

CHAPTER 17 WEST AFRICA

Objectives

After studying this chapter, students should be able to:

- describe the location, size and political divisions of West Africa.
- describe the relief of West Africa.
- mention the importance of rivers and lakes, and their uses.
- state the classification of climate and vegetation in West Africa.
- mention the major cash and food crops of West Africa and their locations.
- state the importance and problems of agriculture in West Africa.
- list important minerals, mining countries and areas.
- describe the population distribution in West Africa and the factors responsible for it.

17.1 Location, Position and Size

Location: The region generally known as West Africa is located between longitude 15° East and 18° West of the Greenwich Meridian and between latitudes 4° North and 20° North of the equator.

Position: West Africa is the large area which covers the southern part of the great westerly extension of Africa north of the equator. It is bounded in the north by Sahara desert, in the east by the Cameroon Republic and to the South and West by the Atlantic Ocean.

Size: West Africa has a total land area of approximately 6,143,000 square kilometres which occupies $\frac{1}{5}$ of the area of Africa.

To the south of West Africa lies the Gulf of Guinea and several islands which are usually considered as part of West Africa. These islands are Fernando Po, Principe, Sao Tome and Annobon. Others include the Cape verde islands which lie out in the Atlantic west of St Louis. These islands occupy another land area of 1400 sq km.

The overall land area of West Africa is about 3200km from West to East and 1280km from north to south. The countries with large areas of land include Nigeria (923,768 sq km), Mali (1,189 sq km), Niger (1, 204 sq km) and Mauritania (1,085 sq km).

Political Divisions

West Africa is made up of fifteen mainland countries and other offshore islands. These countries are grouped according to their official languages, including; French, English and Portuguese languages. With these three major languages, West African countries are grouped into Anglophone, Francophone and Portuguese countries.

The Anglophone (English speaking) countries include Gambia, Sierra Leone, Liberia, Ghana and Nigeria. Francophone (French speaking) countries include Mauritania, Mali, Senegal, Cote D'Ivoire, Niger, Togo, Republic of Benin, Guinea and Burkina Faso. Lastly, the only Portuguese country is Guinea Bissau.

Landlocked Countries: Countries which do not have access to the coast or oceans are called landlocked countries. These countries in West Africa are Burkina Faso, Mali, Chad and Niger.

The problems of landlocked countries are as follows: insecurity of goods, loss of revenue due to smuggling, inability to control duties, political and economic dependence on other countries and high freight cost.

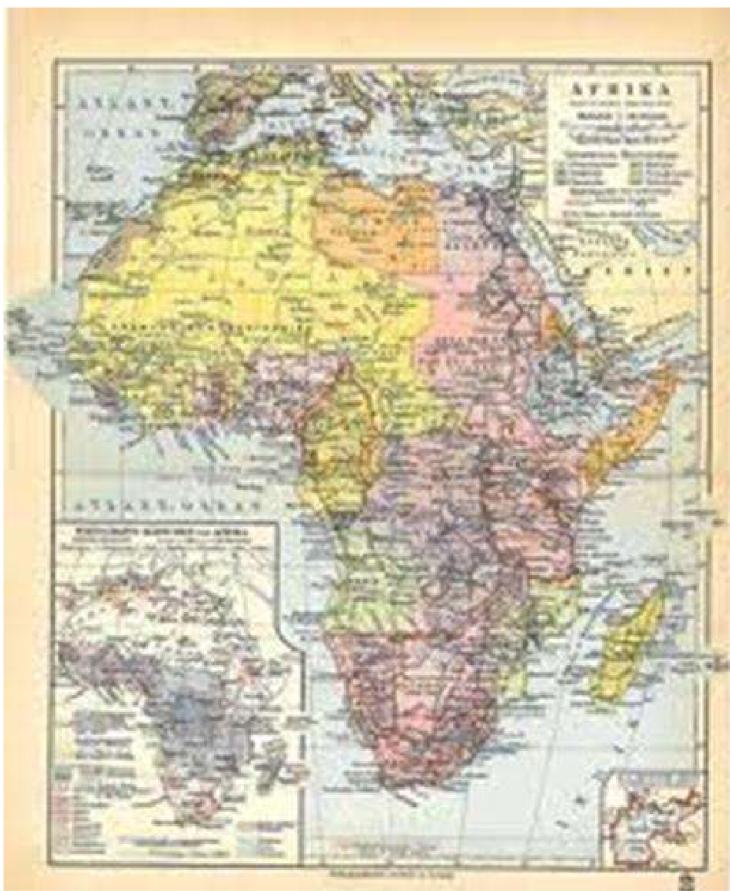


Fig. 17.1: Political division (countries) in West Africa

17.2 Relief Regions of West Africa

West Africa can easily be divided into three physical regions:

- (i) The lowlands: These areas are below 300m above sea level. The coastal plain is an undulating lowland area rising from 0-180metres and is covered with sedimentary rocks. It is very broad in the north-west around Senegal/Gambia and around the Niger Delta area in Nigeria. This coastal plain is narrowest in Liberia and in Sierra Leone where the Fouta Djallon and Guinea highlands occur very close to the sea. The interior lowlands are found in the inland Delta in Mali, Chad basin and Niger Benue trough in Nigeria and the Volta basin in Ghana.
- (ii) The interior plateaux: Their average height ranges between 300 and 900m and made up of basement complex rocks. Areas of these plateaus include plateau of

North Central Nigeria, Akwapin – Togo ranges, Southern Mali and Northern Burkina Faso.

- (iii) The high mountains and plateaux: These are areas above 900m in height and made up of basement complex rocks. They include Jos Plateau, Fouta Djallon Plateau, Mandara mountains and Adamawa-Bamenda highlands. Most of the rivers in West Africa have their sources from these highlands.

17.3 Drainage of West Africa

West African rivers can be divided into three distinct groups:

- (i) Short, fast-flowing rivers: Rivers in this category are River St Paul, River Jong, River Sewa, River Tano, River Rokel, River Sassandra, River Pra, River Konkoure, Cross River, Ogun River, etc.
- (ii) The Long Rivers: These include River Niger, Senegal, Volta, Benue and Gambia. They take their rise from central uplands. River Niger is the longest river in West Africa about 4,160km long and the third longest in Africa. It takes its source from Guinea highlands and flows through Guinea, Mali, Niger and it empties its water into the sea in Nigeria. River Volta is the second longest which is about 1600km long.
- (iii) Inland Drainage Rivers: These are rivers which empty their water into some lakes usually called inland drainage lakes. Rivers Hadeija, Yadseram, Yobe and Shari (all in Nigeria) flow into Lake Chad. These rivers are called inland drainage rivers.

Lakes in West Africa

There are natural and man-made (artificial) lakes in West Africa. It includes:

- (a) Artificial lakes
- (i) Lake Volta on River Volta (Ghana)
 - (ii) Lake Kainji on River Niger (Nigeria)
 - (iii) Lake Shiroro on River Kaduna (Nigeria)
 - (iv) Lake Kossou on River Sassandra (Cote D'Ivoire)
- (b) Natural Lakes
- (i) Lake Chad found in North Eastern part of Nigeria.

Generally, rivers and lakes in West Africa are important for food supply, employment, irrigation, domestic uses, industrial uses, tourism, transportation and generation of H.E.P (Hydro Electric Power).



Fig. 17.2:
Relief and
Drainage of
West Africa

17.4 Climate of West Africa Factors Affecting the Climate of West Africa.

The factors that affect the

climate of West Africa include nearness to ocean, the wind systems, relief, ocean currents and the varying positions of the sun.

- (i) Nearness to the ocean: The rainfall of West Africa decreases from the southern part inland because of the proximity of the southern part to the Atlantic Ocean. Some coastal areas receive over 2,500mm of rain per annum. The southern parts of West Africa have longer periods of rain than the northern parts.
- (ii) The wind systems: The south-west winds (tropical maritime airmass) blow from the Atlantic ocean towards the landmass and bring rain to West Africa. On the other hand, the North east trades (tropical continental airmass) blow from the Sahara desert across West Africa and bring harmattan.
- (iii) Relief: High altitude areas such as Fouta Djallon highlands, Guinea highlands and the Jos plateau have their climate modified by altitudes.

The temperatures are lower and rainfall higher than the surrounding lowlands.

- (iv) Ocean currents: The two main ocean currents that influence the climate of West Africa are the cold canaries current and the warm Guinea current. The former

helps to lower the temperature of places near the West African coast around Dakar while the latter causes some coastal fog which in itself reduces visibility in the coastal area. The warm guinea current warms the winds blowing over the area thereby causing some heavy rainfall from the Guinea towards the Nigerian coastland.

- (v) The varying positions of the sun: During summer in West Africa, that is, when the sun is overhead worth of the Equator, the sun shines over the land and a low pressure centre is created over the entire region. The interior (Sahara desert region) becomes the hottest part of West Africa (35^0C is recorded in some places). During the winter in West Africa, that is, when the sun is overhead south of the equator, the low pressure area shifts to regions south of the equator and the coast of West Africa becomes the warmest part of West Africa with a temperature of about 30^0C .

Classification of Climate

Climate of West Africa can be grouped into six climatic regions, namely:

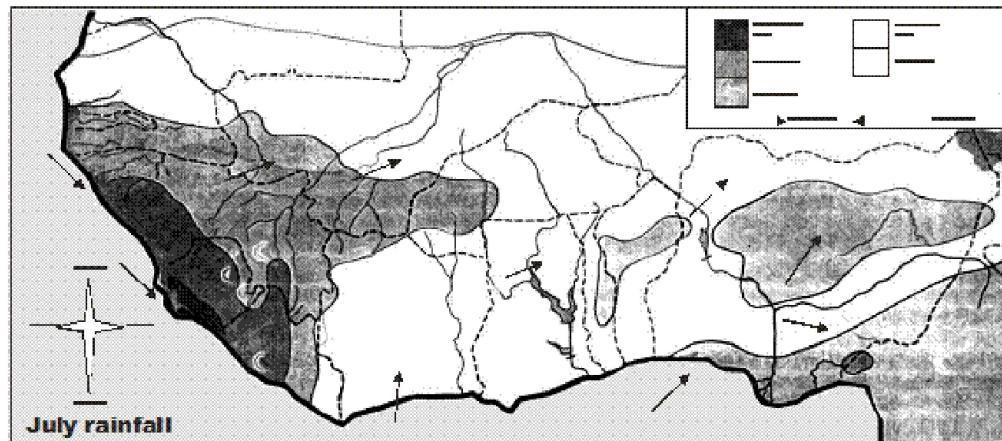
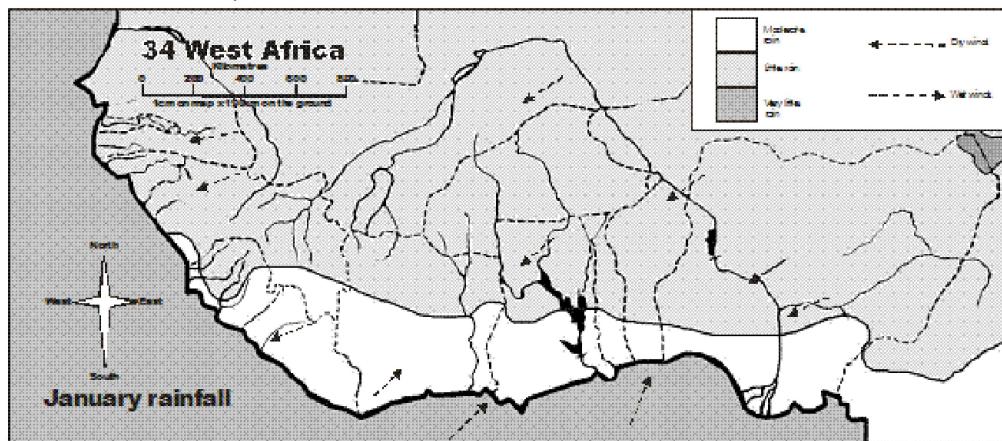
- (i) The sub-equatorial region: Found in Abidjan in Cote D'Ivoire; Port-Harcourt and Warri in Nigeria. It has a temperature of about 27^0C , rainfall of over 2,500mm per annum, relative humidity of over 90% and there is no month without rainfall of at least 50mm.
- (ii) The tropical hinterland region: Found in Togo, Benin, Cote D'Ivoire and Southern Nigeria. It has a high temperature of over 27^0C , moderate rainfall of 2000-3000mm which is double maxima.
- (iii) The tropical continental region: Found in the heart of West Africa like Gambia, Benin, Coast of Ghana, Togo, Burkina Faso and Southern Mali. It has high temperatures between $21^0\text{C} - 33^0\text{C}$ throughout the year, rainfall between 500-1000mm per annum and long period of little or no rainfall (4-8 months of dry season).
- (iv) The high plateau climate is found in highland areas like in Adamawa highlands, Jos plateau, Guinea and Fouta Djallon highlands. It has a moderate temperature between 2^0C and 26^0C , a high relative humidity and heavy rainfall.

- (v) The Monsoon region is found in Guinea, Liberia and Sierra Leone. It has high rainfall and low annual range of temperature.
- (vi) The Desert region.

Seasons in West Africa

The two major seasons in West Africa are:

- (i) Wet or rainy season: It occurs between March and November. The temperature is higher in the north (33^0C) than the south (27^0C). Rainfall decreased from the south towards the north.
- (ii) Dry season: It occurs between November and February. The temperature is low, there is absence of rainfall and harmattan is experienced between December and January.



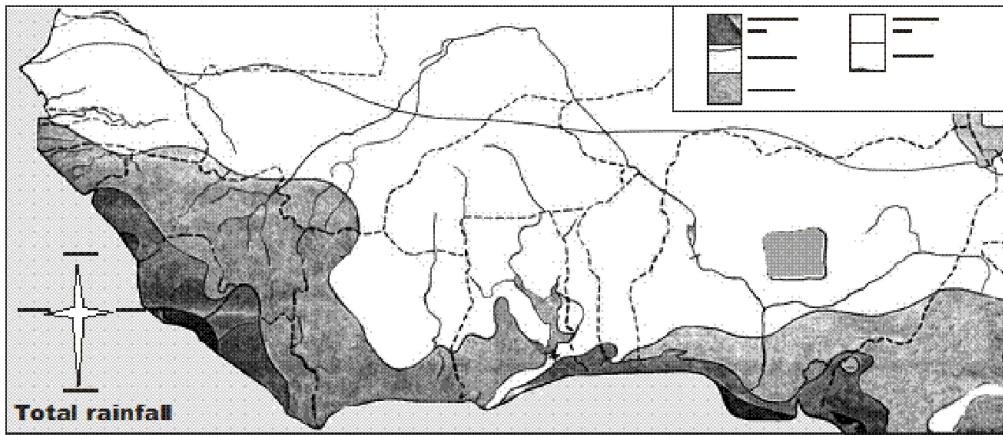


Fig. 17.3: Seasons rainfall distribution in West Africa

17.5 Vegetation of West Africa

It is possible to distinguish four main vegetation belts in West Africa:

- (i) Equatorial forest
 - (ii) Savanna
 - (iii) Semi-desert and scrub
 - (iv) Desert
1. Equatorial forest: It is mainly found in the southern part of West Africa except along the coast of Ghana. It is divided into 2 groups namely:
 - (i) Mangrove swamp forest: It is found in Port-Harcourt, Freetown and Abidjan. It has tall woody trees with aerial roots. In this region, the water resisting mangrove timber is being cut on a commercial scale. The trees include white mangrove, red mangrove and raffia palms.
 - (ii) Rain forest: Found in southern Cote D'ivoire, interior Liberia, Tarkwa in Ghana, Benin and Akure in Nigeria. The forest contains a wide variety of trees like mahogany, iroko, obeche, african walnut, kolanuts and palm oil. There is the presence of little undergrowths, climbers, creepers and parasitic plants.
 2. Savanna: North of equatorial forest, the rainfall decreases and winter drought becomes more pronounced. The vegetation is mainly found in the northern part of West Africa and it is divided into 2 subgroups namely, Guinea Savanna and Sudan Savanna.
 - (i) Guinea Savanna: It is the largest of all the savanna regions. It is found in the middle belt of Nigeria, northern Ghana and Guinea. There is the presence of

- tall grasses, tall and scattered trees. The giant baobab, shea-butter, isobelina and locust bean trees are the most usual types.
- (ii) Sudan Savanna: It stretches from central Senegal to Northern Nigeria. Trees are fewer and more drought – resistant. Thorn forest and scrub appear. Much of the vegetation may consist of small acacia, date palm and baobab trees. Almost everywhere, the grass covering is rather sparse. In this northern division, cattle grazing is the main occupation.
3. Semi-desert/Sahel and Scrub: It is found in Niger, southern Mali, Mauritania and Borno area of Nigeria. The rainfall here is deficient, the grass covering gradually disappears and wholly displaced by a scanty and broken covering of thornbush. It has drought resistant trees like acacia, gum Arabic, baobab, date palm, etc.
4. Desert: This is found in Northern Niger, Mauritania and Mali. There is no continuous plant cover at all. Most plants found there are (drought resistant) ones called xerophytes e.g. wiry grasses, acacia and date palm. There are bare rocks as well as places covered with gravels and sand. Oases are the habitable places in the desert.

17.6 Agriculture in West Africa

West African countries are mainly agricultural countries. They produce both export/cash/economic crops and subsistence/food crops. The kind of crop grown varies considerably from place to place, largely in accordance with variations in rainfall. The crops can equally be classified into two according to regions in which they are grown. The forest region produces mainly tree/root crops which include rubber, coffee, oil palm, kolanut, cocoa, yam, cassava, banana and plantain. The grassland (savanna) region produce mainly food crops such as yam, cassava, cotton, groundnut, grains/cereals e.g. maize, millet and guinea corn.

Based on regions of production, it can be observed that some of the crops can do well in the south or north. Some crops like maize, rice, groundnut, etc can grow both in the south and north.

Major Cash Crops in West Africa

Table 17.1: Crops produced in different country areas:

	Crop	Countries	Producing Areas
1.	Cocoa	Nigeria	Akure, Ibadan, Ilesa
		Cote D'Ivoire	Abolso, Agboville, Anyama
		Ghana	Awoso, Nsuta, Kumasi
2.	Cotton	Nigeria	Zaria, Kano
3.	Groundnut	Nigeria	Kano, Kaduna
		Gambia	Banjul
4.	Rubber	Liberia	Firestone area
		Nigeria	Benin, Sapele
5.	Coffee	Cote D'Ivoire	Aby lagoon, Man-mountain
		Sierra Leone	Kenema, Bo
		Liberia	Mano areas
		Togo	Kouve, Nnatja, Palime
6.	Palm produce	Nigeria	Portharcourt
		Sierra Leone	Mambolo

Importance of Agriculture to West Africa

The importance of agriculture in the general development of West African countries is being increasingly appreciated by the various governments of the region. The importance includes:

1. Source of food: It is the main source of food for the various people of West Africa.
2. Employer of labour: It usually engages more than a half of the working population of each of the countries.
3. Foreign exchange earnings: It is one of the main sources of foreign exchange earnings in the area.
4. Provision of market: It provides markets for industrial goods like fertilizers, herbicides and farm implements.
5. Provision of raw materials: It provides the bulk of raw materials required especially in the food processing industries.

6. Research: It encourages research into ways of increasing productivity and the quality of certain crops like palm oil and cocoa.
7. Development of towns: Social amenities are provided where plantation agriculture exists, hence, the development of such places e.g. good road, electricity and water.
8. Involvement of governments: It now involves the active participation of the governments of West Africa in active participation in farming. For example, Ghanaian government launched the ‘Operation Feed Yourself Campaign’ in 1972., while the Federal Government of Nigeria launched “Operation Feed the Nation Campaign” in 1976 and “Green Revolution Campaign” in 1980.

Problems of Agricultural Development in West Africa

The following are the challenges facing agriculture in West Africa:

- (i) Use of simple implements: The use of simple implements involves much physical exertion and reduced output.
- (ii) Inadequate capital and poor credit facilities: Inadequate capital to purchase the desired implements. This often hinders productivity.
- (iii) Land tenure systems: It poses some problems on farming which consequently contributes to the low agricultural output.
- (iv) Problem of pests and diseases: It restricts agricultural expansion in some parts of West African sub-region e.g. prevalence of sleeping sickness caused by tsetse flies in the sahel savanna.
- (v) Poor transport and communication system: It poses some constraints on agricultural expansion. Not all parts of West Africa are adequately served with a good transport system for the quick distribution of agricultural products to consumers.
- (vi) Poor soils and soil erosion: Where poor soil occur, agriculture cannot be carried on profitably. The same is where soil erosion has impoverished an area.
- (vii) Conservative altitude of most peasant farmers: Most small scale farmers stick fast to methods of farming inherited from their ancestors.
- (viii) Climatic factors: Unpredictable climate is detrimental to crops. Inadequate rainfall restricts the variety of crops that could be cultivated in a place.

- (ix) Poor marketing system: It occurs because the supply of agricultural products cannot be easily adjusted in response to falling prices of the outputs because of poor storage and processing facilities.

Solutions to Problems of Agricultural Development

Solutions to some agricultural development problems in West Africa are:

1. Irrigation systems can be built to offset inadequacy of rainfall in the drought – areas of West Africa.
2. Provision of transport facilities and tarring of all feeder – roads to make them accessible all year round.
3. Application of fertilizers/manures for higher productivity.
4. Provision of basic social amenities like electricity, water, hospitals, etc. in rural areas to reduce attraction of people to the towns.
5. Provision of adequate storage facilities and the establishment of many agro-based processing industries to process the agricultural products.
6. Provision of agricultural inputs including imported machinery, spraying machines, insecticides, loans and/or subsidies.
7. Individualisation of land tenure as distinct from communal land ownership.
8. Encouragement of modern agricultural methods better pest control, use of better seedlings, etc.
9. Organisation of adult-education schemes to give farmers some educational rudiments which will enable them to apply some basic agricultural innovations.
10. Application of soil conservation method to check soil erosion.

17.7 Minerals in West Africa

Some of the minerals in West Africa have been extracted for many years in commercial quantities. The mineral producing countries and areas in which they are mined are presented in the table below:

	Minerals	Country	Mining Areas
1.	Gold	Ghana	Prestea, Tarkwa
2.	Petroleum	Nigeria	Oloibiri, Afam Egbema
3.	Copper	Mauritania	Akscut

4.	Tin	Nigeria	Jos
5.	Columbite	Nigeria	Jos
6.	Bauxite	Ghana	Awaso, Mpraeso
		Guinea	Boke, Los island
7.	Iron ore	Liberia	Bomi field
8.	Diamond	Sierra Leone	Tango and Yengema
		Ghana	Nsuta, Oda, Kade
9.	Limestone	Nigeria	Nkalagu, Ewekoro, Ukpilla, Gboko
10.	Coal	Nigeria	Enugu, Okaba
11.	Manganese	Ghana	Nsutta
		Cote D'Ivoire	Odiene
12.	Phosphate	Togo	Polime
		Senegal	Pallo

Contributions of Minerals to the Economy

Some of the contributions of minerals to the economy of West Africa include:

1. Employment: The mining of minerals provides employment opportunities to many people in the region especially those residents very near the mining centres.
2. Sources of revenue to government: Much money is realized from minerals by the governments in whose area of jurisdiction the mineral deposits are found.
3. Revenue to miners: Income realized by miners is used to cater for their economic activities.
4. Transport development: The presence of minerals has brought in a chain of development in transportation systems, particularly railways to carry bulky minerals like coal.
5. Industries: In most West African countries, minerals have served as basis for some processing industries e.g. the cement industry at Nkalagu.
6. Social amenities: The presence of most minerals attract some social amenities to the localities where the minerals are mined e.g. electricity, pipeborne water, schools, hospitals etc.

17.8 Population Distribution in West Africa

The population of West Africa is not evenly distributed. Some areas are thinly or sparsely populated, some are moderately populated while others are thickly or densely populated. The areas of dense population include Lagos, Kano, Ibadan, Accra, Freetown, Dakar and Monrovia, etc. Areas of moderate population are Benin, Kano, River area, Niamey, Bamako, Ashanti region, Ougadogou, etc. Lastly, areas of sparse population include Mauritania, Mali, Northern Niger, Middle belt of Nigeria, Upper Gambia, etc.

Factors Responsible for Population Distribution in West Africa

These factors include:

1. Some densely populated areas have been centres of trans-Saharan trade (e.g. Kano) while some areas have low population because of trans-Saharan slave trade (e.g. the middle belt of Nigeria).
2. Fertile soils favour high population densities while poor soils discourage high population growth.
3. Presence of industries encourage high population concentration while its absence discourages high population concentration.
4. Areas of excessive rainfall support dense population concentration while areas of insufficient rainfall supports sparse population.
5. Safe areas (e.g. Dakar, Accra, Lagos etc) are thickly populated as people run away from danger zones into zones of refuge.
6. Areas that are inaccessible by road, railway, etc have low population densities while those that are accessible have moderate or high population densities.

Tribes of West Africa

Despite the wide variety of culture in West Africa from Nigeria to Senegal, there are general similarities in dress, music and culture that are not shared extensively with groups outside the geographic region.

The following table shows some of the tribes, languages and their countries in West Africa:

S/N	TRIBE	LANGUAGE	COUNTRY
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1.	Akan	Akan	Cote D'Ivoire
2.	Aku	Aku	Ghana
3.	Bassa	Bassa	Liberia
4.	Edo/Benin	Edo	Nigeria
5.	Efik	Ibibio-Efik	Nigeria
6.	Eket	Eket	Nigeria
7.	Ewe	Ewe	Togo, Benin, Nigeria, Ghana
8.	Beta – Palnum	Ewindo, Fang	Sao Tome and Principe
9.	Fulani	Fula	Guinea, Nigeria, Senegal, Benin, Gambia
10.	Ga	Ga	Ghana
11.	Hausa	Hausa	Nigeria, Niger, Chad and Cote D'Ivoire
12.	Igbo(Ibo)	Igbo	Nigeria, Sierra Leone and Equatorial Guinea
13.	Esan	Esan	Nigeria
14.	Madinka	Madingo	Burkina Faso, Liberia, Niger, Mauritania
15.	Wolof	Wolof	Senegal, Gambia and Mauntania
16.	Tiv	Tiv	Nigeria
17.	Yoruba	Yoruba	Nigeria, Benin, Togo

Summary

- West Africa is located between 15° East and 18° West of the Greenwich Meridian and between latitudes 4° North and 20° North of the Equator.
- West Africa has a total land area of approximately 6, 143, 000 sq kilometres.
- West Africa has lowlands and highlands.
- The important rivers are Niger, Volta, Benue, Senegal and Gambia while lakes include Volta, Kainji, Shiroro, Sossou and Chad.
- Rivers and lakes are important for employment, irrigation, food supply, transportation tourism, generation of H.E.P, etc.
- Factors affecting the climate of West Africa are measures to the ocean, relief ocean currents and the wind systems.

- The four main vegetation belts in West Africa are Equatorial forest savanna, semi-desert, scrub and desert.
- The crops grown in West Africa are rubber, coffee, cocoa, cassava, oil palm, cotton, maize, groundnut, millet, guinea corn, etc.
- Problems facing agriculture in West Africa are inadequate capital, use of simple implements, land tenure system, poor soils, poor transport, conservation and climatic factors.
- Important minerals in West Africa are gold, petroleum, copper, tin, columbite, bauxite, diamond, limestone, iron ore, coal, manganese and phosphate.
- The population of West Africa is unevenly distributed. There are sparse, moderate and dense areas of population.
- The tribes in Nigeria include Hausa, Fulani, Igbo, Yoruba, Bassa, Aku, Akan, Ga, Madinka, Beti-palnum, Efik, etc.

Revision Questions

Objectives

1. Which of the following does not contribute to the high cost of building and maintaining roads in West Africa?
 - A. swampy coastal areas
 - B. numerous rivers to be crossed
 - C. mountainous nature of some regions
 - D. infertility of some lands
 - E. torrential downpour
2. All the following are forms of subsistence farming in West Africa except
 - A. mixed farming
 - B. rotational bush fallowing
 - C. permanent cultivation
 - D. plantation agriculture
 - E. pastoral nomadism
3. In what part of the West Africa coast can a tombolo be found?
 - A. Senegal
 - B. Gambia
 - C. Guinea
 - D. Burkina Faso
 - E. Sierra Leone
4. The major problem facing the utilization of human resources in West Africa is
 - A. soil fertility
 - B. housing for all by the year 2000
 - C. unemployment
 - D. emigration
 - E inter-regional war
5. All the following are advantages of the bush fallowing system in West Africa except that it
 - A. allows land to regain its fertility during fallow
 - B. is very economical in the use of land

- C. reduces the need for the use of artificial fertilizers
 - D. could lead to soil erosion E. requires little technological input
6. The low level of trade among West African countries is mainly because
- A. of mistrust among them B. of the language barrier C. there is a well developed transport network D. they produce similar goods E. of different currencies
7. Which of the following people can be found in most parts of West Africa?
- A. Wollof B. Ewe C. Madingo D. Gola E. Hausa
8. The sparse population of the middle belt of West Africa could be traced to all the following factors except
- A. Inter-ethnic wars B. Arab slave trade in the north
 - C. the swamps created by rivers Niger and Benue
 - D. European slave trade in the south
 - E. The presence of pests and diseases
9. Which of the following West African countries is the largest producer of groundnut?
- A. Burkina faso B. Mali C. Guinea Bissau D. Senegal E. Liberia
10. Trade among West African countries is less developed mainly because
- A. They were ruled by different colonial powers which created a barrier to communication
 - B. the products of one country are basically similar to those of the others.
 - C. There are no international railway lines to transport the bulky items of trade across the borders.
 - D. Of ethnic sentiments of people in one country against the other.
 - E. No West African country has surpluses of commodities to export to the other countries

Essay

1. On an outline map of West Africa, locate and name (i) the full course of the River Niger (ii) the Fouta Djallon highlands (iii) two tributaries of the River Niger (iv) the Guinea highlands
- b. Highlight four ways in which the River Niger is of importance to the economic development of West Africa.

- c. Outline four factors which inhibit the full use of the River Niger (SSCE 1998)
- 2a. State three climatic regions in West Africa and discuss the characteristics of each one of them.
- b. Outline the economic importance of either the forest or savanna vegetation.
- 3a. On a sketch map of West Africa, locate and name one mining area for (i) Bauxite (ii) Gold (iii) Petroleum (iv) Iron Ore
- b. State four problems and four solutions to the problems facing agriculture in West Africa.
- 4a. Outline any five factors responsible for the low density of population in some parts of West Africa.
- b. In what four ways can low population density be an advantage? (SSCE June, 1994)
- 5a. Briefly discuss the relief of West Africa.
- b. On an outline map of West Africa, locate and name: (a) Lagos (ii) Accra (iii) Niamey (iv) Freetown
- c. Name two landlocked countries in West Africa.