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THE FISHING INDUSTRY IN AFRICA

Fishing refers to the extraction of aquatic/marine life such as from water bodies such as lakes, rivers, oceans etc. On the African continent, fishing is carried out on rivers such as Orange, Nile, Zambezi, in oceans such as the Indian Ocean and Atlantic Ocean, seas such as Mediterranean and Red sea and lakes such as Chad, Tana, Malawi, and Victoria.

There are two major categories of fishing grounds in Africa i.e., the marine fishing grounds and the fresh water fishing grounds.

MARINE FISHING GROUNDS

These include seas and oceans that surrounds the African continent. They include the Red sea, Mediterranean Sea, Indian Ocean and the Atlantic Ocean. The major fish species caught in marine fisheries include Sardines, Tuna, Barracuda, mackerel, herrings, Prawns.

FRESH WATER FISHING GROUNDS

These include the inland water bodies of Africa such as Lakes, rivers and swamps. Fish species in such water bodies include; tilapia, Nile perch, silver fish, mad fish, lung fish etc.

Categories of fish caught from African fishing grounds.

There are two broad categories of fish caught from the different fishing grounds in Africa and these include, pelagic fish and demersal fish.

i) Pelagic fish

There are fish species which live and swim in the water close to the surface of the water body e.g. sardines, mackerel herrings.

ii) Demersal fish

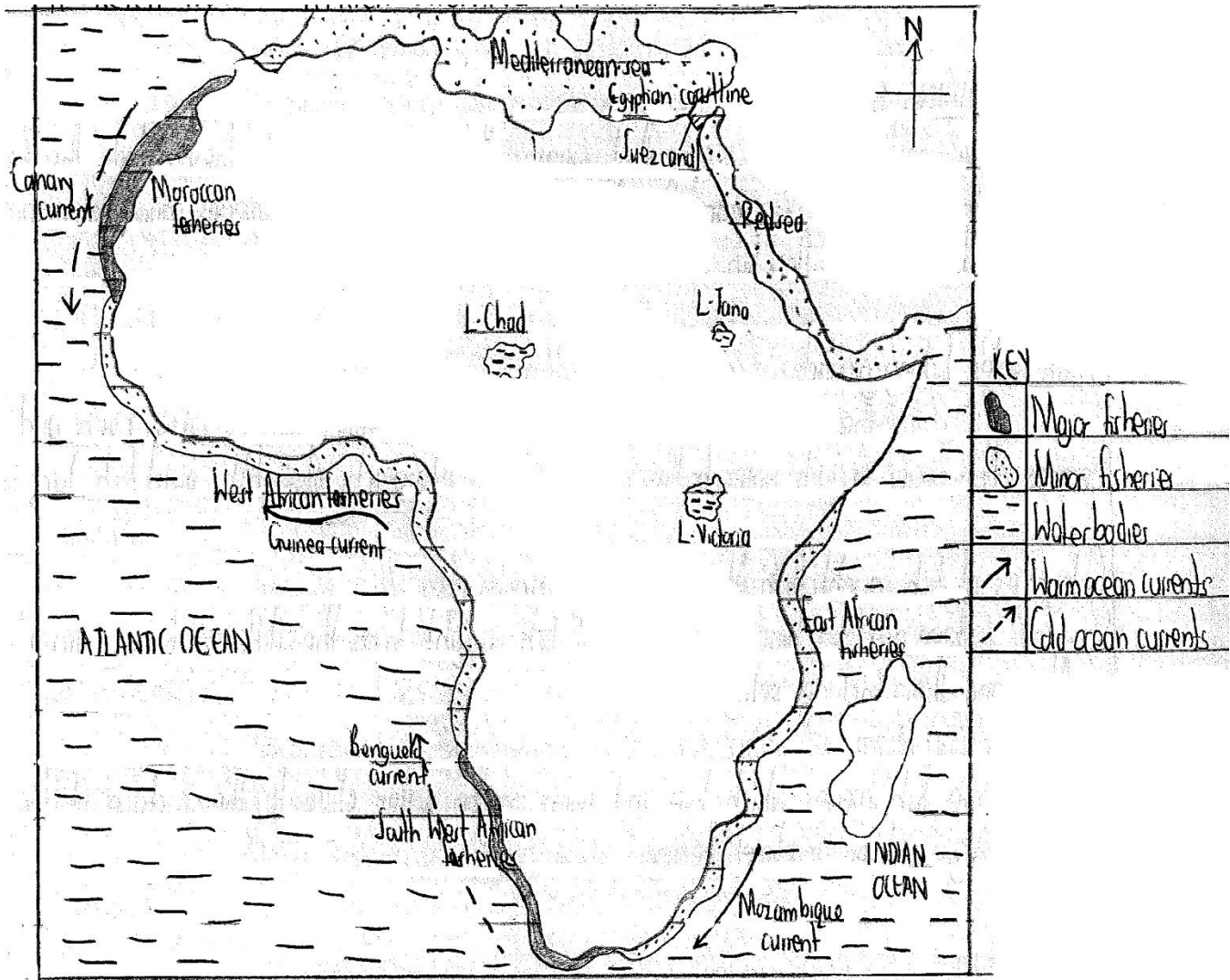
These are fish species that live and swim in deep waters near or on the sea bed for example cod, halibut, sole etc.

Major fishing grounds in Africa.

The major fishing grounds on the Africa continent include;

- South African coast
- Moroccan Coast
- South West African Coast (Namibia)
- West African coast (Ghana)
- East African Coast (Kenya and Tanzania)
- Inland water bodies such as L. Chad, L. Victoria, L. Tana

A SKETCH MAP OF AFRICA SHOWING FISHING GROUNDS



FACTORS FAVOURING THE FISHING INDUSTRY IN AFRICA

Fishing in Africa is boasted and favored by a combination of both physical and human factors as described below.

Physical factors.

The influence of ocean currents such as the cold Benguela current which mix with the Warm Mozambique currents causing well oxygenated waters that are favorable for the growth plantations which act as food for the fish.

Availability of numerous fishing grounds such as oceans, seas, lakes and rivers which are habitats for the fish.

Presence of variety of fish species such as Tilapia, Nile perch, sardines etc., which have high demand on the world market hence promoting fishing activities.

The heavy equatorial rainfall which ensures high water levels within the water bodies such as Lakes and the oceans which creates favorable conditions for fishing.

Presence of forest resources which provides timbers for boat constructions especially in the inland water bodies making navigation and catching fish easy.

The wide continental belt which encourages plankton growth due to sunlight penetration hence increasing fish food.

The desert nature of some countries in Africa such as Morocco, Tunisia and Egypt with infertile soils that discourages crop cultivation leaving room for only fishing activities to thrive.

The undulating landscape nature of the coastline in some parts of the African continent e.g., West African which encourages the development of natural harbors which helps the fish to hide and breed.

The mountainous nature of some African countries such as Morocco with the Atlas Mountains which hinders crop cultivation leaving fishing as the only alternative for survival.

Presence of large quantities of fish within the African grounds which attracts investors with a lot of capital into the fishing industry.

Human factors.

Presence of very many landing sites inform of ports such as Casablanca IN Morocco, and Walvis Bay in Namibia formed to handle fishing vessels.

Availability of large sum of capital used to purchase fishing gears and vessels, nits, and other equipment.

Presence of worldwide domestic and foreign markets provided by the large African population e.g. the Moroccan coast and coastal towns of West Africa which provided adequate markets to buy the fish.

The advanced levels of technology e.g. the use of ships and vessels with refrigerated equipment's making fishing activities efficient resulting in to improved production and quality fish.

Availability of abundant skilled and semi-skilled labor to carry out the fishing activities.

The well-developed infrastructure in form of roads and railway networks making the transportation of fish to market centers easy.

The supportive government policy of African countries informs of extending soft loans to fish mongers and attracting foreign investors into fishing sector hence promoting fishing on the continent.

The relative political stability in some Africa countries which has attracted more investors into fishing industries with a lot of capital.

Availability of fish processing industries on the fish landing sites which have helped to improve on the quality of fish and command better prices in the world market.

IMPORTANCE OF FISHING TO THE DEVELOPMENT OF THE AFRICAN ECONOMY

It has generated employment opportunity to fishermen and carpenters who make fishing vessels, trucks drivers etc., which earns them income to improve their lives standards.

The government generates revenue through giving fishing licenses to foreign fishing vessels of countries such as Holland, Canada, Senegal and thus tax them. The revenue is used to finance development projects of African countries.

Fishing has led various African countries to earn foreign exchange through exportation of fish to foreign countries which is used to develop the country.

It has encouraged development of towns and ports such as port Casablanca in Morocco and Walvis Bay in Namibia which help in provision of social services such as medical care and accommodation

Fishing has encouraged industrialization through establishment of fish processing plants, fertilizers industry and animal field feeds factory that use fish as a raw material hence providing consumer goods to the people.

Fishing has encouraged effective utilization of the continent's water sources which would otherwise be reddened which has ensured economic growth and development of African countries.

Has promoted acquisition of skills as driving skills, fishing skills which are used to improve on people's standards of living.

Fishing has encouraged diversification of Africa's economy hence reducing over dependence on agriculture.

It is a source of food in form of fish proteins which supplement on diet and improve on people's health as well.

It has boosted agricultural development through provision of fertilizers from the fishing fertilizers plants hoping to improve on soil fertility which improves on crop growing.

It has promoted international friendly relations between African countries and foreign countries that import fish and invest in the African industries.

ENVIRONMENTAL PROBLEMS RESULTING FROM FISHING ACTIVITIES IN AFRICA

Question. Outline the effects of the fishing activities on the physical environment in Africa.

Indiscriminate fishing in some African countries e.g. the western and eastern fisheries leading to exhaustion of some fish species.

Pollution fishing grounds by oil spillages and wet discharge from fish processing industries which leads to health problems

Fishing activities have increased the rates of destruction which has led to loss of natural vegetation cover.

Fishing activities has led to the growth of towns and urban centers such as port Casablanca and Walvis Bay with their associated evils such as slum development and unemployment.

Fishing activities has led to neglect of other economic activities such as agriculture, mining hence hindering multi-sectorial development of Africa countries.

Fishing activities have led to product repatriations especially from foreign fishing companies living Africa underdeveloped.

Fishing activities have led to loss of fishermen due to the accidents involved in the water bodies that can claim people's lives and property.

Over fishing especially in the Moroccan fisheries which has led to over exploitation of water resources and sometimes some fish species.

Uses of fish

- It acts as food which provides proteins to the people
- It is used to process fertilizers.
- Fish is used in the manufacture of animal feeds
- It is used to make necklace
- The swim bladder is used for the manufacture of biodegradable stitches used for medical purposes.

PROBLEMS FACING THE FISHING INDUSTRY IN AFRICA

Poor fishing methods are used such as trawling in the West African coast which collects even the young fish leading to indiscriminate fishing.

Conflicts over territorial waters whereby countries sharing water bodies don't have clearly marked boundaries which hinders regional cooperation.

There is wide spread pollution of water bodies that are nearer to the water bodies e.g. Tema and Takoradi in Ghana causing the killing of fish.

Poor fish preservation methods such as smoking, sun drying, and salting which lead to the production of quality of quality fish.

Presence of the water weed such as the hyacinth and water cabbages which limit penetration of sunlight hence hindering plankton growth for the fish.

Presence of strong waves and storms which lead to accidents and death of many fishermen

Occasional accidents that lead to death of fishermen hence loss of skilled labour force.

Presence of predators like crocodiles, water snakes and hippos which ate a threat to human life.

Limited commercial species which limits commercial fishing.

Presence of sea pirates that attacks the fishermen and their properties especially on the waters of the Indian ocean leading to loss of properties and sometimes lives.

Stiff competition on the world market from other fishing countries such as Canada, Norway, Japan and Peru lowering market for African fish.

Limited capital to purchase modern fishing gear and pay workers.

SOLUTIONS TO THE PROBLEMS

Construction of processing plants and refrigeration centers for canning and timing of fish for better preservation.

Controlling foreign vessels by using licensees and controlling their activities by use of patrols to reduce overfishing.

Formation of cooperation's in order to access loans and also encouraging foreign investors to provide the necessary capital for development of fishing activities.

Application of advanced technology by using better fishing vessels so as to increase quality production of fish.

Improvements on roads and railway systems to ease transportation of fish from the Landing sites to the market centers.

Sensitization of the people about the importance of the fish resources to widen the market base for fish products.

Increasing research works to improve on fish quality in order to compete favorably on the world market.

Banning of poor methods of fishing such as trawling to encourage sustainable fishing.

Treatment of industrial wastes before dumping them into the grounds to reduce water pollution.

Using biological and chemical means to extract the water weed from water bodies to encourage plankton growth multiplication for the fish to feed on.

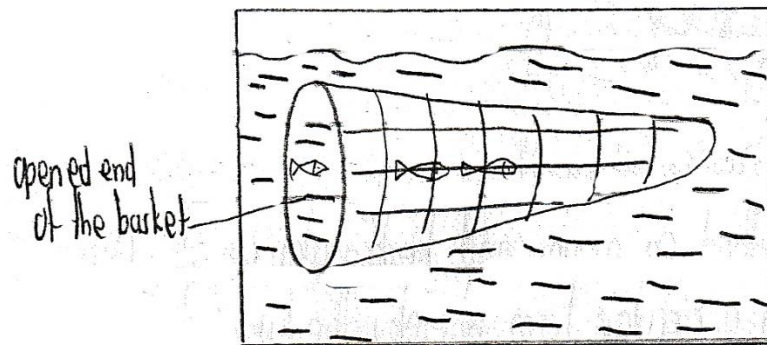
METHODS OF CATCHING FISH IN AFRICA

Fishing methods depends on the nature of fish being caught and the type of water bodies as well. They are usually methods for shallow fishing ground and for deep water fishing. The commonest include: basket fishing, trawling, gill netting, purse seining, use of spears and sticks etc.

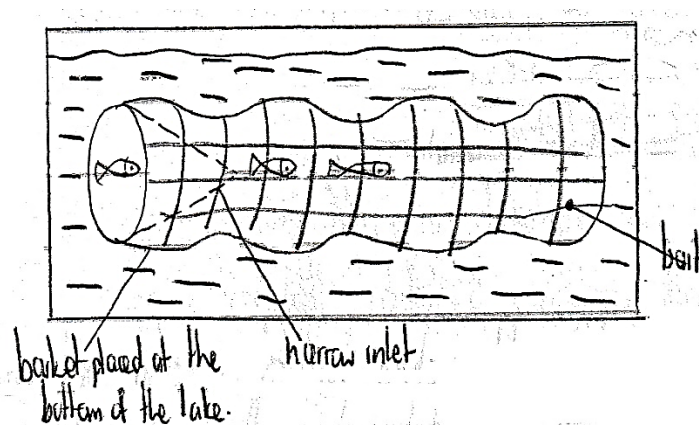
Fresh water methods of fishing

i. Basket method.

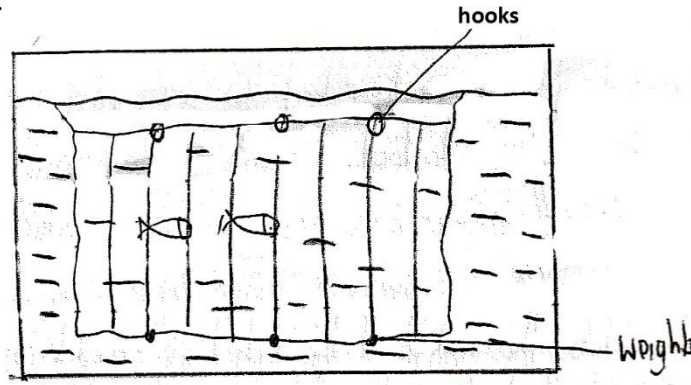
Under this method, a variety of woven baskets are used to catch fish most especially in rivers and wetlands. It involves use of a corn-shaped basket which is held in swiftly moving water to help the fishermen get the fish unexpectedly. The basket has an open end and is lifted out of the water before the fish escapes.



Another type of basket is the one with a small inlet just enough to allow the fish to enter but when it can get out. A bait is put at the end of the basket to attract the fish. Its commonly used in rivers and lakes where it is placed on the sea bed

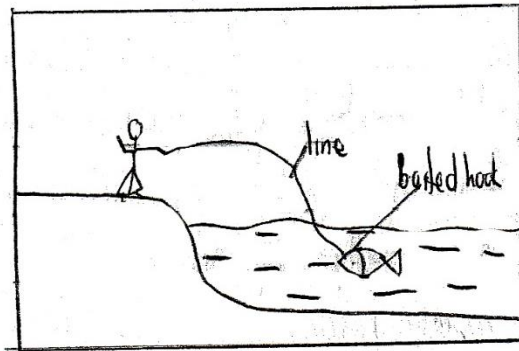


This is very common in inland water bodies. It involves the use of nylon nets with holes big enough to allow the head of the fish but not the whole body. The fish is trapped by the gills as it can't move forward or backward. The gill net is usually have floats and weights to keep them led vertically in the water.



ii) **Hook method.**

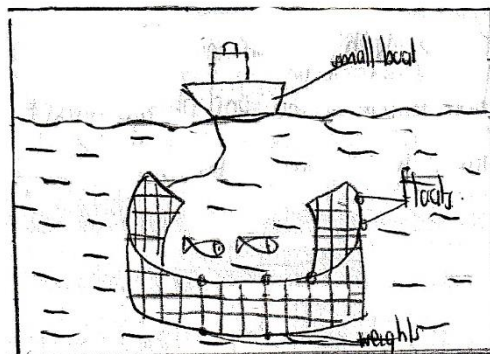
This method is commonly used an African river and it involves the use of a hook with a bait attached and a stick held by a fisherman. The method is very effective since one fish is caught at a time



MARINE METHODS OF FISHING

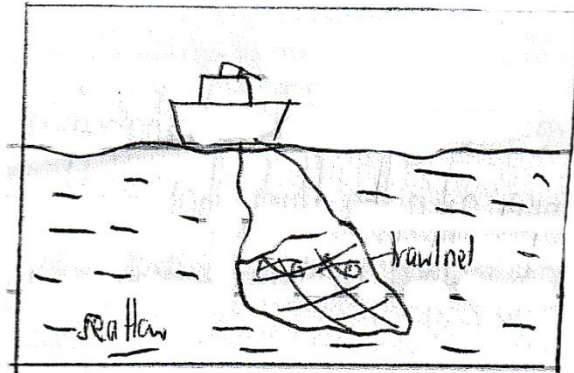
i) **Purse seining**

This is the commonest fishing methods on marine and fresh water grounds. It involves the use of a small boat laying out in a net in a circular form whereby the fish is trapped in the center. It has floats and weights to keep it vertical in water and fish is later collected in the boat



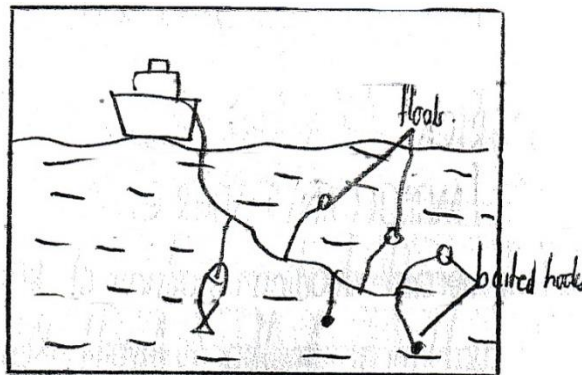
ii) Trawling.

This is used to catch demersal fish. It involves use of a trawl net which is bay shaped and the mouth is ploughed to keep open to allow the fish enter. The net is dragged on the sea floor collecting the fish and the trawl nets may have a length of about 46m.



iii) Long lining

This is the major fishing method commonly used in marine fishing grounds. Its usually applied in seas and oceans and involves the use of long lines which are trailed behind boats with a length of 12 to 15km. the lines usually have 400 hooks attached and they usually sink to a length of 150-200m in the sea catching a lot of fish. The lines have baited hooks which attract and later trap the fish.



METHODS OF PRESERVING FISH IN AFRICA

Fish which is not consumed while still fresh is preserved. Various methods are used to preserve fish in Africa and these include the following.

MODERN METHODS

1. Freezing

It is one of the common methods of preserving fish in Africa. It involves the use of refrigerated trucks which allow the fish to be preserved for a long time and under more hygienic conditions.

2. Canning

This is majorly applied in the Moroccan fisheries and south West African coastline. It involves preservation of fish in cans or tins with controlled conditions that can keep the fresh fish for a long period of time.

3. Salting

This involves applying salt to the fish after splitting it. It is mostly applied on the western African coast land and the inland fishing grounds.

4. Smoking

This method involves the use of fire. The big fish are first chopped or opened into pieces and then after placed over fire which scrutinizes out the fluids that would make the fish go bad in a short period of time. This is the commonest method used in the fresh water grounds in E.A

5. Deep frying

This involves dipping the fish caught into frying pans to enable the fish continue for a bigger period of time before going bad.

6. Sun drying

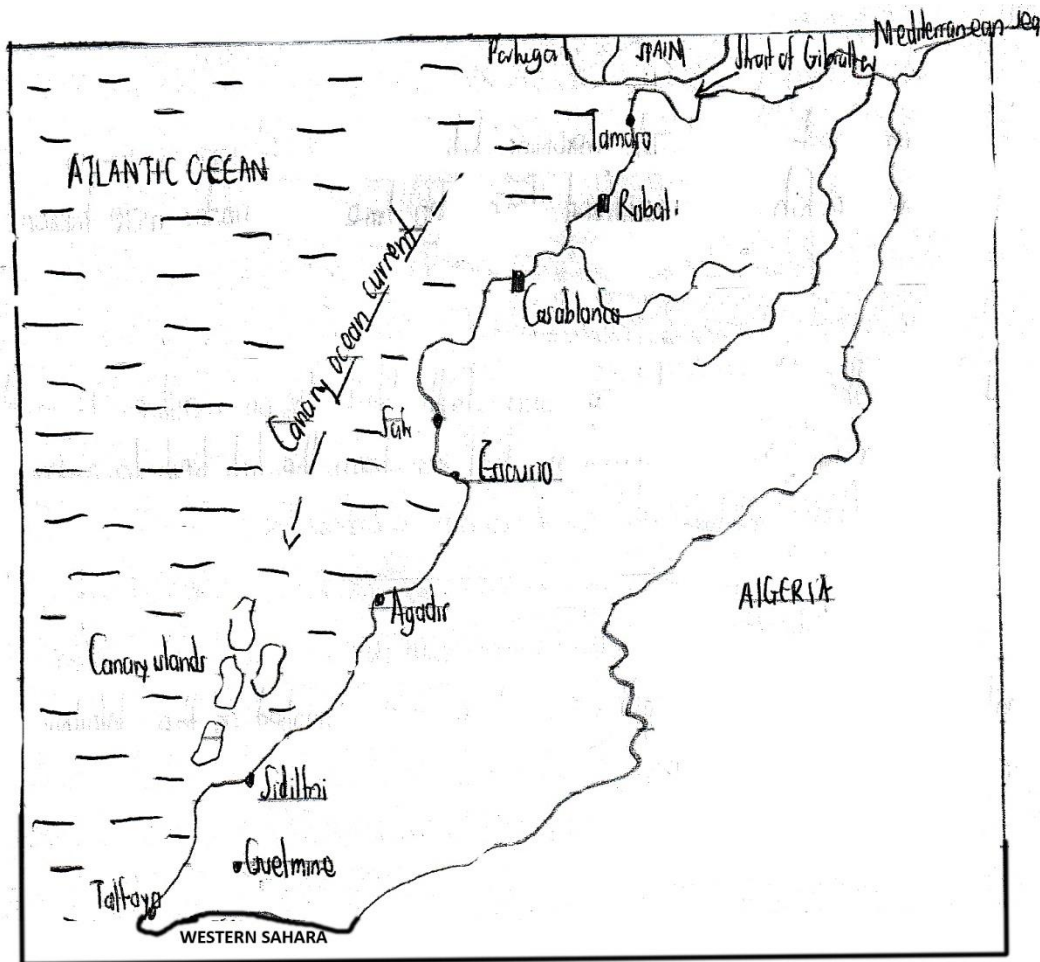
This method depends on availability of sunshine. The fish is placed under the hot sun which dries to put to make it safe for consumption in the nearby future.

MAJOR FISHING GROUNDS OF AFRICA

✓ The west African fisheries/ Moroccan fisheries

Morocco is the second leading producer of fish next to South Africa. The major fishing parts in the country include Casablanca, Agadir, Robar, Tangier, Ifni etc. The major fish species caught in morocco are the sardines while others include; tuna, mackerel, and cod. It is estimated that there about 25 trawlers, 109 engine boats and 1128-man powdered sailing boats in the Moroccan fisheries.

A SKETCH MAP SHOWING THE WEST AFRICAN FISHERIES.



FACTORS FACTORING GROWTH OF FISHING ACTIVITIES IN MOROCCO.

Presence of various fish species that are valuable on the world market e.g. sardines, tuna, herrings.

Presence of extensive water bodies e.g. the Atlantic Ocean which act as breeding grounds for the fish caught.

The absence of meaningful natural resources in morocco such as minerals and forests resulting into fishing as the only economic act.

The nearness to the cold canary currents which provide ideal conditions for the growth of planktons and fish as well.

Presence of a large continental shelf which favors plankton growth and development of ports.

Abundant supply of skilled and semi-skilled labour to carry out fishing, transportation and processing of the fish.

Presence of improved roads and health facilities which ensure fish transportation to the market centers.

Availability of large sums of capital provided by the government of morocco and foreign fishing companies of Russia, Portugal and Spain to pay workers and buy equipment.

Availability of many fishing processing plants which provide ready market for the fish caught.

Availability of many fishing processing domestically from Europe which encourages more investments into the fish sector.

The use of modern fishing methods such as purse seining which ensure big catch for the fish hence increasing profits.

The supportive government policy towards fishing thru establishing the necessary infrastructure and carrying out market research for the fish products from country.

PROBLEMS FACING FISHING IN MOROCCO

Pollution from industries at the ports where the waste products are dumped into waterbodies leading to fish migration.

Territorial conflicts between morocco and other countries involved in fishing over the Atlantic Ocean water.

Stiff competition from other big fish producers in the world e.g. china, Chile, japan which reduces market for Moroccan fish.

Extinction of some fish species which reduces on the profits from the fishing industry.

Poor fishing methods such as trawling methods which affects even the young fish hence hindering the sustainability of fishing activities.

Presence of water weeds such as the hyacinth and water cabbages which limit penetration of sunlight for plankton growth.

Low levels of technology such as using small sized nets which hinders development of the fishing activities in the country.

Existence of less demanded fish species on the world market such as shrimps, mullets that have a narrow market base.

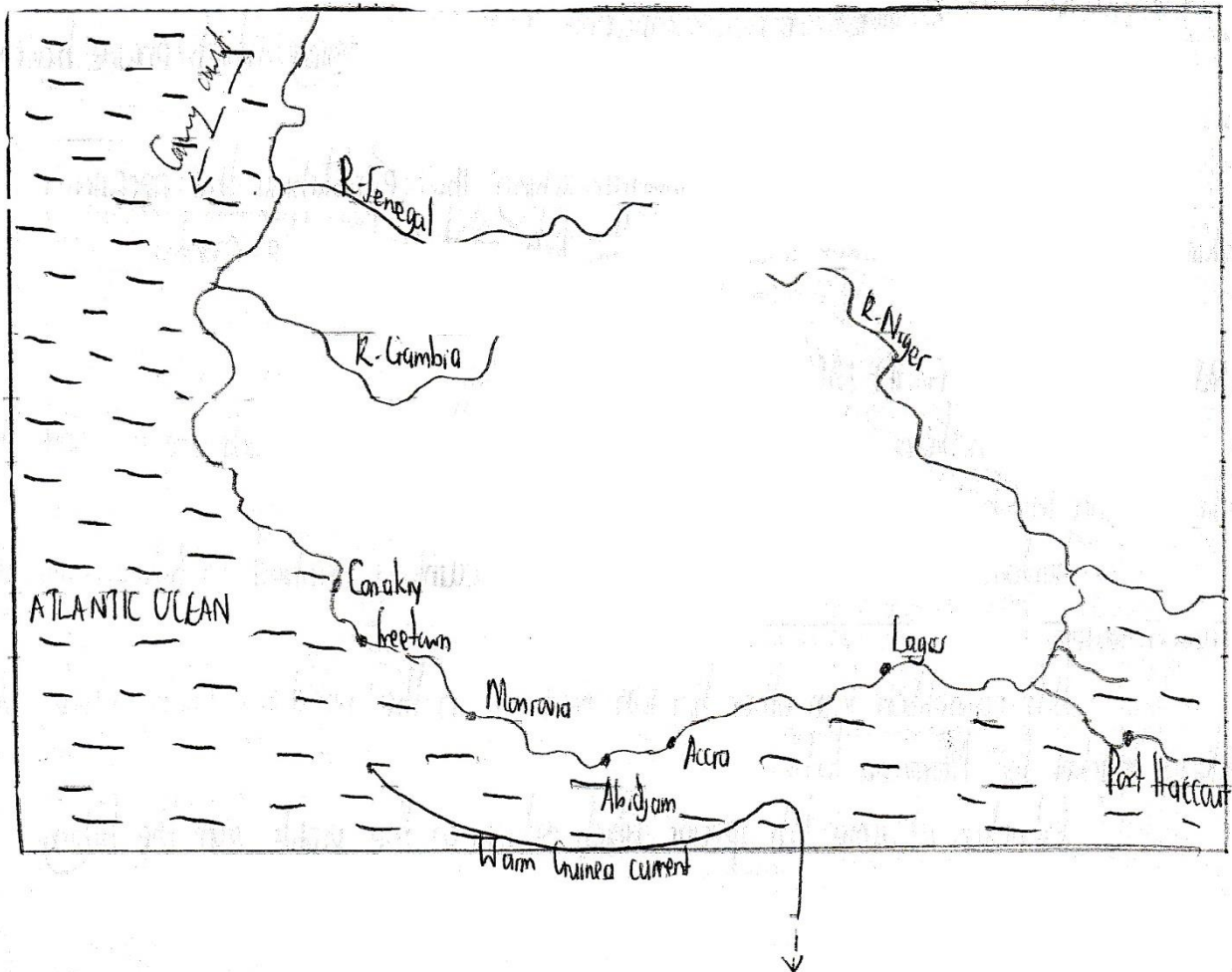
Over fishing/ over exploitation done by foreign companies who use trawlers in shallow waters which limits sustainable fishing.

Limited home market in some parts of morocco due to religion, culture and economic differences.

✓ **The West African coastline**

This coastline consists of countries like Senegal, Ghana, Ivory Coast, Togo, Mauritania, Mali, Nigeria and others. It is again important to note that Senegal and Mauritania are the most important fishing countries in the west. This is because their coastline is swept by both the warm guinea and the cold canary current and therefore the meeting at this two currents form conducive environments for plankton growth which attracts a large amount of fish.

A SKETCH MAP SHOWING THE WEST AFRICAN COASTLINE.



FACTORS LIMITING FISHING ACTIVITIES IN WEST AFRICAN COASTLINE

Limited capital to buy the necessary equipment needed for fishing activities.

Inappropriate fishing methods such as poisoning, use of small sized nets and use of baskets which are not sustainable.

Poor fish preservation methods such as sun drying, smoking, and salting which do not attract foreign markets.

Pollution of water bodies from industries which leads to fish migration. The major fishing ports are Dakar, Accra, and Monrovia.

The smooth coastline in some areas making it difficult for the fish to hide and breed since the waves wash away the eggs.

Water weeds is another problem such water hyacinth and water cabbages which limit penetration of sun shine for plankton growth.

Territorial conflicts over the fishing grounds between the countries involved in fishing leading to regional tension and instability.

Stiff competition from other big fish producers in the world such as Norway, Canada, Japan, reducing market for the fish on the western coastline.

Limited home market in some parts due to region and market differences.

SOLUTION TO THE ABOVE PROBLEMS

Recycling the waste products from the fish processing industries and other polluting industries in order to overcome problem of pollution.

Attracting wealthy investors to provide the necessary capital into the fishing sector.

Controlling foreign countries that carryout fishing on the coastline of west Africa to reduce over fishing.

Introduction of better preservation methods such as freezing and canning to extend duration of fish before selling.

Advising fish companies to form cooperatives in order to enjoy benefits such as credit facilities, marketing and transportation.

Practicing fish farming in order to restore the depleted fish species.

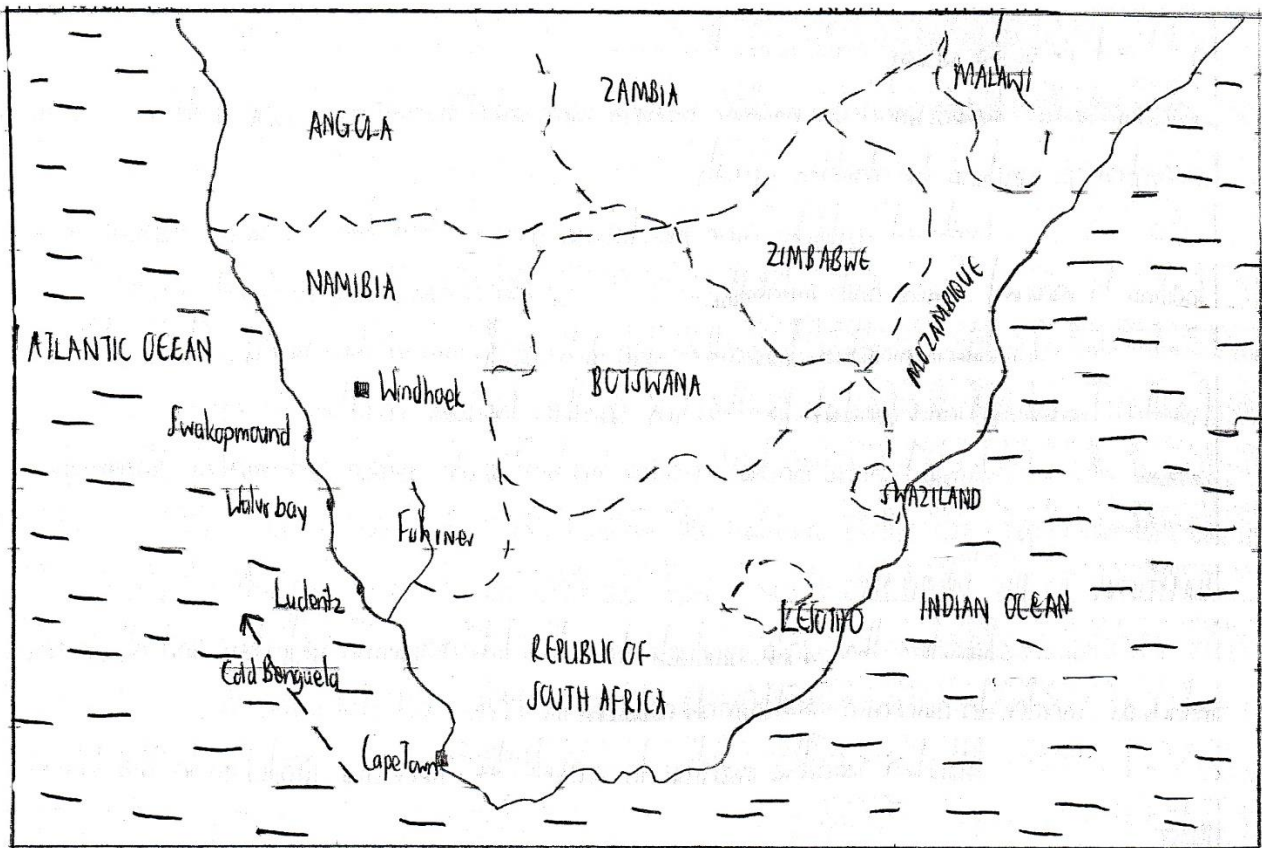
Introduction of marketable fish species in the water bodies such as mackerel and tuna such that the fishermen can catch and sell the fish.

✓ **The South West African coast**

As far as the fishing industry in south West African coast is concerned, Namibia and South Africa are the most fishing important countries in the region.

Fishing is developed along the Namibian coastline and the major grounds include Walvis Bay, Swakopmound and Lüderitz. Fishing along the coastline is boosted by the cold Benguela current which provides ideal conditions for plankton growth of various fish species such as pilchards, sardines, herrings etc.

A SKETCH MAP SHOWING THE LOCATION OF SOUTH WEST AFRICAN COASTLINE.



FACTORS FAVOURING FISHING ACTIVITIES IN NAMIBIA.

Presence of the cold Benguela current which provides cool water for multiplication of fish planktons.

Availability of a wide market provided by the dense settlements along the coastline and internationally from Europe.

Presence of adequate skilled and semi- skilled labour provided by the Namibian people and South Africans to carryout fishing activities.

The use of modern fishing methods such as purse seining and trawling which have improved on the quantity and quality of fish caught.

Presence of modern preservation methods such as refrigeration which reduce the post-fishing losses since the fish don't quickly go bad.

Presence of large sums of capital provided by the government and foreign investors to buy the necessary fishing equipment and pay workers.

Availability of modern fish processing industries in Namibia which add on the value of the fish caught hence competing favorably on the world market.

Presence of a shallow continental extensive continental shelf allowing penetration of sunlight for plankton growth.

Presence of well oxygenated waters during the upwelling of the cold Benguela current and the warm Agulhas currents.

The supportive government policy of attracting foreign investors and providing soft loans to the fishing companies.

The limited alternative economic activities in Namibia due to the absence of mineral resources and the desert nature of the country makes fishing the sole source of livelihood in Namibians hence injecting a lot of capital into the activity.

Presence of variety of fish species that are valuable on the world market e.g. lobsters and pilchards.

Presence of extensive water body i.e. the Atlantic Ocean which acts as a breeding place for the fish.

PROBLEMS FACED BY THE NAMIBIAN FISHING INDUSTRY.

Territorial conflicts between Namibia and other countries such as South Africa which use the Atlantic Ocean as their fishing ground.

Depletion of fish species due to over fishing.

Pollution of fishing grounds from industries which leads to fish migration.

Limited internal markets in some parts of Namibia due to culture, religion, and economic differences.

Low levels of technology used in fish preservation e.g. smoking

Presence of a smooth coastline in some areas making it difficult for the fish to hide and their eggs since the waves sweep them away.