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GEOGRAPHY



**Tamil Nadu
Textbook Society**

GEOGRAPHY

STANDARD VII

**Untouchability is a sin
Untouchability is a crime
Untouchability is inhuman**



**TamilNadu
Textbook Society**

MADRAS

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There is absolutely no foundation for the complaint that but few men have the power to take in the knowledge that is imparted to them. On the contrary you will find that most are quick to reason and ready to learn. Reasoning comes as naturally to man as flying to birds, speed to horses, and ferocity to beasts of prey. Our minds are endowed by nature with such activity and sagacity.

QUINTILIAN

PART - A

PHYSICAL GEOGRAPHY

1. THE EARTH

Origin of the Earth

Scientists believe that millions of years ago, there was a slowly rotating huge mass of extremely hot gas. They named it 'Nebula'. This nebula, cooled, shrank and rotated faster. The matter that was thrown out due to rotation at various times, formed the existing planets. The original white hot mass still remains as the 'Sun'. The planets revolve round the sun. The 'Earth' is the third nearest planet to the sun and ranks fifth in size. The cooling process caused the hot gas to form an atmosphere and a molten globe. This cooled further so that a solid crust was formed. The water vapour in the atmosphere condensed to form water and this fell as rain and produced the oceans. This is how the earth was formed. The earth is the only planet known to have living creatures on it. The earth's distance from

the sun seems to have provided the right conditions for evolution of advanced forms of life.

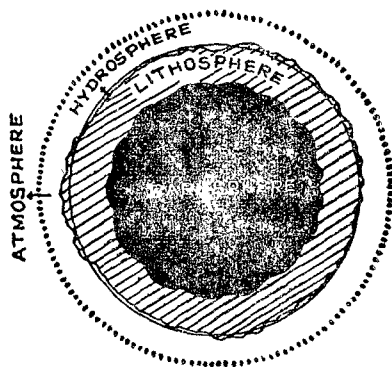


Fig. 1. Structure of Earth

Structure and Composition of the Earth

The earth is almost spherical in shape. The diameter of the earth is about 12,750 kilometres. Structurally, the earth consists of three concentric zones namely 1. The core, 2. The mantle and 3. The crust.

The Core

The inner-most zone is known as the core of the earth. It is supposed to be in solid state. It extends for a radius of about 3,476 kilometres from the centre of the earth. It is believed that the core of the earth is made up of a mixture of Iron and Nickel. The temperature of the core may range from 1927°C to 4150°C .

The Mantle

Surrounding the core, for a thickness of about 2,896 kilometres lies the mantle. It is said to be in a semi-plastic state consisting of Iron, Magnesium and Silica.

The Crust

It is the thinnest outer zone of the earth. Its thickness is about 16 to 32 kilometres. It is composed of different kinds of rocks, mostly with minerals such as Silica, Aluminium and Magnesium.

The land area covers about 29% of the earth's total surface and the oceans occupy the remaining 71%. Encircling the land and water masses is the

vast layer of 'atmosphere'. The inner most solid centre is called the **Barysphere**.

The land area or solid portion of the earth's surface is called the **Lithosphere**.

Oceans, seas, lakes, glaciers, rivers etc., are collectively called the **Hydrosphere**.

The air surrounding the earth for a distance of about 320 kilometres is known as the **Atmosphere**. The two principal gases in the atmosphere are Nitrogen and Oxygen.

QUESTIONS

I. Describe how the earth was formed.

II. (a) Fill in the blanks:

1. The core is made up of chiefly—— and ——.
2. The mantle is said to be in a—— —— state.
3. The earth is the —— nearest planet to the sun.

(b) Match the following :

- | | |
|----------------|------------------|
| 1. Lithosphere | The water bodies |
| 2. Hydrosphere | Made of gases |
| 3. Atmosphere | Solid core |
| 4. Barysphere | Land areas |

III. Practical Work

Draw the structure of the earth and name the zones.

2. DISTRIBUTION OF THE CONTINENTS

You have already learnt that 29% of the earth's surface is covered by land and the rest 71% by water. The big land masses are called 'continents' and the

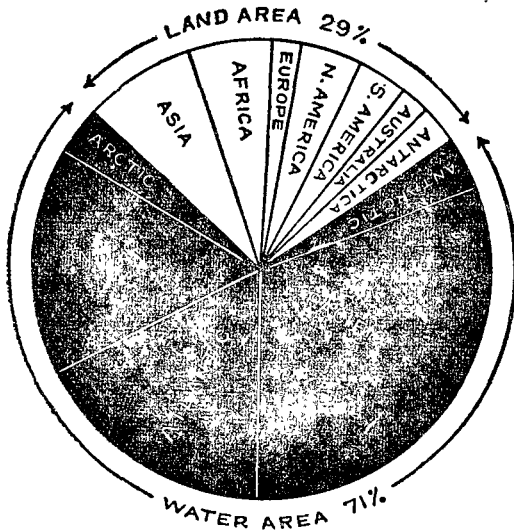


Fig. 2. Distribution of Land and Water

vast expanses of water are known as 'oceans'. There are 7 continents on the earth. They are 1. North America, 2. South America, 3. Europe, 4. Africa, 5. Asia, 6. Australia and 7. Antarctica.

In the Western Hemisphere lie North America and South America. They are shaped like triangle. The base of North America is in the north against the Arctic Ocean and the point is in Cape Horn in the Southern Ocean.

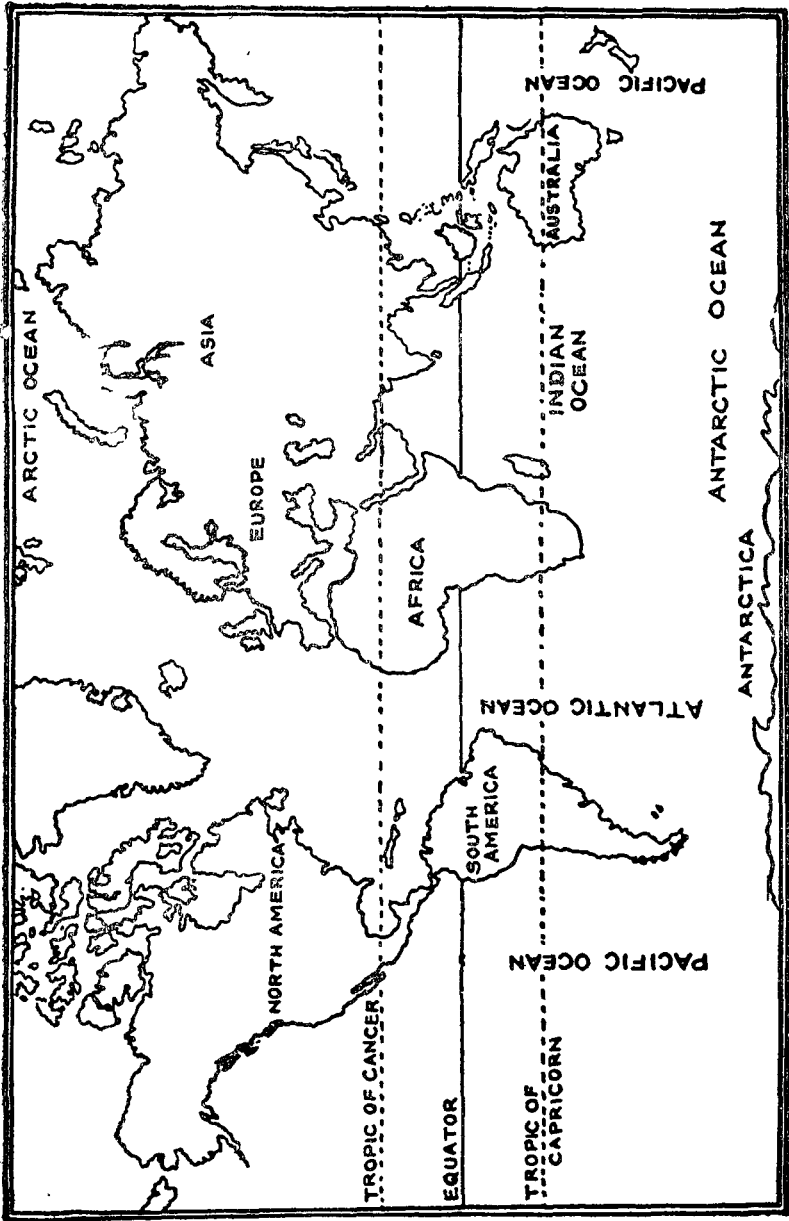


Fig. 3. The World : Continents and Oceans

In the Eastern Hemisphere are the four continents-Africa, Europe, Asia and Australia. They lie like two triangles united at their bases. Here again the land is widest in the north but instead of tapering into a single point, it ends in two points at Cape of Good Hope and the island of Tasmania. Besides these three triangles stretching from the north to the south, there is a fourth smaller landmass around the South Pole. That is Antarctica.

Between the three triangular landmasses lie three larger triangles of water expanses. They have their base in the south and they taper towards the north. They are the Pacific Ocean, the Atlantic Ocean and the Indian Ocean. The Arctic Ocean is around the North Pole and the Antarctic Ocean or the Southern Ocean is around Antarctica.

Concentration of the landmasses in the Northern Hemisphere

The triangles both of land and water are irregular but there is certain symmetry in the arrangement of continents and oceans. There is more land in Northern Hemisphere and more water in Southern Hemisphere. North America, Europe and Asia lie completely in the Northern Hemisphere. The wider parts of Africa and South America lie in the Northern Hemisphere and the narrow parts extend into the Southern Hemisphere. Only the small continents Australia and Antarctica are entirely in the Southern Hemisphere. Land occupies 39% of Northern Hemisphere and only 19% of Southern Hemisphere.

Geologists to-day are able to prove that the earth was once one enormous continent but split up and

drifted apart later to their present position. If the continents are cut from a map, they can be made to fit together like a zig zag puzzle.

QUESTIONS

- I. 1. What are continents and oceans ?
2. What can you say about the distribution of land in the northern and southern hemispheres ?
- II. Fill in the blanks :
 1. The continents that lie entirely in the northern hemisphere are _____, _____, and _____.
 2. The continents that lie entirely south of the equator are _____ and _____.
- III. Practical work

On an outline map of the world, name the oceans and the continents.

3. ROCKS AND MINERALS

You have already learnt that the earth's crust comprises of the Lithosphere and Hydrosphere (ie) land and water respectively. The Lithosphere is made up of a variety of rocks. In the ordinary sense the word 'rock' implies something which is hard. In Geology it includes all the solid materials of the earth's crust whether it is hard like stone or soft like clay. Basically, there are three kinds of rocks that make up the earth's surface.

1. Igneous Rock

'Igneous' means fire. Igneous rocks are the oldest rocks. They were formed from the hardening of molten material when the earth began to cool and solidify. Thus, they are the ancestors of the other two rock types. Most common igneous rocks are 'granite' and 'basalt'. Granite is used for building purposes and basalt is used for laying roads.

2. Sedimentary Rock

'Sedimentary' means 'a settling'. Many millions of years ago, were layers of sand, gravel and mud lying on the bottoms of ancient lakes, rivers and seas. These materials are called sediments. The sediments hardened into sedimentary rock by the great pressures that were exerted upon them by the water above. The most common sedimentary rocks are 'sand stone', 'limestone' and 'shale'. These rocks are seen in places where the sea bottom has risen out of the water.

3. Metamorphic Rock

Metamorphic means 'made over'. Metamorphic rocks are those which at one time were either igneous or sedimentary, but which were changed into different forms by forces such as heat and pressure. Marble, one of the hardest of stones, was 'made over' from lime stone, one of the softest. Layers of compressed shale have changed into slate.

Rocks are made up of a variety of minerals. The minerals are classified under two heads as 1. Metals and 2. Non-metals.

Minerals like iron, copper, silver, gold, lead etc. are metals.

Coal and petroleum are examples for non-metallic minerals.

1. Petroleum

Millions of years ago, great forests covered the swampy earth. When they wilted and died, they sank in the swamp. As thousands of years crept slowly they were covered over with silt which turned to rock. So what had once been the tree filled swamps were caught between thick layers of rocks. Due to pressure this vegetable matter changed into reservoir of thick black liquid called 'petroleum' or 'crude oil'. Only a few hundreds of years ago, scientists learned to drill for petroleum and refine it into petrol, kerosene, paraffin etc.,

2. Coal

Coal was formed in the same way as oil. (i.e) Vast masses of vegetable matter fell into ancient swamps and rotted. These were covered by mud and silt which turned into stone. Due to different kinds of force, these rotted vegetable matter did not change into petroleum but became hard, black brittle rock which we call coal. Coal lies under the ground in long thick seams between layers of slate or shale. So coal is a sedimentary rock, that burns. Bi-products such as coal gas, coal tar, ammonia, coke etc. are obtained from coal.

QUESTIONS

- I. 1. How are metamorphic rocks formed ?
 2. How is petroleum formed ?
- II. (a) Fill in the blanks :
1. The three types of rocks are _____, _____
 and _____.
2. The two types of minerals are _____ and _____.
- (b) Say whether it is true or false.
1. Igneous rocks were formed from molten lava.
2. Sedimentary rocks were formed due to heat and forces acting on them.
3. Coal is formed from vegetable matter.
4. Coal is generally found in seams.
- III. Practical Work
- Collect different types of rocks for your Class Museum.
- _____

PART - B

Geography of Australia and Africa

AUSTRALIA

1. GENERAL SURVEY

Australia is the smallest among the seven continents. It is known as the **island continent**. Australia is the only continent comprising of a single country. It lies entirely in the Southern Hemisphere, very far away

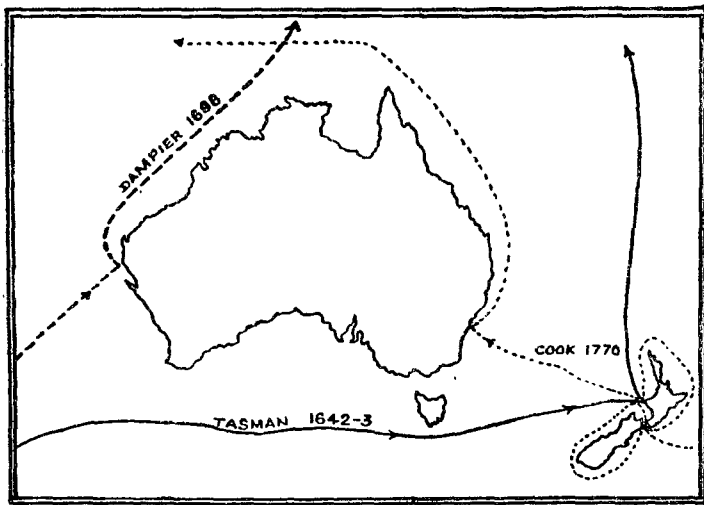


Fig. 4. Australia : Discovery (Sea routes followed by seamen).

from the other countries. It was not discovered till seventeenth century. As a result of its secluded position the flora and fauna of Australia is quite different from that of other countries.

Discovery

Spanish and Dutch explorers had begun visiting various parts of Australia at the beginning of the seventeenth century.

In 1642 a Dutch man named Abel Tasman landed in a thickly forested coast of an island. This island was named after him as Tasmania.

In 1688 a British seaman, Dampier, arrived at the dry west coast of Australia.

In 1768 Captain James Cook of Britain landed in Newzealand and claimed Newzealand for the British Crown. In 1770 he sailed across to the South East coast of Australia and this paved the way for the colonization of Australia by Britain.

In 1803 Flinders sailed around Australia. In the 18th century the laws of Britain were severe. The convicts were sent away from Britain. One such party of prisoners were sent to Australia. They landed at Botany Bay in 1788. The first settlement grew up in and around this place. It was named Sydney after British Home Secretary of that time, Lord Sydney. The temperate maritime climate attracted Englishmen to Australia. From 1793 onwards they came in large numbers. The well-watered east coast was suitable for agriculture and stock raising.

In 1813 a pass was discovered in the Eastern Highlands; so the settlers started to move westwards.

In 1851, gold was discovered in New South Wales. So there was a rush for gold. When they failed to get

gold they turned to farming and sheep rearing. By 1865 there were more than one million people in Australia.

Position and Size

Australia lies to the South East of Asia. It is bounded by the Indian ocean on the west and north-west, by the Southern ocean on the south and Pacific Ocean in the east. Australia extends from 10° S to 44° S and 113° E to 153° E. The Tropic of Capricorn

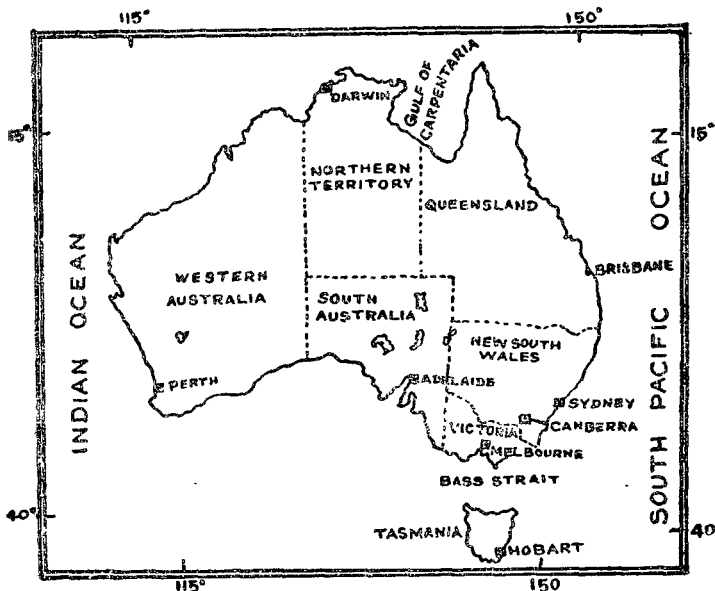


Fig. 5. Australia : Political Divisions

lies across the central portion of the continent. Australia covers an area of about 76,86,884 square kilometres. The east-west and north-south linear distances of mainland of Australia are 4,007 and 3,154 kilometres respectively.

The Commonwealth of Australia consists of six states and two territories. Canberra is the capital of the Commonwealth.

STATES	CAPITAL CITIES
1. Western Australia	Perth
2. South Australia	Adelaide
3. Queensland	Brisbane
4. New South Wales	Sydney
5. Victoria	Melbourne
6. Tasmania	Hobart
TERRITORIES	
1. Northern Territory	Darwin
2. Australian Capital Territory	Canberra

QUESTIONS

- I.
 1. What do you know about the position of Australia ?
 2. Write few lines on how Australia was peopled.
- II. Fill in the blanks :
 1. Australia is known as an _____ continent.
 2. Captain _____ took possession of Australia for Britain.
 3. Tropic of _____ passes through Australia.
- III. Practical Work.

On an outline map of Australia mark

 1. the six states and their capitals.
 2. two territories and their capitals.

2. RELIEF AND DRAINAGE

Look at the map. You can see that the western half of Australia is a plateau. The mountain ranges are situated along the east coast. In between these two are the lowlands. In Australia three main physical regions may be noted.

1. The Eastern Highlands.
2. The Central Lowlands (plains).
3. The Western Plateau.

1. The Eastern Highlands running close to the east coast extend for about 3,000 kilometres from Cape York to Tasmania. It is known as the Great

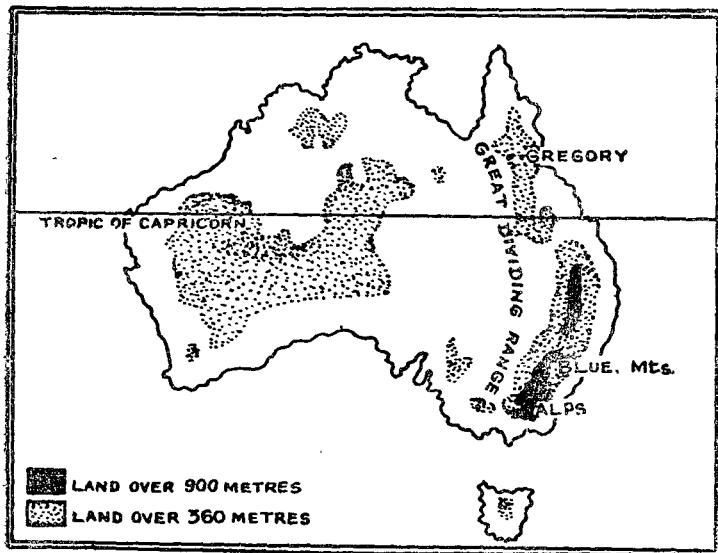


Fig. 6. Australia: Relief

Dividing Range. The eastern side is steep and the western side slopes gently and merges with the

central Lowlands. It is known by different names in the different parts. In Queensland it is known as Gregory Range, in New South Wales as Blue Mountains and as Australian Alps in Victoria. The highest peak is Mount Kosciusko (2228 metres) in New South Wales. A few passes link the Coastal plains to the central Lowlands. The island state of Tasmania is really an extension of the Eastern Highlands separated by the Bass Strait.

II. The Central Lowlands between the Eastern Highlands and the Western plateau extend from the shallow Gulf of Carpentaria in the north to the Southern Ocean in the south. It may be divided into three important regions namely :

- (1) The Carpentaria Plain: This slopes gently towards the Gulf of Carpentaria in the north. It is drained by short seasonal rivers.
- (2) The Lake Eyre Basin: This is in the south. It consists of one of the world's largest inland drainage basins. Lake Eyre covers more than 10,000 square kilometres. It is 18 metres below sea level and it is generally dry. Small rivers rising in the north and east flow towards Lake Eyre. Lake Eyre is a salt lake.
- (3) The Murray - Darling Basin: This is in the south east. Murray-Darling River system is the largest in Australia. The alluvial deposits brought from the Eastern Highlands by these rivers have made this region, as Australia's best agricultural land.

III. The Western Plateau covers nearly two-thirds of Australia. Its height is roughly between 450 to 550 metres. It is made up of ancient crystalline rock. The plateau extends for over 50,00,000 square kilometres in Western Australia, Northern Territory and greater part of South Australia. Most of the region is a desert. Here and there rise a few ridges. The western edge of the plateau falls as a steep scarp to the narrow coastal strip.

The Great Barrier Reef extends for about 2,000 kilometres along the eastern coast. It is the greatest coral reef in the world. It runs at an average distance of about 100 kilometres from the coast. It is composed of millions and millions of shells of tiny marine creatures which live in warm, saline and shallow waters. The sea between the coral reef and the coast is calm. It helps navigation.

Australia is the world's driest continent. There are very few rivers and several of them are seasonal. There are no rivers in one-third of the country.

Rivers

(a) The Murray - Darling Basin is the largest area of river drainage in the country. The two rivers Murray and Darling and their tributaries Murrumbidgee and Lachlan are fed by the melting snow. So they are perennial. The heavy rainfall on the Australian Alps adds to the volume of the rivers. For nearly 1,930 km. the Murray forms a natural boundary between New South Wales and Victoria. It enters the sea through Lake Alexandrina.

(b) The rivers of the east coast like Richmond, Clarence, Hunter flow into the Pacific Ocean. They are short and swift because of the steep slope of the Eastern Highlands. A marvellous work of engineering has been completed across one of the

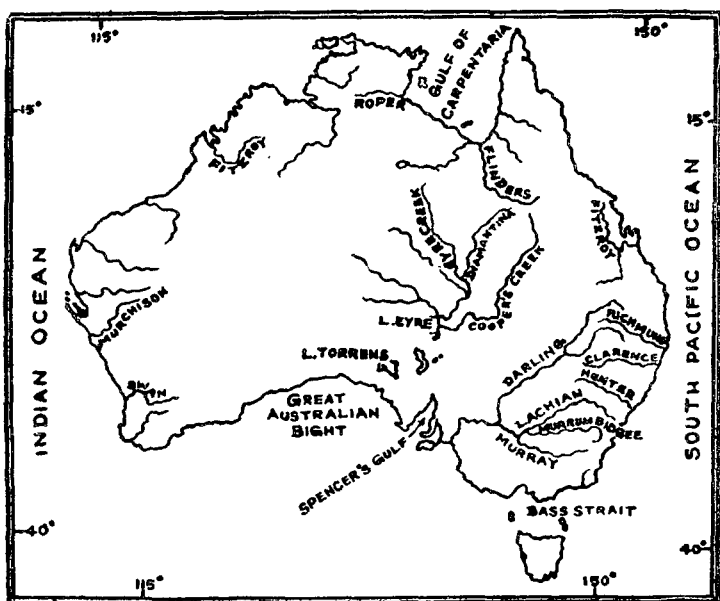


Fig. 7. Australia : Rivers

east flowing rivers, namely the Snowy River. Dams have been constructed and tunnels have been cut through solid rock in order to divert the waters of the east flowing Snowy River to the arid lands lying to the west of the Great Dividing Range.

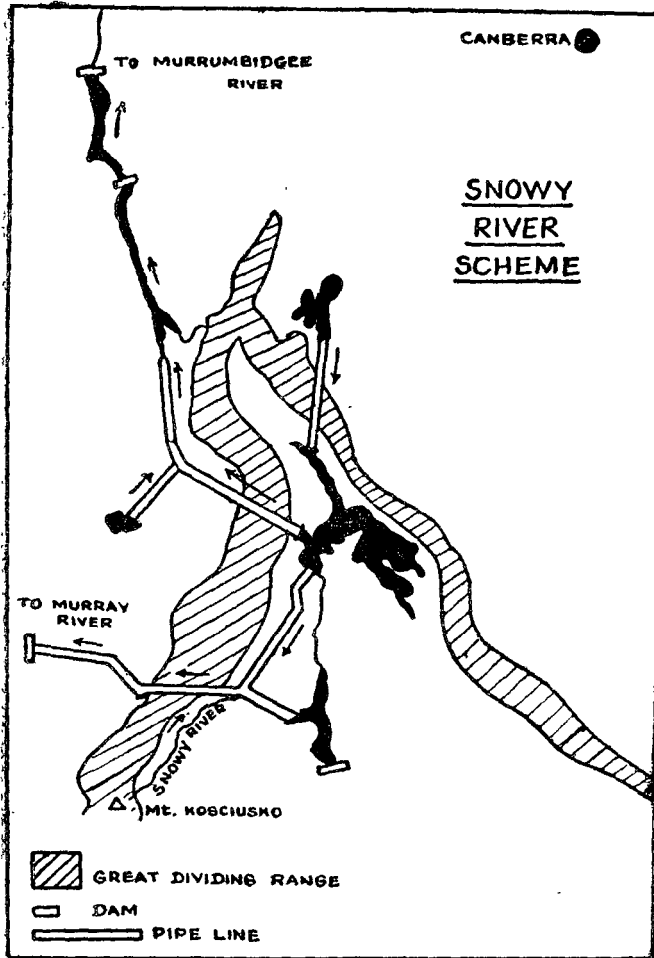


Fig. 8. Australia: Snowy River Scheme

(c) The rivers of the west coast are short and swift, and most of them are seasonal; some of the important rivers are Fitzroy Murchison, and Avon.

(d) The rivers flowing north into the Gulf of Carpentaria are sluggish. These short seasonal rivers are clogged with mangroves near their mouths.

(e) In the inland drainage some of the rivers flowing into Lake Eyre and Lake Torrens are Cooper Creek, Diamantina, Eyre Creek etc. The slow rates of flow and high evaporation usually cause them to disappear before they reach the lakes. In very wet season, these rivers carry much water and on such occasions, Lake Eyre has been known to be full.

Australia possesses immense underground water resources. In some places the rocks are basin-shaped. They are arranged in layers with a layer

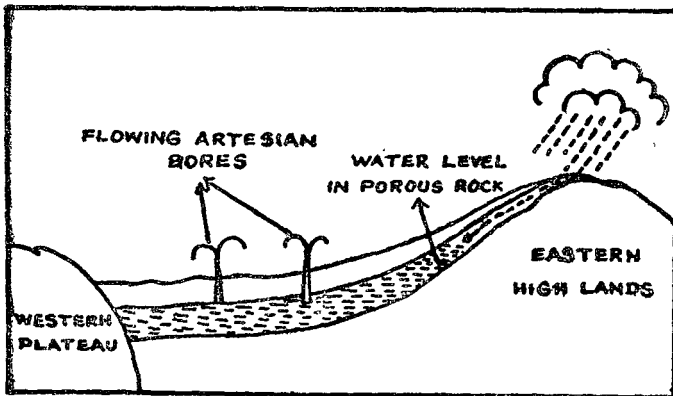


Fig. 9. Australia: Artesian Well

of porous rock, lying between two layers of impervious rocks. The rain water that enters the porous layer at the open end cannot escape below. So, it remains trapped. When a well is sunk through the upper impervious layer to the porous rock, the

water gushes out. This is known as 'Artesian Well'. The sinking of artesian wells has enabled to develop stock raising. It is not used for agriculture as the water is saline.

The Chief Artesian Basins are :

1. The Great Australian basin.
2. Murray River basin.
3. Eucla Basin.

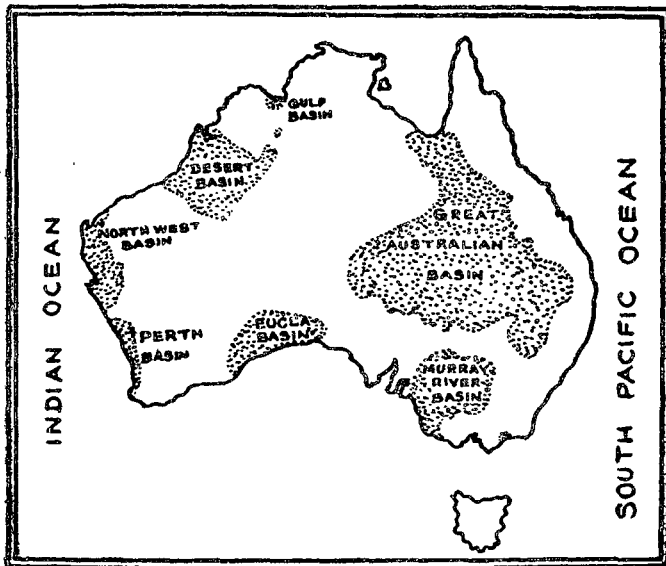


Fig. 10. Australia: The Artesian Basins

4. Perth Basin.
5. North-West basin.
6. Desert basin.
7. Gulf basin.

QUESTIONS

- I**
1. Mention the five river systems of Australia.
 2. What is the Great Barrier Reef composed of?
 3. What is an Artesian Well?

II (a) Fill in the blanks.

1. The highest peak in Australia is
2. The Western plateau consists of rocks.
3. The Great Barrier Reef is along the coast of Australia.

(b) Choose the correct answer.

1. West flowing rivers of Australia are fed by
(a) melting of snow. (b) Rainfall.
2. The River Murray flows as boundary between
(a) New South Wales and Victoria.
(b) Northern Territory and Western Australia.

(c) Match the following.

NAME OF RANGE	STATE
1. Gregory Range	Victoria
2. Blue Mountains	Queensland
3. Australian Alps	New South Wales

III. Practical Work

On an outline map of Australia mark

1. (a) the Physical divisions.
(b) the important rivers and lakes.
2. Draw the cross section of an artesian well.

3. CLIMATE

The climate of Australia is affected by (a) its location between 10°S and 44°S , (b) the position of the Eastern Highlands and (c) the low elevation of

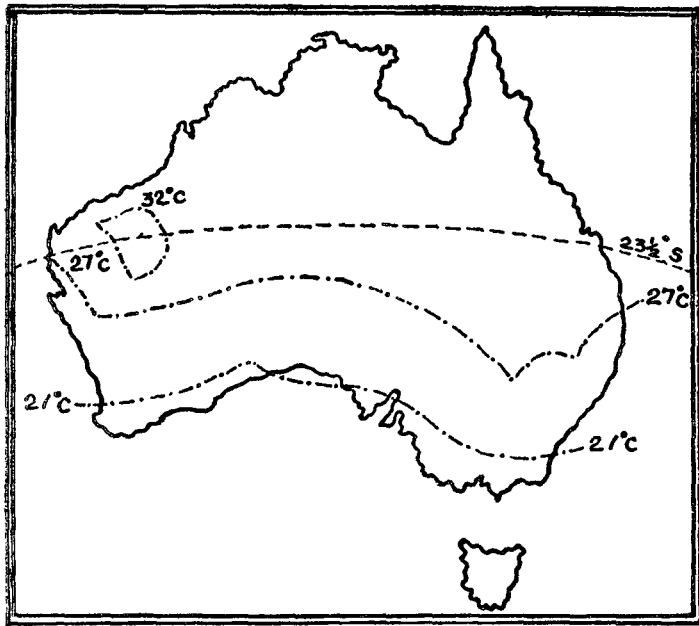


Fig. 11. Australia: January Temperature (Summer).

the land. The Tropic of Capricorn passes through Australia. Which will be the hottest month? In which belt is Australia, hot, temperate or cold belt?

A very large portion of Australia lies within the tropics. The temperature is generally high.

Australia lies within the belt of South East Trade-Winds. These on - shore winds bring moderately heavy rain to the east coast all the year round. The Eastern Highlands act as a barrier of these rain bearing winds. The rainfall therefore decreases con-

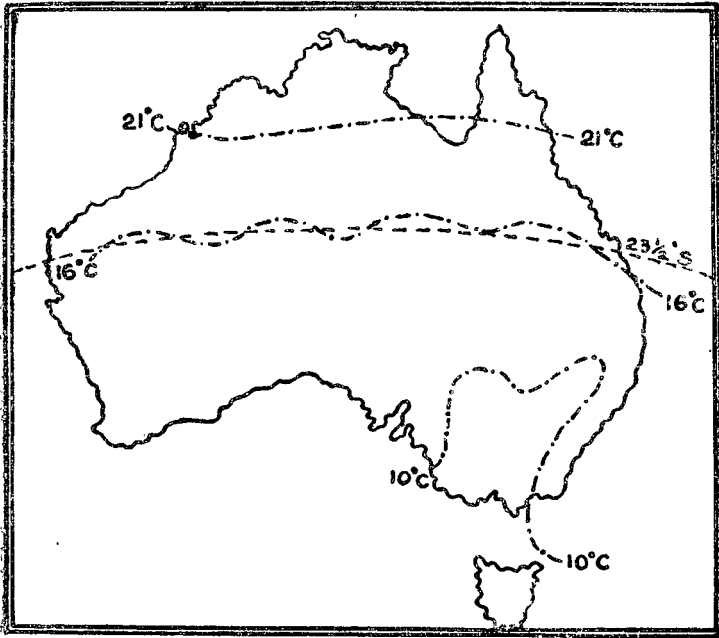


Fig. 12. Australia : July Temperature (Winter).

siderably towards the west. A very large part of Central and West Australia has no rainfall at all.

The average height of greater part of Australia is less than 300 metres. So, due to low elevation no part of Australia has a cold climate except the high mountains in the south east.

As Australia lies in the Southern Hemisphere the seasons of Australia are opposite to those of the Northern Hemisphere. In India which lies in the Northern hemisphere the hottest months are May and June. The cool season is in December and January. Whereas in Australia, it is the reverse. The hottest months are December and January and cool season is in May and June.

Rainfall

Compare the map showing annual distribution of rainfall with the map showing relief. What

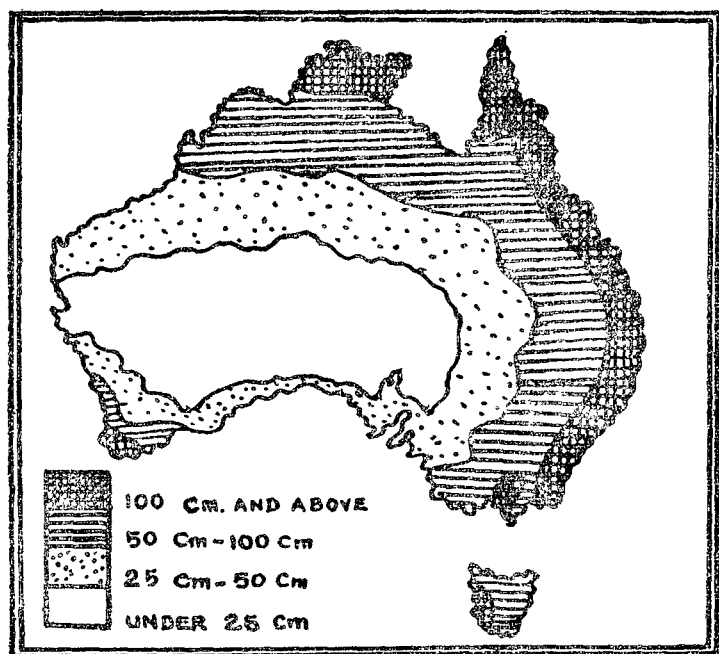


Fig. 13. Australia: Mean Annual Rainfall

do you notice? The most significant point is that heavy rainfall is confined to the outside edges in the north, east and south.

The South-East Trade Winds blow all the year round. They bring heavy rain to the windward

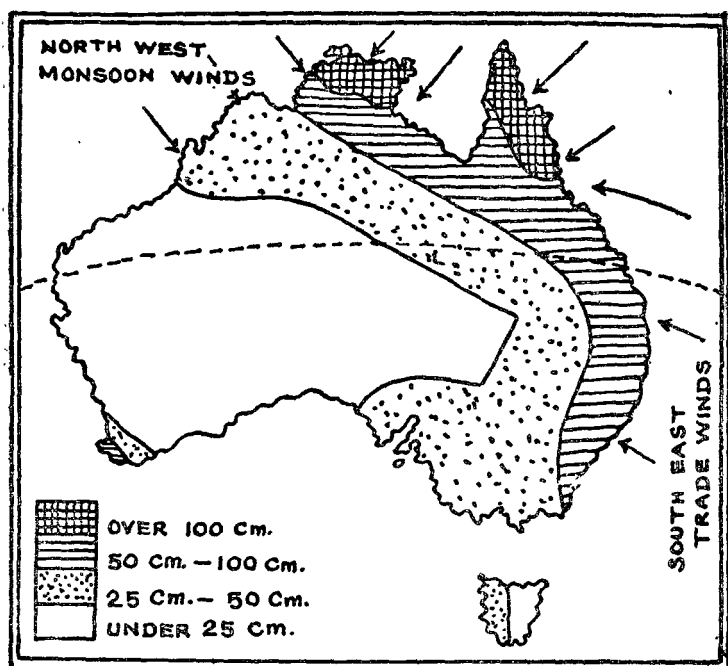


Fig. 14. Australia: Summer Rainfall

slopes of the Eastern Highlands. This is 'relief rain'. The winds lose moisture on climbing the mountains and become hotter and drier as they pass inland. Consequently much of the interior receives little rain. They lie in the rain-shadow region. So

the centre of the continent is very dry. It is a desert.

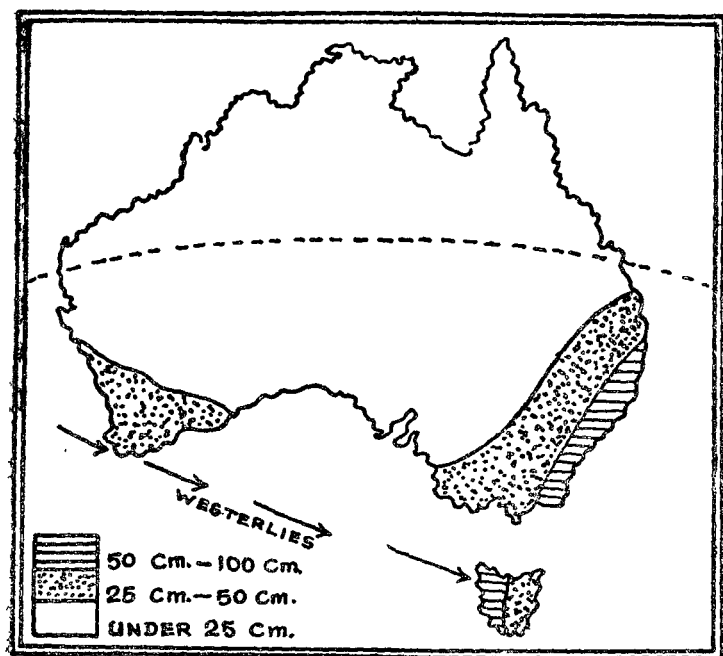


Fig. 15. Australia: Winter Rainfall

Tasmania receives rain through out the year, but it receives rain from the Westerlies.

Summer Conditions

In summer the sun is overhead at the Tropic of Capricorn. The interior of the continent is extremely hot. North West Australia forms a region of low pressure. So the outflowing winds of Asia are drawn towards the low pressure areas of Australia. These

North Western winds which blow only during summer are known as the North West Monsoon. These winds as they cross the ocean, pick up moisture and give heavy rainfall to Northern Australia.

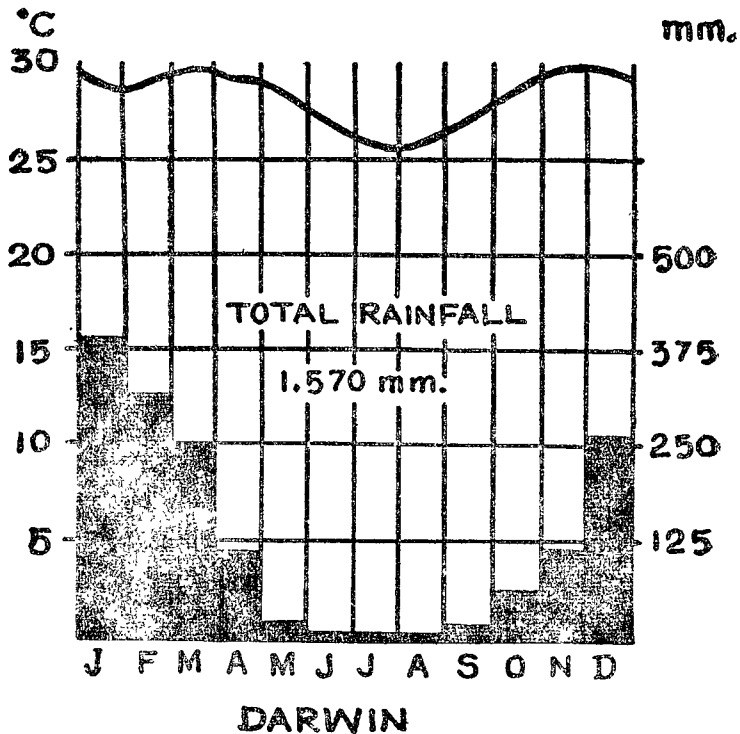


Fig. 16. Graph showing Climate and Rainfall

Winter Conditions

During winter the South West and the South East Australia receive rain from the Westerlies. The

South East and South West Australia enjoy Mediterranean type of climate of summer drought and winter rainfall.

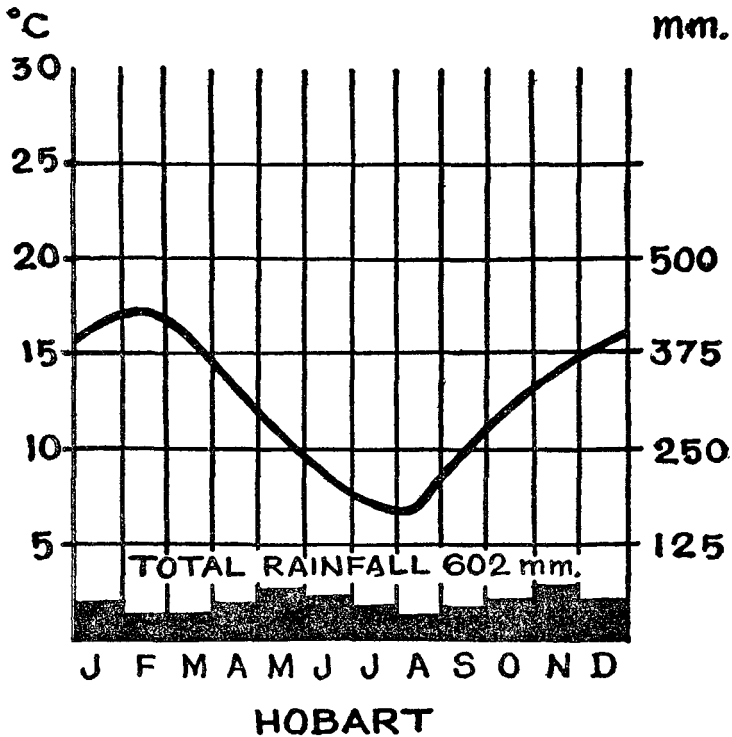


Fig. 17. Graph showing Climate and Rainfall

The climate graphs and rainfall maps clearly show that

1. The regions that receive rainfall through out the year are the Eastern coastal strip and Tasmania.

2. Northern Australia receives monsoon rain in summer.

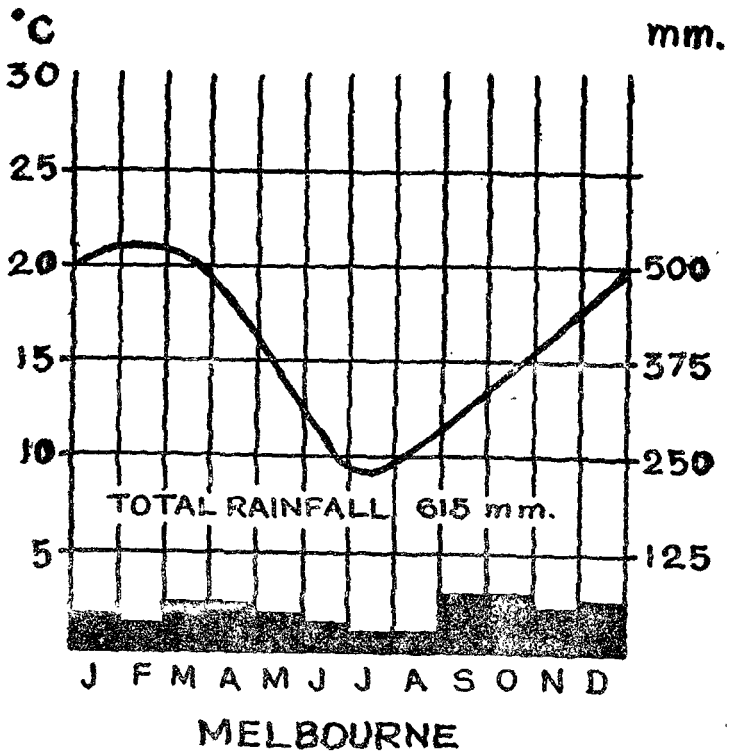


Fig. 18. Graph showing Climate and Rainfall

3. The South West and South East regions of Australia receive rain in winter thus enjoying Mediterranean type of climate.

4. Central and West Australia receive no rainfall. They remain arid.

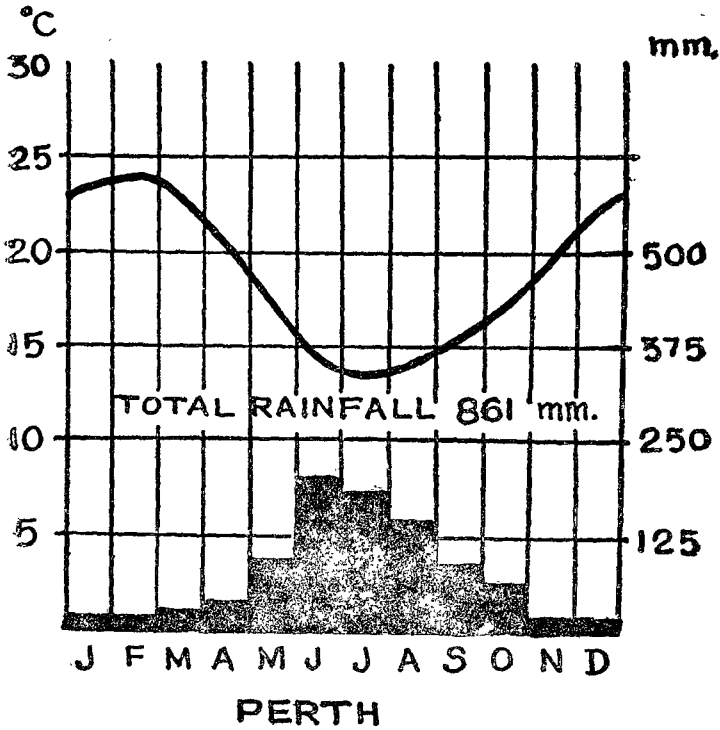


Fig. 19. Graph showing Climate and Rainfall

QUESTIONS

- I. 1. What are the factors that affect the climate of Australia?
2. What do you learn from the Rainfall maps and Graphs showing temperature and rainfall?
- II. (a) Fill in the blanks.
1. Tropic of _____ passes through Australia.
 2. In December the sun is over head on _____.
 3. The summer months are _____ and _____.
 4. The winter months are _____ and _____.
- (b) Match the following.

1. The Westerlies are on-shore winds on	north coast.
2. The North West monsoon are on-shore winds on	east coast.
3. The South-east Trade winds are on-shore winds on	Tasmania.

III. Practical Work

On an outline map of Australia mark the Mean Annual Rainfall.

4. THE FLORA AND FAUNA

Most of the native animals of Australia are unique. The wild animals found in other continents are unknown in Australia. This condition is the result of long isolation of Australia from the other continents. The primitive forms of animal life have survived in Australia. Nearly 50% of the animals of Australia are marsupials. They carry their young ones in an external pouch. Some of these marsupials are the Kangaroo, the Opossum, Wombat, Koala and a variety of rats.



Fig. 20. Kangaroo

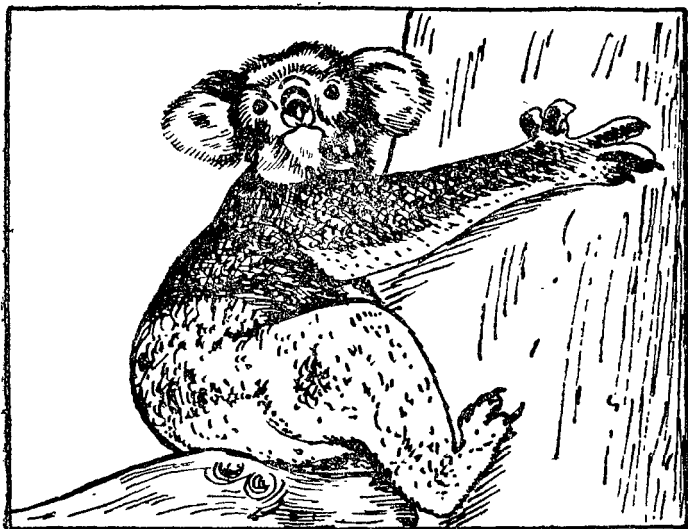


Fig. 21. Koala

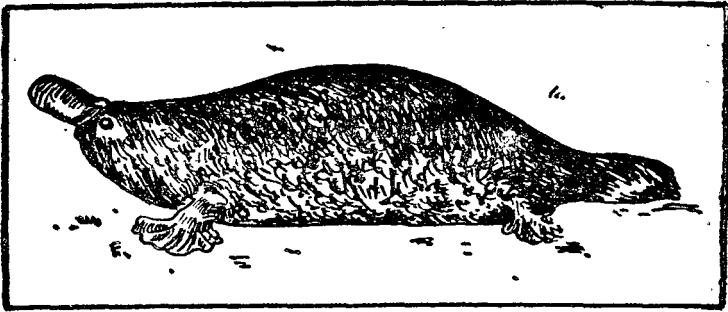


Fig. 22. Platypus

Australia has the only egg laying mammal in the world. It is the Platypus. It has the bill of a duck and webbed feet. It lays eggs and nurses the young.



Fig. 23. Emu

The only large non-marsupial animal of Australia is a wild dog named Dingo.



Fig. 24. Lyre Bird

Bird life is also varied in Australia. Large flightless birds are Emu and Cassowary. These flightless birds travel fast and far. Some of the strange birds of Australia are Kookaburra, Lyre bird, Black Swan, Bower bird and a variety of parrot like birds. The call of the Kookaburra is

like human laughter. The Lyre bird displays its feather like an Indian peacock. The outer feathers are lyre-shaped. It can produce a variety of complex sounds including mimicry. The Bower bird builds a bower of dry sticks to a height of 25 to 45 centimetres. It collects a great variety of coloured objects - mainly blue and exhibits them on a platform at the entrance.

Reptiles especially snake and lizard are numerous.

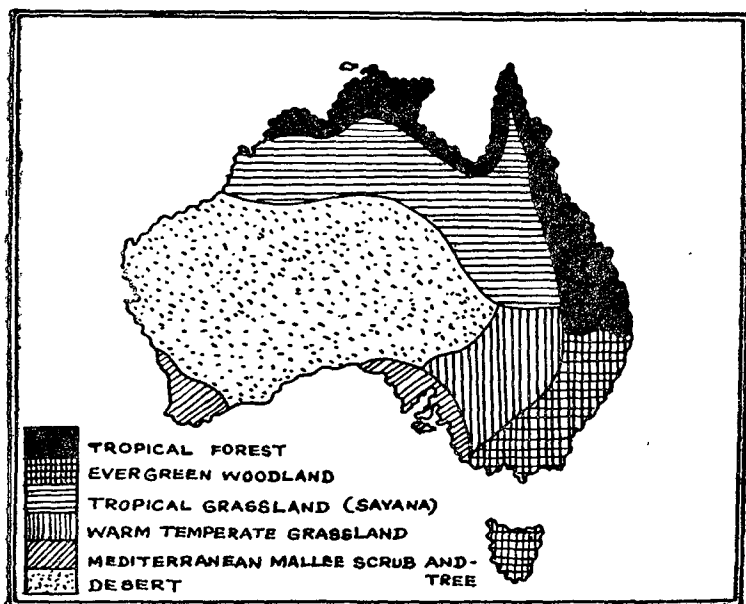
The Kangaroo and the Emu are the National Emblems of Australia.

Vegetation of Australia is predominantly different from that found in the rest of the world. Majority of the types of trees are confined to Australia alone. Aridity has caused Australia's vegetation to adopt and evolve unique characteristics. Eucalyptus and Acacias (gum trees) are typical forms of Australian vegetation. 95% of the trees in the forests and woodlands are Eucalyptus. They can withstand long dry periods. They shed their barks instead of their leaves. Jarrah and Karri are hard woods. They are used for construction work and furniture. Tannin is extracted from the bark of the wattle tree.

Semi-arid Australia consists largely of grassland and woodland (savanna) with park like appearance. Australia's large pastoral industries are due to the wide occurrence of the grass.

Further inland where the rainfall is less than 50 centimetres Mallee scrub vegetation replaces savanna. This consists of stunted dwarf Eucalyptus.

On the sandy stony area in the centre, where the average rainfall is less than 20 centimetres desert vegetation is found. On the southern side is the Mulga scrub where various Acacias provide useful stock feed.



Fin. 25. Australia: Natural Vegetation

Natural vegetation is primarily the result of the amount of rainfall. Because Australia's rainfall decreases inland from the coasts north, east and south the natural vegetation belts are found in concentric pattern with forests on the outer margin. Extensive woodlands are further inland merging with grassland. Desert scrub covers the arid interior and the west for more than one third of the continent.

QUESTIONS

- I.
 1. Why are the native animals of Australia unique ?
 2. What are marsupials ? Give examples.
 3. What is peculiar about platypus ?
 4. Name some of the birds of Australia.
- II. Fill in the blanks.
 1. _____ trees form 95% of the vegetation.
 2. _____ and _____ are hard wood varieties.
 3. The plants _____ and _____ grow as trees in Australia.
 4. The _____ and _____ form the national emblem of Australia.
- III. Practical work
 - (a) Collect the pictures of the animals and birds of Australia for your Geography Album.
 - (b) Draw the Natural Vegetation map of Australia.

5. AGRICULTURE AND PASTORAL INDUSTRY

Australia is not well endowed by nature to be a large agricultural country. Cultivation is limited by climatic factors to the eastern and southern parts of the country. Only 9% of Australia is under cultivation. In spite of it, Australia is an important producer and exporter of agricultural products such as wheat, sugar, fruit, meat and dairy products.

Wheat is the most important crop in Australia. It was introduced in Australia by the White settlers. It occupies the largest area of all the cultivated land. It covers nearly 40% to 50% of the cultivated area. In 1978-79 Australia produced more than eighteen million tons of wheat.

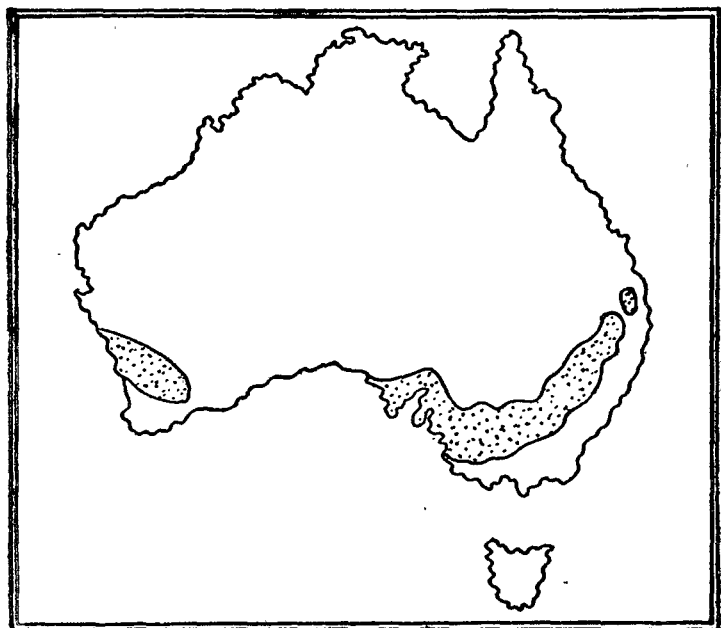


Fig. 26. Australia : Wheat Producing Area

The map shows the location of Australia's wheat belt. Wheat requires rainfall of 50 to 60 cms and temperature of 15°C to 20°C . New South Wales, South Eastern Australia, the Mediterranean Zone of Western and Southern South Australia consist of the wheat growing areas. The Riverina region - the land between the Murray and Murrumbidgee rivers.

bidgee, is very productive because of its reliable rainfall and deep fertile black soil. In Australia, the population is sparse in the wheat belt. The fields are almost level land. The farms are large. This type of mechanised cultivation of one crop in vast stretches of land is called 'Extensive Farming'. Over 70% of the wheat produced is exported.

Tropical Agriculture

Sugar cane is the most important crop of the Tropical north east. It requires rainfall of about 150 cms and temperature of about 20°C all the year round. So 95% of the sugarcane is grown in the Tropical maritime coast of Queensland and 5% in the northern New South Wales. 80% of sugarcane is grown north of the Tropic of Capricorn. Here occurs pockets of fertile, well drained and alluvial volcanic soil. More than 70% of sugar produced is exported.

Fodder Crop

Next to wheat and sugar cane, fodder crops occupy more area of land brought under cultivation. They are grown on approximately 20% of the cultivated area and include alfalfa, oats, wheat, barley, sorgham, maize and rye. 42% of this is grown in New South Wales.

Fruits

Fruits rank fourth in area, Australia's wide climatic variations allow the cultivation of varied fruits. Tropical fruits such as bananas and pine apples are grown in Queensland and northern New South

Wales, Temperate fruits and citrus fruits are grown in eastern States and South Australia. Over 45% of area under fruit cultivation is covered by vine yards in South Australia, Victoria, New South Wales, Queensland and Tasmania. Wine is the important product from vine. The sunny climate also helps in the production of raisins. Bulk of wine and raisins produced are exported. Exports of wine for the year 1978-79 were 53,00,000 litres. Commercially, apples are the most important of the fresh fruits grown. Apple growing is concentrated in the southern states with more than 70% of the crop being produced in Tasmania, New South Wales and Victoria. Tasmania is the main producer. Exports of apples in 1979 were 21,00,000 boxes. Victoria is the main pear growing state producing about 75% of the country's output. 75% of the citrus fruits of Australia are grown in the irrigated inland of New South Wales, Victoria and South Australia. Fruit canning is an important industry.

The other crops grown mainly in the Tropical coast lands are cotton, pea nut, flax and tobacco. Rice is grown in the irrigated areas of southern New South Wales.

Sheep Rearing

Australia has the largest number of sheep in the world. In 1978-79, Australian sheep numbered 13,50,00,000. Nearly one fifth of the world's sheep is in Australia. The sheep can thrive even on scanty grass land salt bush. Very hot or rainy climate is not suitable. So, the sheep are mostly

reared in the Temperate parts of Australia with rainfall between 20 to 40 cms. Sheep are reared both for meat and wool. Nearly one third of the world's wool is produced in Australia. New South Wales is the most important State for sheep rearing. Western Australia and Victoria take the second and third

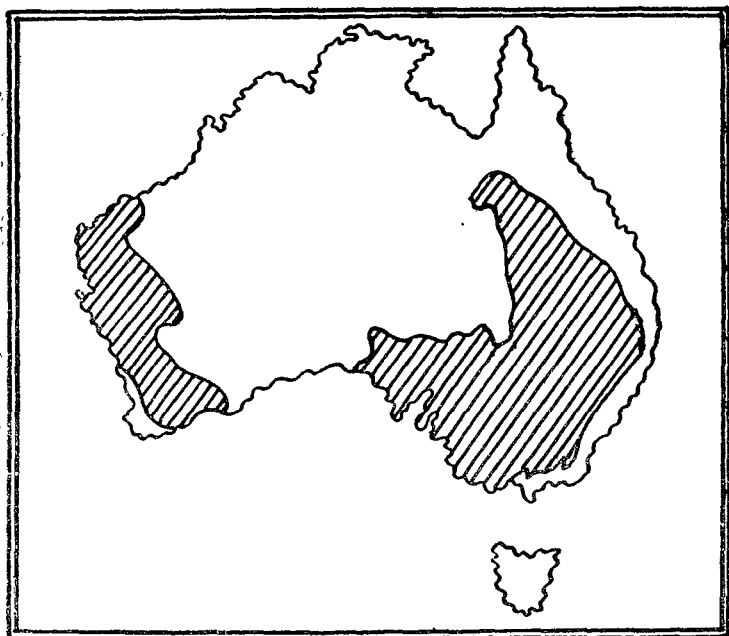


Fig. 27. Australia : Sheep Rearing Area

place in the number of sheep. 'Merino' is the most important breed. 75% of the sheep of Australia are Merino. They produce best wool. Thousands of sheep are reared on very large farms. These large farms are known as 'sheep stations'. They are run by a family and a few labourers, called Jackaroos. The shearing is done with electrical equipments by

skilled shearers. A good shearer shears nearly 200 sheep a day. Shearing is done in October and November, just before summer. The sheared wool is graded, pressed into bales and sent to markets from where they are exported through ports. More than 90% of the wool produced in Australia is exported. In 1978-79 2,66,00,000 sheep were slaughtered for export and 7,09,000 tons of wool were produced. About one third of the sheep were exported.

Cattle Rearing

Cattle are reared partly for beef and partly for dairy products. The finest beef producing cattle is

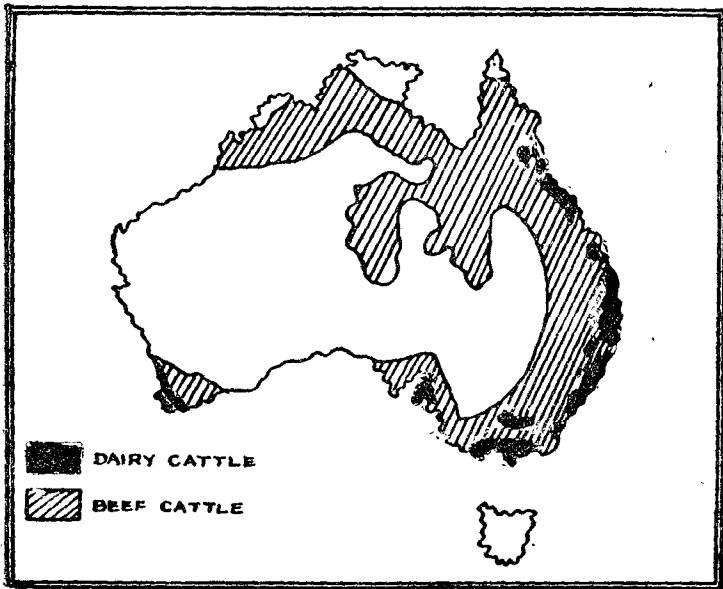


Fig. 28. Australia : Distribution of Dairy Cattle and Beef Cattle

reared on the Tropical grasslands of Queensland and Northern Territory. In 1978-79 there were 2,70,00,000 cattle, and out of them 1,14,00,000 were slaughtered. About half the cattle slaughtered were exported.

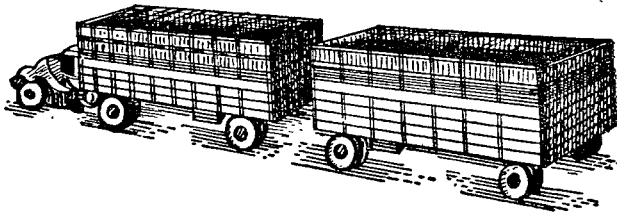


Fig. 29. Australia: Trucks used for carrying cattle

Dairy cattle turn grass and water into milk. Better the pasture, the higher the yield of milk. So, dairy cattle is reared in the temperate areas of good rainfall. The coastal areas of Victoria, New South Wales, Queensland, south east of South Australia, south west of Western Australia and northern Tasmania have rainfall of more than 100 cms. There is rich grass. Most suitable conditions for large scale dairy farming are found in Victoria. So, Victoria has more than half of Australia's dairy cattle population. In 1978-79 milk production was 5,656 million litres, 29% of it was consumed as fresh milk. The rest is used for making butter, cheese, condensed milk and spray dried milk powder.

QUESTIONS

- I.
 1. Where is sugar cane grown in Australia? Why?
 2. Name the Tropical crops grown in Australia.
 3. What are the fodder crops grown in Australia?
- II.
 1. Where is wheat cultivation important in Australia? Why?
 2. Write a few lines on fruit farming.
 3. Write where cattle are reared for (a) beef and (b) dairy products. Give reasons.
- III. (a) Fill in the blanks.
 1. Sheep are reared for _____ and _____.
 2. Among fruits _____ are mostly grown in Tasmania and _____ in Victoria.
 3. _____ is the important breed of sheep reared in Australia.
 (b) Choose the correct answer and complete the sentence.
 1. Australia has a very small percentage of its total land under cultivation because
 - (a) most of its land is mountainous
 - (b) the Australians do not want to grow crops
 - (c) a greater part of it is desert
 2. The labourers in the sheep station are called
 - (a) Jackaroos, (b) Shearers, (c) Workers.
- IV. Practical Work
 1. On an outline map of Australia mark the distribution of sheep.
 2. Draw a map of Australia showing the distribution of cattle.

6. MINING AND INDUSTRY

Many people came to Australia for its gold, but today, the export of other minerals such as iron ore, bauxite, coal etc. fetch more foreign exchange. Minerals contribute to 30% of the total value of export. The great Western plateau consisting of igneous rocks contains most of Australia's vast reserves of mineral resources.

Iron Ore

Australia was the world's largest exporter of iron ore and third largest iron ore producer in the world in 1978. Mines at Mount Tomprice and Mount Whaleback in the Pilbara region of Western Australia are large single mines. They rank with the biggest in the world. About 90% of the total production of iron ore is exported.

Coal

It is the second most valuable mineral produced in Australia. Australia possesses the largest coal reserves in the entire Southern Hemisphere. New South Wales contains about half the total production. There are three major coal basins in Australia - the Sydney basin, the West Morton - Clarence basin and the Bower basin.

Bauxite

Australia is the largest producer of Bauxite and Alumina. Large deposits are at Weipa in Queensland,

Darling Range, Western Australia, and at Gove, Northern Territory,

Lead and Zinc

Australia is one of the major producers and exporters of lead and zinc in the world. The main producing areas are Broken Hill and Woodlawn in New South Wales, Mount Isa in Queensland and Read-Roseberry in Tasmania.

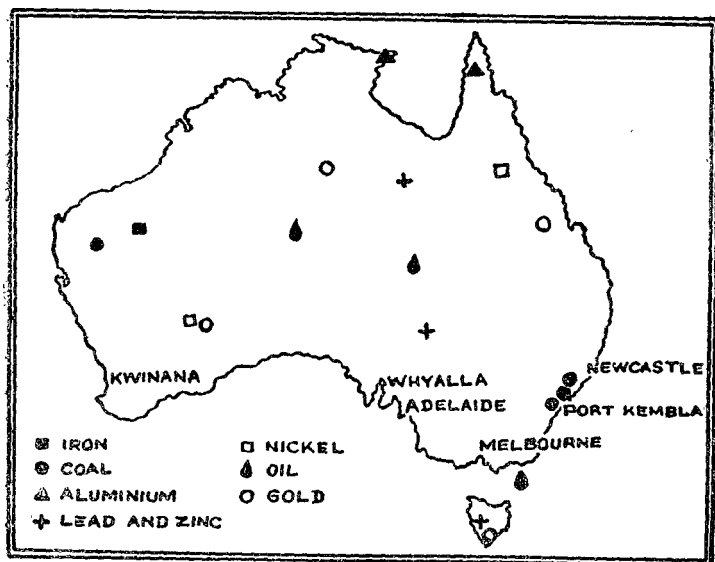


Fig. 30. Australia: Distribution of Minerals

Copper

65% of copper comes from Mount Isa in Queensland.

Nickel

Australia ranks fourth in the world in the output of nickel. Nickel occurs in Kalgoorlie region of Western Australia and at Greenvale in Queensland.

Other significant minerals available are uranium, mineral sands, (rutile, zircon, monazite, ilmenite) manganese, and tungsten.

Gold

Australia is the sixth biggest producer of gold. Production of gold was 18,000 kilo grams in 1978 with Western Australia providing more than 50%. Some of the important mining centres are Kalgoorlie in Western Australia, Tennant Creek in Northern Territory, Mount Morgan in Queensland, Cobar and Broken Hill in New South Wales, Mount Lyell and Roseberry in Tasmania.

Energy Resources

Crude Oil and Natural gas are obtained from Bass Strait fields of Victoria, Moonie region in Queensland and Barrow island in West Australia.

Natural gas is obtained from Bass Strait of Victoria, Cooper basin of South Australia and Amadeus basin in Northern Territory.

Industries

In olden days Australia was known as 'The land of the golden fleece' because it was her wool that provided finance for payment of her imports. Then

Australia was said to ride on sheep's back. After 1880, the development of refrigeration led to the expansion of meat and dairy industries. Scientific research and new machinery enabled more efficient production of agricultural products. This in turn resulted in increase of manufacturing processed foods, frozen, canned and pre-cooked food. Australia exported these agricultural products and imported manufactured goods. During the war 1939 - 1945, it was difficult to import manufactured goods. So factories were set up to manufacture consumer goods from her raw materials. With the abundant ore resources which Australia possesses, Iron and steel Industry, Aluminium Industry, factories making machines and textiles etc, developed rapidly. The mineral wealth, the growing population and the demand of the world market gave the impetus to the industries. Let us learn about some of the important industries of Australia.

Iron and Steel Industry: The iron and steel industry mostly forms the basis of Australia's manufacturing development. The Broken Hill Proprietary Company Limited with associated companies dominates the iron and steel industry in Australia. It produces nearly the whole range of steel products such as wire, rod, bars, sheets, pig iron, stainless steel, cast iron, pipes, etc. The chief areas are New Castle and Port Kembla in New South Wales, Hastings in Victoria, Whyalla in South Australia and Kuinana in Western Australia. The Iron and Steel Industries are located in the coal fields near ports. It is economical to send iron ore to the coal field because 3 tons of coal and 1.5 tons of iron are required to

manufacture one ton of steel. The sites chosen also have abundant water supply and large labour supply.

Air Craft Industry : Air Craft Industry is centred in Melbourne and Sydney. Apart from manufacturing air crafts, engine components are also made.

Chemical Industry : Australia produces a wide variety of products (i.e.) fertilisers, plastics, cosmetics, synthetic rubber, explosives, paints, dyes, synthetic fibres, detergents, etc.

Electrical and Engineering Machinery : Equipments like computers, ships, diesel-electric locomotives, engines, excavating equipment, tractors, instruments, house hold appliances, pumps, air conditioners, heaters, etc., are manufactured. Motor vehicle manufacture occupies a dominant place in Australian Industry. It ranks as the largest industry. Chief centres are Sydney, Melbourne, Geelong and Adelaide.

QUESTIONS

- I. 1. Where are the Iron and Steel Industries located ?
Give reasons for their location.
2. Name some of the Chemical Industries.
3. What change came over to Australian Industry after the World War II ?

II. (a) Match the following.

1. Iron ore	Kalgoorlie, Greenvale
2. Coal	Weipa, Darling Range, Gove
3. Bauxite	Pilbara region.
4. Lead and Zinc	Moreton, Clarence basin, Sydney basin, Bower basin.
5. Nickel	Broken Hill, Woodlawn, Mt. Isa, Read Roseberry.

(b) Fill in the blanks.

1. Air craft industry is centred in——and——.
2. Motor vehicles are manufactured in——,
—— and——.

III. Practical Work

On an outline map of Australia mark the Industrial centres.

7. POPULATION

The Aborigines inhabited Australia before the arrival of the white settlers. They were hunters and gatherers. According to census in 1976, aboriginal population was 1,60,915. Half of them live in towns and the others still live in traditional manner in the reserved places. Australian government has passed regulations for their protection and betterment. A number of "programmes of assistance" provide them improved conditions in health, education, employment, housing, etc.

Even today Australia is the most thinly populated continent (next to Antarctica) because, it is the driest continent in the world. In area it is more than double the size of India. The population of India is 683 millions (1981 census). The population of Australia in March '79 was 1,43,76,400. The density of population is 2 people per square kilometre.

The Land of Migrants

Australia was settled mainly by the British people since 1788. Although the first settlement was of British prisoners, later new settlers arrived of their free will. Australia needed more people to work on farms, sheep stations and industries. So free migration was encouraged. The gold rush also added to the growth of population. Today 20% of the population is overseas - born. The increase in population is due to immigration. Since Australia is peopled by migrants, it is known as 'the land of migrants'.

The first settlers settled near Sydney. The others who followed, settled along the temperate east coast. Here the climate is cool and the rainfall is evenly distributed throughout the year. Later, the colonists succeeded in crossing the Blue Mountains. They came to the vast grasslands on the west side of the mountains. They could not move further westward because of the Great Australian desert. This desert covers nearly three fifths of the continent in the West.

Distribution of Population

If you look at the map showing distribution of population, you will notice that it is a replica of the map showing the distribution of Annual rainfall.

There is more concentration along the better watered eastern and southern parts. The concentration is also because of the economic development. Australia is a commercial and industrial nation. 90% of the people live in the capital cities and ports. They are employed

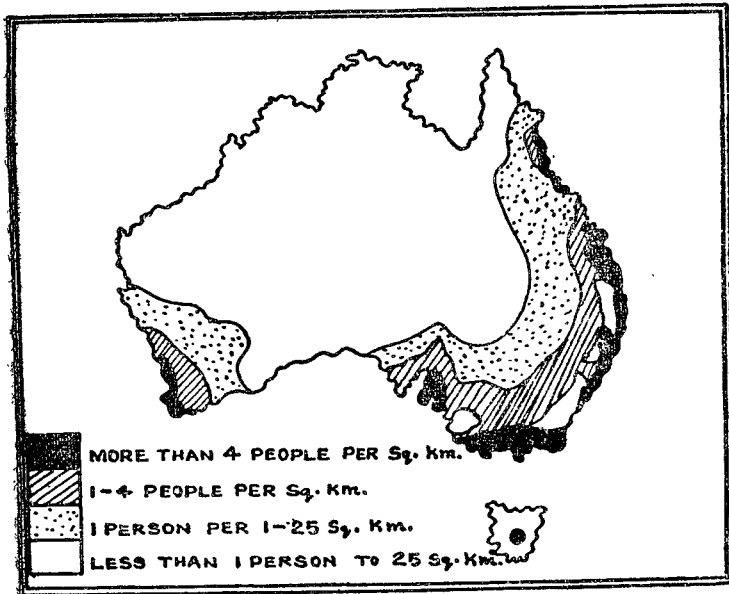


Fig. 31 Australia : Distribution of Population

in the factories, offices and shops. Due to physical and historical reasons; they are located on the coast close to the capital cities; rural development is intensive. Market gardening, orchards and dairy farming are important activities. Along the coasts of Victoria, New South Wales and Queensland rainfall is heavy and reasonably uniform making intensive land use possible. Here are located the dairying and sugar cane growing areas. The dry climate of the wheat belt

results in areas of sparse population and extensive mechanised farming.

Empty Australia

Very low rainfall makes it difficult for men to live in the interior of Australia. The temperature in the north and interior is very high. Thus, more than three quarters of Australia is either uninhabited or sparsely settled. The interior is known as 'Empty Australia' or 'the dead heart of Australia'. The peripheral Australia is 'Habitable Australia'.

Urban concentration

The following table shows the population of each state and its capital (Census 1978).

	State	Capital city	%
1. New South Wales	50,11,800	31,55,200	63%
2. Victoria	38,18,400	27,17,600	71%
3. Queensland	21,66,700	10,04,500	46%
4. South Australia	12,87,600	9,30,500	72%
5. Western Australia	12,22,300	8,64,900	71%
6. Tasmania	4,13,700	1,66,500	40%
7. Northern Territory	1,12,500	50,612	45%
8. Canberra	2,15,600	2,15,600	100%

The two most populated states of Australia are New South Wales and Victoria. They lie in the east coast of the Temperate Zone and receive a fairly good amount of rainfall. Queensland lies in Tropical and sub-tropical belts and ranks next in population. Moreover these three states were the first to be colonised by the white settlers. 85% of the population lives in cities

or towns. This centralisation of the population is a remarkable and characteristic feature of the settlement pattern of Australia. This is because Manufacturing Industries are even more highly centralised than the population. For example, in New South Wales 63% of the population lives in Sydney; 76% of them are State's factory workers and they are found in Sydney. In Victoria 71% of the population lives in Melbourne; 83% of the State's factory workers are in Melbourne.

The White Australian Policy

It is said that, by law only white people were allowed to settle permanently in Australia. This policy of the Australian Government which did not permit large numbers of coloured people to settle permanently in Australia was known colloquially as the 'White Australian Policy'.

Today Australia has a 'non-discriminatory migration policy'. It allows the entry of people for permanent residence on the basis of family reunion general eligibility, (i.e.) qualifications and experiences which will permit easy employment in occupations which are in demand in Australia. Australia is also one of the leading refugee settlement countries. Refugees from more than 40 countries like Hungary, Argentina, Greece, Czechoslovakia and European countries have settled in Australia.

Standard of Living

The standard of living is quite high. More than 69% of the people live in their own houses. There is

a motor vehicle for every three people. Most of the homes have refrigerators televisions washing machines and telephones.

QUESTIONS

- I.
 1. How was Australia peopled?
 2. Why is Australia known as 'the land of migrants'?
 3. What is 'White Australian Policy'?
 4. What is 'Empty Australia'?
 - II.
 1. Give reasons for the Urban concentration of Population.
 2. Differentiate between extensive and intensive farming.
 - III. Say True or False.
 1. Aborigines inhabited Australia before the arrival of the white settlers.
 2. Australia is the most thickly populated continent in the world.
 3. People have settled near the mines in the desert.
 4. Temperate east and south coast are not suited for white settlement.
 - IV. Practical Work

Draw a map of Australia showing distribution of population.
-

8. (A) TRANSPORT

More than 60% of the population of Australia lives in and around the six state capitals which are along the coast; the other 40% is spread over the whole continent in small towns, cities, the mining centres and farms. Vast distance between settlements make transport difficult and costly. Rapid and reliable services are essential to reach the lonely farms and mining centres in the interior. Australia's transport system includes nearly 8,84,000 kilometres of roads, 2,40,000 kilometres of air routes and 40,000 kilometres of government railways.

Railways

The railways are laid where there are people to use them, crops to be transported and animals to be

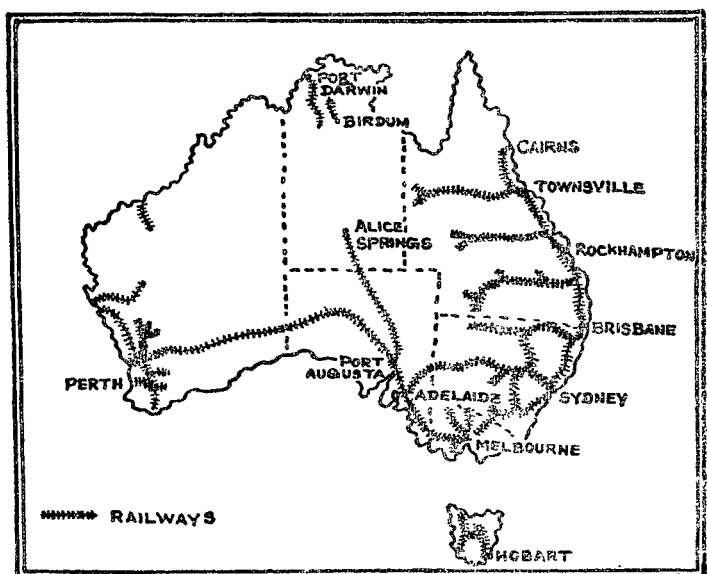


Fig. 32. Australia: Railways

slaughtered and exported. So, the railways radiate from the ports along the coast to the interior. The Trans-continental line connecting Sydney in the east to Perth in the West, is 3,963 kilometres long. The Indian-Pacific train consisting of stainless steel, air conditioned bogies starts from Sydney passes through the Blue Mountains, Wheat belt, sheep country, the rich mines of silver, lead and zinc of Broken Hill, Nullabor plains, the gold mines of Kalgoorlie and reaches Perth. It has the longest straight stretch of line in the world of about 483 kilometres between Ooldea and Nurina. The central Australian Railway and the North Australian Railway cross almost the uninhabited country. Mineral development has also been responsible for the development of lengthy railways to centres such as Broken Hill and Kalgoorlie.

Private railways also operate in each State servicing agricultural areas, mining centres industrial complexes and ports.

Roadways: All mainland capitals are connected by highways. A large number of roads were constructed to speed the movement of cattle for export. These 'beef roads' are used to transport cattle in heavy vehicles known as 'Road trains'. These consist of a prime mover and upto three trailers with a capacity to transport 90 cattle. The roads have assisted development and tourism. There are more than 60,00,000 motor vehicles plying on these roads. Australia ranks third in the world in the per capita ownership of motor vehicles.

Airways: Australia is a land of great distances. Australians are said to suffer from 'tyranny of

distance'. So, air travel has been of great importance for reaching sheep farms and scattered cities. In 1979 there were 597 civil air crafts and 446 government aerodromes. Besides this, there are thousands of small air strips for private light aircrafts. The easiest way to travel in Australia is by aeroplane. Australian civil aviation service is relatively inexpensive and heavily trafficked. There is also much international air travel to and from Australia. There are air ambulance bases in each state from where doctors are flown to lonely settlements where they are urgently required.

(B) TRADE

Earlier, United Kingdom was the largest customer of Australian exports and supplier of Australian imports. Now, the direction of trade has changed. Japan has come to the fore as a big buyer of wool, wheat, and mineral ores of iron, copper, lead, zinc and coal. The United States of America, the United Kingdom and West Germany rank second, third and fourth respectively as trading partners.

The chief exports are wool, iron ore, coal, wheat, meat, dairy products, fruits, sugar, hides and skins, cotton, chemicals, etc. Australia imports beverages, tobacco, oil seeds, crude rubber, wood tanning material, medicines, fertilisers, plastic, textile, machinery, foot wear, air craft, ships, etc. In 1978-79 the exports were valued at 14,243 million and imports at 13,752 million.

QUESTIONS

- I
 1. Why are the railways of Australia found along the east coast ?
 2. What are ' Beef Roads ' ?
 3. How has the direction of Australian Trade changed ?
- II. Describe the journey in ' Indian Pacific Train '.
- III Choose the suitable answer.
 1. Australians are said to suffer from——(severe cold climate, tyranny of distance, tropical diseases).
 2. Cattle are transported in——(road trains, helicopters, carts).
 3. The easiest way to travel to the lonely farms is by ——(road, rail, air).

IV Practical Work

On a map of Australia mark the important railway routes.

9. TASMANIA

Relief

Tasmania is the only part of Australia in the latitudes of the forties. It is the Island State. It is small comprising less than one percent of Australia's total area. Tasmania is the extension of Australia's Eastern Highlands, flooded by the sea in the Bass Strait. Therefore, it consists of rugged highlands and

dissected plateaus exceeding 1,000 metres in height. Plains occur along the north coast, in the south east

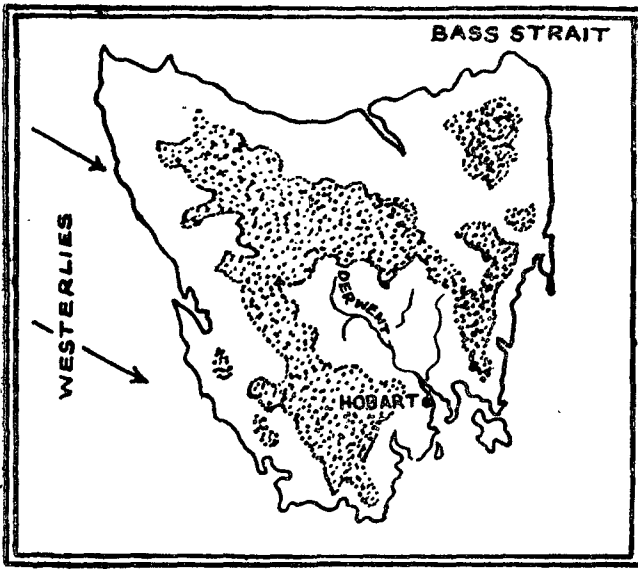


Fig. 33. Tasmania

near Hobart and in the middle known as the Midlands.

Climate

Being an island in the Southern Ocean, the temperature is equable. Summers are cool and winters are mild. The seasonal range in temperature is small. Since Tasmania lies in the belt of the Westerlies, it receives heavy rainfall, nearly 300 cms annually along the west coast and 100 cms in the leeward side in the east. The natural vegetation is dense forest in the regions of heavy rainfall.

Fruit farming

The lack of flat and fertile land in Tasmania has limited agricultural development, but what there is, tends to be intensive, mixed farming. Tasmania concentrates on specialised production of certain high value crops. Temperate fruits grow well in Tasmania. Tasmania has been Australia's main producer and exporter of apples, with nearly half the country's output. The main area of production is in the south east near Hobart. The small fruits like rasp-berries, currants, strawberries and gooseberries are also grown in the south east. Tasmania accounts for nearly two thirds of Australia's berry fruit output. Most of this is canned as jam and fruit pulp for export. Tasmania grows bulk of Australia's hops. 75% of Australia's production of hops comes from the Derwent valley of Tasmania. Vine is also grown in the Derwent valley. Many different crops such as fodder, hay, peas, potatoes, vegetables, oats, wheat, barley etc., are grown in rotation in the north west.

Cattle rearing

The cool moist environment is well suited to dairying. 75% of the milk produced is made into butter for export and much of the rest is made into chocolate. Sheep are also reared in the drier Midlands for wool and meat.

Natural vegetation

Valuable forest covers one third of Tasmania. Timber is used to make paper and hard board.

Minerals

Tasmania is rich in minerals. Copper, lead, zinc, silver, iron and tin are obtained from the rugged western part.

Power

Tasmania is endowed with hydro-electric power resources. Its rugged highlands, receiving heavy rainfall help to produce plentiful and cheap electricity. Tasmania has only 3% of Australia's population and produces 10% of Australia's electricity. So, there is more power produced per head of population than in any other country except Norway. So, some of Australia's biggest industries are located here. One such is the 'zinc refinery' near Hobart. It is the world's largest zinc refinery employing more than 3,000 people and producing approximately 10% of the world's zinc and large quantities of fertiliser and sulphuric acid.

QUESTIONS

- I.
 1. Why is the relief of Tasmania, rugged ?
 2. Name the crops grown in rotation in the regions of intensive farming.
 3. What are the metal ores obtained in Tasmania ?
 4. Why are Australia's big industries located in Tasmania ?
- II. Give a short account of fruit farming in Tasmania.
- III. Fill in the blanks.
 1. Tasmania lies in the belt of———.
 2. ——— is the capital of Tasmania.
 3. Timber is used to make——— and———.
 4. ———, ——— and——— are produced in the zinc refinery.

10. NEW ZEALAND

New Zealand is situated in the Pacific Ocean about 1,930 kilometres south east of Australia. It consists of two large islands, North Island and South

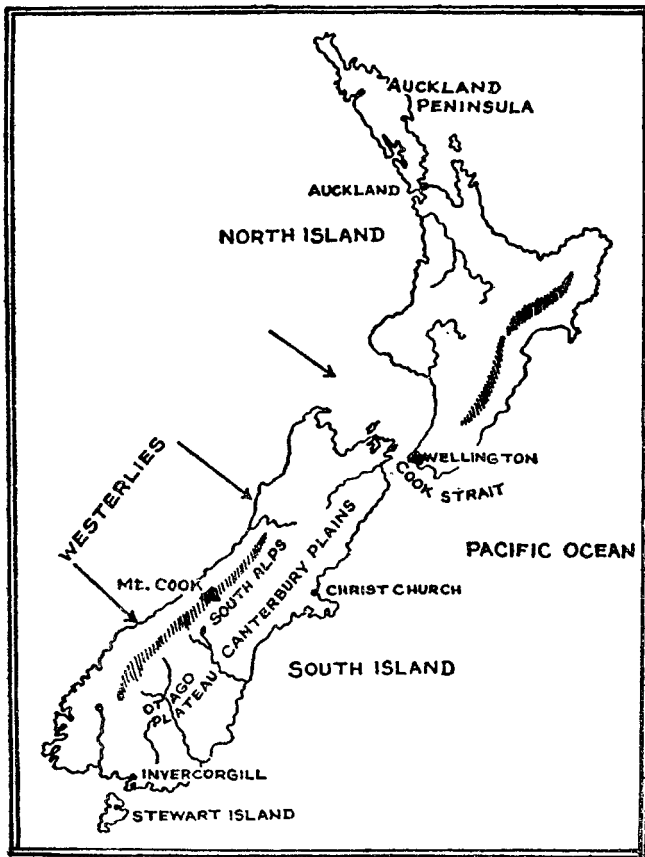


Fig. 34. New Zealand

Island and several small ones. It extends from 34°s to 47°s. It is a land of mountains. A chain of mountains

runs through the two islands from south west to north east. The Southern Alps in the South Island rises steeply from the west coast and slopes gently towards the east. Mt. Cook is the highest peak. It is permanently covered with snow. Many glaciers have their sources here. In the North Island, there are several extinct and dormant volcanoes. Earthquakes are also frequent. Here are found hot springs, boiling mud pools, and geysers. The boiling water of the springs is used to generate electricity. Some of the springs are said to possess medicinal properties. They cure certain diseases.

The temperate latitudes, the surrounding oceans and the westerly winds make the climate of New Zealand cool, mild and pleasant. Rainfall is well distributed all the year round. This type of climate is known as 'oceanic or maritime' climate. Owing to the presence of the mountains the rainfall is heavier in the west and moderate elsewhere. Regions of heavy rainfall are covered with forests and dense undergrowth. Tussock and other grasses grow in the rain-shadow areas of the eastern slopes-notably in the Canterbury plains. It is this emerald green grass which flourishes everywhere except the snow covered areas of the Southern Alps that nourishes the sheep. Farmland is mostly devoted to grazing. Cultivation of crops is carried on in only 3% of the land. Animal products such as wool, meat, dairy products and hides constitute over 90% of the exports from New Zealand.

There are about eight million cows, half of which are reared for beef and the other half for dairy pro-

ducts. New Zealand dairy products have a good international reputation. Cheese, butter, dried and canned milk are exported. All dairy processes - churning the cream, wrapping the butter, squeezing the cheese, skimming powder milk, condensed milk and cheese are done by automatic electrical machinery. The most important dairying areas are in the North Island, the low lands near Auckland, land east of Mt. Egmont and along Bay of Plenty.

Sheep farms are evenly distributed in North and South Islands. Wool and carcasses of the lambs are the main products of the sheep farms. New Zealand is the third largest producer and second largest exporter of wool in the world. France is the leading buyer and the United States of America is the next largest customer.

Important Towns

Wellington the capital, is situated at the southern end of North Island. Meat packing establishments, butter factories, woollen mills, motor car assembling plants are found here. This port handles 20% of foreign trade.

Auckland is the largest city handling over 25% of overseas trade. This city has many industries such as engineering, woollen, glass, food processing, clothing and footwear industries.

Christchurch is in the centre of the Canterbury plains. Processing its products - meat, wool, flour and hides are the chief industries.

New Zealand has a population of about three million, out of which more than 67% live in the urban area. The Maoris were the native inhabitants of

New Zealand. The means of transport are not well developed because of the mountainous nature of the islands. Internal airways are of great importance.

QUESTIONS

- I.
 1. What are the three factors which influence the climate of New Zealand ?
 2. What are the important items of export of New Zealand ?
 3. When does New Zealand get rain ? Why ?
- II. What factors have made New Zealand an important pastoral country ?
- III. (a) Fill in the blanks.
 1. New Zealand is situated in the———hemisphere.
 2. A chain of mountains runs from the———to the———
 3. ———is the highest peak.
 4. Many———have their source in this peak.
- (b) Give one word answer.
 1. Volcanoes that are not active but not extinct.
 2. Tremors of the earth crust.
 3. Columns of boiling water and steam thrown out at interval.

Practical work

IV. Draw a map of New Zealand and mark

1. three important towns,
 2. Southern Alps,
 3. Cook strait,
 4. and Canterbury plains.
-

AFRICA

1. GENERAL SURVEY

Introduction

Africa is the second largest of the seven continents of the world. It is next only to Asia in size. Its area is about 30 million square kilometres. It



Fig. 35. Africa : Political

is roughly $\frac{2}{3}$ the size of Asia. It is four times bigger than Australia and nine times as big as India in size.

Position

Africa occupies a central position in the Southern Hemisphere. It is washed by the Indian Ocean on the east and the Atlantic Ocean on the west. The Mediterranean Sea in the north and the straits of Gibraltar in the north west separate Africa from Europe. The Red Sea and the Suez Canal separate Africa from the Asian mainland. Once Africa and Asia were joined by the narrow Isthmus of Suez, now cut by the Suez canal.

Africa extends from about 37° North to 35° South of the Equator. Both the Tropic of Cancer and the Tropic of Capricorn cut across Africa. This is a unique feature, not to be seen in any other continent. Hence, the greater part of Africa lies within the Tropics (The Torrid Zone). Africa, north of the Equator, is twice as broad as Africa, south of the same.

Peoples

Africa is peopled by many different races of people. The Arabs, Berbers, Moors, and Tuaregs live in the northern regions. The Negroid peoples with black skin and woolly hair live in the region south of the Sahara desert. They form the majority of the peoples of Africa.

The Pygmies of the Congo (Zaire) basin, the Bushmen and Hottentots of the Kalahari desert are other important native tribes of Africa.

The whitemen have settled over many parts of the continent, where there are suitable climatic condi-

tions. There are also a good number of Asian settlers in Africa.

Coastline

Africa, like Australia is a compact land mass with no large openings or inlets. Its coastline is unbroken and almost straight. In this respect, Africa is a great contrast to Europe which is much smaller in size ($\frac{1}{3}$ of Africa). But Europe has a longer coastline than that of Africa. There are very few natural harbours on the African coast line.

The Dark Continent

Until the end of the 19th century, Africa was called the 'Dark Continent'. It was little known to the world outside. Parts of Northern Africa like Egypt and Carthage were the cradles of ancient civilizations. These regions to the north of Sahara were well known to the peoples of the ancient world. But, the rest of Africa was little known.

The following causes acted as barriers against the exploration of Africa.

1. The great Sahara desert in the north effectively shut off all attempts to explore the interior.

2. The plateaus and highlands in the east and the south of the continent gave no scope to reach the interior.

3. There are many cataracts (water falls), rapids and swift currents in the major rivers of Africa. Hence, these rivers are not navigable.

4. The dense Equatorial Rain Forests, infested by wild beasts and poisonous snakes and insects like the Tse - Tse discouraged all attempts to reach the interior.

Opening - up of the Continent

The exploration of the interior of Africa was undertaken only during the last century. Great explorers like Mungo Park (1771-1806), Livingstone (1813-1873) and Stanley (1841-1904) braved many dangers and opened up the continent. They explored the Niger, Congo (Zaire) and Zambezi regions respectively.

Later, European powers such as Britain, France, Spain, Portugal, Belgium, etc., colonised various parts of Africa. They were lured by its vast natural resources and slave trade. The majority of Africans were held in bondage until the middle of 20th century. The backwardness of the people and the vast natural resources were the main causes for the colonisation and partition of Africa.

National Awakenings

Many Asian countries such as India, Indonesia, Burma, Sri Lanka, etc., had won independence after the Second World War. Their example had inspired the African peoples to struggle against colonial rule. Eighteen African nations have become independent states during 1960-63.

Winds of Change

Today there are 38 free African nations in contrast to only four in 1945 (Egypt, Ethiopia, Liberia

and South Africa). The newly liberated peoples of Africa are determined to preserve their culture. They want to raise their standard of living. They seek the friendship and co-operation of all. This is good for the unity and progress of the Third-World countries.

QUESTIONS

I. Give short answers.

- I Describe the position and size of Africa.
2. Who are the different peoples of Africa ?
3. 'There are very few natural harbours in Africa.' Why?
4. Mention the names of the great explorers who opened up Africa.
5. What were the two main causes which led to the colonisation of Africa ?
6. Describe the political changes in Africa after the Second World War ?

II. Give detailed answers.

Why was Africa known as the Dark Continent ?

(OR)

What causes acted as barriers to reach the interior of Africa ?

III. A. Fill up the blanks.

1. _____ form the majority of the native races of Africa.
2. Africa is separated from Europe in the Northwest by _____.
3. Once Africa and Asia were joined by _____.

B. Match the following :

Explorers	Regions
Livingstone	The Congo (Zaire)
Mungo Park	The Zambezi
Stanley	The Niger

C. Choose the correct answer.

- The greater part of Africa lies in
(a) The Frigid Zone. (b) Temperate Zone.
(c) Torrid Zone.
- Today the majority of African countries are
(a) Colonies. (b) Independent States. (c) Trust Territories.

D. Say True or False.

- Africa is a land of vast natural resources.
- Africa has a longer coastline than that of Europe.
- Africa was well known to the people of other countries.

IV. Practical work

Mark the political divisions with their capitals on the outline map of Africa.

2. RELIEF AND DRAINAGE

Relief

Africa is called a 'Plateau Continent'. The greater part of the continent is a vast, low plateau.

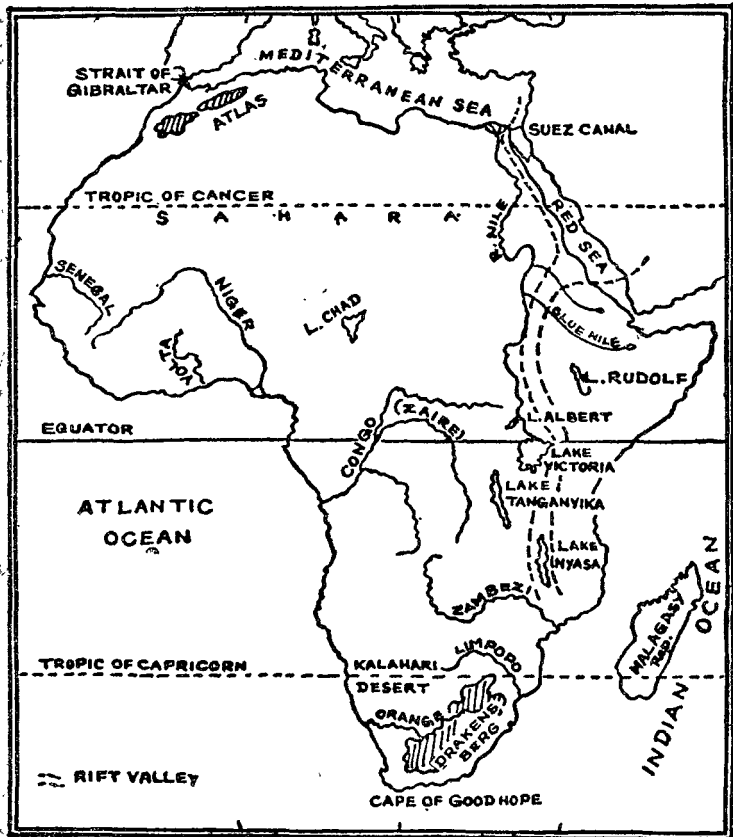


Fig. 36. Africa : Relief (Mountains, Rivers, Lakes etc.)

This plateau is made up of old, hard, crystalline rocks (like the Deccan plateau). It is steep in the east and the south.

There are no high mountain ranges or extensive plains in Africa. But, the great Sahara desert extends from the Atlantic coast to the Red sea. It is the largest hot desert in the world. There are narrow coastal plains in the south and east of the continent.

Natural Divisions

Africa may be divided into three main physical divisions. They are (1) the Atlas mountains in the northwest, (2) the low central plateau, (the Sahara is a part of this plateau) and (3) the high plateau in the south.

The Atlas Mountains

The Atlas mountains lie in the north-west of Africa. They are fold mountains like the Himalayas. There are three parallel ranges in the Atlas mountains. They are (1) The Tell Atlas in the north (close to the Mediterranean Sea), (2) The High Atlas in the middle (Mount Toubkal is the highest peak), and (3) The Saharan Atlas in the south. The Shotts plateau lies along the ridges of the Atlas mountains. It has many salt lakes.

The Low Central Plateau

This plateau extends from the Atlantic coast in the west to the Nile Valley. It consists of the Sahara desert, Ahaggar Plateau and the Tibesti mountains.

The Plateau in the South

This may be divided into

- (1) The Ethiopian or Abyssinian Plateau,

- (2) The Central Lake Plateau,
- (3) The South African Plateau.

Among these, the Central Lake Plateau is the highest. There are three famous extinct volcanoes in it. They are

- (1) Mt. Rowenzori (5,118m),
- (2) Mt. Kenya (5,199m),
- and (3) Mt. Kilimanjaro (5,895m), the highest peak in Africa.

The south east edge of the South African Plateau is known as the 'Drakensburg Range'. In the Cape Province, the plateau descends gradually towards the sea. The land rises from the narrow coastal plain in gently sloping terraces called 'The Karroos'. The ridge of the lower terrace is called 'Little Karroo' and the higher terrace is called 'Great Karroo'.

The Rivers (Drainage)

There are many important rivers in Africa like the Nile, Congo (Zaire), Niger and Zambezi. There are also minor rivers like the Limpopo, Orange, Senegal, Volta and Val. The major rivers rise in the high plateau regions and flow through deep gorges. Many cataracts (waterfalls) are formed when the rivers descend into the steep valleys. Hence, most of the African rivers are not navigable.

The Nile (6,690 Km.)

The Nile is the longest river not only in Africa but in the whole world. It rises in Lake Victoria

on the Equator and flows north. The Blue Nile and the Atbara are the two main tributaries of Nile. These two rivers rise in the Ethiopian highlands and bring heavy floods into the Nile.

The Blue Nile merges into the White Nile at Khartoum. The River Nile is called Bahr-el-Jebel upto this point. Then it flows north through an arid region in Sudan and enters Egypt. Near Cairo, the Nile branches off into many distributaries. Thus, a fertile delta has been formed north of Cairo. Finally the river drains into the Mediterranean Sea. There are six cataracts between Khartoum and Aswan on the Nile.

The Congo (Zaire) (4,830 Km.)

The river Congo flows in the Equatorial region of Central Africa. It rises near Lake Tanganyika. Flowing westward, it drains into the Atlantic Ocean. The Congo carries a greater volume of water than the Nile. This is because it flows through the Equatorial region of heavy rainfall.

The Ubangi and Kasai rivers are the main tributaries of the Congo. The river Congo is navigable for a short distance from its mouth upto Matadi. The rest of the river is not navigable due to rapids, swift currents and waterfalls on its course. The River Congo has recently been renamed as Zaire. But in its lower course, it is called Lualaba.

The Niger (3,700 Km.)

The river Niger is the most important river in West Africa. It rises in the Futa Jallan Highlands.

It flows north-east through Mali upto the Saharan border. Then it turns south-east. Flowing through Niger and Nigeria, the river drains into the Gulf of Guinea.

The Zambezi (2,880 Km.)

This is the most important river in the south of the continent. It rises near the source of the Congo. It flows eastward through Zambia, Zimbabwe and Mozambique. It drains into the Indian Ocean. The world famous Victoria Falls is found along the course of this river.

The Limpopo (1,600 Km.) and The Orange (2,000 Km.)

These two rivers flow to the south of the river Zambezi. Limpopo rises in the South African Plateau. Flowing north-east, it drains into the Indian Ocean. This river is a natural boundary between the Republic of South Africa and Zimbabwe (Southern Rhodesia).

The River Orange rises in the Drakensburg mountains. It flows westward and drains into the South Atlantic Ocean. The Vaï river is its tributary. These two rivers are also not useful for navigation.

The Rift Valley

The Rift Valley is a unique feature of the Relief of Africa. A rift valley is formed by the sinking of land between two parallel cracks in the earth's crust. In fact, there are two rift valleys in Africa. They are the following :

- (1) The Eastern Rift Valley is the longest in the world. It extends from Lake Malawi (Lake Nyasa) upto the Dead Sea in Jordan. The Red Sea and the Gulf of Aqaba are parts of this rift valley,
- (2) The Western Rift Valley extends from Lake Malawi to Lake Albert through Lake Tanganyika.

Lakes

There are many large and small lakes in the Rift Valleys. Lake Malawi and Lake Rudolf are found in the Eastern Rift Valley. Lake Tanganyika, Lake Edward and Lake Albert are found in the Western Rift Valley. Lake Victoria is the largest of the African lakes (62,940 sq. Km). It is situated in the middle of the Eastern and Western Rift Valleys. Lake Chad in West Africa is a region of inland drainage.

Islands

The Madagascar (Malagasy), Zanzibar and Pemba islands in the Indian Ocean are the important islands close to the mainland.

The Qattara Depression

The lowest part of the continent is known as the Qattara Depression. It is in Egypt.

QUESTIONS

I. Give brief answers.

1. What are the three main physical divisions of Africa?
2. Mention the names of the three ranges in the Atlas mountain system.

3. What are the three extinct volcanoes in the central lake plateau?
4. Write a short note on Karroos.
5. Mention the four major rivers in Africa.
6. Write a brief note on the Rift Valley.

II. Give detailed answers.

1. Describe the course of the River Nile from its source.
2. Give an account of the physical features of the African plateau.

III. A. Fill up the blanks.

1. _____ is the largest desert in the world.
2. _____ is the longest river in the world,
3. _____ is the highest peak in Africa.

B. Match the following.

The Chad	Largest lake in Africa
The Congo (Zaire)	Victoria Falls
The Nile	Stanley Falls
The Zambezi	Aswan
The Victoria Lake	Inland drainage.

C. Choose the correct answer.

1. The most important tributary of the Nile is
(a) Atbara, (b) Ubangi, (c) Blue Nile.
2. The lower course of the river Congo is known as
(a) Zaire, (b) Lualaba, (c) Kasai.

D. Say True or False.

1. The River Congo (Zaire) carries a greater volume of water than the River Nile.
2. Most of the African rivers are navigable.

3. The Blue Nile joins with the White Nile at Khartoum.
4. The Western Rift Valley is longer than the Eastern Rift Valley.

IV. Practical work

Mark Rift valleys, mountains, rivers and lakes on the outline map of Africa.

3. CLIMATE—TEMPERATURE AND RAINFALL

Factors affecting the Climate of Africa

Let us first learn about the factors that affect the climate of Africa.

1. The continent is a compact land mass. The greater part of Africa lies within the Tropics (Torrid Zone). Hence, it is generally very hot over large parts of the continent.

2. Very large areas in Africa are far away from the sea. The major portion of the continent therefore has a continental climate.

3. But, the temperature is reduced by the high altitude in the east and the south. The Europeans had settled in the tablelands of this region.

4. The Equator cuts Africa into two halves. Hence, there is a similarity of climatic conditions in the north and south of Equator. This results in a duplication of seasons. When it is summer in the north, winter conditions prevail in the south of the Equator. Likewise, when it is winter in the north summer conditions prevail in the south. There is therefore no common summer season or winter season for Africa as a whole. This duplication of seasons is a unique climatic feature of Africa.

5. The ocean currents (warm and cold) flowing near the shores of Africa in the Atlantic and Indian oceans affect the climatic conditions there. The cold Benguela and Canary Currents lower the temperature of the west coast. The Mozambique current warms up the east coast. The Guinea current warms up the Guinea coast.

July Temperature

Look at the July Climate map of Africa (July is typical of northern summer and southern winter). The

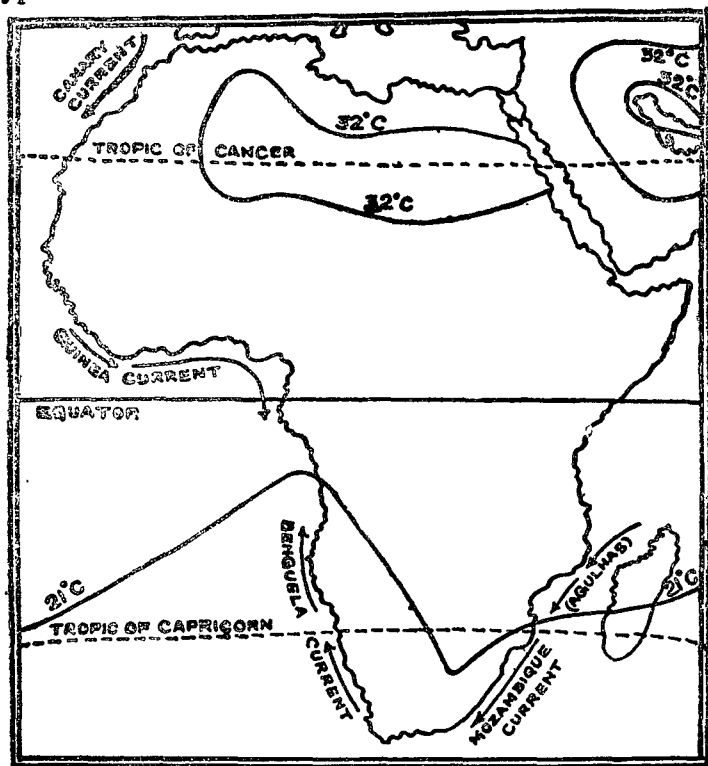


Fig. 37. Africa : July Temperature

sun is overhead on the Tropic of Cancer now. So 32° C prevails over the Sahara and the Nile Valley during this period.

But winter conditions prevail in the south of the Equator. In Cape Town in South Africa, it is 16°C during this month.

January Temperature

January is typical of southern summer and northern winter. In January, the sun is overhead on

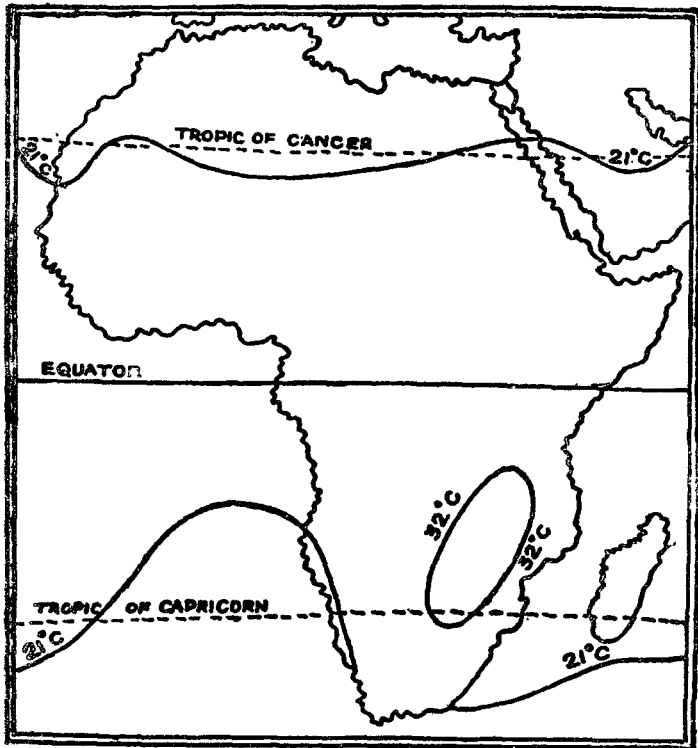


Fig. 38 Africa: January Temperature

the Tropic of Capricorn. Hence, summer conditions prevail in the region south of the Equator. The area of great heat (32°C) lies inland over the Southern

plateau. During the same period, winter conditions prevail in the North Africa (16°C in Algiers).

The mean annual temperature of Africa is above 21°C . The continent is hot because a major portion of it lies in the Torrid Zone. The Equatorial region enjoys high temperature 27°C throughout the year. But, the annual range of temperature here is small. The hottest parts of Africa are found near the Tropics. The range of temperature is also higher in the Tropics. This is due to the presence of clouds all around the year in the Equatorial region (hot and humid).

Rainfall

“The rain follows the sun” is a geographical truth. This can be seen when we study the climate of Africa. There is heavy rainfall in the summer months both in the north and south of Equator.

Northern Summer (Southern Winter)

This season is from May to October. Then the sun is overhead north of the Equator. The northern portion of the continent becomes very hot. There is a low pressure area in the Sahara Desert. The wind belts shift slightly to the north. The South East Trade Winds from the Atlantic Ocean cross the Equator and blow over Africa as the South West Monsoon. They bring heavy rains (75-150 cms) to the lands of the Guinea Coast and Western Sudan during the northern summer season.

The South East Trade Winds from the Indian Ocean give moderate to heavy rainfall in Madagascar. They cross the Equator and bring moderate rainfall to the Ethiopian Highlands and Kenyan Plateau.

The North East Trade Winds blow over North Africa. They are dry Land Winds. They carry very little moisture and give very little rainfall. So, the

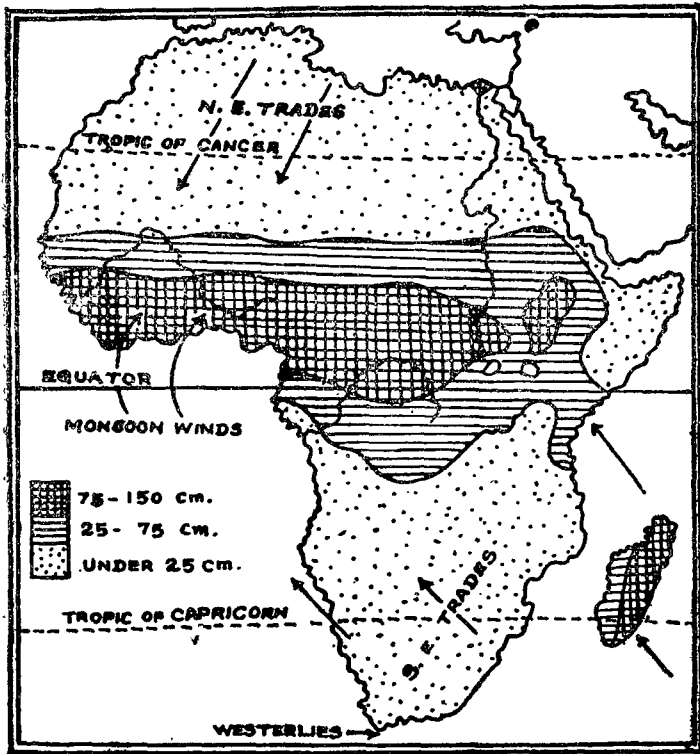


Fig. 39. Africa . Rainfall (From May to October)

whole of North Africa is rainless. As a result, the Sahara desert has come into being. It stretches from the Atlantic to the Red Sea coast.

South Africa has winter season from May to October. It is the centre of high pressure now. The Trade Winds are not drawn in and so they can not give any rain. But, the south west part of South Africa

round Cape Town gets moderate rain (25 to 75 cms) from the Westerlies. This is the Mediterranean Region of the South Africa.

Southern Summer (Northern Winter)

This season is from November to April. Now the sun is overhead south of the Equator. So, the southern portion of the continent becomes very hot. Now the

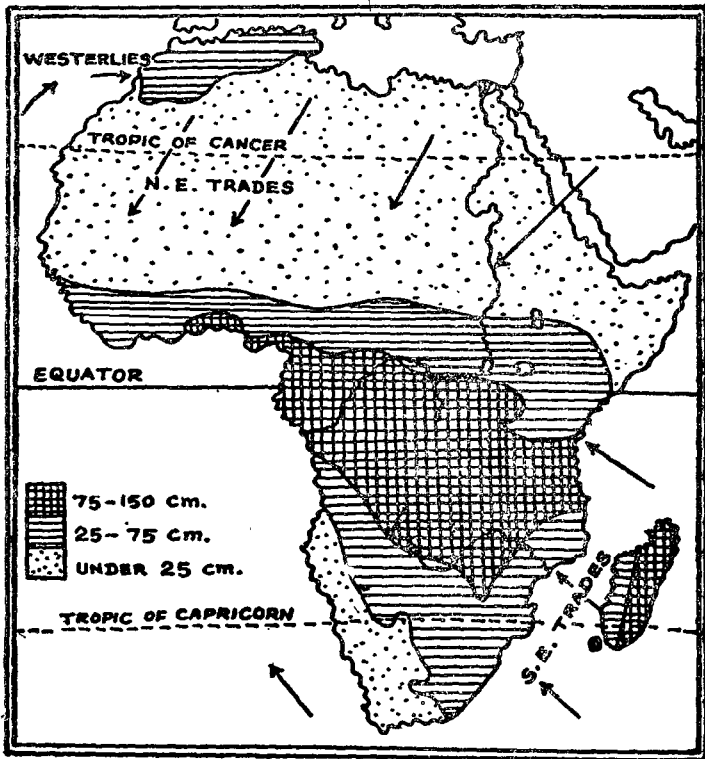


Fig. 40. Africa: Rainfall (From November to April)

low pressure area is in South Africa. The North East Trade Winds bring heavy rainfall to the Equatorial Central African region during this period.

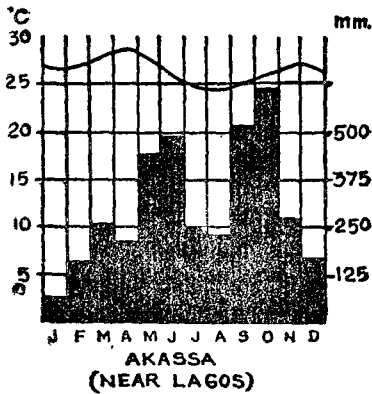


Fig. 41.

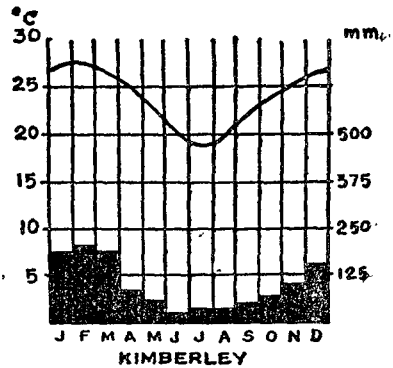


Fig. 42.

The South East Trade Winds from the Indian Ocean cause heavy rainfall (75 to 150 cms) on the eastern coastlands of South Africa and Madagascar.

The region west of the Drakensburg Mountains gets scanty rains. It is a rain-shadow region. Thus,

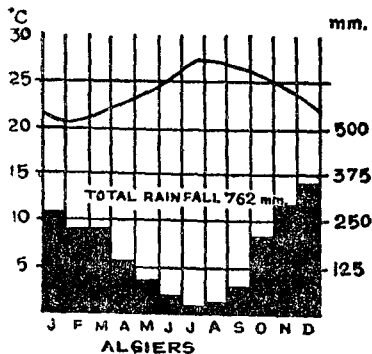


Fig. 43.

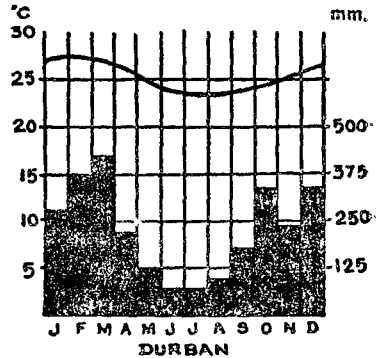


Fig. 44.

the Western part of South African Plateau gets no rain in summer or in winter. The Kalahari desert is found

there. The North West corner of Africa is known as the Atlas region. It receives moderate rainfall in winter (25 to 75 cms) from the prevailing Westerlies.

This is the Mediterranean Region of North Africa.

Convection Rain

The Equatorial region is hot and wet throughout the year. In this region, the heated air is forced upwards by the winds blowing in from both sides. The air expands and as it rises, it cools. So, there is heavy rainfall throughout the year. This is known as 'Convection Rainfall'.

QUESTIONS

I. Give short answers.

1. How do the ocean currents affect the climate of Africa ?
2. ' The hottest parts of Africa are on the Tropics and not on the Equator.' Why ?
3. What are the Mediterranean regions of Africa ? How do they get rainfall ?
4. Why is the western part of South African plateau a desert region ?
5. Write a short note on how the Convection type of rainfall occurs.

II. Give detailed answers.

1. What are the factors which affect the climate of Africa ?
2. Write an essay on the rainfall of Africa.

III. A. Fill up the blanks.

1. _____region gets rain throughout the year.
2. The Atlas-region gets winter rains from the_____.
3. The_____desert lies on the Tropic of Cancer and the_____desert on the Tropic of Capricorn.

B. Match the following.

The Benguela Current	North West African Coast
The Canary Current	South East African Coast
The Mozambique Current	South West African Coast

C. Choose the correct answers.

1. Convection Type of rainfall occurs mainly in the
(a) Equatorial region, (b) Tropics, (c) Polar regions.
2. The region which gets the heaviest summer rainfall in Africa is
(a) The Atlas region, (b) Guinea Coast, (c) Sudan.

IV. Practical work

Mark on the outline map of Africa the mean annual rainfall of the continent. Indicate regions of heavy, moderate and meagre rainfall.

—————

4. NATURAL VEGETATION

Introduction

The Vegetation belts of Africa correspond very closely with the Climatic belts. The most interesting fact is that the Vegetation belts are much the same both in the north and south of the Equator. This is because rainfall determines the Vegetation belts in Africa as elsewhere.

Africa can be divided into the following Natural Vegetation Belts based on climate and rainfall. They are :

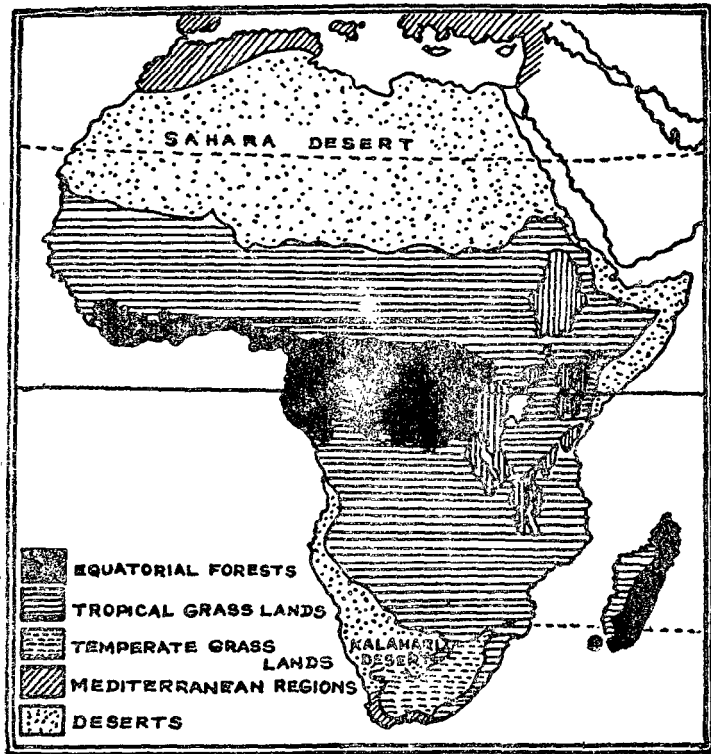


Fig. 45. Africa : Natural Vegetation

1. Equatorial Rain Forests.
2. Tropical Grassland Region called Savannah.
3. Temperate Grassland Region called Veld (in South Africa).
4. Desert and semi-desert Vegetation Type found in the Sahara and Kalahari regions.

5. Mediterranean Type of Vegetation.

The noteworthy feature of the Natural Vegetation of Africa is its duplication like the climatic regions.

Equatorial Rain Forests

The Equatorial Rain Forests are found in the Congo (Zaire) Basin and the Guinea Coast. Here the temperature is high and the rainfall is heavy. These forests are also known as Evergreen Tropical Forests. Huge trees with dense foliage and giant creepers make the region difficult for habitation. These forests abound in Wild Rubber, Mahogany and Ebony trees. The forest wealth of this region has not been fully utilised so far.

The Pygmies, a primitive native race of Africa, live in the Congo forests. They lead a nomadic life. Hunting is their main occupation.

The animals living in this region are those that can live in water like the crocodiles and hippopotamus, those that can swing from the branches of the trees like the chimpanzees and those that can creep like snakes.

Herds of African elephants also roam about these forests. They are killed for their valuable tusks. Rubber is the main product of the Congo (Zaire) Basin and palm oil that of Guinea Coast.

Tropical Grassland (The Savannah)

This region is found both to the north and south of the Equatorial region. It gets rainfall in

summer only. This is an area rich in grass. The tall, reedy and prickly grass grows to a height of more than two metres. The trees in this region are sparse and drought resistant. The most common trees are the baobab and the acacia. Gum arabic is obtained from the latter.

The Savanna grasslands spread over thousands of kilometres. This region is the home of grass eating animals like the giraffe, the zebra and the antelope. Carnivorous animals like the lion, the leopard, the tiger and the hyena roam about this region, hunting for the flesh of the above animals.

This region has been described as a vast 'open air Zoo'.

Desert Type of Vegetation

This is a region where there is little rainfall. It lies about the Tropics. The Sahara lies around the Tropic of Cancer and the Kalahari around the Tropic of Capricorn. Oases are found in some places in Sahara. Date palms grow in the oases. The camel, known as the 'Ship of the desert' is the most important animal in the desert. Scrubs grow in the Kalahari desert.

Temperate Grassland

This region lies to the south-east of the Warm Temperate forests found in Natal. The Temperate grasslands are called 'the High Veld.' Sheep (Merino) rearing is an important occupation of people in this region.

Mediterranean Vegetation

The Atlas region in the north-west and the Cape Town region in the south-west corner of Africa enjoy the Mediterranean type of climate (long dry summers and warm, wet winters). The trees which grow here are able to withstand the summer drought. They are of the short evergreen variety. They have thick leaves and barks (Eg. Cork, Olive, etc.). Grapes and oranges are also grown here in plenty.

QUESTIONS

I. Give brief answers.

1. What are the Vegetation Belts in Africa?
2. What are the most common trees found in the Equatorial rain forests?
3. Mention the most common trees which grow in the Savanna region.
4. Write a short note on the High Veld.
5. What are the qualities of the Mediterranean Vegetation?

II. Give long answer.

Write an essay on the Natural Vegetation of Africa.

III. A. Fill up the blanks.

1. The Equatorial rain forests are also called——.
2. ——sheep are reared in the Veld region.
3. Gum arabic is obtained from the——trees.

B. Match the following.

Acacia	Desert oases.
Rubber	Mediterranean.
Oil palm	Savanna.
Date palm	Congo (Zaire) forests.
Cork	Guinea coast.

VI. Practical work

Mark the Vegetation Belts in the outline map of Africa.

5. NATURAL RESOURCES

Introduction

Africa is a land of vast natural resources. It is rich in water resources, forest products and mineral wealth. But, it remained backward due to its isolation. All these resources have not been fully utilised so far. So, there is great scope for economic growth and industrial development. Africa may be called 'the continent of the future'.

Land Resource

Africa is the second largest continent in the world. The greater part of the continent is still uninhabited. More lands can be brought under cultivation. The Sahara desert and the Equatorial forest region are not suitable for cultivation. But, many varieties of crops are grown in other parts of Africa. Rice (paddy), sugar cane, cotton, tobacco, groundnuts, millets (sorghum), bananas, etc., are the tropical products. Rubber, cocoa, oil palm, sisal and cola nuts are cultivated in the Equatorial region. Coffee and tea are grown on the slopes of the plateau. Wheat, barley, olive trees and citrous fruits are grown in Mediterranean regions.

The Savanna region and the High Veld in South Africa are most suitable for sheep and cattle rearing.

Water Resources

Water is an essential requirement for life. Free water supply is basic to the needs of irrigation, industry and power.

Africa has regions with abundant rain at all seasons. As a result, there is adequate supply of water in large areas of the continent. The continent is drained by four major rivers - the Nile, the Congo (Zaire), the Niger and the Zambezi. There are also other rivers such as Senegal, Gambia, Volta, Limpopo, Orange and Val. These are rivers of secondary importance. All these rivers supply water throughout the year.

In addition, these rivers have formed waterfalls in their courses. The Nile river has many cataracts. The Stanley Falls and the Livingstone Falls on the Congo, and the Victoria Falls on the Zambezi are well-known. Besides, the Aswan High Dam on the Nile, the Kariba Dam on the Zambezi, the Ingo Dam on the Congo (Zaire), the Volta Dam on the Volta and the Cabora Bassa Dam on the Zambezi are the sources of huge hydro-electric power in Africa. Africa has almost four times the hydel power potential of North America.

The numerous large and small lakes found in the Rift Valley are ideal for the development of fisheries and tourist centres.

Forest Resources

The Zaire Basin and the Guinea coast are densely covered by Equatorial rain forests. These forests could meet the ever-growing demand for timber from all parts of the world. Many types of valuable trees grow in these forests such as rosewood, ebony and mahogany. Yet, lumbering has not been fully developed because of transport difficulties. Rivers are the main means of transport.

The chief plantation crops in the African forests are rubber, oil palm, cocoa and coconut. The tropical forests provide many other valuable products like cellulose fibres, resins, drugs and nuts. These commodities enter world markets.

The acacia trees of the Savanna grasslands supply gum arabic. The Esparto grass grown in the Atlas region is used for making paper.

In future, lumbering is likely to become an important industry.

Mineral Resources

Africa is rich in mineral resources. But, the mineral wealth of the continent is not fully known. With the increasing needs of industrial nations, greater attention is being paid to the development of mining in Africa.

The chief minerals of Africa are gold, diamonds, coal, iron, manganese, copper, cobalt, uranium, petroleum and phosphates. Several areas are already well-known for mineral production. South Africa is famous for its gold, diamond and coal deposits. Gold is mined in the Rand region, diamond at Kimberley and coal at Witbank.

The Zaire basin is very rich in minerals. Copper, radium (cobalt) and uranium are mined in the Katanga region; diamonds are found in the Kasai Valley. The countries of West Africa are also rich in minerals. Tin and gold are mined in Nigeria. Manganese, gold and bauxite are mined in Ghana.

The highlands of East Africa have great scope for the growth of mining industry. Tanganyika produces diamonds, gold, tin, lead and mica.

There are large deposits of phosphates in North-west African countries. These countries export phosphates on a large scale. Recently, large reserves of petroleum and natural gas have been discovered in the Sahara desert.

The natural resources of Africa have not yet been fully tapped. If they are properly utilised, Africa will become an economic giant.

QUESTIONS

I. Give short answers.

1. What are the chief agricultural products of Africa ?
2. Mention the important minerals of Africa.
3. Write a note on the forest resources of Africa.

II. Give detailed answers.

Write an essay on the natural resources of Africa.

III. A. Fill up the blanks.

1. ————region in South Africa is famous for gold mining.
2. ———— is obtained from the acacia trees.
3. ———— grass is used in the making of paper.
4. Recently large reserves of oil and natural gas have been discovered in the ———— region.

B. Match the following.

Petroleum	Katanga
Gold	Kimberly
Diamonds	Sahara
Copper	Rand

IV. Practical work

Mark on the outline map of Africa the important minerals of the continent.

6. THE PEOPLES AND POPULATION OF AFRICA

Introduction - Peoples

The native peoples of Africa may be grouped under the following heads:

1. People of the North such as Arabs, Berbers and Tuaregs. These are members of the White Caucasian Race. The Arabs and the Berbers live in the north and northwest of the continent. The Tuaregs live in the Sahara desert.

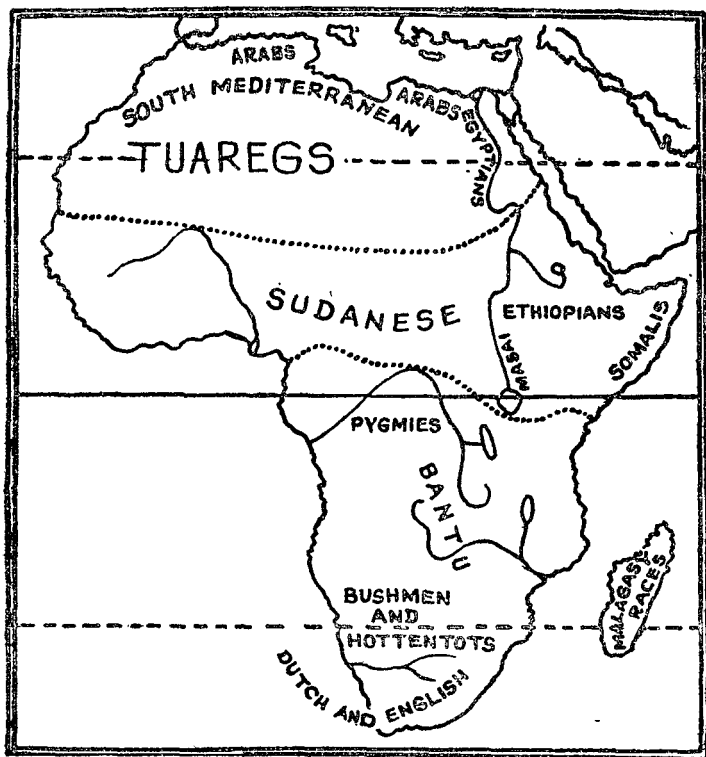


Fig. 46. Africa: Peoples

The Moors and Nubians, people of mixed origin, also live in the North.

2. In the land south of the Sahara live native Africans. They belong to the Negroid Race. They have black skin, thick lips, broad nose and woolly hair.

There are two types among the native Africans. Those who live north of the Equator are known as Sudan Negroes. They are dark skinned. Those who live south of the Equator are known as Bantu Negroes. They are light skinned.

3. There are other primitive native tribes of Africa. They live in various parts of the continent. The Pygmies live in the Zaire (Congo) forests. They are dwarfs with dark complexion. Hunting, fishing and gathering nuts, fruits and honey are their occupations. The Bushmen live in the Kalahari desert. They live by hunting. The Hottentots live in Southwest Africa (Namibia). Cattle and sheep rearing is their chief occupation. The Zulus live in the Natal Province of the Republic of South Africa. All these people lead a nomadic life.

4. The number of White settlers in Africa is much less. Most of them live in the high plateau regions of East and South Africa. They are the descendents of white settlers from England, France, Belgium, Netherlands, Portugal and Spain in the 19th century. There are also a good number of Asian settlers in East and South Africa.

Distribution and Density of Population

The present estimated population of Africa is 430 millions. So, it enjoys the third rank in the

world. The average density is about 14 persons per square kilometre.

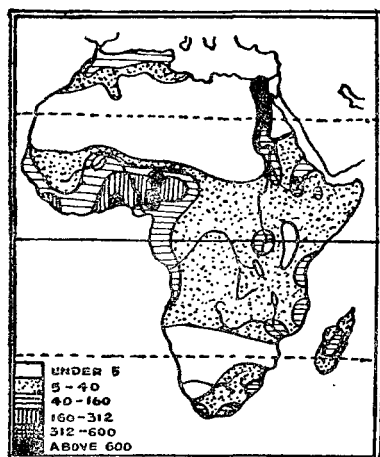


Fig. 47. Africa
Distribution and density
of population

covered with dense forests. A large part of South Africa is an arid region (Namibia): so, the density here is very sparse (less than 10 persons per sq. km.).

The most densely populated regions in Africa are the Lower Nile Valley and the Niger delta (400 persons per sq. km.). These are fertile regions. So, we find large populations there. The Atlas region in Northwest Africa and the Cape Province in South Africa enjoy Mediterranean climate. They are suitable for human settlement. The density here is 125 persons per sq. km.

Urban and mining centres, nodal and portal towns are heavily populated. So also are industrial

We find great disparity in the density of various regions. The Sahara and Kalahari deserts are very arid (rainless) areas. So, they are sparsely populated. Food crops cannot be grown there. The density of population in these regions is less than 1 person per sq. km. The Equatorial region and Central African highlands are thinly populated. They are

and trading centres. The following five countries have the largest populations in Africa.

They are :	1. Nigeria	68	millions
	2. Egypt	39	-do-
	3. Ethiopia	30	-do-
	4. Republic of South Africa	27.6	-do-
	5. Zaire	27	-do-

The following eight cities in Africa have more than a million population each.

1. Cairo	Egypt	57,15,000
2. Alexandria	Egypt	22,59,000
3. Kinshaba	Zaire	20,08,000
4. Casablanca	Morocco	17,53,000
5. Algiers	Algeria	15,00,000
6. Lagos	Nigeria	14,77,000
7. Johannesburg	Republic of South Africa	14,33,000
8. Addis Ababa	Ethiopia	11,61,000

QUESTIONS

1. Give brief answers.

1. What are the important races of Africa ?
2. Mention the primitive native tribes of Africa.
Where do they live ?
3. What are the most thickly populated regions in Africa ? Give reasons.
4. Mention the thinly populated regions in Africa.
Why ?

II. Give detailed answers.

Write an essay on the peoples of Africa. Mention the high density and low density areas. Give reasons for the same.

III. A. Fill up the blanks.

1. _____ and _____ are the two types of Black Africans.
2. _____ and _____ are the people of mixed origin in North Africa.

B. Match the following.

Berbers	Kalahari
Bushmen	Zaire (Congo) Forests
Pygmies	South West Africa
Hottentots	Atlas region

IV. Practical work

Prepare an album of the different races and tribes of Africa.

7. NORTH-WESTERN AFRICA

Introduction

Morocco, Algeria, Tunisia and Libya are the countries that lie in the Northwest of Africa. The first three are called Berbery States.

Relief

The Atlas mountains run east to west in North-west Africa. The northern range is called 'Tell Atlas'.

and the southern range is known as 'High Atlas'. The Shotts plateau (900 metres high) is situated in between these ranges. There are many salt lakes in it.

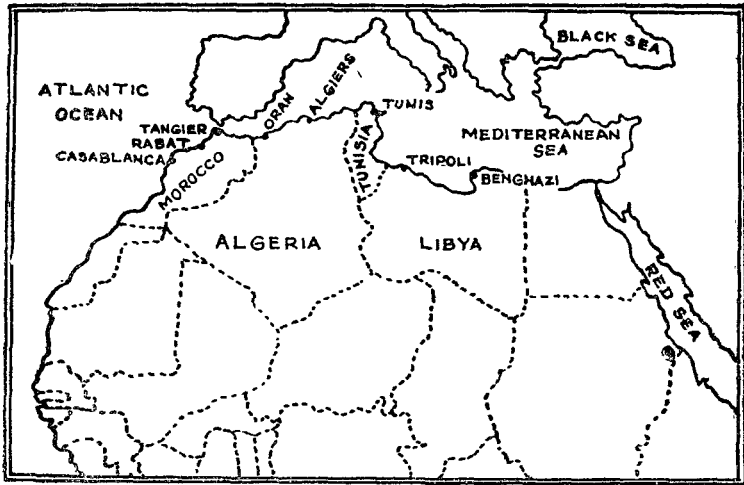


Fig. 48. North West Africa : Morocco, Algeria, Tunisia and Libya

In the Tell Atlas region, there are many fertile valleys. There is also a fertile lowland plain along the Mediterranean Coast. The Sahara desert lies to the south of the High Atlas Range. The Ahaggar plateau and the Tibesti highlands are hilly regions in the Sahara desert. The highest peak in the High Atlas Range is Mount Toubkal.

A large part of Libya is an extension of the Sahara desert. There are sand dunes, gravel-covered plains and bare rocks here and there. The Kufra and Sebha oases are well-known. There are fertile lowlands along the Gulf of Sidra.

Morocco

Morocco is an Arab Nation which became independent in 1956. Its area is about 4,46,550 sq. km. It has a population of 19.2 millions.

The coastal areas get moderate rainfall in winter. Oranges, grapes, figs and olive trees are grown here. Wheat, barley, tobacco and cotton are the major crops. Coniferous and deciduous forests are found on the slopes of Tell Atlas. Cork, oak, pine and cedar trees grow here. In the Shotts plateau, sheep and goats are reared. The esparto grass which grows here is used for paper making. The Berbers are engaged chiefly in sheep rearing. Date palms grow around the oases.

Rabat is the capital and Casablanca (Dar-el-Beida) is the largest port of Morocco. It is situated on the Atlantic Coast. It is an industrial and trade centre. Tangier on the Straits of Gibraltar and Agadir on the Atlantic Coast are other important ports. Marrakesh is an historic inland city.

Morocco has large deposits of phosphates. They are used in the production of fertilizers. Fruits, vegetables, phosphates, fertilizers, iron ore and leather goods are exported. Petroleum products, textiles and machinery are the chief imports.

Algeria

This Arab country became independent in 1962. It has an area of 23,81,741 sq. km. and a population of 18.4 millions. Its capital is Algiers. It is a major port on the Mediterranean coast. Oran is the second largest port.

A large part of Algeria is an extension of the Sahara desert. There is a narrow, fertile coastal area in the north (along the Mediterranean Sea). Most of the people live there. The Sahara region is sparsely populated.

Wheat, barley, fruits and vegetables are the chief products. Phosphates and iron are mined in the north-east of the country. They are exported via Port Skikda. Oil is piped from Edjeleh and Messaoud fields to Bejaia for export. The recently discovered natural gas and oil fields are located at Ain Salah, ElGassi, ElBorma and Hassi-R-Mel.

The chief exports of Algeria are petroleum, natural gas, wine and olive oil. The major imports are sugar, textiles and machinery.

Tunisia

This is a small Arab state situated on the Mediterranean Coast. It achieved independence in 1956. It has an area of 1,63,600 sq. km. and a population of 6.2 millions.

The economy of Tunisia is based on agriculture. The main crops are wheat, barley and olives. Tunisia is one of the world's largest producers of olive oil. Figs, grapes and citrous fruits are cultivated on the slopes of the hills and valleys. Nomadic Berber tribes raise sheep, goats and camels.

Tunisia has rich deposits of phosphates and iron ore. The chief exports are fruits, phosphates, iron ore and olive oil. The major imports are petroleum, textiles and machinery.

Tunis is the capital of Tunisia. Bizerta, a small port on the Mediterranean Coast, has a huge oil refinery. Carthage, an oil town of historic importance, was situated near Tunis. Petroleum from the Edjeleh oil fields in Algeria is piped to Gabes in Tunisia for export.

Libya

Libya is an Arab State which became independent in 1951. It is one of the most sparsely populated countries in Africa (1 person per sq. km.). It has an area of 17,60,000 sq. km. and a population of just 2.77 millions.

Most of Libya is an extension of Sahara desert. But, there are fertile lowlands along the Mediterranean Coast. The Gulf of Sidra divides Libya's Coastal region into two parts. The people here are chiefly engaged in sponge-fishing and subsistence farming. Wheat, barley, citrus fruits and groundnuts are the main crops in the coastal region. Date palms are grown in the desert oases.

Sheep, goats and camels are raised by nomadic Arabs. The esparto grass grows in the arid desert regions. It is used in paper making.

The modern economy of Libya is based on oil production. Recently large petroleum reserves have been discovered at Dahra, Zelten, Waha, Nafoora, Amal, Gialo and Sarir. Oil is piped from Zelten, Dahra and other oil fields to the port of Ras Lanuf for export.

Tripoli (Tarabulus) is the capital and chief port of Libya. It is on the Mediterranean Coast. **Benghazi** and **Tobruk** are the other ports.

Libya's chief exports are petroleum, hides and skins and fruits. It imports foodgrains, textiles and machinery.

QUESTIONS

I. Give short answers.

1. Mention the Berbery States of North-west Africa.
2. What are the chief agricultural products of North-west African countries ?
3. Write a short note on the mineral wealth of North-west African countries.
4. What are the major exports of North-west African countries ?

II. Give detailed answer.

Describe the life of people in the North-west African countries.

III. A. Fill up the blanks.

1. ———Plateau is situated between the Tell Atlas and High Atlas.
2. ———Plateau and———Highlands are hilly regions in the Sahara desert.
3. The highest peak in the High Atlas range is——.

4. The capital of Morocco is——, the important port is——.

B. Match the following.

1. Countries	Capitals
Morocco	Algiers
Libya	Tunis
Algeria	Tripoli
Tunisia	Rabat
2. Countries	Ports
Morocco	Oran
Algeria	Bengazi
Libya	Casablanca

IV. Practical work

Mark the North-west African States with their capitals and chief ports on an outline map of Africa.

2. THE NILE BASIN

Introduction

The Nile is the longest river in the world (6,690 km.). It flows through Sudan and Egypt. Without the Nile, Egypt would be a barren desert.

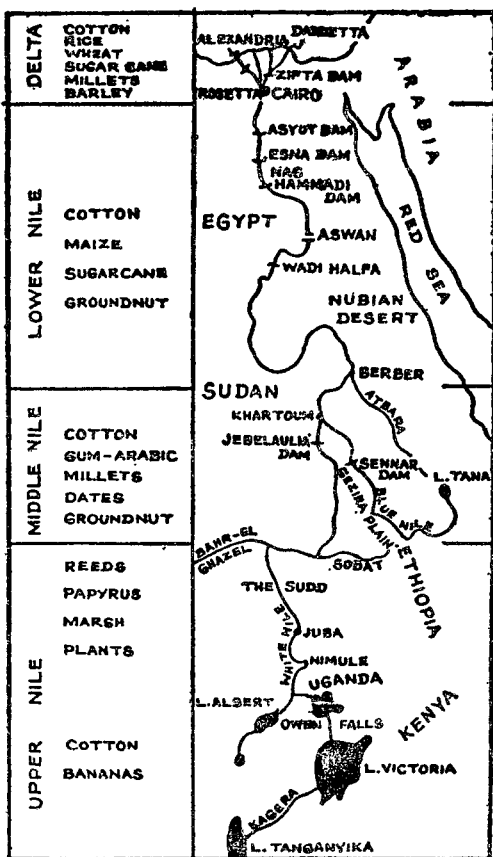


Fig. 49. The Nile Valley, Sudan and Egypt

The Nile Valley is the most fertile and productive region in Egypt. Hence, Egypt is called the ‘Gift of the Nile’.

The river Nile rises in Lake Victoria on the Equator. It flows north through Uganda, Sudan and Egypt. The river is called White Nile (Bahr-el-Ghazal) from its source upto Khartoum. The Blue Nile rises in Lake Tana in the Ethiopian Highlands. It merges with the White Nile at Khartoum. The river Atbara is another important tributary of the Nile. It also rises in the Ethiopian Highlands. It merges with the river Nile at Ed Damer. These two rivers bring rich volcanic soil and a large volume of water every year to the river Nile. From Khartoum to Aswan in Egypt the river Nile flows through a narrow valley. Hence, there are six cataracts between these two points on the Nile.

Flowing north, Nile enters Egypt at Wadi Halfa. Every year it brings fresh deposits of rich alluvial soil. This has made the Nile Valley in Egypt, a most fertile region. North of Cairo, the river branches off into a number of distributaries. Finally it drains into the Mediterranean Sea.

Republic of Sudan

Sudan is one of the important countries in the Nile Basin. The tropical forests in the south, the savanna grasslands in the middle and the semi-desert region in the north are the three main natural divisions of Sudan. There are swampy marshlands called 'The Sudd' in the south of Sudan. They have been created by the yearly floods in the White Nile (Bahr-el-Ghazal). The river Atbara, a tributary of Nile, flows in Eastern Sudan.

Sudan's economy is based mainly on agriculture. Cotton is the single most important crop. It is grown

chiefly in the Gazira plain to the south of Khartoum. Long staple cotton accounts for 90% of the country's exports. The construction of the Sennar Dam across the Blue Nile and the Jebel-Aulia Dam across the White Nile have extended the cotton-growing area. In the dry northern region, millets (sorghum), sesame, groundnuts, castor and dates are grown.

Cattle rearing and sheep farming are the important occupations of the people in the savanna region. Gum arabic is obtained from the acacia trees which grow in this region. This resin is used in the making of paints and varnishes. It is exported to foreign countries.

Sudan is the largest country in Africa. It has an area of 25,05,800 sq. km. Its population is 1,91,22,000. There are Arabs, Africans and people of mixed origin among the Sudanese. The Arabs are in a majority.

Khartoum is the capital of Sudan. It is linked by rail to Port Sudan on the Mediterranean Coast.

Egypt

Egypt lies in the Nile Basin. The river Nile flows through the country and makes it fertile. Without the Nile, Egypt would be a desert. It is therefore called the 'Gift of the Nile'.

Irrigation

Various methods of irrigation are adopted by the people of Egypt. These have been in force for thousands of years.

1. The Basin Method is still used in the Upper Nile. When the floods begin to rise, the water flows

through shallow canals and enters the fields. Thus, the soil is thoroughly soaked with water and covered with

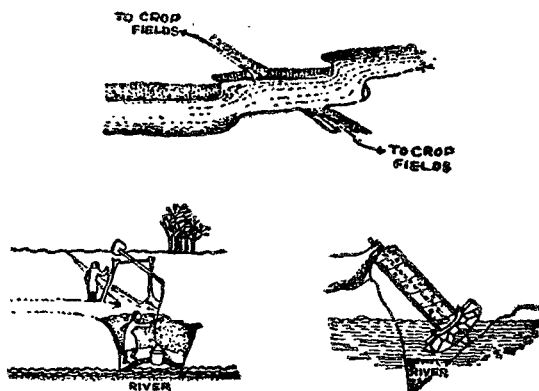


Fig. 50. Africa: The irrigation methods followed by the people of Egypt

rich silt. When the water level comes down, seeds are sown and a good harvest is reaped. This is perhaps the oldest method of irrigation.

2. The 'Seluka' is still used in some areas. This is similar to pumping out water from the river bed by manual power. A vertical stick is planted in the soil. Another stick which moves up and down crosses it. This stick has a bag at the end that is near the river. As a man walks up and down, the bag is filled with river water and drawn up to irrigate the fields.

3. In some areas, water is raised from the river by means of water wheels, worked by buffaloes or oxen.

4. The oil pump is used to draw out water from the river in some places.

5. The most modern method of irrigation is building dams across the Nile and storing water. Canals below the dam carry the water to the fields, sometimes hundreds of kilometres away. This method is known as 'Perennial Irrigation' as there is water supply throughout the year. The following dams have been built across the river Nile in Egypt :

1. Zifta, 2. Asyut, 3. Esna, 4. Nag Hammadi, 5. Aswan.

6. The Aswan High Dam was built recently at enormous cost (8 km. to the south of Aswan Dam). Lake Nasser, a huge artificial lake, has been formed by it. This multi-purpose dam has changed the life of people in the Nile Valley. It provides irrigation to thousands of hectares of lands. (7 million hectares). It also supplies hydel-power, to industries. It controls floods in the Nile.

Agriculture

In the Nile delta, three crops are raised in a year. Rice, millets, cotton, sugar cane are grown in summer. Wheat and barley and pulses are cultivated in winter. The most important crop in Egypt is long staple cotton of the finest variety. 75% of cotton is exported to United Kingdom, United States of America and India. There are cotton mills in Cairo and Alexandria. Date palms are grown in the oases of the desert region. Egypt is not self-sufficient in food production. So, it has to import food grains from other countries.

Mineral Wealth

○ Egypt is not rich in minerals. Phosphates are obtained from the Koraine area near Red Sea. There

are petroleum wells in the Sinai Peninsula and Hargatha. Iron ore is mined in the south of the country.

Suez Canal

The Suez Canal was opened in 1869. It was built by Ferdinand de Lessops, a French Engineer. The canal is 165 km long. It links the Mediterranean Sea and Red Sea. The canal has cut short the distance between Europe and India by 6,400 km. Port Said is situated in the North and Port Suez in the South of the Suez canal. Previously the ships from Europe have to cross the Atlantic Ocean and go round the Cape of Good Hope. Every year 16,000 ships use this canal. It was nationalised by the Egyptian Government in 1956. As a result of the Arab-Israeli conflict, this canal was closed in 1967. Recently it has been re-opened.

Cities

Cairo, situated at the head of the Nile delta, is the capital of Egypt. It is the largest city in all Africa (57,15,000). It lies on the air route from India to European countries. Alexandria (Population : 22,59,000) is the largest port in Egypt. It lies on the west of the Nile delta.

Trade

Cotton and textiles are the chief exports of Egypt. Wheat, coal, petroleum and machinery are its chief imports.

QUESTIONS

I. Give short answers.

1. Why is Egypt known as the Gift of Nile ?
2. What is the most important product of Sudan ?
Where is it grown ?
3. What are the chief occupations of people in Savanna region ?
4. Mention the dams built across the River Nile in Egypt.
5. Describe agriculture in the Nile delta.
6. What are the important agricultural products of Egypt ?
7. Write a short note on 'Egypt's mineral wealth'.
8. What are the chief imports and exports of Egypt ?

II. Give long answers.

1. Describe the course of the River Nile from its source.
2. Give an account of the various methods of irrigation practised in Egypt.
3. Write an essay on the Suez Canal.

III. A. Fill up the blanks.

1. ———— and ———— are the important tributaries of Nile.
2. The White Nile and Blue Nile merge at ————.
3. The Blue Nile rises in ———— in ————.
4. The River Nile enters Egypt at ————.

B. Match the following.

- | | |
|----------------|------------|
| 1. Sennar Dam | Nile |
| 2. Jebel Aulia | Blue Nile |
| 3. Aswan | White Nile |

C. Choose the correct answer.

1. The largest city in Africa is

(a) Casablanca, (b) Kinshasa, (c) Cairo.

IV. Practical work

1. Draw a sketch of the Nile Basin. Show its two main tributaries. Indicate the important dams. Locate the following towns: Alexandria, Cairo, Khartoum, Wadi Halfa, L. Etamer and L. Nasser.

2. Draw a sketch of the Suez Canal. Indicate Port Said and Port Suez.

9. THE GUINEA COAST REGION OF WEST AFRICA—GHANA AND NIGERIA

Introduction

The Guinea Coast region lies south of 15° north. It extends from the mouth of the river Senegal to

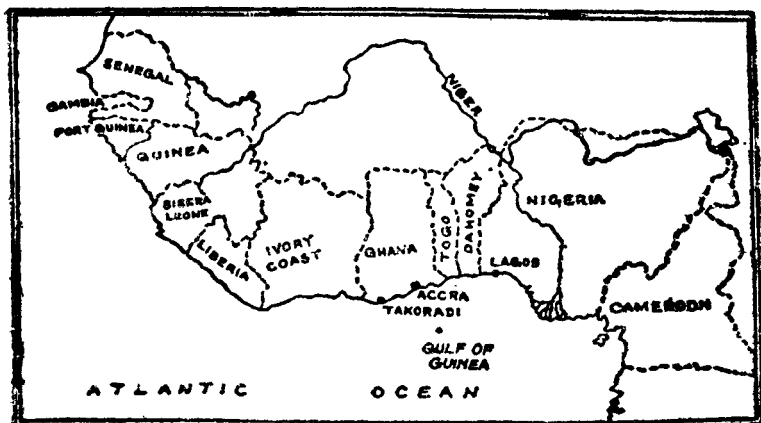


Fig. 51. Africa: The Guinea Lands

Cameroon. Ghana and Nigeria are the most important countries of the Guinea Coast.

Both Ghana and Nigeria have certain features in common. They are close to the Equator. So, they are hot and wet throughout the year. Each of them has two natural regions, the coastal plain and the plateau in the interior. The coastal plains extend along the gulf of Guinea. They are covered with mangrove swamps near the shore. There are dense tropical forests in the interior. Mahogany and ebony trees grow in plenty there. Cocoa and oil palm are the most important plantation products in these two countries.

Ghana

This country was formerly known as the Gold Coast. Ghana became independent in 1957. It has an area of 2,39,000 sq. km. and a population of 10.68 millions. Accra is the capital of Ghana.

Ghana's economy depends heavily on agriculture. A variety of tropical crops are grown in this country. Cocoa and oil palm are the major plantation crops. They are grown in the coastal lowland plains. This region enjoys a hot and wet climate throughout the year. Ghana is the largest producer of cocoa in the world (50% of the total output). It is used for making chocolates and soft drinks. The oil taken from the nuts of the oil palm is used for making

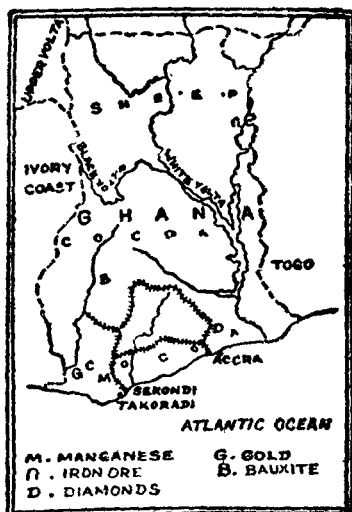


Fig. 52. Africa : Ghana

soaps and candles. The trunk of the tree is cut and the sap which drains out is collected. This is made into a strong alcoholic drink by fermentation. Yams (sweet potatoes), rice, bananas, cassava, maize and vegetables are the basic food crops. Fishing is carried on in Lake Volta.

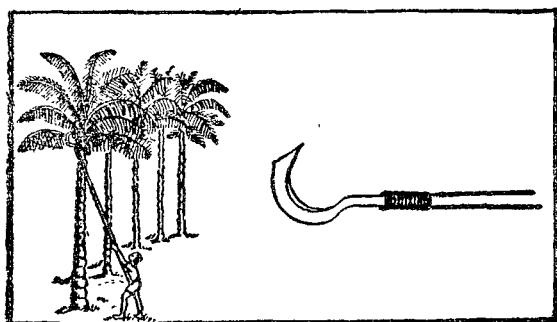
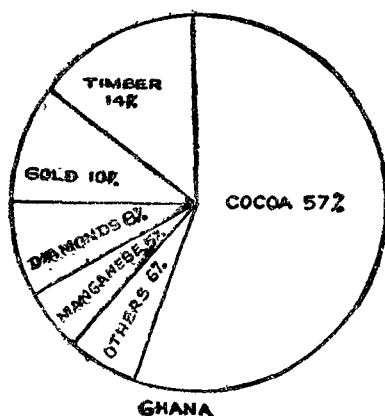


Fig. 53. Africa : Palm Trees

Ghana is rich in minerals. Gold, diamonds, manganese and bauxite are the chief minerals mined in this country.



GHANA

Fig. 54.

The major exports of Ghana are cocoa, palm oil, gold, diamonds, manganese, aluminium and timber. Its chief imports are food-grains, chemicals, machinery and petroleum.

Accra is the capital of Ghana. Tema is a port town. They are both industrial centres. Takoradi is a major

port. Kumasi is an inland cocoa trading centre.

All these towns are linked by rail, road and air...

Nigeria

Nigeria is the most populous country in Africa. It is a Federation of four political units - Northern, Eastern, Western and Mid-western Nigeria. This country became independent in 1960. It has an area of 9,24,000 sq. km. and a population of 68 millions.

The Niger river flows through south-central Nigeria. Lake Chad lies in the north eastern part of the country.

The climate of Nigeria is hot and wet all over the year. Some areas in the south along the coast get more than 200 cm. of rainfall in a year.



Fig. 55. Africa : Nigeria

Like Ghana, Nigeria's economy is based on agriculture and mining. Cocoa, oil palm, groundnuts, cotton and rubber are the main cash crops. Nigeria is the largest producer of palm oil in the world. Rice, maize, yam, and cassava are the basic food crops. Cattle are raised mainly in the northern part of the country. Fish from the Niger river and Chad Lake provide an additional source of food.

Nigeria has rich mineral resources. There are vast petroleum and natural gas reserves, mainly in the Niger delta.

There is an oil refinery at Port Harcourt. Coal and tin are also mined. Nigerian industry is well developed. Textiles, cement and plywood are manufactured.

Nigeria's main exports are palm oil, cocoa, groundnuts, rubber, timber, crude oil and tin. The country imports foodgrains, textiles, chemicals and machinery.

Nigeria's largest cities are

1. Lagos, the national capital,
2. Ibadan, an inland trading centre and
3. Port Harcourt.

All these cities are linked by rail to other important towns.

QUESTIONS

i. Give short answers.

1. Mention the two important African countries on the Guinea Coast.
2. What are the chief agricultural products of Ghana?
3. Write a short note on the mineral wealth of Ghana.
4. Mention the chief exports and imports of Ghana.
5. What are the chief agricultural products of Nigeria?
6. Write a short note on Nigeria's mineral resources.
7. State the major exports and imports of Nigeria.

ii. Give detailed answers.

1. Write an essay on the life and occupation of people in Ghana.
2. Describe the natural resources and life of people in Nigeria.

III. A. Fill up the blanks.

1. Ghana was formerly known as——.
2. ——and——are the most valuable trees in the tropical forest regions.
3. ——is the largest producer of cocoa in the world.
4. Nigeria is the largest producer of——in the world.

B. Match the following.

Lagos	Capital of Ghana
Accra	Cocoa trading centre
Kumasi	Oil refinery
Port Harcourt	Capital of Nigeria

IV Practical work

Mark on a sketch map of West Africa the following :

1. Ghana : Accra, Takoradi, Kumasi.
 2. Nigeria : Lagos, Port Harcourt, Ibadan.
-

10. EAST AFRICA

Introduction

East Africa consists of the following countries,

- A. Kenya, Uganda, Tanzania and Rhodesia
- B. Ethiopia, Somali Republic, Malawi and Mozambique.

There are two main natural regions in East Africa. They are the coastal lowlands and the interior highlands. Generally, it is hot and humid on the coast (except in Ethiopia). The plateau region is warm and wet. This type of climate is suitable for white settlement.

There are many large and small lakes in the Rift Valley in East Africa. Lake Victoria, Lake

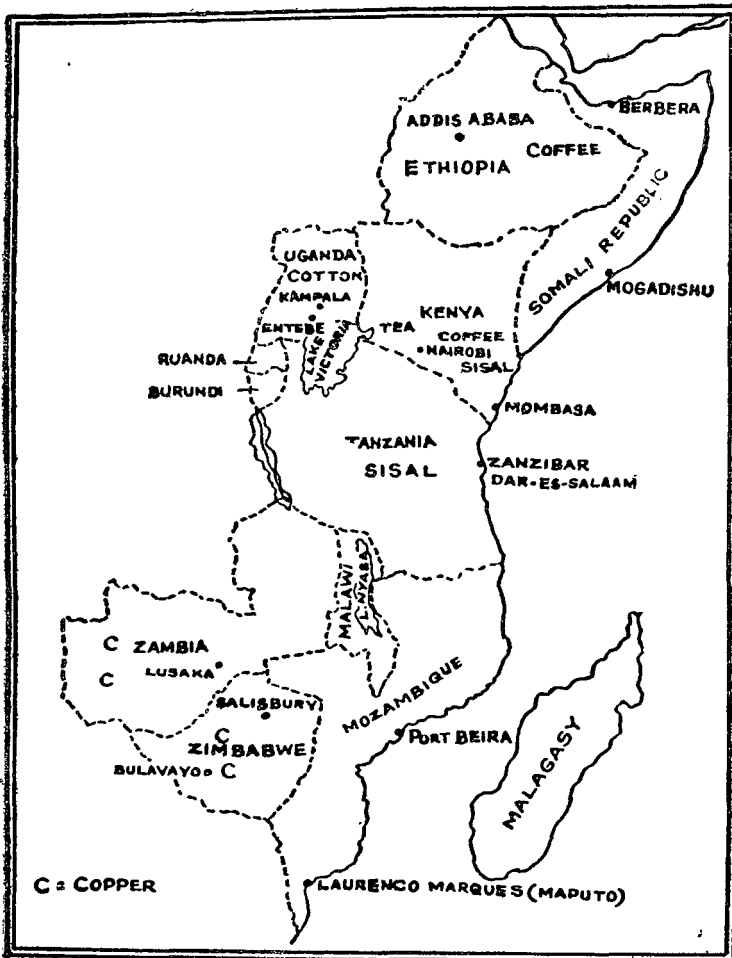


Fig. 56. East Africa: Kenya, Uganda, Tanzania, Rhodesia, Ethiopia, Somali Republic, Malawi and Mozambique.

Tanganyika and Lake Nyasa (Malawi) are the most important among these lakes.

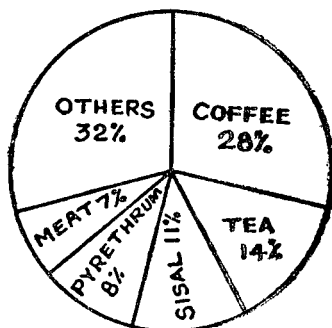
Kenya

This East African country lies on the Equator. It has two natural regions. They are: (1) the Coastal lowlands in the east and (2) the Western plateau. The Rift Valley lies in the middle of the western plateau. Lake Victoria lies to the southwest and Lake Rudolf lies in the northwest of Kenya.

Rice, maize, wheat and barley are the major food crops. Sugarcane, sisal, coffee and tea are Kenya's main cash crops. Cattle and sheep are raised for meat and milk in all parts of the plateau region. Fishing is carried on in the lakes, rivers and coastal areas.

The mineral resources of Kenya are yet to be fully tapped. Gold, copper and mica are mined in the country.

Kenya has a rich and varied wildlife. The Kenyan Government maintains a number of national parks. Many wild animals live in their natural surroundings in these parks. Tourism is an important industry of Kenya.



KENYA

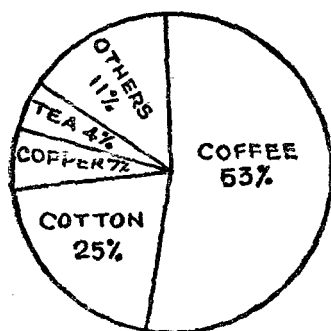
Fig. 57.

Nairobi is the capital of Kenya.. Mombasa is the major port. Coffee, tea and sisal are the major exports. Food grains, textiles, machinery and petroleum products are the chief imports.

Kenya has an area of 5,83,000 sq. km. and a population of 13.8 millions. In the plateau region of Kenya, there are many white settlers. The climate here is suitable for their settlement. There are also people of Indian origin living in Kenya.

Uganda

Uganda is a Republic in East Africa. It is a land-locked country. Its area is 2,36,000 sq. km. It has a population of 12 millions.



UGANDA

Fig. 58.

Most of Uganda is a plateau. Lake Victoria is in the southeast and L. Edward and L. Albert are in Western Uganda. The Ruwenzori Mountains run along the western border. The Albert Nile and the Victoria Nile are the major rivers flowing through Uganda.

Uganda's economy is based on agriculture. The basic food crops are maize, cassava (yam) and bananas. Cotton is the most important cash crop grown in Uganda. Other crops are groundnuts, tobacco and sugarcane. Coffee is grown largely on the slopes of the hills. Cattle and sheep are raised in all parts of the plateau. Fish-catch from Uganda's lakes and rivers supplements the people's diet.

Uganda has rich copper, cobalt and uranium deposits. The Owen Falls Hydel project (near Lake Victoria) supplies most of the country's power needs.

Uganda's largest cities are

1. **Kampala**, the capital,
2. Entebbe, a trading centre and
3. Jinja, a cotton textile manufacturing centre.

Mombasa, the chief port of Kenya, is the outlet for Uganda's exports.

Cotton, coffee and copper are the major exports of Uganda. Textiles, machinery and petroleum are imported.

Kenya, Uganda and Tanganyika co-operate closely in the fields of communications, technical services, trade and economic development.

Tanzania

Tanzania is a Union of Tanganyika and the islands of Zanzibar and Pemba. Its area is 9,45,000 sq. km. and the population is 16 millions. Mount Kilimanjaro (5,900 mts), the highest peak in Africa, lies in the northeast of the country.

A large part of Tanzania is a densely forested plateau region. Cattle and sheep rearing is an important occupation of people here. Coffee is grown on the slopes of highlands. There are coconut and sugarcane plantations in the coastal lowlands. Maize, groundnuts, cotton, tobacco and sisal are the other major crops. Tanzania is the largest producer of sisal in the world. It is a fibrous plant like jute.

Iron ore and coal are the chief minerals of Tanzania. Gold and diamonds are mined in the Muwanza district.

The Serengeti National Park near Lake Victoria is the home of wild animals. It attracts thousands of tourists from all over the world.

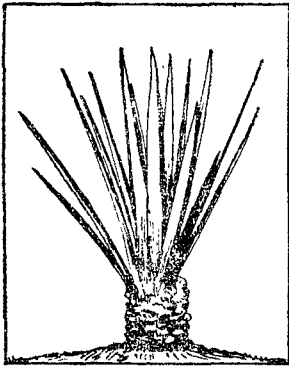


Fig. 59. Sisal plant

Dar-es-Salam is the capital of Tanzania. It is also the country's major port. Sisal, cotton, beef, hides and skin are the chief items of export. Tabora is an inland trading centre. It is linked by rail to the capital.

The islands of Zanzibar and Pemba lie in the Indian Ocean.

They are the largest producers of cloves in the world. Copra, clove oil and cloves are exported from these islands.

Rhodesia

This former British colony now consists of two independent states. They are

1. Zambia (Northern Rhodesia) and
2. Zimbabwe (Southern Rhodesia).

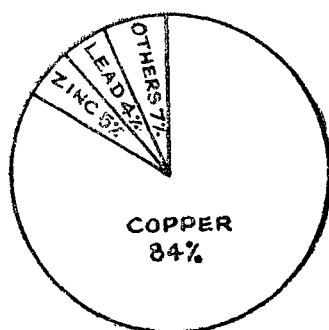
They are both land-locked countries. They lie entirely in the South African plateau. The land is suitable for agriculture, fruit farming, cattle and sheep rearing. Mining is an important occupation of people in both the countries.

Zambia (Northern Rhodesia)

This country became independent in 1964. Its area is 7,53,000 sq. km. It has a population of 5.4 millions.

The Zambezi River flows along the border with Zimbabwe. Near Livingstone, the river plunges more than 100 metres into a deep canyon to form the world famous Victoria Falls. Kariba lake, formed by the Kariba Dam on the Zambezi river is one of the largest man-made lakes in the world. (Compare Lake Nasser in Egypt).

Agriculture and mining are the main occupations of the people. Wheat, sorghum and cassava are the main food crops; cotton, tobacco and groundnuts are also grown. Cattle and sheep are raised in all parts of the plateau region. Fishing is carried on in the rivers and lakes of the country.



ZAMBIA

Fig. 60.

Zambia is one of the world's largest producers of copper. It is mined extensively in north-central Zambia. The Kariba dam provides hydel power for smelting and refining copper. zinc, lead and cobalt are the other chief minerals.

Textiles, machinery and petroleum products are the chief imports of Zambia. Copper, zinc and tobacco are exported via Port Beira in Mozambique.

Lusaka is the capital of Zambia. Most of the people in Zambia are Bantu-speaking Africans. About 2% of the population is European.

Zimbabwe (Southern Rhodesia).

This country lies between the Zambezi and Limpopo rivers in the South African Plateau. It is also a land-locked country like Zambia. Its area is 3,90,000 sq. km. and population is 7 millions.

Most of the country is a level plateau (1,000 mts. high). There are lowlands along the Limpopo in the south and the Zambezi in the north. The Kariba lake lies in the northwest along the border with Zambia.

Agriculture is the major occupation of people in this country. Wheat, maize, sugarcane, groundnuts, cotton and tobacco are the main crops. Citrus fruits are grown in several parts of the country. Cattle, sheep and pigs are raised in all parts of the country.

Zimbabwe has rich mineral resources. Gold, chromium, copper, coal and asbestos are the chief minerals. Dairy industry is well developed. Butter and cheese are processed. Wood products and textiles are manufactured in the country.

Salisbury is the capital of Zimbabwe. **Bulawayo** is the second largest city. It lies on the Cape-Cairo Railway route.

Gold, chromium, asbestos, building materials and tobacco are exported from Zambia via Port Beira in Mozambique.

Ethiopia

This ancient country was known as Abyssinia in olden days. Its area is 12,22,000 sq. km. and population is 30 millions.

Ethiopia is a hilly country. The plateau region is called Ethiopian Highlands (2,000 mts. high). It is covered with rich volcanic soil. The Blue Nile and Atbara are the important rivers which flow through Ethiopia. Lake Tana, the source of the Blue Nile, lies in the north of the plateau.

There are dense forests and extensive grasslands over a large part of the plateau. Maize, wheat and barley are the chief food crops grown in the country. Coffee is the most important cash crop. It is grown on a large scale. Cattle and sheep are raised in all parts of the country.

Ethiopia's mineral resources are yet to be fully tapped. The country has textile and food processing plants. Many rivers of Ethiopia provide a future source of hydel power production. Ethiopia's major item of export is coffee. Textiles, machinery and petroleum products are imported.

Addis-Ababa is the capital of Ethiopia. It is linked by rail to Djibouti, a sea port on the Gulf of Aden. Asmara, in the northern part of the country is the second largest city.

Somali Republic

The Somali Republic is an independent country in East Africa. It has an area of 6,37,647 sq. km. and a population of 3.4 millions.

Most of the Republic is an arid region. There are high limestone cliffs in the north and lowlands in the east. The country's major rivers are the Juba and the Shebelle. Most of the country gets less than 25 cms of rainfall in a year.

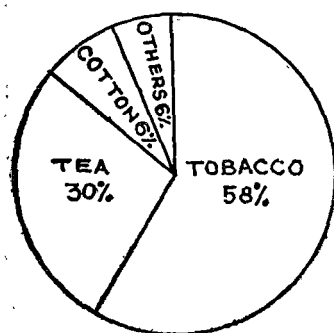
Maize, millets and bananas are the main food crops. A variety of fruits are also grown. Camels, sheep and goats are raised in most parts of the country. Leather tanning and fruit canning are the main industries. There are iron ore and gypsum deposits in the Republic. But, mining industry has not developed.

The chief exports of Somalia are bananas, live animals and hides. Foodgrains, textiles, machinery and petroleum are imported.

Mogadishu on the Indian ocean is the capital of Somali Republic.

Malawi

This Republic in South Eastern Africa was formerly known as Nyasaland. It has an area of 1,18,484 sq. km. and a population of 5.4 millions.



MALAWI

Fig. 61.

Most of Malawi is occupied by mountains and plateaus. Because of its rugged terrain, Malawi has been described as "Switzerland without snow". The great rift valley runs through Malawi. Lake Nyasa, now renamed as Lake Malawi lies in the rift valley.

The economy of Malawi is based on agriculture. Maize, millets, cassava and groundnuts are the basic food crops. Cotton, tobacco and tea are the cash crops. There is no mining or manufacturing in the country. Malawi's land locked position and its limited transportation system have hampered economic development. Many workers find employment in nearby countries.

Textiles, chemicals, machinery and petroleum are imported. Cotton, tobacco and tea are exported.

Zomba in southern Malawi is the capital. Lilongue and Blantyre are Malawi's big towns. Port Beira in Mozambique is Malawi's chief outlet to the sea.

Mozambique

This former Portuguese colony lies on the eastern coast of Africa. It has an area of 7,86,000 sq. km. and a population of 9.8 millions.

The land consists of a flat plain in the east and a high plateau in the west. The major rivers are Zambezi and Limpopo. The climate is hot and humid along the coast. It is warm and dry in the interior.

Agriculture is the main occupation of people. Maize, sugarcane, cotton, sisal and cashew nuts are grown. The vast forest wealth of the country is yet to be fully tapped. Cattle and sheep are raised in the drier regions.

Coal and bauxite are the chief minerals of Mozambique. Textiles, cement and leather goods

are manufactured. The country is poorly developed. So, people migrate to Zimbabwe and South African Republic. They work as hired labourers in the mining centres.

Cotton, sisal, sugar and cashew nuts are exported from Mozambique. Machinery and petroleum products are imported. **Maputo** (Lourenco Marques) is the capital of Mozambique. Beira (Sofata) is the major port. It is an entrepot port.

QUESTIONS

I. Give brief answers to the following.

1. What are the major lakes in the rift valley region of East Africa ?
2. Mention the chief exports and imports of (a) Kenya, (b) Uganda and (c) Tanzania.
3. Describe the mineral wealth of (a) Zambia and (b) Zimbabwe.
4. Mention the chief agricultural products of the following countries, (a) Ethiopia, (b) Somalia Republic, (c) Malawi and (d) Mozambique.
5. Why is tourism an important industry in Kenya, Uganda and Tanzania ?

II. Give detailed answer.

Write an essay on the natural resources and occupations of people in East Africa under the following heads.

- | | |
|------------------|--------------------|
| (a) agriculture, | (b) livestock, |
| (c) mining, | (d) foreign trade. |

III. A. Fill up the blanks.

1. _____ is the major cash crop of Uganda.
2. _____ is the chief port of Kenya.
3. _____ National Park in Tanzania is famous for its wild life.
4. _____ is the world's largest producer of sisal.
5. The islands of _____ and _____ are the world's largest producer of cloves.
6. The Kariba dam has been built across the river _____.
7. _____ is the chief outlet for Uganda's exports.
8. Lake Malawi was formerly known as _____.

B. Match the following.

Capitals	Countries
1. Maputo	Zambia
2. Addis Ababa	Somalia
3. Nairobi	Zimbabwe
4. Kampala	Kenya
5. Lusaka	Malawi
6. Salisbury	Tanzania
7. Dar-es-Salam	Uganda
8. Zomba	Mozambique
9. Mogadishu	Ethiopia

IV. Practical work

Mark the following countries and cities on the outline map of East Africa.

- (a) Kenya, Uganda, Tanzania, Zambia, Zimbabwe, Malawi, Mozambique, Ethiopia, Somalia.
 - (b) Addis Ababa, Nairobi, Kampala, Dar-es-Salam, Lusaka, Salisbury, Zomba, Maputo, Mogadishu.
-

11. WEST AFRICA

Congo (Zaire)

The Republic of Congo (Zaire) and Angola lie in West Africa.

This country was known as the Congolese Republic. It was under Belgian rule. It became independent in 1960.

The bulk of the Congo Basin lies in the Zaire Republic. The Congo Basin is circular in shape. It is drained by the River Congo (Zaire) and its two main tributaries, Ubangi and Kasai.

The Republic of Zaire has an area of 23,44,000 sq. km. and a population of 25.6 millions.

The Zaire Republic lies in the Equatorial region. So, it has an equatorial type of climate. There are dense ever-green forests in the country. Valuable trees like mahogany and ebony grow in these forests. But, it is difficult to cut down the trees and bring them to the plains. The rivers are not navigable due to swift currents and waterfalls. So, lumbering has not developed in this region.

The Pygmies live in the forest region of Zaire (Congo). They are short in stature. Their homes are made of twigs and leaves. Their chief occupations are hunting, fishing and gathering fruits, nuts and honey. Mostly they lead a nomadic life.

There are many plantations on the slopes of the hills in the region. They include rubber, cinchona, oil palms, cocoa and coffee. Cotton is grown in the

Kasai province. Maize and sugarcane are the food crops grown in the plains. Cattle and sheep rearing is an important occupation of people in the highlands.

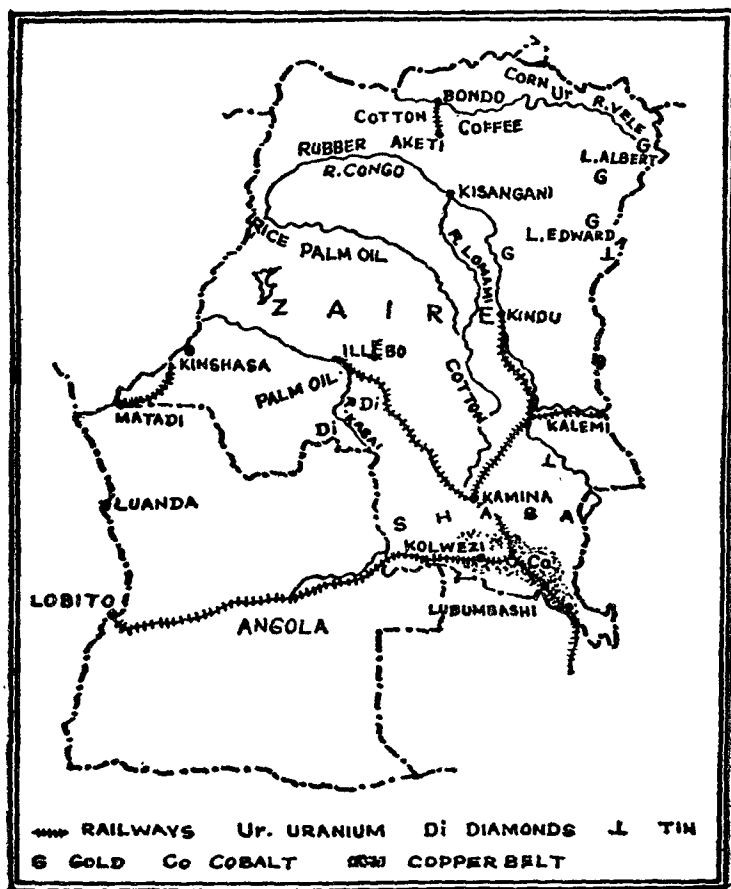


Fig. 62. West Africa: Zaire (Congo Republic) and Angola

The Zaire Republic is rich in minerals. Iron, manganese, tin, copper, cobalt, gold, diamonds, uranium, etc., are the chief minerals. Coal is imported from Zimbabwe and South Africa. The Katanga

region is famous for copper mining. There are copper smelting and refining works at Elizabethville (Lubumbashi) and Jadotville. Cobalt and uranium are also mined in this region. Gold is mined at Kilo-moto, tin in Bukamo and uranium in Shinkolobwe. Diamonds are found in the Kasai Valley.

The chief mining areas are far away from the ports. Matadi (in Zaire), Lobito (in Angola) and Beira (in Mozambique) are the outlets for the exports of Zaire. They include copper, palm oil, cocoa, coffee, rubber, ivory and timber.

Kinshasa is the capital of Zaire. Lubumbashi (Elizabethville) and Kisangani (Stanleyville) are important towns.

Angola

Angola lies to the south west of the Congo Basin. It was under Portuguese rule until recently. It has an area of 12,47,000 sq. km. and a population of 6.4 millions.

Farming is the chief occupation of the people. The basic food crops are rice, maize and cassava. Coffee, cotton, sisal, sugarcane and oil palm are the major cash crops. The country's forests yield valuable timber. Fishing is carried on in the coastal areas.

Angola is rich in minerals. Gold, diamonds, copper, iron, manganese and oil are the chief minerals. Mining is Angola's major industrial activity.

Luanda is the capital of Angola. Lobito is the chief port. Gold, iron ore, coffee and sisal are exported. Textiles, drugs and machinery are imported.

QUESTIONS

I. Give brief answers.

1. Why has lumbering not fully developed in the Zaire forests ?
2. What are the major plantations in the Zaire plateau region ?
3. Write a note on the mineral wealth of Zaire.
4. What are the chief exports and imports of Zaire ?
5. Mention the chief agricultural products of Angola.
6. What are the chief minerals of Angola ?

II. Give detailed answer.

Write an essay on the natural resources and life of people in the Zaire Republic.

III. A. Fill up the blanks.

1. _____ and _____ are the important tributaries of the Congo.
2. _____ is the capital of Zaire.
3. _____ is the capital of Angola.

B. Say whether it is true or false.

1. Matadi is the only outlet for the exports of Zaire.
2. Lubumbashi is an important mining centre in Zaire.
3. It is difficult to transport timber from the Congo forests.

IV. Practical work

Mark the following on an outline map of Africa.

- (a) Zaire Republic, Angola.
 - (b) Kinshasa, Lubumbashi, Matadi.
 - (c) Luanda, Lobito.
-

12. SOUTH AFRICA

Introduction

South Africa consists of the Republic of South Africa, Namibia (South West Africa), Botswana (Bechuanaland), Swaziland and Lesotho (Basutoland).

The Republic of South Africa has four provinces. They are Transval, Orange Free State, Natal and Cape Province. It has an area of 12,22,000 Sq. km. and a population of 25.6 millions.

The greater part of South African Republic is a plateau. It is drained by the Limpopo, Orange and Val rivers. The eastern edge of the plateau is known as the Drakensburg Range. In the south, the plateau descends gradually towards the sea in a series of steps. These are known as the 'Karroos'.

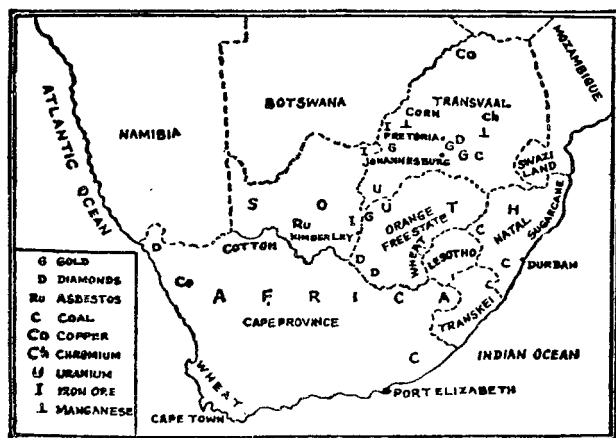


Fig. 63. South African Republic

The Limpopo river flows to the north of Transval and drains into the Indian Ocean. It forms a natural

boundary between Zimbabwe and the Republic of South Africa. The Orange river rises in the Drakensburg Range. It flows westward and drains into the South Atlantic Ocean. The Val river is an important tributary of the river, Orange.

Climate

The South African plateau enjoys a temperate climate. The Natal Coast and the Drakensburg Region get summer rainfall (South East Trades). The western part of the plateau is an arid region (Kalahari Desert). The south west corner of Cape Province gets winter rainfall from the prevailing Westerlies (Mediterranean Climate).

Natural Regions

The following natural regions are found in South Africa :

(1) The High Veld forms the eastern part of the plateau. Temperate grasslands are found here. Merino sheep rearing and cattle breeding are important occupations of the people here. Maize, tobacco and citrus fruits are grown here.

(2) The Western part of the plateau is dry; sheep rearing is the chief occupation of people here.

(3) The Karroo regions are treeless plateaus. The Angora sheep are reared here. Wool is the chief product (4th place in the world) and it is exported on a large scale.

(4) The region around Cape Town has a Mediterranean type of climate. Wheat is the basic food crop. Citrus fruits like orange, grapes and peach are grown here. Wine is made from grapes. It is exported.

(5) In the south-east coastlands, there are sugarcane, banana and pine apple plantations. Maize and millets are grown in the interior. Sheep are reared on the slopes of Drakensburg Mountains.

Mineral wealth

The Republic of South Africa is rich in minerals. The Rand region between the Val and Limpopo rivers is famous for gold mining. South Africa accounts for 70% of the world's total production of gold. This precious yellow metal accounts of 90% of the value of the exports of the country. In diamond production also the Republic stands first in the world. The most famous diamond mining centres are Kimberly in Cape Province and Pretoria in Transval. Uranium, which is essential for the production of atomic power is also mined in the Witwaters Rand Region. Coal is mined at Witbank in Transval and Newcastle in Natal. High grade iron ore is mined at Transval and Cape provinces. Manganese is mined at Postmasburg in the Cape Province. Copper is mined at Messina to the north of Transval.

It can be rightly said that minerals are the chief resources of South Africa. The Republic is the most industrially advanced nation in all Africa. Steel (Pretoria), sugar (Durban) and wine (Cape Town) industries are well developed.

Cities

Pretoria is the capital of the Republic of South Africa. **Johannesburg** is the largest city. It is both a gold mining and manufacturing centre. **Cape Town**, **Port Elizabeth**, **East London** and **Durban** are important ports.

The main imports of the Republic are iron and steel, machinery, petroleum, textiles, coffee, tea and sugar. The major exports are gold, diamonds, fruits, wine and wool.

The Race Problem

There are four main population groups in the Republic of South Africa.

(1) The Bantu Negroes form the majority of the population (68%)

(2) The White people (British and Boers) make up 19% of the total.

(3) The coloured people of mixed origin make up 10% and

(4) The Asians (mostly Indians) make up 3% of the population.

The Government of South Africa treats these four racial groups as separate communities. They have to live in their own areas of the country. This policy of separate development or racial segregation is known as "Apartheid". It is a violation of human rights.

In pursuit of this policy, the Transkei or Bantustan was created in 1963. There are separate schools, shops, hospitals, housing colonies and modes of transport for the Negro Africans. The Indians in South Africa suffer disabilities like the Negroes. This policy is hated by the civilized world and condemned by the United Nations.

QUESTIONS

I. Give short answers.

1. What are the countries in South Africa ?
2. Name the Political Units of the South African Republic.
3. What are the Karroos ?
4. Mention the natural regions of South African Republic.
5. Write a note on 'apartheid'.
6. What are the chief exports and imports of South Africa ?

II Give long answers.

1. Write an essay on the mineral resources and industrial development of South African Republic.
2. Write an essay on sheep and cattle rearing in South Africa.

III A. Fill up the blanks.

1. ——— river is the important tributary of the Orange River.
2. ——— river forms a natural boundary between Zimbabwe and South African Republic.
3. The eastern edge of the South African plateau is known as ———.

B. Match the following.

Witbank	Bantustan
Kimberly	Gold
Messina	Manganese
Rand Region	Diamond
Transkei	Coal
Postmasburg	Copper

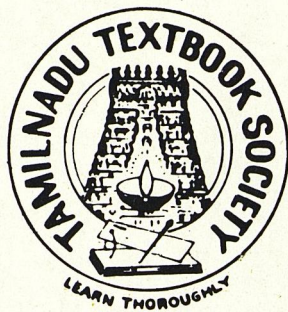
C. Say whether it is true or false.

1. South Africa is the largest producer of gold and diamonds in the world.
2. South African Government treats all its citizens equally.
3. The Bantu Negroes form the majority of the population of South Africa.

IV. Practical work.

Mark on an outline map of South Africa the following :

- A. Political divisions.
- B. Industrial and mining towns : Pretoria and Johannesburg.
- C. Ports : East London, Port Elizabeth, Cape Town and Durban.



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