hunting and habitat encroachment caused black rhino populations to drop from as many as 1 million in 1900 to less than 3000 in 1996. White rhino populations fell to less than 12,000 over the same period. Protecting the rhino from poachers who can make thousands of dollars from selling a horn is a full time and costly enterprise. Many rhinos now have their own bodyguards or have their horns regularly removed to reduce their attractiveness to poachers.

One of the more successful conservation programs that benefits local communities is *CAMPFIRE (Community Areas Management Programme for Indigenous Resources)* launched in 1989 in Zimbabwe. Fees paid for park entry and hunting go directly to the community in which the use takes place. Fees for carefully controlled hunting of "trophy" species such as elephants can reach \$12,000 per animal and the money pays for schools, clinics, irrigation, and electricity.

### **AIDS in Africa**

Sub-Saharan Africa is more severely affected by **AIDS** than any other part of the world with the United Nations reporting more than 23.3 million people affected with the HIV virus - 70% of the worldwide total. The infection rate is estimated at 8% of all adults compared to the 1% world rate, and more than 13 million Africans have lost their lives to AIDS which has become the main cause of death in Africa, more than malaria and warfare. Unlike other regions, more women have AIDS than men and the disease has created as many as 8 million orphans. Urban dwellers who have multiple sex partners, including young office workers and migrant workers, have a higher infection rate, as do poor women who work in the commercial sex trade.

Southern Africa is most severely affected, especially Botswana, Zambia and Zimbabwe where more than 20% of adults are infected (**Figure 6.38**). The loss of skilled labor is resulting in a loss of agricultural output and of young professionals critical to the region's future. As noted earlier, several countries have adjusted projections of population and economic growth down to take account of the serious negative impact of AIDS on mortality and economic productivity.

Poverty exacerbates the AIDS problem in Sub-Saharan Africa because most Africans cannot afford prevention (for example through condoms), testing or medicines that prolong the lives of those with HIV/AIDS. There has also been some reluctance on the part of African governments to admit to the extent of the AIDS epidemic, although Uganda and Senegal have promoted aggressive and successful AIDS education and prevention campaigns, cutting infection rates in half.

Figure 6.38: AIDS maps

### **CORE REGIONS AND KEY CITIES**

Sub-Saharan Africa epitomizes the periphery of the world economy and does not contain industrial regions or world cities that could be seen to drive the global economy. But within Africa there are important regions that historically produced commodities for the core and have developed regional industrial hubs with cities that act as centers of regional commerce, transportation and culture. While cities such as Accra, Abidjan, Addis Ababa, Cape Town and Dar Es Salaam are important capitals and trading centers, their role on the continent is overshadowed by Johannesburg in Southern Africa and Lagos in West Africa as population concentrations and by Nairobi as an international center in East Africa. These cities and their surrounding regions illustrate many of the challenges and characteristics of economic development and urbanization in sub-Saharan Africa and the ways in which centers within Africa influence and manipulate their local peripheries. Although these are not world cities they do act as the principal regional links to the world-system, and are the principal agents in transmitting global flows of all sorts to the region.

### **Southern Africa and Johannesburg**

By most measures South Africa is the economic powerhouse of sub-Saharan Africa, producing more than one third of Africa's manufactured goods and of the exports with the highest overall gross domestic product. The historical core of Southern Africa's economy is the region around the city of Johannesburg on the high Veld in the province of Gauteng (meaning place of Gold, formerly the southern Transvaal) stretching from Pretoria southwest towards Kimberly (**Figure 6.39**). The high Veld is a grassland

ecosystem of short grasses and shrubs with elevation about 2000 meters (6000 feet). About 40 million people live in this zone where frequent droughts bring dry and dusty conditions to the high plateau of the South African interior. South African geographer Philip Beavon reports that Gauteng province has only 2.5% of the area of South Africa but is home to 25% of the population, 33% of the employment and produces 45% of the GDP.

#### Figure 6.39: Map of Gauteng

Johannesburg was founded in 1886, following the discovery of gold in the Witwatersrand or Rand, a range of hills to the west of the present city that overlay the world's richest gold deposit. The region also contains large reserves of uranium, platinum, tin and nickel as well as diamonds and coal. The main diamond mines were developed around Kimberly, 200 miles south of Johannesburg. About 40 miles to the north of Johannesburg lies Pretoria, the administrative capital of South Africa with dozens of government buildings.

The city of Johannesburg still bears the spatial mark of apartheid although racial segregation is slowly being replaced by a residential pattern based more on economic status. The majority (70%) of the population are black and live in "townships" such as Soweto, a community of 1.5 million people about 10 miles southwest of the city center, with hundreds of small houses, where most residents commute into the city to work. Soweto became famous for unrest during the struggle against apartheid including demonstrations and rent strikes, and for the stark contrasts between the poverty of its residents and the wealth of white neighborhoods in the northern suburbs (**Figure 6.40**).

#### Figure 6.40: Images of Johannesburg

The city houses migrants from other parts of southern Africa who live in hostels and work in the mines and manufacturing plants. Some estimates place the number of illegal migrants in South Africa as high as 8 million, many of them living in the Johannesburg region. Many families were divided by the pass laws with men living in hostels and women working as domestic servants, leaving their spouses and families in rural areas. Manufacturing in the Gauteng region includes iron and steel (using coal from the local area and iron from northeast and central South Africa) and textiles and totals half of South Africa's industry. Formal employment shifted from 1951 when 18% of the population worked in mining and 55% in services to only 2.3% in 1991 working in the primary (mining sector) and 72% in the tertiary service sector. Many people work in the informal economy.

Geographer C.M. Rogerson has described how some aspects of the informal economy of the region, such as street trading and prostitution, were suppressed during the apartheid era, liquor outlets, known as shebeens flourished. In the 1990s informal occupations of taxi driving, haircutting, small scale manufacturing, urban farming, and street selling have boomed and it is estimated that more than 1.2 million people in Gauteng province are now active in the informal sector. The causes of this boom include unemployment, reduced regulation, and an increase in contracting work such as sewing and childcare to women in their homes.

The central city has a grid pattern with many high rise office buildings in the central business district including the headquarters of mining corporations such as Rand Mines, the Johannesburg Stock Exchange, and evidence of foreign investment from both before and after the onset of black majority rule. The problems facing the new regional and city governments of the Johannesburg region include the provision of jobs, housing and services to the poorer residents whose hopes were raised by the onset of black majority rule, and controlling rapidly rising violent crime in the city. Many townships do not have adequate electricity and water supply and residents must use

wood or coal for heat during the chilly winter season, casting a pall of polluting smoke over the townships that contributes to health problems and high infant mortality rates.

The more optimistic city planners see signs that violence will reduce as living conditions improve in the surrounding communities, and the city core becomes revitalized as a residential, shopping and cultural center. Even the townships have become sites for tourists to visit local families though most tourists to southern Africa still avoid Johannesburg and head straight for Cape Town or the game parks.

### **The West African coast and the city of Lagos**

The West African coast, with its warm, humid climate, lush forests, and abundant mineral resources has been a center of culture, trade and population for centuries. The focus of the early slave trade and then of British and French colonialism, the West African coast is one of the most densely populated regions of sub-Saharan Africa. The Europeans sited some of their trading ports and settlements near locations of earlier cities and took advantage of existing social and political hierarchies to obtain slaves and gold, and subsequently taxes and export crops from the region.

The landscape of the West African coast was massively transformed by plantation agriculture, with thousands of hectares of land converted from indigenous cropland and forest into cocoa, palm oil, and rubber trees for export. In the 1960s the Niger delta became the core of an oil producing region that triggered the secessionist Biafra war by the Igbo/Ibo against the mostly Yoruba Nigerian government and promised an economic boom for Nigeria. As Nigeria has become even more dependent on oil exports, which are more than 90% of all exports by value, political unrest has continued in the oil region. While some of the unrest still arises from ethnic conflict between Igbo and Yoruba, and resentment that oil wealth is not benefiting the residents of the oil region, the most recent tensions relate to environmental pollution of the lands and waters of the delta. The hanging of Ken Saro-Wiwa in 1995, a novelist and activist who protested oil spills in the area occupied by 500000 Ogoni people, provoked international outrage and sanctions against the government.

Nigeria is the giant of the region, with a population of 100 million and the largest GDP in West Africa. Lagos, the former colonial capital until it was moved to Abuja in the interior in 1992, has a metropolitan population of more than 12 million people, compared to only 1 million in 1960 (**Figure 6.41**). A natural harbor it was developed as an important rail terminus by the British and as a leading cargo port and industrial area and a center for the production of consumer goods from about 1880. Nigerian geographer Josephine Olu Abiodun reports that about 80% of Nigeria's trade goes through Lagos, although some is shifting to the oil regions to the east. She writes that Lagos state has 53% of Nigeria's manufacturing 62% of the gross industrial output and 22 industrial estates. Lagos is also a cultural center, home of prizewinning writers Chinua Achebe, Ben Okri and Wole Soyinka and of world famous musicians Feli and Femi Kuti and Sunny Ade.

#### **Figure 6.41: Map of Lagos See HG**

The heart of the city is located on Lagos island with major banks and commercial establishments. Wealthier residents live on Victoria Island but millions of poor residents live in shanty towns to the north of the city and are unemployed or work in the informal sector. The location on islands and former mangrove swamps makes the city vulnerable to flooding and creates problems with drainage and construction. When structural adjustment caused food price increases and unemployment after 1989, rioting became a way to express the frustrations of city residents. Lagos is infamous for its traffic and crime problems. The average commute to work is more than 90 minutes in polluted, choking traffic constrained by the few bridges between islands. Electricity and other services are inadequate, the National Electric Power Administration has been given the

nickname of "Not Expecting Power Anytime" as a result of interruptions and lack of service.

### **The East African Highlands and Nairobi**

Less than 20 minutes after leaving the international airport outside Nairobi a visitor can be watching leopards hunting zebra across the grasslands in a national park while the high rise buildings of downtown Nairobi glimmer on the horizon (**Figure 6.42**). Driving into the city, glimpses of former colonial mansions and luxury hotels surrounded by flowers shift rapidly to views across valleys crowded with slum housing and of a city center where business and government leaders drive Mercedes through streets crowded with traders, pickpockets, street children and tourists.

Figure 6.42: Pictures of Nairobi

The commercial and communications center of East Africa is Nairobi, Kenya, a city of almost 2 million located at an altitude of 1800 meters on the high plateau adjacent to Mount Kenya and the east African rift valley. Originally established at a railroad stop where there was a spring and an absence of malaria, Nairobi became the center of British colonial rule and white settlement in East Africa. The temperate highlands and rich soils north of Nairobi were assigned to European farmers who raised wheat, vegetables and fruit and planted extensive plantations of tea and coffee on large estates for export. Cattle, sisal (a fiber) and food crops were also produced on white owned estates in the rift valley to the west. While the lives of colonial settlers have been romanticized by films and books such as *Out of Africa*, their paternalistic treatment of black Africans and the eviction of people from their traditional lands eventually produced rebellion and independence in 1963.

Like most colonial cities in Africa, Nairobi maintains elements of a segregated residential pattern that originated in race, with better off residents living in the former white colonial neighborhoods to the west and north and cheaper high density housing to the east (**Figure 6.43**). A population of Asian origin initially settled near the train station and has now moved into middle and upper class residential districts to the north, working mainly in trading and retail. The highest population densities are found in slum or squatter settlements such as Mathare Valley where service provision is inadequate and there are serious health problems.

Figure 6.43: Map of Nairobi

Nairobi has a smaller population and manufacturing sector than other major African cities such as Lagos, but it is an important service center with headquarters of international companies and non-governmental organizations including the *United Nations Environment Program (UNEP)*. Manufacturing includes an automobile plant, textile, canning and small metal good factories, mainly to the east of the city. Most of the population work in manufacturing, construction or services, and thousands of poorer residents work in the informal sector selling food, household goods and crafts on the street or from small kiosks. The city lacks adequate public transportation and relies on the infamous private minibuses called *matutus* which swerve along the streets overloaded with passengers and contribute to Kenya's high road accident rate. It is an important tourist center, serving as the hub for numerous tours to see the wildlife, culture and landscapes of Kenya and adjacent countries such as Tanzania.

As in many other African cities, poorer communities in and around Nairobi have limited access to electricity, gas or petroleum fuels for heating and cooking and rely on wood or charcoal as their major source of energy. The increasing wood and charcoal demands of the city have had a tremendous impact on forests in the region with serious deforestation as far as 200 kilometers away linked to the energy demands of Nairobi. The difficulties of finding firewood, and the increases in prices, have disproportionately affected women who traditionally collect the wood and are responsible for cooking and

heating the homes. Projects to reduce energy demands by using scrap metal to make more efficient stoves have complemented the efforts of female led non-governmental organizations to protect trees in and around Nairobi. The best known social movement is the *Green Belt* movement, of 50000 women led by Wangari Maathai, that has planted thousands of trees around Nairobi and has been emulated by communities elsewhere in Africa and the world.

The East African Highlands and the adjacent rift valley continue to be important agricultural production zones, serving urban demand in Nairobi and exports of coffee, tea and sisal. The most rapidly growing export sector is fresh vegetables and cut flowers for export to Europe. Relying on refrigerated air transport out of Nairobi airport, Kenya now provides 40% of the European Union imports of fresh vegetables, sending 21000 tons to Britain in 1997, mainly of peas and green beans (check data). The flower industry, centered on Lake Naivasha sends more than 1 billion cut blooms to Europe each year, including carnations and roses, and is now the 4<sup>th</sup> largest in the world after the Netherlands, Colombia and Israel. While these new industries provide employment and high wages than some other sectors, the strict quality standards, perishability and scale economics of air transport mean that small producers find it difficult to compete. There are also concerns about pesticide risks to workers in the growing and packing sectors.

### **DISTINCTIVE REGIONS AND LANDSCAPES**

The news media and development agencies have traditionally grouped some of the more peripheral countries of Africa into regional groups that share distinctive characteristics and problems. For example, discussions of food security and environmental degradation often refer to the **Sahel** as a distinctive region in West Africa, and to the **Horn of Africa** as a similar grouping in East Africa. As we discuss below, these large regions do have some coherence, but they also include great regional and social variations. They also provide examples of some important processes such as desertification and famine that have been particularly associated with sub-Saharan Africa.

Other distinctive landscapes in sub-Saharan Africa include the islands of the Indian ocean and the forests of Central Africa illustrated through the discussion of Madagascar and of the Congo River basin.

#### **The Sahel**

The Sahel, meaning "the shore" in Arabic, has both a physical and a political definition. Geographers define the physical Sahel as the semi-arid zone across the southern edge of the Sahara desert, where seasonal rainfall usually brings a renewal of pasture and opportunities for crop production. According to this definition, the northern parts of several coastal countries such as Nigeria and Ghana might be included within the Sahel. Politically, the zone is expanded to encompass six countries - Chad, Niger, Burkina Faso, Mali, Senegal, and Mauritania (**Figure 6.44**).

#### **Figure 6.44: Map of Sahel**

The Sahel is not a desert of wind and blowing sand, though when the **harmattan** winds blow in the dry season it sometimes seems as though nothing could grow or survive in the dusty conditions. When good rains have fallen the Sahel blooms into a grassland with scattered acacia bushes, and the expanding wetlands of inland deltas provide lush crop and pastureland as well as fishing opportunities. The cities of the Sahel such as Kano and Timbuktu were centers of trade, worship and scholarship before European colonialism, mostly adopting Islamic religion and customs.

The traditional livelihoods of the Sahel included nomadic pastoralism as an adaptation to rainfall that varied from year to year and place to place, farming of cereals and other crops, mining, small scale manufacturing and trade. Geographer David Rain

describes how circular migration has long been a strategy to cope with the high spatial and temporal variations in environmental conditions. Most of the Sahel came under French colonial rule at the end of the nineteenth century, with several regions encouraged to plant peanuts and cotton for export and other trading actively with coastal regions. Colonialism also provided opportunities for seasonal work in mines and plantations though it also brought the burden of taxes to many communities.

A limited network and history of meteorological stations does show that rainfall is very variable across the Sahel but that wetter conditions seem to have occurred in the 1950s and early 1960s. Rather than adjust their herds to average conditions, Sahelian pastoralists tend to be opportunistic, building up their herds in good years because their livestock are the most important way of accumulating wealth and investing capital.

Beginning in 1968, it appears that the rains failed in most parts of the Sahel for up to seven years. As herds began to die off, images of starving drought refugees began to appear in the international media, resulting in a relief effort and anguished debates among researchers and policy makers about what had gone wrong and what could be done to avoid future tragedy. As many as 3.5 million cattle died and 15 million farmers lost more than half their harvests in the 1968 to 1973 period. A quarter of a million people died from famine before food relief could reach them. Some settlements disappeared under sand dunes.

While some researchers blamed nature and the irrational build up of herds in the face of regular drought cycles in the Sahel others argued that the roots of the crisis lay in changes in Sahelian political economy stemming from colonial structures and continuing export cropping. Geographer Michael Watts used case studies from Northern Nigeria to show how people had lost access to land and drought coping strategies through land titling programs, taxation and export crop programs.

Others argued that decades of peanut and cotton production in Senegal and Mali had exhausted the soil and left it unproductive. Climatologists suggested that deforestation and overgrazing had increased the albedo (reflectivity) of the land surface and that this meant less warm air rising and forming clouds or that increased atmospheric dust was reducing the uplift of air, both processes resulting in reduced rainfall.

Women tended to be more vulnerable to food shortages than men, although geographer Richard Schroeder shows that the interaction between gender and class is a complex process. **Gender** is a category reflecting the social differences between men and women. As with other forms of identity, gender implies a socially created difference in power between groups. In the case of gender, the power difference advantages males over females and is not biologically determined, but socially and culturally created. As with other forms of identity, class position can intensify the power differences among and between groups.

In the Hausa region of northern Nigeria the particularities of the gender and class system mean that poor women, relative to their male counterparts, are especially vulnerable to malnourishment, undernourishment, and even starvation. Because of the gender system in Hausaland, women are more likely than men not to have access to food resources. Because of the class system in Hausaland, peasant and working-class women are more likely to lack access to money resources to purchase food than their male counterparts or higher-class women born into the urban and rural aristocracy. In Muslim households men eat before women and children, who are then allowed to consume whatever is left. In periods of sustained drought and famine, it is routinely the case that after men have eaten, there is no food left for women and children. Numerous other factors affect gender vulnerability to drought among the Hausa. These include lower pay for all forms of women's work; restrictions on education for women; restrictions

on direct access to public space; women's dependence on child labor; and lack of job opportunities outside of the private sphere for women. In Hausa society, Islamic law operates variably among different geographically and socially located groups of women. In fact, women in the ruling classes tend to escape most aspects of drought vulnerability through their husbands' or their own access to economic resources. Peasant and other poor women experience few, if any, such mitigating factors, however.

International efforts to respond to the 1970s drought focused initially on food relief but then turned to longer term technical efforts to reduce risk including the drilling of deep wells for cattle herds. Unfortunately so many thirsty cattle were gathered around the wells that all possible forage vegetation was consumed and the herds starved. Where food aid arrived in communities where some farmers still had crops to sell, food prices dropped and farmers could not make a living.

In 1977 the United Nations held a conference on **desertification** to discuss the problems of the Sahel and other regions where the deserts appeared to be spreading into previously productive areas. Desertification has a variety of meanings but is most generally viewed as the degradation of arid and semi-arid lands to less productive conditions through drying, erosion, compaction, build up of salts and loss of fertility and vegetation. Although the UN gave a high priority to the monitoring of desertification, differences in definition and measurement resulted in widely varying estimates of the area affected over the next few decades. While some sources reported that the desert had advanced hundreds of kilometers into the Sahel others saw no long term trend but only year to year variations in the vigor of vegetation. There were also disagreements about the relative role of different factors in causing desertification. The main culprits were seen as climate change, overgrazing, overcultivation (including cash cropping), deforestation for wood fuel, and unskilled irrigation that results in the build up of salt in the soil (salinization).

Whether or not desertification is actually occurring on a large scale, a number of development projects have attempted to reduce the vulnerability of Sahelian people and countries to drought and famine. Reforestation projects in Mali have successfully created erosion barriers, forage for animals, and wood for fuel. Traditional rainwater harvesting techniques using stone barriers to trap moisture have been diffused from one community to another. The United States has led in efforts to create a **Famine Early Warning System (FEWS)** for the Sahel. The FEWS combines multiple sources of social and environmental data to try and anticipate where and when drought, agricultural crisis and famine may occur (**Figure 6.45**). It builds on the understanding of famine as a process of insufficient food intake resulting in acute starvation and increased death rates, distinguished from chronic hunger resulting from acute nutritional deprivation. Nobel laureate Amartya Sen developed a theory where famines occur as a failure of *entitlements* - when people lose their right to farm their land, sell their labor, or trade. The loss of entitlements can be invisible except through indicators that people are selling off their endowments of cattle and jewelry or that food prices are starting to slowly rise.

#### Figure 6.45: FEWS

Recent studies have provided a more optimistic view of the Sahel, suggesting that although drought returned to the Sahel in the 1980s and 1990s, food imports have generally decreased and food production has increased especially in wetland areas. Pastoralists have rebuilt their cattle herds and some have switched to less drought vulnerable species such as sheep and goats. It is argued that the solution to many problems in the region is to support the diversity, flexibility and adaptability that can be found, in different combinations in different communities and households. Diversification strategies include farming and herding combinations of species in several microenvironments using various resource management techniques, finding sources of

off farm income in the community or through seasonal migration, negotiating work within the household, and exchanging food, goods or labor with neighbors or towns.

### **The Horn of Africa**

The Horn of Africa - usually considered to include the countries of Ethiopia, Somalia, Djibouti and Eritrea - has also been associated with drought, which combined with warfare have produced images of famine and large numbers of refugees (**Figure 6.46**).

Figure 6.46: Map and images of Horn

The landscape of this region ranges from the broad plain that stretches inland from the coast of the Red Sea and Indian Ocean to highlands that reach over 10,000 feet and receive rains that feed one of the main tributaries of the Nile. The countries of this region are fiercely independent. Ethiopia resisted colonization for most of its history and was ruled by a Christian monarchy (supposedly descended from Solomon and Sheba) and a common language (Amharic) for hundreds of years until the emperor Haile Selassie was deposed in 1974. Ethiopia is often thought of as a resource rich country, with minerals and large areas suitable for wheat and other cereal production. Coffee was domesticated in the Ethiopian highlands and became an important export contributing 66% of all export value in 1998. The traditional grain of Ethiopia is *teff* used to produce a flat bread known as *injera*. Somalia coheres around the Somali language, clan systems and Islamic traditions and with little arable land, has focused on cattle for export to the Middle East and on fishing productive coastal waters.

Hunger in the Horn of Africa has some relation to failure of the rains, but has been linked directly to continuing warfare and population displacements. A brief review of the complex political geography of the region is essential to understanding the challenges of food production and development. Earlier we discussed how conflict in the Horn of Africa was fuelled by Cold War tensions and ideology, especially the inequalities of the feudal agricultural system of Ethiopia and the incomplete agrarian reforms of the socialist government. The global strategic location of the Horn of Africa at the entrance to the Suez Canal and near to the oil fields of the Middle East brings considerable attention from the US and other powers. US involvement in Somali was partly driven by the offer of military bases in Mogadishu.

Armed struggles between Ethiopia, Eritrea and Somalia diverted resources from efforts to improve agriculture and reduce poverty for several decades. Peace is still not secure in the Horn of Africa because Somali **irredentism** (the attempt to create a unified cultural-linguistic nation) continues to drive interest in territory in Kenya and Ethiopia, and competition between clans within Somalia has produced a state of civil war, tentatively resolved in 2000 by a coalition government. Eritrea and Ethiopia (from which Eritrea seceded in 1993 after 30 years of rebellion) continue to struggle over the border between the two countries, driven by landlocked Ethiopia's concern over its access to ocean ports and Eritrea's bid for rapid economic development and independent currency.

In the 1984-85 famine in Ethiopia more than one million people died and the images of dying children and starving refugees drew worldwide attention, including that of rock musicians who organized the Live Aid conference to raise funds for famine relief. The return of famine in 2000, threatening 8 million people especially in the eastern Ogaden region, was linked to drought and to continuing border conflicts with Eritrea that were diverting resources to military rather than humanitarian and agricultural activities and causing farmers to abandon their fields. Increases in the population since the mid 1980s, and the associated divisions of farmland into smaller and overcultivated plots were also blamed for the failure of harvests to meet demand. The distribution of aid was insecure because Eritrea controlled the ports and wanted assurances that food would

not benefit the Ethiopian army, and banditry within Ethiopia jeopardized transport and aid workers.

### **Madagascar**

Rising to more than 3000 meters (9000 feet), the island of Madagascar emerges from the Indian Ocean about 400 kilometers (250 miles) from the East Coast of Africa. Like the other Indian Ocean islands included in the Sub-Saharan African world region, Madagascar's human geography has been influenced as much by Asia to the East as by Africa. Settled by migrants from Indonesia, the island was colonized by France. The fourth largest island in the world, it is noted for the unique and diverse species of animals and plants that inhabit its forests including 33 species of lemurs and 800 species of butterfly. It provides an important example of the theory of island biogeography that suggests that larger islands or forest areas will have many more species than smaller ones. Correspondingly a reduction in area can mean a ten fold drop in species diversity.

The original forests developed on slopes that received heavy rainfall from the trade winds but most of these slopes are now in agriculture or ranching. The most serious environmental problem in Madagascar is deforestation, which has a long history, associated with clearing land for rice production, sugar plantations and cattle ranches, and the export of tropical hardwoods. Only remnants of the original forests remain and are of concern to conservationists worldwide because of their unique ecology. Several important medicinal plants, including the rosy periwinkle, used to treat leukemia, were discovered within the rapidly disappearing forests. Deforestation on steep slopes has also placed human populations directly at risk from soil erosion, landslides and floods that are much more severe on devegetated land.

Figure 6.47: Map and images of Madagascar

### **SUMMARY**

The future of Sub-Saharan Africa is difficult to forecast because there are both positive and negative signs throughout the region. While some countries have improved living standards, established democratic governments, and increased food and economic production, others are mired in conflict over resources and political futures or face forbidding epidemics of malaria and AIDS. Social inequalities persist in many regions and contribute to unrest, migration and famines. While some residents maintain rural subsistence lives, almost totally disconnected from the world economy, others are working in transnational corporations or are producing new exports for the global market.

Countries in Sub-Saharan Africa can be a rich source of culture, products and markets, or an unstable threat to regional and global security. Whatever the future may hold for Africa, it is a region that the rest of the world can ill afford to ignore.

### **KEY TERMS**

**African Socialism:** political system based on traditional values of communal ownership and kinship ties that emphasizes social or group rather than individual production and interests

**AIDS:** Acquired Immunodeficiency Syndrome and often fatal disorder of the immune system caused by HIV - the Human Immunodeficiency Virus

**Apartheid:** South Africa's policy of racial separation that prior to 1994 structured space and society to keep black, white and colored (mainly Asian) populations apart.

**Assimilation:** French colonial policy of encouraging colonial subjects to see themselves as citizens of France ruled centrally from Paris

**Bauxite:** a mineral ore with high concentrations of aluminum

Berlin Conference: 1884 meeting that divided Africa between European colonial powers with little attention to traditional ethnic boundaries

**Berlin Conference:** convened by German chancellor Bismark in 1884-85 to divide Africa among European colonial powers

**Bush Fallow:** modification of shifting cultivation where crops are rotated around a village and fallow periods are shorter

**Circular Migration:** traditional and longstanding population movements that respond to seasonal availability of pasture, droughts and wage employment

**Convention on International Trade in Endangered Species (CITES)**

**Desertification:** the process by which arid and semi-arid regions become less productive to more desert like conditions

**Direct rule:** direct control of land and labor by colonial power

**Domestication:** adaptation of wild plants and animals through selective breeding by humans for preferred characteristics into cultivated or tamed forms

**Feminization of poverty:** Women are more likely to be poor, malnourished and otherwise disadvantaged because of inequalities within the household, the community and the country.

**Foreign Aid:** international transfer of capital (loans and grants), goods (e.g. food or arms), or services (technical training) with the stated intent to benefit other nations and their citizens

**Harmattan:** a hot dry wind that blows out of inland Africa

**Homelands:** Areas set aside in South Africa for black residents as tribal territories where they were given limited self government but no vote and limited rights in the general politics of South Africa. With the end of apartheid in 1994, these states were incorporated back into South Africa with full citizenship.

**Gender and Development (GAD):** an approach to development that links women's productive and reproductive roles and to understanding the gender related differences and barriers to better lives of both men and women

**Genocide:** the deliberate and systematic destruction of a racial, religious, political, or ethnic group

**Indirect rule:** British controlled their colonies through local leaders and administrative structures

**Irredentism:** policy of cultural and political integration of ethnic and linguistic group within one state  
Harmattan: a hot, dry wind that blows out of the Sahara desert in winter carrying large amounts of dust

**Locusts:** large grasshoppers that swarm and devour all vegetation in their path

**Lomé Convention:** Agreement originally signed in 1975 between the Europe Economic Community and 66 countries, mainly former colonies in Africa and the Caribbean, to provide economic assistance and trade concessions

**Malaria:** disease from a parasite transmitted to humans by mosquito bites causes fever, anemia and fatalities, mainly in tropical regions

**Microfinance programs:** provide credit and savings to the self employed poor, including those in the informal sector, who cannot borrow money from commercial banks

**Pastoralism:** way of life that relies on livestock raising

**Rift valley:** See chapter 2

**Royal Geographical Society:** British organization founded in 1830 to promote geographical knowledge and exploration

**Savanna:** grassland vegetation found in tropical climates with pronounced dry season and periodic fires

**Scramble for Africa:** competition between European powers for control of Africa after about 1880 (see Berlin conference)

**Shifting cultivation:** agricultural system that preserves soil fertility by moving from one plot to another

**Slash and burn:** agricultural system often used in tropical forests that involves cutting trees and brush and burning them in order that crops can benefit from cleared ground and nutrients in the ash

**Slavery:** condition in which one human being was owned by another. A slave was considered by law as property and was deprived of most of the rights ordinarily held by free persons.

**Social capital:** networks and relationships that encourage trust, reciprocity and cooperation

**Southern African Development Community:** regional organization of southern African countries that works to promote economic cooperation and integration among the member states and to preserve their economic independence. The member states are Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

**Termite:** insect that eats a wide range of cellulose materials recycling organic matter to soil and destroying property

**Transhumance:** seasonal movement of livestock and their owners from mountain to lowland pasture or from dryer to wetter regions

**Triangular trade:** exchange of guns, alcohol and manufactured goods shipped to Africa and exchanged for slaves that were sent to the Americas and exchanged for gold, silver, tobacco, sugar and rum to be sold in Europe.

**Tsetse fly:** biting fly found in African woodlands and scrubland that transmits sleeping sickness to humans and animals

**Veld:** high grass covered plateau of southern Africa

**World Health Organization:** United Nations Organization established to further international cooperation to fight diseases especially epidemics

## **GEOGRAPHY MATTERS: GEOGRAPHY, EXPLORATION AND COLONIALISM IN AFRICA**

Some of the most famous explorers were associated with the British **Royal Geographical Society** (RGS) founded in 1830 for the "advancement of geographical science". The RGS supported and awarded their medal of honor to many African explorers including David Livingstone, Richard Burton and John Speke.

*David Livingstone*, a Scottish missionary, arrived in South Africa in 1841 and for the next 15 years he traveled throughout the interior. He is best known for his explorations of the Zambezi and his encounter with the magnificent waterfalls that he named after Queen Victoria. His book on his travels in South Africa sold more than 70,000 copies. His last expedition from 1866 to 1873 attempted to reach Lake Tanganyika from southern Africa and traveled further into west central Africa than any previous European expedition. He was out of touch for so long that an American journalist, Henry Stanley of the New York Herald, was sent to find him and wrote popular reports that added to the fame of the explorer who died soon after in 1873.

*Richard Burton* spoke 25 languages and traveled widely through Asia, the Middle East and Africa writing dozens of reports about his encounters. His goal in Africa was to discover the source of the Nile. On his first expedition in 1855 he was wounded in Somalia, on his second in 1857 he reached Lake Tanganyika but was so ill from malaria that he decided to return to London. His companion on this expedition, *John Speke*, continued on to Lake Victoria and claimed it as the source of the Nile, to great acclaim, despite opposition from Burton. Speke returned and traveled the length of the Nile from Lake Victoria to the Mediterranean in 1862. Burton went on to work for the British Foreign Office in West Africa and published several books describing local customs.

These Victorian explorers added greatly to geographic knowledge of Africa and their reports fuelled colonial interest in the continent's resources and peoples. Their lectures at the Royal Geographical Society and elsewhere increased interest in the discipline of geography and its role in Britain's colonial enterprise. However, their books contained many Victorian prejudices and paternalistic attitudes that fostered the popular imagination of Africa as a barbarous and exotic continent in need of civilization and colonial supervision.

Figure 6.48: Pictures of explorers and RGS

Figure 6.49: Map of colonial exploration