



Ministry of Education
and Sports

HOME-STUDY LEARNING

SENIOR
4

GEOGRAPHY

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This material has been developed as a home-study intervention for schools during the lockdown caused by the COVID-19 pandemic to support continuity of learning.

Therefore, this material is restricted from being reproduced for any commercial gains.

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FOREWORD

Following the outbreak of the COVID-19 pandemic, government of Uganda closed all schools and other educational institutions to minimize the spread of the coronavirus. This has affected more than 36,314 primary schools, 3129 secondary schools, 430,778 teachers and 12,777,390 learners.

The COVID-19 outbreak and subsequent closure of all has had drastically impacted on learning especially curriculum coverage, loss of interest in education and learner readiness in case schools open. This could result in massive rates of learner dropouts due to unwanted pregnancies and lack of school fees among others.

To mitigate the impact of the pandemic on the education system in Uganda, the Ministry of Education and Sports (MoES) constituted a Sector Response Taskforce (SRT) to strengthen the sector's preparedness and response measures. The SRT and National Curriculum Development Centre developed print home-study materials, radio and television scripts for some selected subjects for all learners from Pre-Primary to Advanced Level. The materials will enhance continued learning and learning for progression during this period of the lockdown, and will still be relevant when schools resume.

The materials focused on critical competences in all subjects in the curricula to enable the learners to achieve without the teachers' guidance. Therefore effort should be made for all learners to access and use these materials during the lockdown. Similarly, teachers are advised to get these materials in order to plan appropriately for further learning when schools resume, while parents/guardians need to ensure that their children access copies of these materials and use them appropriately. I recognise the effort of National Curriculum Development Centre in responding to this emergency through appropriate guidance and the timely development of these home study materials. I recommend them for use by all learners during the lockdown.



Alex Kakooza

Permanent Secretary

Ministry of Education and Sports

ACKNOWLEDGEMENTS

National Curriculum Development Centre (NCDC) would like to express its appreciation to all those who worked tirelessly towards the production of home-study materials for Pre-Primary, Primary and Secondary Levels of Education during the COVID-19 lockdown in Uganda.

The Centre appreciates the contribution from all those who guided the development of these materials to make sure they are of quality; Development partners - SESIL, Save the Children and UNICEF; all the Panel members of the various subjects; sister institutions - UNEB and DES for their valuable contributions.

NCDC takes the responsibility for any shortcomings that might be identified in this publication and welcomes suggestions for improvement. The comments and suggestions may be communicated to NCDC through P.O. Box 7002 Kampala or email admin@ncdc.go.ug or by visiting our website at <http://ncdc.go.ug/node/13>.



Grace K. Baguma
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ABOUT THIS BOOKLET

Dear learner, you are welcome to this home-study package. This content focuses on critical competences in the syllabus.

The content is organised into lesson units. Each unit has lesson activities, summary notes and assessment activities. Some lessons have projects that you need to carry out at home during this period. You are free to use other reference materials to get more information for specific topics.

Seek guidance from people at home who are knowledgeable to clarify in case of a challenge. The knowledge you can acquire from this content can be supplemented with other learning options that may be offered on radio, television, newspaper learning programmes. More learning materials can also be accessed by visiting our website at www.ncdc.go.ug or ncdc-go-ug.digital/. You can access the website using an internet enabled computer or mobile phone.

We encourage you to present your work to your class teacher when schools resume so that your teacher is able to know what you learned during the time you have been away from school. This will form part of your assessment. Your teacher will also assess the assignments you will have done and do corrections where you might not have done it right.

The content has been developed with full awareness of the home learning environment without direct supervision of the teacher. The methods, examples and activities used in the materials have been carefully selected to facilitate continuity of learning.

You are therefore in charge of your own learning. You need to give yourself favourable time for learning. This material can as well be used beyond the home-study situation. Keep it for reference anytime.

Develop your learning timetable to cater for continuity of learning and other responsibilities given to you at home.

Enjoy learning

Term 1

Lesson 1: Equatorial/Tropical Rain Forest and Savannah Vegetation in Africa

Learning Outcomes

By the end of the less-on, you should be able to:

- (i) identify and locate the major vegetation types in Africa.
- (ii) describe the characteristics of Equatorial/Tropical rain forest and savannah vegetation in Africa.
- (iii) explain the conditions that have favoured the growth of tropical rain forests in Africa.
- (iv) explain human activities carried out in tropical rain forests in Africa.

Materials you need:

notebook, pen, pencil, rubber, foot ruler, and atlas.

equatorial/tropical rain forests and savannah vegetation areas in Africa

Introduction

In senior two, you learnt about the different vegetation types in East Africa. You also learnt about the influence of each type of vegetation on human activities. In this lesson, you are going to learn about Equatorial/tropical rain forests and savannah vegetation in Africa and the economic activities carried out in areas with these vegetation types.

Activity 1

Look at **Figure 1.1** and do the activity that follows.

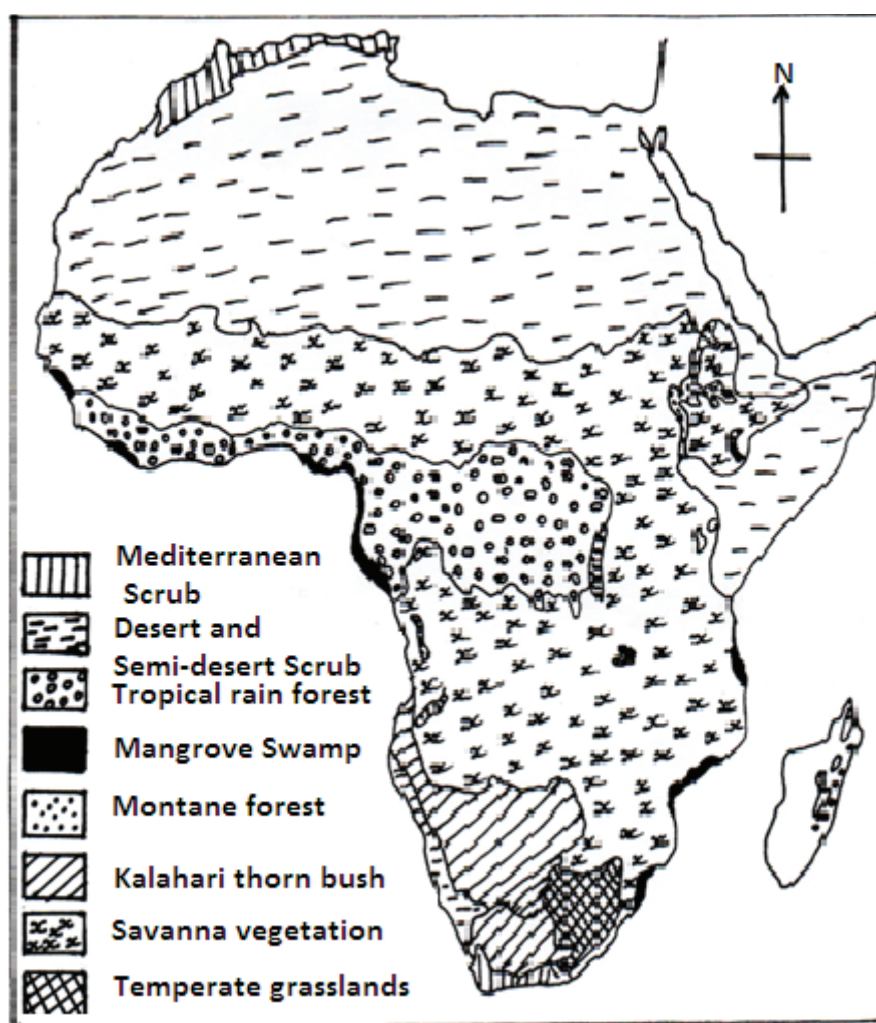


Figure 1.1: Types of vegetation in Africa

1. With the help of the atlas, identify and write in your notebook,
 - (i) Three countries with tropical rain forest vegetation.
 - (ii) Three countries in which savannah vegetation is found.
2. Draw the map in your notebook

Activity 2

Read the text below about some of the characteristics of tropical rain forest vegetation and study the two photographs in Figure 1.2 and do the tasks that follow.

Characteristics of equatorial/tropical rain forest vegetation

Trees in tropical rain forests do not grow in pure stands. There are about two hundred tree species in one hectare of the forest land. Trees are predominantly hardwoods like Mahogany, Ebony, Iron wood, and Sapele. Forests are evergreen due to heavy rainfall which is received throughout the year. Trees shed only the old leathery leaves at different intervals. Forests have climbing plants such as lianas which climb upon the tall trees in search of sunlight. There is little or no undergrowth because of dense canopy that prevents sunlight from reaching the forest floor. Trees grow in three layers or canopies. The very tall trees have triangular roots which give them extra support. Such roots are called buttress roots.



(a)

(b)

Figure 1.2: Features of tropical rain forest vegetation

1. Using the knowledge you got in Senior Two, and ideas from **Figure 1.2**, in your notebook, outline other characteristics of tropical rain forests in addition to those mentioned in the text above.
2. Explain the factors which have led to the growth of tropical rain forest vegetation which include climate, soils, relief, and human activities.
3. Suggest the likely economic activities carried out in areas with tropical rain forest vegetation.

Activity 3

Read the text below about some of the characteristics of savannah vegetation and study the two photographs in Figure 1.3 and do the tasks that follow.

Characteristics of Savannah Vegetation

Savanna vegetation covers a large part of Africa. It is characterized by deciduous trees (trees which shed leaves during the dry season). Grass is green in the wet season and dries and become brown during the dry season. Savannah trees grow to different heights depending on their location. For example, they are of medium height near tropical rain forest and short near semi desert margins. Trees have wedge-shaped crowns in order to resist strong winds. Spear grass and elephant grass are common.



(a) Grassland savannah

(b) Woodland savannah

Figure 1.3: Major types of savannah vegetation

1. Using ideas from both text and Figure 1.3, describe other characteristics of savannah vegetation in addition to those mentioned in the text above.
2. Suggest factors which affect the growth of savannah vegetation.

Activity 4

1. Carry out textbook or internet research about the economic activities carried out in areas with savannah vegetation in Africa.
2. Write a report of your findings.

Summary

- In this lesson, you have learnt the characteristics of tropical rain forest and savannah vegetation, factors which have favoured the growth of tropical rain forest and savannah vegetation.
- You have also learnt about the influence of tropical rain forest and savannah vegetation on human activities and ways of life.

Follow up Activity

1. Using the knowledge you have acquired in this lesson and your earlier knowledge, describe the conditions favouring the growth of savannah vegetation in East Africa.
2. Considering the characteristics of both tropical rain forest and Savannah vegetation, explain the problems associated with land use in areas occupied by:
 - (i) Equatorial/tropical rain forests
 - (ii) Savannah vegetation

TOPIC: FORESTRY INDUSTRY IN AFRICA

Lesson 6: Forestry Industry in Gabon

Learning Objectives

By the end of the lesson you should be able to:

- i) describe the distribution of forests in Gabon
- ii) explain the conditions that have favoured the development of the forestry industry in Gabon.
- iii) draw a sketch map showing distribution of forests in Gabon.
- iv) explain the importance of the forestry industry to the economy of Gabon.

Materials you will need:

notebook, ruler, pen, pencil, textbook on forestry in Gabon, Atlas, and ICT tools

Introduction

In the previous lessons you learnt about tropical rain forests. You learnt about areas where they are found, their characteristics, conditions favouring their growth and human activities which are carried out in tropical rain forest areas. In this lesson, you are going to look at Gabon as one of the countries in Tropical Africa with a highly developed forestry industry. Specifically, you are going to learn about the distribution of forests in Gabon, conditions that have favoured the exploitation of forests in Gabon, and the importance of the forestry industry in the country.

Distribution of Tropical hard wood forests in Gabon

Activity 1

Using the knowledge, you acquired in the previous lessons on natural vegetation in Africa, in your notebook.

1. Outline the characteristics of tropical rain forests.
2. Name four countries in Africa where exploitation of forests is an important activity.

Activity 2

Look at **Figure 6.1** below showing the development of the forestry industry in Gabon and read the text that follow and do the activities that follow.

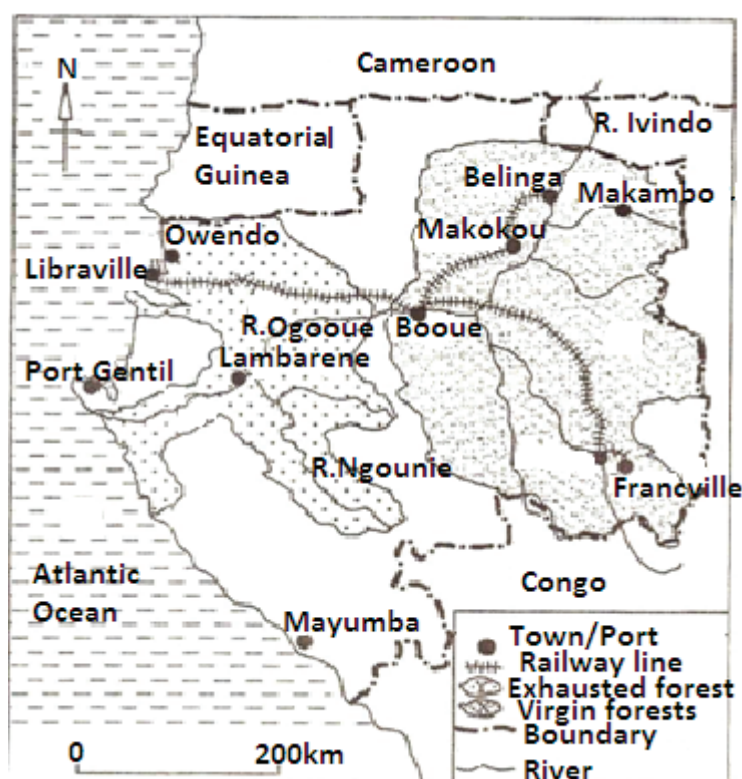


Figure 6.1: Exploitation of Forests in Gabon

Gabon is a country in Africa important for the exploitation of her tropical forests. Three quarters of Gabon is covered by tropical rain forests. Her great forest lands lie in the Basin of river Ogooue. Timber is floated down the main river and its tributaries up to the coastal ports from where it is exported. A railway line has been extended to Franceville and Belinga to help in exploitation of forests.

Gabon is important for Okoume tree, an extremely valuable light coloured wood, which grows nowhere else in tropical Africa. Timber from Okoume is used in production of plywood. Other tree species include Ozigo, Azobe, Ebony, Sapele, and Mahogany.

Most of the forests near the coast have been cut. Today exploitation of timber is carried out farther in the interior. After cutting trees the logs are transported to collecting centres near river Ogooue. The logs are rolled into the water and pushed together on huge rafts which are towed or pulled along river Ogooue and its tributaries.

1. Copy Figure 6.1 into your notebook.
2. List the:
 - (i) Tree species found in the natural forests of Gabon.
 - (ii) Major timber ports of Gabon.
3. Suggest the likely effects of over exploitation of forests in the coastal area of Gabon.

Factors which have Favoured the Development of Forestry in Gabon

Activity 3

Using the information from both the text and Figure 6.1 above, and any other relevant information you have, explain the following factors which have favoured the development of the forestry industry in Gabon:

- (i) Climate
- (ii) Presence of rivers
- (iii) Availability of high value tree species
- (iv) Low population density
- (v) Market for forest products
- (vi) Trans Gabon railway line

In Activity 3 you have learnt some of the factors which have favoured the development of the forestry industry in Gabon. Those are not the only factors which can explain why Gabon has the most highly developed wood industry in Africa.

The availability of large amounts of capital to invest in forestry is also an important factor. Money capital is provided by both the government and foreign companies like Unilever. Labour needed to extract timber is provided by migrant workers from Congo, Equatorial Guinea, and Cameroon.

Importance of the Forestry Industry in Gabon

Activity 4

1. Carry out textbook or internet research about the importance of forests in Gabon to the:
 - (i) Natural environment,
 - (ii) Government and people of Gabon
2. Write notes to summarise your findings.
3. Suggest the likely disadvantages associated with having such large forests in Gabon.

Summary

In this lesson you have learnt the:

- Distribution of major forests in Gabon; the coastal zone and the interior zone.
- Conditions that have favoured the development of forestry in Gabon, such as the commercial value, presence of river Ogooue and its tributaries, forests covering

large area, efficient transport, presence of numerous tree species, among others.

- Importance of the forestry industry in Gabon such as earning foreign exchange, source of local revenue in form of taxes, providing raw materials to saw mills and wood-allied industries, and providing employment to the people.

Follow - up activity

Look at Table 1 showing changes in forest cover for selected countries of Africa 1990 – 2010 and do the tasks that follow.

Country	Forested area as a percent of the total land area	
	1990	2010
Gabon	85.4	85.4
DRC	70.7	68.0
South Africa	6.8	4.7
Liberia	51.2	44.9
Senegal	48.6	44.0
Ghana	32.7	21.7

1. Calculate the percentage change in forest cover for each country between 1990 and 2010.
2. Draw a bar graph to represent the percentage area under forest cover for the selected countries in 2010.
3. Carry out textbook or internet research about the steps being taken to conserve forests in Africa. Write a report of your findings in your notebook.

Topic: The Fishing Industry in Africa

Lesson 7: The development of fishing in Africa

Objectives

By the end of this lesson, you should be able to:

- identify the major fishing grounds in Africa.
- name the types of fish caught in the fishing grounds.
- describe the fishing methods used in Africa.
- describe the factors favouring fishing in Africa.
- describe the problems facing the fishing industry.
- explain the benefits of fishing in Africa.

Materials you need

notebook, pen, pencil, atlas, textbook, ICT tools, and rubber

Introduction

Africa is endowed with reasonably large amounts of marine and inland fisheries resources. Regional fisheries have developed significantly over the last thirty years. In Senior One you learnt about fishing in British Columbia while in Senior Two you learnt about fishing in East Africa. This knowledge will help you understand fishing in other parts of Africa in this lesson.

The major fishing grounds of Africa

The fishing grounds in Africa are of two types;

1. Marine fishing grounds or salt water fishing grounds, mainly in oceans.
2. Fresh water fishing grounds or inland water fishing grounds such as rivers and lakes.

To help you understand these fishing grounds better, do the following Activity.

Activity 1

Look at the Figure 7.1 and do the tasks that follow.

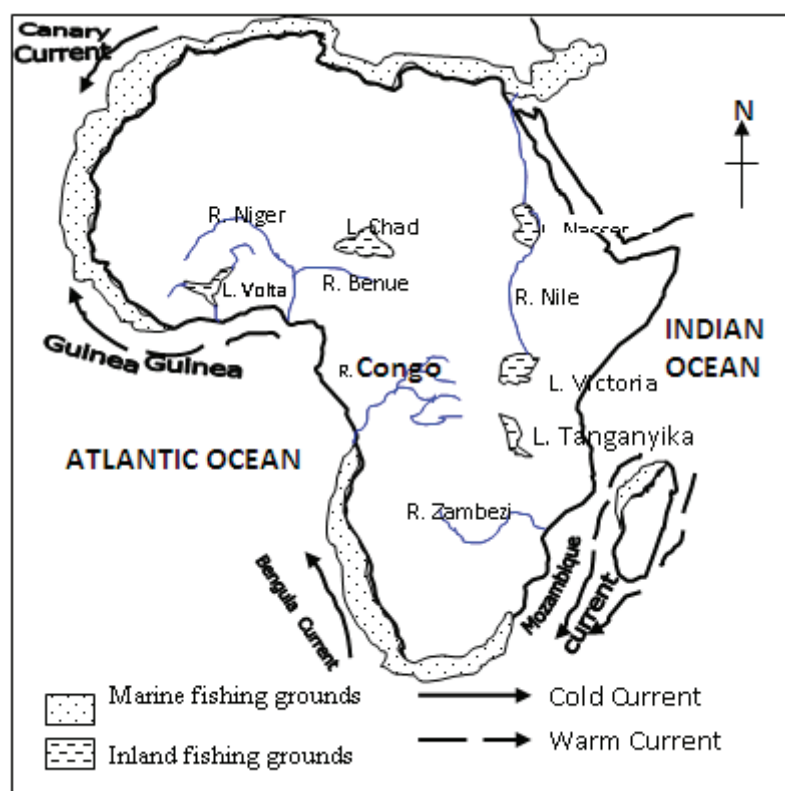


Figure 7.1: Major fishing grounds of Africa

1. Copy the map into your notebook.
2. With the help of the atlas or a textbook map, identify and name the:
 - (i) Marine fishing grounds
 - (ii) Countries and ports in the major fishing grounds.
3. Name 3 types of fish caught from:
 - (i) Marine fishing grounds
 - (ii) Fresh water fishing grounds
4. Explain how the ocean currents shown on the map have influenced fishing along the African coast.
5. Why do you think the East African coast is not an important fishing ground?

Methods of Fishing

When you learnt about fishing in British Columbia and East Africa, you looked at the methods used to catch fish from water bodies. In Africa, fish is caught using both traditional and modern commercial methods. Do you remember which methods are traditional and which ones are modern?

Activity 2

1. Draw a table similar to the one given below in your notebook.
2. Complete the table by listing the fishing methods you know in their respective categories.

Modern methods	Traditional methods

You have probably filled in the table with methods like fishing baskets, gill netting, beach seining, trawling, spearing, shooting, poisoning, trolling, drifting, using cast nets, fish traps, hand lining, long lining and others. To help you understand these methods further, do the following activity.

Activity 3

Look at the Figure 7.2 below and do the following tasks:

1. Copy pictures A to F into your notebook.
2. Identify the method shown in each picture.
3. Below each method you have identified and drawn;
 - (i) Write at least four sentences to describe how the method is used to catch fish.
 - (ii) List the type of fish caught using the method.
 - (iii) Explain two disadvantages of using the method.

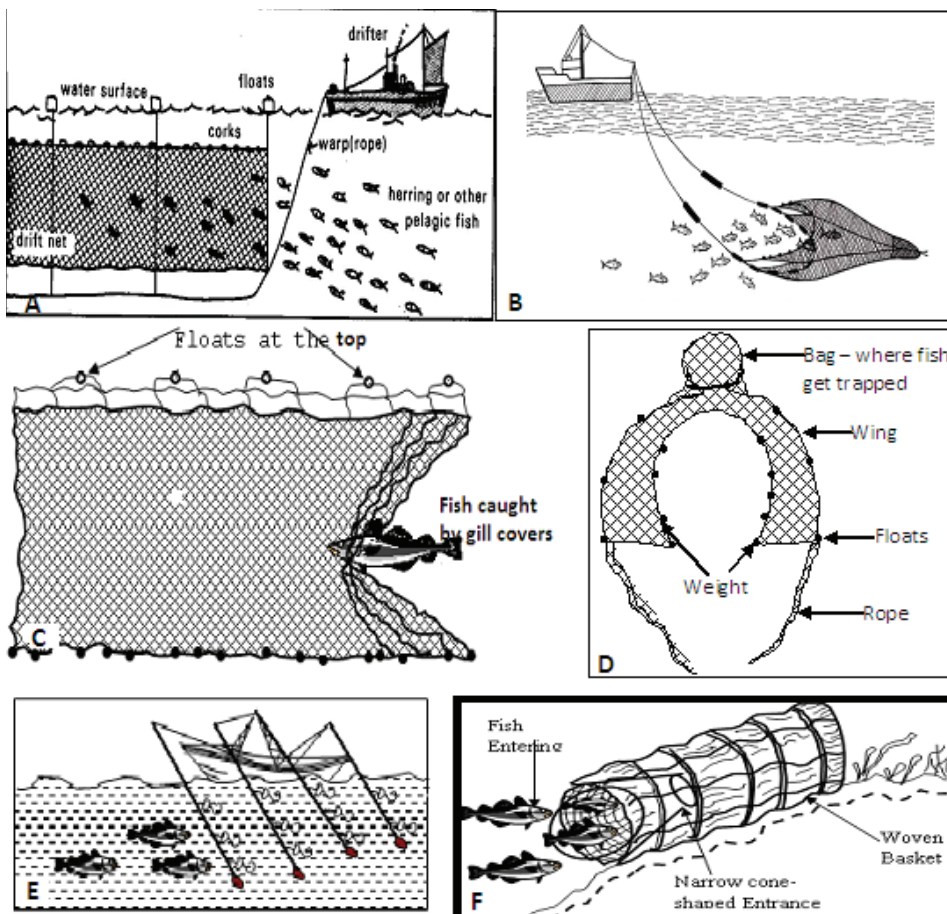


Figure 7.2: Some of the fishing methods

In the previous activity you could have listed tilapia (Ngege), Sardines, Tuna, shrimps, herring, anchovies, Nile Perch, mackerel, pilchards, hake, and sole among the major species of fish caught in Africa. You are right. Now let us look at reasons why fishing has developed in some parts of Africa.

Factors Favouring Fishing in Africa

Fishing activity is influenced by both physical and human factors. For instance, in learning activity 1 of this lesson you found out that at the cape, in South Africa, where the waters of the warm Mozambique (Agulhas) ocean current mix with those of the cold Benguela current, there are large amounts of fish. You also found out that area with Smooth Ocean floors are good fishing grounds while the East African coast is not important for fishing due to the presence of coral reefs which can tear fishing nets and fishing boats.

Coastal areas with a wide continental shelf have also become important fishing grounds. The continental shelf provides shallow waters which are rich in fish food called plankton.

The use of modern technology in the fishing industry has also led to the development of fishing in some African countries. For example, South Africa has built up a fleet of ships that can fish in the deep ocean waters. These ships have powerful engines and can travel out quickly to the fishing grounds as far north as the coast of Angola. You are going to find out more factors soon.

Activity 4

Look at the photograph below showing fishing activity and do the tasks that follow.



Figure 7.3: Drawing fish catch into the boat

1. Giving evidence from the photograph, describe the factors that have favoured fishing.
2. Describe other factors not seen in the photograph which favour fishing in Africa.
3. Copy the table below into your notebook and fill it in with a summary of the factors favouring fishing under two categories: physical and human factors.

Human factors	Physical factors

Problems Facing Fishing in Africa

The fishing industry faces many challenges in Africa.

Activity 4

Look at Figure 7.3 and do the tasks that follow.



Figure 7.3: Some of the problems facing fishing

1. Describe the problems facing the fishing industry shown in the photograph.
2. Using the knowledge of fishing in East Africa, explain other problems facing fishing in Africa in addition to the ones shown in Figure 7.3
3. Suggest possible solutions to the problems facing fishing in Africa.

Benefits of Fishing in Africa

Activity 5

Look at the table below showing fish export earnings for selected African countries in 2017 and do the tasks that follow.

Country	Tonnes ('000)	US Dollars(000)
South Africa	135,000	517,873
Angola	322	17,304
Mozambique	95	43,431
Namibia	404,000	784,565

1. Draw a pie-chart to show the foreign exchange earnings from fish in 2017 for the selected African countries.
2. Name the country with the;
 - (i) Highest,
 - (ii) Lowest foreign exchange earnings from fish.
3. Apart from foreign exchange earnings, suggest other benefits of the fishing industry in Africa.

Summary

In this lesson you have learnt that:

- Africa has both marine and fresh water fishing grounds.
- The methods of fishing used in Africa are both traditional such as use of baskets and modern such as purse seining.
- The factors favouring fishing in Africa include physical factors, such as presence of fishing grounds rich in plankton and wide continental shelf. Human factors include availability of capital, labour, and technology.
- The fishing industry faces challenges, such as limited capital and shortage of skilled labour.
- Fishing benefits Africa by providing food, employment, raw materials, foreign exchange, among others.

Follow-up Activity

Imagine you have been appointed a Fisheries officer for one of the districts in the Lake Victoria or Lake Kyoga region.

1. Suggest measures which you would put in place to improve the fishing industry in Uganda.
2. What problems are you likely to face as you implement the measures you have suggested in (1) above?



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