s. 4 geog work

AGRICULTURE INAFRICA

Agriculture is defined as the growing of crops and rearing of animals. There are mainly 2 forms of agriculture namely

Substance farming
Commercial farming
Substance farming

This is the type of farming where a farmer uses a certain piece of land for cultivation and when it gets exhausted, a farmer moves to another piece new virgin land. This is the most primitive form of substance farming. It is commonly practiced in countries like Zambia, Zimbabwe, Central African Republic, Zaire and Nigeria.

Rational Bush following

This is the type of farming- where a farmer after growing crops for a specified time, the land is left under fallow_rest) and this is done by rotating the crops on the different plots of land which are sub-divided.

Under this type of farming, the farmers' homesteads are permanent however the_farmer rotates on the cultural fields. The farmer owns a permanent piece of land which is sub divided into different plots with -different crops.

Nomadic pastoralism is a subsistence form of animal rearing where farmers move from one place to another with their animals in search of pasture and water for their animals. In this form of substance farming, animals are reared or kept purposely for home consumption. In Africa there are different groups or societies of people who practice nomadic pastoralism and these include;

The Fulanis of West Africa

The Turareqs of North Africa

The Dinkas of South Sudan

The Somali of Somali etc.

Animals reared in this system of farming include goats, sheep, camels, cattle etch

The animals reared in this system of farming occupy the drier areas in Africa for example in a low grass land savannah and the semi- Desert lands.

Transhumant are also a group of nomads who migrate seasonally between the wet season and dry season in search of fresh waters and postures e.g. the Berbers of the Sahara desert and the Fulani of West Africa.

CHARACTERISTICS OF NORMADIC PASTROLISM

Most of the pastoral groups have the following characteristics

Animals are mainly fed on natural pastures

They don't have permanent settlement

Grazing of animals is done on a communal basis because the land is owned by the entire community

They occupy mainly sparsely areas

They keep local breeds of animals which have a low yielding capacity.

Animals are mainly kept for domestic consumption

They move from one place to another in search of pastures.

They are mainly found in the semi and or desert part of Africa where rain fall is un reliable and in low amounts.

They don't use scientific methods of farming e.g. spraying and dipping.

Problems facing nomadic pastoralism in Africa

Prolonged drought conditions with very hot temperatures leading to the dearth of animals.

Shortage of pastures for their animal due to prolonged conditions lading to death of their animals

Shortage of surface water for their animals due to prolonged drought conditions leading to death of their animals and low quality yields.

Prolonged famine (acute food shortage) resulting from un reliable rainfall and infertile soils which cannot support crop cultivation.

There is over stocking which leads to over grazing especially at the watering point.

Long distances are moved by the Nomads in search of water and pasture. This makes their animals lose weight and sometimes die.

Steps taken to solve the problems faced by nomadic pastoralism in Africa\

Modern methods of animal rearing have introduced e.g. dipping and vaccination of animals.

There is mass sensitization of pastoralists on the importance of the number of animals so as to improve on their quality.

Valley dams and bore holes have been constructed to provide water to the animals especially during the dry season.

Introduction of schemes to grow food crops nomads fodder crops for animals.

Planting drought resistant grasses to supplement on the available pastures.

Extension of veterinary services to areas occupied by the pastoralists in order to control the pests and diseases.

Regular spraying with pesticides to reduce on pests and diseases.

Introduction of demonstration farms e.g. in Nigeria and Botswana to teach the pastoralists modern methods of animal keeping for example paddocking.Co-operation societies have been established to help the farmers get modern skills of animal keeping through trading marketing of their produce and providing of laws to the pastoralists by b buying modern farm equipment.

Reasons why Nomadic Pastoralist has persisted in Africa

Qn. Describe the factors or conditions that have led to the practice of normadic pastoralism in the Fulani region of West Africa.

The Fulani of West Africa

The Fulani nomads are spread in the Sahel and Savannah regions in West Africa from Senegal in the West to L.Chad in the East.

This region experience a long dry season caused by the North East Hammartan winds which blow from October to march. The rainfall in this region occupied by the Fulani is between 500-1000mm and in the southern Sahel rainfall is lower than 500mm per annum which is very unreliable and it lasts for four months.

Countries that make up the Sahel region include; Senegal, Mali, Nigeria, Niger, Bakinafaso, Chad and so forth.

The Fulani practice transhumance that is to say during the dry season, the gr5ass withers and the streams dry up, during this season, they move southwards keeping close to the water points and where there are pastures.

THE ACTIVITIES OF THE FULANI PEOPLE DURING SEASON

During the dry season, the grass is burnt in anticipation of the fresh grass when wet season begins.

They dig up wells in preparation of the wet seasons.

They move southwards especially in the higher plateaus looking for fresh pastures.

During the dry season, they collect roots and berrie4s as the source of food.

ACTIVITIES OF THE FULANI DURING THE WET SEASON

The move Northwards between April and May with their herds to safeguard their animals against tsetse flies.

In the wet season, they de-tick their animals, this is the same period when they begin to cut trees to make fences in order to protect their animals and construct huts.

EFFECTS OF NOMADIC PASTORALISM IN THE SAHEL REGION POSITION EFFECTS

(Contribution of nomadic pastoralism to the Fulani of the Sahel)

Provision of food inform of meat, butter, milk supplementary on other types of food in the region.

People in the Sahel have got employment opportunities as farmers hence earn income which improves on their standards of living.

Raw materials have been provided such as hides and skins that are used in a number of industries.

Some animal products are exported and foreign exchange is earned.

The Fulani have used these animals reared for cultural rites like dowry and sacrifices.

Animals reared by the Fulani are used for ploughing and transport

The practice of nomadic pastoralism helped to put land to use that would have been left idle due to low and unreliable rainfall which cannot support crop cultivation.

Negative effects

The practice has led to the destruction of vegetation cover due to over stocking, over grazing etc.

Over grazing has led to soil erosion which has reduced fertility in the soils.

The destruction of vegetation cover by animals has led to the lowering of the water table hence affecting the rainfall cycle.

The practice of Bush burning by the nomads has led to th destruction of valuable free species and the loss of habitat for wild life.

There are conflicts and land disputes among the nomads over ownership of grazing lands. `

STEPS BEING TAKEN TO IMPROVE LIVE STOCK FARMING IN THE FULANI REGION

Introduction of ranches for controlled grazing. This is to control over stocking and over grazing.

Sensitizing the nomads on the dangers of nomadic pastoralist

Setting up of demonstration farms to teach farmers better methods of live stock farming.

provision of water to the nomads by constructing valley dams and bore holes

Control of pests and diseases of minimize the loss of live stock by spraying, dipping and vaccination of animals.

Formation of cooperative societies for easy marketing of live stock products and for easy accessibility of loans by the farmers.

Ref qn. Problems

Solutions

Factors

A SKETCH MAP OF AFRICA SHOWING THE ISTRIBUTION OF THE FULANI IN WEST AFRICA

RANCHING IN AFRICA

This is a modern method of animal keeping where animals are reared in large gazette areas mainly for commercial purposes. Ranching is common in Africa in countries like Zimbabwe, Zambia, Botswana, South Africa, Angola and some parts of Nigeria.\

CHARACTERISTICS OF RANCHING

Animals are mainly for commercial purposes
The animals are grazed on permanent farms therefore avoiding movements for long distances.\
There are permanent water points with in the paddocks which ensures adequate water supply.
Supplementary feds for example fodder crops are always available to feed the animals hence improving upon the animal's diet.
Ventinary services are often provided to animals for example the use of insect cides, cattle dips and vaccination.
Improved breeds of animals are kept on the farm to ensure quality and high yields in term of beef production.
Slaughter houses are usually established on the farms to ensure good hygiene conditions.
Record keeping is done on the farm on the number of animals, quality of feeds, man power (workers) and production on the farm.
They employ high skilled labour force
Farms are fenced to control the animal during grazing.

RANCHING IN BOTSWANA

Botswana is one of the leading countries in ranching in Africa and until recently I was entirely on cattle products. Today, it is involved in mining activities especially copper. Botswana is located in the Southern part of Africa. The southern part of Botswana was formally occupied by the pastoralists because it receives little rainfall between 250-500mm p.a

In order o promote ranching in Botswana, the government carried put several steps to transform from nomadic pastoralism to commercial live stock

This wax achieved through introduction of demonstration farms

After the introduction of the farms in Botswana, the country was able to export over 1600 tonnesof beef in 1977 and over 900 tonnes per month to Angela\

AIMS OF DEMONSTRATION FARMS IN BOTSWANA

To demonstrate modern beef management techniques using the government demonstration farms.

To allow interested farmers to participate with their animals so as they can apply the same techniques of animal keeping

To provide extension veterinary services

To transform farmers from nomads pastoralism to modern ranching system.

A SKETCH MAP OF BOTSWANA SHOWING DEMONSTRATION FARMS

FACTORS THAT FAVOURED THE ESTABLISHMENT OF DEMONSTRATION RANCHES IN BOTSWANA

The presence of an extensive piece of land due to the sparse population whre ranches could be set up.

Availability of a variety of exotic breeds of animals such as Frisian cattle that will be grazed on the ranches

There was need to teach farmers in Botswana modern methods of live stock farming so as to improve on animal yields.

The presence of a low lying nature of a landscape in Botswana made it easier and cheaper to construct demonstration ranches and to allow easy movement of animals.

Availability of a wide local and foreign market for Botswana's animal products mainly offered by the meat processing industries and countries such as Britain that import her beef products.

The availability of well developed transport route such as roads and railway lines that made it easier to transport the animal product s to market places.

Availability of adequate capital to invest in the establishment of the ranches provide by the government of Botswana and the European Economic Community.

The supportive government policies geared towards improving beef products through providing loans to farmers and setting up of demonstration centers to train farmers modern methods of animal keeping.

ECONOMIC CONTRIBUTIONS O RANCHING TO BOTSWANA (IMPORTANCE)

Ranching provided employment opportunities to the people who worked on the farms as veterinary workers, managers etc hence earned income which improved on their standards of living.

The local farmers in Botswana acquired skills in modern methods of animal keeping for example paddocking, spraying, cross breeding, vaccination etc.

It led to the growth and the development of industries such as meat processing, industries in areas like lobster, Kanye and Gabalanye which used meat as raw material.

Animal products such as beef were exported to European countries and countries such as Angola and South Africa and foreign was carried.

Ranching led to diversity Botswana's economy by avoiding over reliance on a few sectors in the like industrialization and mining.

It led to the development of infrastructure such as roads and railways that were constructed to transport animal products and farm inputs.

Ranching promoted Botswana's international relations with other countries that imported her beef and beef products such as South Africa and Angola.

PROBLEMS FACING DEMMONSTRATION FORMS OR LIVE STOCK FARMS IN AFRICA

Shortage of pastures to feed he animals due to prolonged drought.

Shortage of surface water for animals especially during the dry seasons which at times leads to death of animals.

Pests and disease for example tsetse flies and ticks which spread diseases like Nagana and foot and mouth disease which affects the quality of animals and animal products.

Poor local breeds of animals are being kept which leads to poor quality and low production capacity.

Some farmers in Africa are still resistant to adopting better methods of live stock farming hence contributing to low quality products.

There is inadequate capital to invest in live stock farming especially by the local farmers whop are poor.

There is stiff competition for market from other beef producing countries in the world such as Argentina and Zimbabwe which affects the income of live stock farmers.

There is price fluctuations o the world market for animal products to be over production and this has led o incurring of loses by live stock farmers.

STEPS BEING TAKEN TO IMPROVE LIVESTOCK FARMING IN AFRICA

Permanent water sources have been constructed

for example valley dams and bore holes to provide water to animals.

Regular spraying and dipping of animals and use of pestcides has been one to control the pests

Loans have been extended to the farmers through financial institutions to help them buy pestcides and feeds so a s to improve production in the live stock industry.

Agricultural institutions have been set up or formed to train farmers in the modern methods of farming for example cross breeding.

Co-operative societies have been established or formed enable then get market for their animal product with in and outside the country.

Demonstration farms have been introduced to teach farmers better methods of animal keeping for example artificial insemination and cross breeding.

Drought resistant pastures have been introduced that side, in that climatic area so as to supplement on the available pastures

Processing industries have been set up to process animal product for example dairy processing industries and beef processing industries so as to improve on the quality of live stock industries.

CASH CROP GROWING INAFRICA

COCOA GROWING IN GHANA

Ghana is one of the leading world producers of cocoa together with other countries like Nigeria, Togo, Ivory Coast. Much of the country. Cocoa in Ghana is grown on the small scale of small funds of 1-5 acres. However, there are some prominent farms with large farms.

A SKETCH MAP SHOWING COCOA GROWING AREAS IN GHANA

CONDITIONS OR FACTORS THAT FAVOURED COCA GROWING IN GHANA

PHYISICAL FACTORS

Presence of heavy rainfall of over 1000mm per annum and well distributed though out the year has favoured the growth of cocoa.

The presence of hot temperatures of about (20-25)C that are necessary for the ripenning of the cocoa plants.

Presence of thickEquatorial rain forests which provide a good shelter or shed for the coacoa trees from strong winds.

The proximity of the coast for easy and cheap transportation of coca seeds and cocoa products to the parts of Accra and Takoradi

The presence of a large extensive land where cocoa farms are set up

The presence of a gently sloping land scape which allows to use machinery to grow cocoa on a large scale.

Human factors

Availability of abundant labour force both skilled and semi skilled to work on the cocoa farms.

Availability of capital mainly provided to the farmers by the government in form of loans used to buy farm inputs like fertilizers and pay labour.

The supportive government policies such as providing soft loans to local investors and setting up better infrastructures like roads in cocoa growing areas.

COCOA GROWING AND PROCESSING

Cocoa seeds are planted in a nursery bed for a period of four to six months.
Thereafter, the seedlings are transplanted to the garden
They are planted in sheltered or forested areas where the forests can provide a shade and protect the cocoa plants from strong winds.

During the growing period, there is constant weeding, application of fertilizers and spraying in case of pests and diseases.

COCOA HARVESTING

On maturing, the cocoa pods are harvested from the trees and taken to the splitting grounds. Here the pods are split, opened using knives and the beans are removed by hands.

The cocoa beans are piled on a flat ground and covered with banana leaves to ferment for a period of one week. This is done to remove the bitter taste of fresh beans.

The fermentation process protects the beans from germination but it is also adds good flavor to the beans. The fermented beans are then pressed or put on mats on raised plat forms and allowed to dry for a period of 1-2 weeks.

After drying, they are packed in bags and transported to the collecting centers ready for export.

Further processing is done in foreign countries where cocoa beans are processed into other products for example cocoa powder, chocolate and biscuits.

USES OF COCOA

It is used as a beverage or drink
It is used in the i of chocolate and cocoa butter
It is used as a raw material in the making of soup and other cosmetics
The dry cocoa pods are used as a source of food.

ECONOMIC IMPORTANCE OF COCOA GROWING TO GHANA

Cocoa and cocoa products are exported and the country obtain foreign exchange.

It has provided employment opportunities to the people in Ghana as farmers, traders, manufacturers etc hence earn income which has improved on their standard of living.

The government obtains revenue through taxing the cocoa farms cocoa processing industries and cocoa exports

Cocoa has been a raw material in a number of industries in Ghana hence stimulating industrial growth and development.

It has promoted international cooperation between Ghana and other countries which produce and import cocoa.

It has led to the development of infrastructure such as roads, & railway lines that have been set up to connect cocoa producing areas to market centers.

It has led to the development of towns and ports such as Tema, Takoradi,. Axim, Kumasi, Tamale etc with modern port handling facilities.

PROBLEMS FACING COCOA GROWING IN GHANA

Soils have got exhausted due to monoculture leading to the low crop yields.

Occurrence of pests for example Caspids which has affected the quality of the crops

Presence of diseases for example Black pod which is a fungus disease that affects the quality of cocoa.

There is a stiff competition for market from other cocoa producing, countries like Nigeria and Ivory coast which results into a small market.

Shortage of labour especially during the harvesting reason making labour force to become very expensive.

Price fluctuation for coca on the world market and this results into great loses to cocoa farmers.

There is inadequate capital to buy farm in puts like fertilizers. Insectcides and modern tools.

There is occasional prolonged dry season and floods during the heavy rain which affects cocoa growing.

Shortage of land due to increased demand for food products and land for settlement which reduces land available for food production and land for settlement which reduces land available for cocoa products.

STEPS OR MEASURESBEING TAKEN TO SOLVE THE PROBLEMS FACING COCA GROWING IN GHANA.

Constant application of chemical fertilizers to maintain or improve on the fertility of the soils.

Regular spraying of chemicals to reduce on the effect of pests and diseases which affects the quality of cocoa produced.

Increasing the salaries and wages of workers to attract more labour force especially during the harvesting season.

Extension of loans to the farmers so as to buy chemical and fertilizers to improve on cocoa production.

Carrying market research in the different parts of the world to widen the market for cocoa produce.

Formation of cooperative societies by farmers to help them access loans and market for their products.

Establishment of processing industries to process cocoa and to add value (QUALITY) on cocoa exported.

PALM OIL GROWING IN NIGERIA

Palm oil is one of the most important grown in Nigeria. The main palm oil growing areas are mainly, found at Port Harcourt, Onitshe and Oran. Other crops are also grown in Nigeria such as coffee, coca, cotton, rubber, yams, sugar cane etc.

Growing of palm oil

Palm oil is a tree crop where fruits grow in tree branches each having over 1000 fruits and weighing over 50kg. The palm tree is often very tall over 80m,.however some are also short on the ground

The funds are oily and egg shaped when ripe. The fruit turns from bright orange to yellow in colour on maturity.

Palm oil processing and harvesting

On maturity, the farmers climbs a palm tree with a help of a rope with a panga which is used to cut down the ripe branches and then boiled until when the orange coluored palm oil floats on the surface. It is then removed and pit into the containers for storage. Inside the fruit, there is a hard nut which is broken to expose the Kennel(juice). The kennels are then crushed to give what is referred to as palm oil. Both the olive oil and palm oil are exported to Europe. North America etc and I is also manufacture products like candles.

Other palm oil producing countries in Africa inclu8de, Guinea, Liberia, Togo, Ivory Coast and Ghana.

A SKETCHMAP OF NIGERIA SHOWING DIFFERENT CROPS GROWN

USES OF PALM OIL

It is used in the making of soap and cosmetics
It is used in the cooking of cooking oil
It is used in the manufacture of palm wine
It is used in the making of margarine
It is used in the manufacture of soap and
The leaf ribs are used for building purposes
The dried shells and fibres are used in the making of fuel
The palm oil stems are used for fencing a house.
Physical factors that favour the growing of oil palm

Presence of hot temperatures of over 21C that facilitates growth ripening of the crop.

Presence of heavy rainfall which is well distributed through out the year favours the growth of palm oil.

Presence of high relative humidity which contributes to heavy rainfall received in the area necessary for the growth of palm oil

Presence of relatively low land which enables the use of machines somas to grow pal oil or a large scale.

Presence of an extensive land which has allowed establishment of palm oil plantations on a large scale.

Human factors

There is abundant cheap labour force is required during the harvesting season. This is mainly offered by the dense population in Nigeria and the migrant workers from the neighboring countries

Availability of well developed transport routes for example roads and railway lines which are used in the transportation of agricultures in puts like fertilizers and machines to the farms and palm oil products to the market areas.

Availability of adequate capital mainly provided by the government in form of loans to buy pestcides and fertilizers in case on palm oil production.

Availability of a wide or large domestic and foreign market for pal oil mainly prov9ded by the processing industries in Nigeria and European countries such as Sweden.

PROBLEMS FACING PALM OIL FARMERS IN NIGERIA

Diseases such as freckle and Anthhracnose which destroy the palm oil plants and affect their quality.

The long gestation period of palm which discourages investors to invest in palm oil production because they have to wait for too long before getting profit.

Soils have got exhausted due to monoculture leading to low crop yields.

Occurrence of pests for example caspids which have affected the quality of the crops.

Presence of diseases for example Black pod which is a fungus disease that affects the quality of palm oil.

There is stiff competition for market from other palm oil producing countries like Ivory coast and Ghana which result into a small market

Shortage of labour especially during the harvesting season making labour force to become very expensive.

Price fluctuation for palm oil on the world market and this result into great loses to the palm oil farmers.

There is in adequate capital to buy farm inputs like fertilizers, insect cides and modern tools

There is occasional prolonged dry seasons and floods during the heavy rains hence affecting theoil palm crop grown.

Shortage of land due to increased demand for found production and land for settlement which reduces land available for palm oil production.

STEPS TAKEN TO SOLVE THE PROBLEMS FACING PALM OIL FARMERS

Construct application of chemical fertilizers to maintain or improve on the fertility of the soils

Regular spraying of chemicals to reduce on the effect of pests and diseases which affects the quality of palm oil produced.

Increasing the salaries and wages of workers to attract more labour force especially during the harvesting season.

Extension of loans to the farmers so as to buy chemical and fertilizers to improve on the palm oil p[production.

Carrying market research on the different parts of the world to widen the market for their produce.

Formation of cooperative societies by farmers to help them access loans and market for their produce.

Establishments of processing industries to process palm oil and to add value on palm oil exported.

REFERENCE TRIAL QUESTIONS

Study the table below showing palm oil out put in Nigeria between 1997-2002 and answer the questions below.

YEAR	OUT PUT '000' METRIC TONNES
1997	810,000
1998	845,000
1999	896,000
2000	899,000
2001	903,000
2002	925,000

Draw a line graph to represent the information in the table below.

i) Describe the trends of palm oil out put between 1997-2002

Account for the trends described above

Outline the challenged faced by palm oil farmers in Nigeria.

PLANTATIONAL FARMING IN AFRICA

Plantational farming refers to the growing of a single perennial crop on a large press of land for sale. Most crops grown under plantational farming are perennial for example, rubber growing in Liberia, Sugarcane growing in Natal South Africa, Tea growing in Kenya etc.

Plantations in Africa are mainly owned by foreigners / foreign countries and government because they require large amounts of capital to start up which most Africans do not have.

Characteristics of Plantational Farming

- A single crop is grown
- They occupy large pieces / hectares of land
- Production is mainly for commercial purposes
- There is a high level of mechanization that is to say, intensive use of machinery to carry out crop growing.
- Plantations are mainly owned by foreign countries (states)
- There is use of scientific methods of farming for example the use of fertilities, application of chemicals etc
- Intensive research is carried out to improve on the crop yields
- They have their own processing factories
- Cash crops are mainly grown
- They are capital intensive
- Most of the grown crops are parenniel for example Rubber Sugarcanes coffee
- They require large sums of capital to start up

Advantages of Plantational Farming;

Plantations offer employment opportunities to people as harvesters, farmers, managers, researchers and hence earning income which improves on their standards of living.

They stimulate the development of industries that manufacture agricultural products and agricultural in puts for example the chemical industries.

Plantations provide raw materials to the processing industries for example the sugar refineries.

They are a source of domestic revenue to the government through taxes which are collected from the workers employed on the plantations.

They are a source of domestic revenue to the government through taxes which are collected from the employed on the plantations.

They are a source of foreign exchange to the government through exportation of the produce got from the plantations.

Plantation encourage economic diversifications by developing offer economic activities which are related to plantational farming for example industrialization, transport, tourism etc.

Plantations encourage the development of out growers hence providing income to the local population.

They encourage the development of urban centres for example ports and towns which are well served with modern infrastructure and services for example Durban in South Africa where there is a sugarcane plantation.

They provide a ready market for other products such as food crops, chemicals, pesticides, etc.

Plantation encourages the development of infrastructure for example roads, health centres and schools.

Disadvantages of Plantational Farming;

Farmers practice mono culture which leads to soil exhaustion hence causing soil infertility.

They encourage profit repatriation as most of the plantations or estates are owned by foreigners who re-invest profits in their home and countries hence affecting the economy of African countries.

There is easy and wide spread of diseases on the plantation farms due to mono culture.

Plantations are very expensive to start because they require a lot of capital.

There is food shortage because most of the plantations encourage cash crops production which at times results into famine.

Crops grown take long to mature such as rubber, coffee, etc hence discouraging the investors or farmers.

There is displacement of people to create land for establishment of plantations which disorganizes the life style of people.

There is environmental pollution resulting from the industries established on the plantations to process the crops into finished products

CASE SUDY

RUBBER GROWING IN LIBERIA

Rubber growing in Liberia started in 1990 by the British companies but serious production set off in 1926 when the fire store company of America obtained a lease of 99 years to start off with the production.

The main plantations in Liberia are St. Harbel in USA mainly set up by the neighbours, it is 25km from the coast while the second plantations is Cavalla plantation which lies 40km in land along the Cavalla River. The estates employ over 43,000 workers and 3,000 skilled tappers.

A SKETCH MAP SHOWING RUBBER GROWING AREAS IN LIBERIA

CONDITIONS OR FACTORS FAVOURING RUBBER GROWING IN LIBERIA

Physical Factors

The presence of deep well drained fertile soils which favour the growth of rubber.

The presence of heavy and well distributed rainfall enables the quick growth of rubber trees.

The presence of a gently sloping nature of landscape which allows the use of machinery to grow rubber on a large scale.

The presence of hot temperatures of about 24^0c enables the quick maturity of rubber trees.

The presence of an extensive land due to the sparse population of Liberia enables the establishment of Cavalla and herbal plantations on a large scale.

The geographical location of Liberia at the coast of the Atlantic ocean facilitated easy transportation for rubber exports to outside words.

Human Factors

Availability of abundant cheap labour force required to carry out plantational activities for example weeding, planting, harvesting and processing

Presence of capital to buy machinery and also pay the workers on the plantations.

Availability of modern forms of technology brought in by the investors such as the tractors which have improved on the quality and quantity of rubber.

Presence of well developed transport routes for example roads and railways that enable easy transportation of farm inputs and farm products.

The supportive government policy of extending loans to farmers and providing land for establishment of plantations.

USES OF RUBBER / LATEX

- The latex issued to make belts, books and shoes.
- It is also used in the manufacture of car tyres and tubes
- Rubber is used in the making of water proof materials
- Rubber is used in the making of carpets.

GROWING OF RUBBER

- Land is cleared off the forest

- Seedlings are raised in nursery beds and transplanted on the prepared fields.
- Trees are planted in regular rows 3.5 metres and 6 metres
- Cover crop are planted between the seedling trees
- Application of fertilizers and spraying of crops is also done

TAPPING OF LATEX FROM A RUBBER TREE

The tappers make a slanting cut on the bark of the rubber stem. The v shaped cut produces latex. It runs down into the cup fixed below the slanting cut. The tappers tap this latex every morning and collect the latex in the afternoon.

When the same trees have been tapped for 6 months, hegure then given a period to rest and other nutrients are utilized.

Processing of latex.

It is treated with a cetic acid to form solidified rubber. It is then rolled into flat sheets which ones are then cut into standard sizes.

The rubber streets may not be smoked, but simply dried and ruled very thinly through pairs and rollers.

MARKETING OF RUBBER

Latex is mainly transported by road railway to factories where it is processed for either home consumption or export. The major parts used to export rubber in Liberia are Monrovia and Buchanani. Rubber is mainly exported to countries like South Africa, Britain and USA.

IMPORTANCE OF RUBBER TO THE PEOPLEOF LIBERIA

Rubber growing offers employment opportunities to the people as harvesters, farmers; managers ; researchers and hence earn income which improves on their standards of living.

They stimulate the development of industries that manufacture agricultural products and agricultural inputs for example the chemical industries.

They provide raw materials to the to the processing industries for example tyre making industries.

They are a source of domestic revenue to the government through taxes which are collected from the worker employed on the rubber plantation.

They encourage economic diversification by developing other economic activities which are related to plantational farming for example industry lization, transport, tourism etc.

It encourages the development of urban centres for example ports and towns which are well served with modern infrastructure and serves for example port Durban in South Africa.

It produces a ready market for other products such as food crops, chemicals, pesticides etc

It encourages the development of infrastructure for example roads, health centres and schools.

Problems facing Rubber growing in Liberia;

There is shift competition from other sympetic fibres on the markers and this has led to a reduction in the demand for Liberia's rubber.

Price fluctuations on the world market due to over production from other producers of rubber, this has led to loss of income to the rubber growers.

Harsh weather conditions for example heavy rains which interfere with the harvesting period.

There is stiff competition with other rubber producing countries like Malaysia for market and this causes a decline in the demand for Liberia's rubber.

There are pests and diseases which tend to destroy the rubber trees resulting into low yields.

There is inadequate capital to purchase modern machinery especially by the out growers.

There is profit repatriation by foreign investors for example the British who own the fire stone company and this affects the economy of Liberia.

Political civil wars in the country especially in Rubber growing areas which interferes with the planning and harvesting seasons.

There is exhaustion of soils due to mono culture leading to low crop yields.

STEPS BEING TAKEN TO SOLVE THE PROBLEMS FACING RUBBER GROWERS IN LIBERIA.

Regular spraying with chemicals to reduce the spread of pests and diseases.

Constant application of fertilizers to maintain the fertility of soil.

Improving on the quality of rubber products so as to compete favouring on the world market.

Extension of loans to the out growers so as to get capital to purchase better farming equipment.

SUGAR CANE PLANTATION IN NATAL (South Africa).

Natal is located on the Eastern part of South Africa. The Natal region is one of the major sugarcane growing areas in South Africa. Sugar cane growing in South Africa started as early as 1851 and it is much concentrated along the Eastern coast of South Africa in the province of Natal.

Sugarcane plantations in South Africa cover around 400km from the North to the South and extends in lands to about 25km. These plantations are managed by the South African Sugarcane Association (SASA).

Conditions or factors that have favoured sugarcane groing in Natal.

Physical Conditions.

The area has heavy and well distributed rainfall ranging between 100mm to 1500 mm perannum which enables the growth of sugarcanes.

The presence of warm temperatures of over 20^0c which allows easy use of machinery and distribution of water under gravitational force.

The presence of an extensive land which stretches from St. Lucia in the North to the South has allowed growing of the crop on a large scale.

The presence of fog free conditions at the coast brought by the warm Mozambique Ocean current which tend to raise the temperatures along the Eastern coast in South Africa.

The presence of deep fertile soils which contain the necessary soil nutrients for sugarcane growing.

Presence of many rivers for example R.Umukusi and R.Tugera which provides water for irrigation purposes especially in the interior where rainfall is still in low amounts and unreliable.

Human Factors

Availability of abundant cheap labourforce mainly provided by the migrants from the neighbouring countries such as Zambia and Zambabwe which is required during the planting and harvesting of sugarcane.

Availability of inadequate capital mainly provided by the South Africa sugarcane Association (SASA) to purchase machinery and pay the workers.

There are advanced form of technology for example the Canal method of irrigation which has enabled easy distribution of water on the sugarcane plantations.

The availability of well developed transport routes for example railway lines and water ways which have enabled easy transportation and agricultural in puts to the sugarcane plantations and the sugarcane to processing factors.

The favourable government policies such as provision of land to foreign investors for establishment of sugar cane and extension of loans o farmers through the South African sugar cane association. (SASA)

USES OF SUGAR CANE

Sugar cane is used as a raw material in the manufacture of sugar
It is used as an ingredients to make sweets\

It is used in the making of bread and other confectionary products for example cakes and biscuits

It is used in the manufacturing of acids, explosives, drugs and medicine.

It is used as a raw material in the manufacture of shoe polish

It is used as a raw material in the manufacture of dairy products

It is used as raw material in the manufacture of alcohol.

PROBLEMS FACING SUGAR CANE GROWERS IN SOUTH AFRICA

Pests and diseases such as sugar cane will which attack the crop during the growing period leading to low yields.

There is stiff competition from other producers of sugar cane for example working conditions which at times leads to the destruction of plantations.

There is soil exhaustion due to mono culture which has resulted into low crop yields.

The low and un reliable rainfall amounts in the interior of Natal have affected sugar cane growing.

There are price fluctuations on the world market of sugar cane due to over production and this has resulted into loss of incomes o the sugar cane growers.

There are high costs of production to maintain the sugar cane plantations for example, it is very expensive to buy chemicals, fertilizers and paying the wages.

There are fire out breaks on the plantations leading to destruction of large areas under the plantations.

Profit repatriation of foreign companies which affect the economy of South Africa.

STEPS TAKEN TO SOLVE THE PROBLEMS FACING SUGAR CANE GROWERS I SOUTH AFRICA

Construct application of chemical fertilizers to maintain and improve the fertility of soils.

Regular spraying by use of pest cides to control the spread of pests and diseases

Intensive research being carried out to improve on the quality of sugar cane products, for example the introduction of drought resistant sugar cane varieties and the growing sugar cane varieties.

Workers salaries and wages has been increased to attract more labour force and improve on the working conditions of workers.

Introduction of irrigation farming in the interior parts of Natal province where rain fall is in low amounts and un reliable for the growth of sugar canes

Mechanization of the plantations to control labour shortages especially during the harvesting season.

A SKETCH MAP SHOWING SUGAR CANE GROWING IN NATAL SOUTH AFRICA

Importance of sugar cane growing to south Africa (explain

Sugar cane growing offers employment opportunities to the people as harvesters, farmers, managers, researchers and once earn income which improves on their living standards.

They stimulate the development of industries that manufacture agricultural products and agricultural in puts or example the chemical industries.

The activity provides raw materials to the sugar cane processing industries for example the sugar cane making industries of South Africa.

Sugar cane provide domestic revenue to the government through taxes.

The sugar canes are exported to foreign countries and hence providing foreign exchange to the government of South Africa.

The plantations encourage economic diversification by developing other economic activities which are related to plantational faming for example industrialization, transport, tourism and sol forth.

The activity encourages the developement of urban centers for example parts and towns like Port Shepstone found in the Natal province

It provinces a ready market for other products such as food crops, chemicals, pestcides etc

The activity also encourages the development of infrastructure for example roads, schools and health centers from the revenue that is availed to the government of South Africa by the sugar cane growers.

Reference trial question

Study table II below showing coco production in Ghana (1991 -2003) and answer the question that follows

Year	Metric tonnes
1997	288,000
1998	333,000
1999	319.,000
2001	362,000
2002	358,000
2003	392,000

Draw a line graph to represent the information above (9 mks) \

Describe the :

i)Trend of cocoa exports in Ghana b etween 1997 and 2003 (2 mks)

IRRIGATION FARMING

Irrigation farming is a system where water is occassional or constantly provided or applied o growing of crops.

Conditions which necessitate the carrying out of irrigation farming

When an area receives little and un reliable rainfall insufficient for crop growth.

When there is an excessive evaporation rate due to extremely hot temperatures which may not allow the soils to retain moisture for along a periods of time.

When there is need to increase on the agricultural productivity of an area.

When the crops require or need excess water during their growth e.g cabbages and vegetables.

Irrigation farming maintains contents in the soils so as to promote soil fertility during the dry season.

METHODS OF IRRIGATION FARMING

There are different methods of irrigation farming which include;

1. Over head sprinkles irrigation

In this method, water is pumped through tubes or pipes to the gardens through small holes. This water passes through the pipes at high pressure and is sprinkled over the farms.

2. Canal irrigation

This involves the construction of water cannals or channels serving the growing crops or connecting the different parts of the farm land. In the method, water is distributed or released to the crops through these ditches or canals. This method is applicable in gently sloping areas because of the flow of water under gravitational force.

3. Drip irrigation

This involves he use with small holes or taps through which water drips at a low pressure on each other.

GEZIRA IRRIGATION SCHEME

Gezira irrigation scheme is located between the Blue and white Niles North of Sennar dam and South of Khartoum. The idea of establishing this scheme was thought about by the British in 1904 and the first experiment crops were produced in 1911. The scheme was nationalized in 1950 by the Sudanese governance and put under management of Sudan Gezirta board up to date,. Later an extension was made of Managil which was situated between the Blue N ile and White

Nile. Cotton is the major crop grown in the scheme however, there are other grown which include maize, beans, ground nuts, sorghum.etc

OBJECTIVES / AIM OF SETTING UP GEZIRA IRIGATION SCHEME

- To increase or open up more land for agriculture and settlement
- To produce food crops for the increasing population in Sudan
- To produce cotton as a cash crop sector y encouraging growing of various market.
- To provide water for irrigation all year round
- To diversify the agricultural sector by encouraging growing of various crops for example maize, groundnuts, soghurm etc
- To create more employment opportunities for the Sudanese people.
- To provide the local population with modern methods of farming
- To provide raw materials to the textiles industries by producing cotton on the scheme.

FACTORS WHICH FAVOURED THE ESTABLISHMENT OF GEZIRA IRIGATION SCHEME

Physical factors

The presence of a gently sloping nature of land scape which enabled easy distribution of water on the scheme by the canal method to all areas of the scheme. It also allowed the use of mechanized tools on the farms.

The presence of hot temperatures and sunny condition which enabled the quick growing and ripening of other crops.

The presence of fertile alluvial soils periodically deposited by R.Nile flood waters favoured the growth of crops on the scheme

The presence of an extensive land scape for establishment of the scheme due to the sparse population in the area.

Availability of a permanent source of water from the tributaries of River Nile that is the Blue Nile and White Nile which supplied high volumes of water for irrigation activities.

The presence of dry conditions and un reliable rainfall which necessitated he establishment of the irrigation scheme to increase agricultural production.

Human factors

Availability of adequate capital provided by the British government to invest in large scale irrigation.

Availability of abundant lab our force both skilled and semi-skilled used to work on the irrigation scheme.

The supportive government policy of the Sudanese government for example allocating of a large piece of land between the Blue Nile and White Nile for the establishment of Gezara Irrigation Scheme.

Availability of modern farms of technology to pump water to all areas of the scheme for example the Canals and over heads sprinklers.

BENEFITS OF IMPORTANCE OF GEZIRA IRIGATION SCHEME

The scheme increased food production in Sudan by enabling growing of variety of food crops for example rice, maize, sorghum.etc

The scheme provided income to the local population hence increasing on their standards of living

The scheme improved farming skills to the local population through training them modern methods of irrigation farming.

The scheme increased crop productivity through irrigation and thus leading to food security.

The scheme generated revemue to government in form of local taxes collected from the farmers (tenants) which are used by the government to provide social services e.g education and clean water.

Gezira irrigation scheme provided raw materials for agro- based industries such as the textiles industry.

It led to the development of infrastructures in form of roads, hospitals, health services, the roads and railway lines are used to transport raw materials to various industrial centers in Sudan.

Gezira Irrigation Scheme is an important tourist attraction which earns the Sudanese governments a lot of foreign exchange.

PROBLEMS FACED BY FARMING ON GEZIRA IRRIGATION SCHEME

Crop diseases for example black warm and leaf cort which damage cotton and affect its quality.

There is sitting of irrigation cannals and man made lakes which encourages the occurence of water weeds.

There are high costs of maintaining the irrigation scheme.

There is soil exhaustion due to mono culture leading to low crop yields.

There is shortage of enough skilled man power to work on the scheme sometimes affects activities during the busy seasons.

There are human diseases like Biharzia, a water to work on the scheme which sometimes affects activities during busy seasons

There is mismanagement of the farms by the farmers or tenants due to the large size of the irrigation land leading to low production

Presence of weeds which compete with cotton for water, sun light sometimes leading to low production.

STEPS TAKEN TO SOLVE THE ABOVE PROBLEMS

Constant application of pestcides and herbicides to reduce the spread of crop diseases.

Constant dredging of the remove silt to allow easy flow of water on the scheme

Constant application of fertilizers to maintain the fertility of the soil so as to in case production.

Establishment of modern health centers to treat human diseases like Bilharzia.

Mechanization of the farms to supplement on human labour.

Re -afforestation and afforestation programmes have been introduced to control on environmental degradation.

A SKETCH MAP SHOWING THE LOCATION OF GEZIRA IRRIGATION SCHEME, RIVERS AND THE DAMS.

PROBLEMS THAT HAS RESULTED FROM THE ESTABLISHMENT OF GRZIRA SCHEME

Environmental pollution due to the establishment of industries on the scheme. These industries release dangerous gases and fumes which causes air pollution

Displacement of people to Greek space for the scheme with associated high compensations.

The scheme led to shortage of labour force in the surrounding areas since it attracted a large population to work on the farm land.

There was spread of water borne diseases for example Bilharzia to people living ner the scheme.

There was siltation of canals which required constant dredging which is expensive

There was loss of the periods alluvial soils deposited by the flood waters

RICHARD TOLL IRRIGATION SCHEME

(R.SENEGAL IRRIGATIN SCHEME)

The Richard scheme ids located on R. Senegal at the boarder between mountains amn d Senegal in the North where the dry conditions of the Sahel region are more experienced. The major crops on the scheme grown include, rice, tomatoes, Sorghum, millet etc.

In 1848, a permanent dam was constructed along R. Tauore with gates would open allow flowing water from R Senegal into R.Taoure and L.Guiers. At times they shut the gates to prevent water

from flooding back to R.Senegal, it is this water from L.Giues that sup[plied water to the 5000 hectares and covered by the scheme.

Objectives and aims for the establishment of Richard Toll scheme

To control flooding of R. Senegal during the wet season

To increase food production through irrigation by using from R.Senegal

To create more land for agriculture

To protect the settlements along R.Senegal

To provide employment opportunities to the people by setting up industries

A SKETCH MAP SHOWING THE LOCATION OF RICHARD TOLL SCHEME

FACTORS WHICH HAVE FAVOURED THE LOCATION AND ESTABLISHMENT OF RICHARD TOLL SCHEME

Physical factors

The presence of agently sloping nature of land scape which facilities the flow of water by gravity to all areas of the scheme and it also allows the use of mechanized tools on the farm.

There are fertile alluvial soils periodically deposited by the R.Senegal flood waters favouring the growth of the crops.

The existence of large tracks of land for the establishment of the scheme and villages due to the sparse population in the area which reduced the costs of competition.

The presence of hot temperatures which facilitate maturity and ripening of the crops. Uunder irrigation basis.

Human Factors

The availability of sufficient skilled labour force and semi-skilled force on the irrigation scheme.

There were advanced forms of technology which were used in the distribution of water to the scheme e.g the pumping stations and the closing gates.

There was adequate capital which was used to construct the irrigation dams and to pay worked on the scheme.

There was a positive government policy which provided the where the scheme was established.

BENEFITS OF RICHARD TOLL IRRIGATION SCHEME

There was an increase in food production through the provision of food crops like vegetation rice, millet to feed the growing population.

It increased cropsproductivity which ensured food security:

Floods along R.Senegal were controlled hence protection agricultural land and settlements.

Irrigation farming increased farmers income who were employed on the scheme leading to high standards of living.

The scheme was a source of revenue to government through taxation of cropexports and the scheme itself.

There was reclamation of land as a result of the scheme which helped in the settlement of landless people.

It provided raw materials that were used in agro-based industries that were used in agro-based industries hence the development of industries.

The scheme led to the development of infrastructure as roads canals, schools etc were set up in areas with the scheme.

Crops grown on the scheme were exported and the country earned foreign exchange.

The scheme led to crop- diversification by growing a variety of crops for example millet, sorghum, vegetables hence food security.

The scheme led to diversification of Senegal's economy hence avoiding over reliance on a few sectors like the industry and tourism

PROBLEM,S FACING RICHARD TOLL SCHEME

Crop diseases which damage the crops grown on the scheme for example the tomatoes.

There is silting of irrigation canals and man made which encourages the occurrence of water weeds.

There are high costs of maintaining the irrigation scheme

Thre is soil exhaustion due to the over cultivation that results into low crop yields.

There is shortage of enough man power (skilled) to work on the scheme which sometimes affects activities during the busy seasons

There are human diseases like Bilharzia, a water borne disease which has affected the productivity of people.

There is mis management of the farms by the farmers or tenants due to the large size of the irrigation land leading to low production.

Presence of weeds which compete with the grown crops for water, sun light andsometimes leading to low productions.

STEPS TAKEN TO SOLVE THE ABOVE PROBLEMS

Constant application of pesticides and herbicides to reduce the spread of crop diseases like tomato wilt

Constant ap[placation of fertilizers to maintain the fertility of the soil so as to increase production.

Establishment of modern halth centers to treat human diseases e.g Bilharzia

Mechanization of the farms to supplement on human labour

Reafforestation and afforestation programs have been introduced to control on environmental degradation.

Trial questions

Draw a sketch map showing the Richard toll scheme on R.Senegal and unit mark and name

i) Countries, Senegal and Mauritania
ii) Parts; St Louis
iii) Tributaries, Taoure and Doue
iv) L.Guiers

Describe the conditions which have ~~favoured~~favored large scale irrigation on the Richard toll scheme (8mks)

MULTI PURPOSE RIVER PROJECTS AFRICA

A multi purpose concerns man's efforts to exploit the rivers to serve in a number of purposes for example as a source of Hydro-electric power, water for irrigation, transport, fishing etc

Africa is very fortunate because it has a potential for river project development. Several projects have been developed along various rivers in Africa either to provide hydro electric power or water for irrigation. Therefore due to the flooding along R.Valleys, several dams have been built on some of these rivers in Africa.

i) Aswan High Dam in Egypt
ii) The Volta Project in Ghana
iii) Orange River Scheme on R. Orange in South Africa
iv) Cobora Dam along R.Zambezi in Mozambique
v) Akasomba Dam on R.Volta in Ghana
vi) Kayinji Dam on R. Niger in Nigeria
vii) Kariba Dam on R.Niger in Nigeria
viii) Nzilo dam on R.Congo in Zaire

THE ASWAN HIGH DAM PROJECT

Aswan high dam is located in Egypt along R.Nile. The Dam was completed in 1970 with money provided by the Russian Government and the Egyptian Government.

<u>objectives of the Aswan high dam project (Reason for the construction of the Aswan high dam project)</u>

To control th seasonal flooding of R.Nile especially during the Wet season.

To generate hydro electric power for industrial and domestic use

To provide water for irrigation during the dry season

Using water from the man made lake created behind the dam (L.Nasser)

To improve water transport along R.Nile and L.Nasser

To promote fishing through creation of a man made lake behind the dam.

To minimize on the silt problem/siltation problem that is common along R,Nile.

To generate employment opportunities for the rapidly increasing population in Egypt.

A SKETCK MAP SHOWING LOCATION OF ASWAN HIGH DAM

FACTORS / CONDITIONS THAT FAVOURED THE ESTABLISHMENTS OF ASWAN HIGH DAM

The presence of R.Nile which provided constant water to run the turbines to generate hydro electric power.

Presence of hard basement rocks in the area which provided a firm foundation for the construction of dam facilities for example power stations and power houses.

Presence of extensive land which provided a firm foundation for the construction of facilities due to the sparse population in the area.

Presence of a narrow gorge which was suitable / ideal for constructing the dam.

Presence of high volumes of water in R5.Nile which enabled the location of turbaries for generation of power.

HUMAN FACTORS

Availability of abundant / adequate capital that is provided by both the Russian and Egyptian government which was used to buy materials for the construction of the dam and employment of the workers

Availability of a large skilled labour force mainly provided by the Russians and a large source of skilled labour mainly provided by the Egyptians during dam construction.

The seasonal flooding of R.Nile which necessitated the construction of Aswan high dam, to store the excess water in a reservoir

Availability of an efficient and well developed transport routes such as roads which were being used to transport labour and construction materials.

IMPORTANCE OF THE ASWAN HIGH DAM TO EGYPT

Hydro electric power was generated from the dam which was used in industries and for domestic purposes

Seasonal floods along R.Nile were controlled hence protecting the agricultural farms and property near the banks of R.Nile.

There was development of infrastructure for example transport routes like rthe railway line from Aswan to CAIRO, water transport on l.Nasser which connects Egypt to Northern Sudan

It promoted the fishing industry in the region through the creation of a man made like called L.Nasser that was an important fishing ground.

The dam generated foreign exchange to Egypt through exportation of power to the neighboring countries like Sudan, this foreign exchange was used to provide basic social services like education.

The dam crated employment opportunities to the people in Egypt hence earned income which improved on their standards of living.

It led to the development of towns and urban centers for example, Cairo, Suiez, Port said with modern facilities such as roads, power stations and hospitals.

The man made lake (L.Nasser) created provided water that was used for domestic and industrial purposes.

PROBLEMS THAT RESULTED FROM THE CONSTRUCTION OF THE ASWAN HIGH DAM

Many people were displaced because their farm lands and also to create space for construction of the reservoir.

They are were high compensation costs incurred by the government to resettle the displaced people.

There was easy spread of water borne disease like bilharzias due to floods especially in the lower valley of L.Nasser.

There was shortage of fresh water at the mouth of R.Nile to pollution

There was loss of natural vegetation cover in the areas where the dam was constructed and this resulted into the loss of biodiversity (habitat) for flora and fauna.

27th October, 2015

SOLUTIONS TO THE PROBLEMS

Application of chemical fertilizers in the Nile delta region to improve soil fertility and increase agricultural production.

Constant use of fresh water to dissolve salt content in the irrigated lands or schemes.

Construction of dykes to prevent sea water from coming back into the delta region.

Creating new areas of settlement to resettle the displaced population

Regular spraying of chemicals in the lower valley of L.Nasser to prevent the breeding of diseases vectors for example water snails.

27th October 2015

THE RIVER VOLTA PROJECT IN GHANA

(THE AKASOMBO DAM)

This is one of the oldest multi purpose projects in Africa. The Dam was started in 1963 and opened in 1966. The dam was built across the volta river and the entire project was financed by world bank, USA and UK.

OBJECTIVES OF THE AKASOMBA DAM PROJECT

There was need to generate hydro electric power especially for smelting aluminum and to encourage industrial development

To control flooding of R.Volta during the wet season by creating a manmade lake (volta) which would act as a fishing ground as well as a tourist attraction.

To provide water for irrigation in the dry plateau land of the interior around Owagadougo.

To crate an I land water way connecting the southern parts of Ghana to the Northern part using L.Volta (to improve in land water transport)

To provide employment opportunities to the people in Ghana.

Factors that favoured the establishment of the Akasombo dam.

Phyisical factors

Presence of R.Volta which provided constant water for the generation of power.

Presence of hard basement rocks I the area which provided a firm foundation for the construction of dam facilities e.g power houses and stations.

The presence of narrow valley (gorge) along R.Volta which provided a good site for dam construction

The presence of the fast flowing river which facilitated the rotation of the turbines which generate hydro-electric power.

The existence of an extensive land which provided large space for the dam and formation of L.Volta.

Human factors

Availability of adequate labour both skilled and semi skilled which was engaged in the dam construction

Availability of adequate capital provided by the world bank, USA and UK governments for the establishment of dam project.

Availability of advanced forms of technology used during the establishment of the dam for example, in the formation of L.Volta and closure of the narrow valley.

The positive government policy towards the generation of hydro-electric power which was initiated by Nkumwe who interacted investments from World bank in the generation of hydro electric power.

Importance o the Volta River Project to Ghana

Foreign exchange has been earned through power exp[orts to Togo, Benin and other European countries.

L.Volta formed behind the dam is important fishing ground which increase on food production.

The dam project provided employment opportunities to people ion Ghana as engineers, technicians, casual labourers hence earn income which improved on their standards of living.

Akasombo dam and L.Volta formed during; dam construction are important tourist attraction that earned Ghana foreign exchange used to provide social services to the local population.

L.Volta used as important transport route and provides a shipping route to the main parts of Kpandu, and Akasombo, Kete Krachi

The door project has led to the growth of industries I the region due to the chief power generated from the Akasomba dam.

The dam project also controlled th seasonal flooding of R.Volta during the wet season.

A SKETCH M,AP OF AKASOMBO RIVER PROJECT

KAINJI DAM(Nigeria)

Kainji dam is another graet oproject on R.Niger in Nigeria. It opened in 1969 and it lies on the NIGER bout 350km North of Lagos in a remote and every ppor part of Nigeria.

OBJECTIVES OF ONSTRUCTION OF KAIJA DAM

There was need to generate hydro electric power for the development of industries in Nigeria.

The need to control flooding during the wet season around R.Niger

To create employment opportunities to the people of Nigeria. The employees can be both skilled and semi skilled

To provide water for irrigation in the dry plateau areas of Nigeria.

To create an land water way that could connect the Southern part of Nigeria to the Northern part.

A SKETCH MAP OF THE KAINJI DAM

Factors that favoured the construction of Kaiji dam,

Physical factors

Presence of R.Niger which provided constant water for the generation of power

Presen ce of hard basement rocks in the area which provided a firm foundation for the construction of adam facilitiers for example power station.

The presence of narrow valley along R.Niger which provides a good site for dam construction.

The fast flowing River Niger which facilitated the rotation of turbines to generate hydro-electric power

The existence of an extensive land which provided large space for the dam and formation of R.Niger.

Human factors

Availability of adequate labour force both skilled and semi skilled which engaged in the construction of the dam.

Availability of adequate capital provided by the government of USA and United Kingdom for the dam establishment.

Availability of advanced forms of technology used during the establishment of the dam e.g in the formation of R.Niger and closure of the gorge.

The positive government policy towards the generation of hydro electric power which was initiated by the leaders of Nigeria who attracted investments from World bank in the generation of hydro electric power.

Importance of Kaiji Dam to the people of Nigeria

The project controls seasonal flooding of L.Niger through creation of Lake Kaiji.

The project led to the development of towns such as New Bussa South of the dam, Jebba, Ibadan with modern social and economic infrastructure such as roads.

The dam project provided employment opportunities to people in Nigeria as engineers, technicians, casual labourers hence earn income which improved on their standards of living.

The dam promoted agriculture by providing water for irrigation in the drier regions of Nigeria which increased food and cash crop [production for example the sugar came at Basita.

The dam project has led to the development of industries in the region due tio the chief power generated from it

The dam has led to the controlled seasonal flooding of R.Niger during the dry season.

Problems caused by Kaiji Dam

There was displacement of people ie over 50,000 people were displaced when their villaged and towns were sub merged by L.Kaiji.

The creation of L.Kaiji caused floods in the dry lands that were formally used by Nomadic pastoralists grazing their animals

There was continuous siltation ion L.Kaiji due to River deposits

The project caused water borne diseases in the lower valley of R.Niger.

There was environmental pollution from industries which sprang up after the completion of the dam.

There was destruction of vegetation during the process of dam construction which caused loss of bio-diversity (flora and fauna).

THE ORANGE RIVER PROJECT

This is located along river Orange in South Africa. It involved construction of a number of dams along the River eg P.K. te Reous dam, Hendrik Verwoerd dam and Kalk fontain dam and Irrigation canals.

OBJECTIVES FOR THE CONSTRUCTION OF THE DAM

The Orange river project was constructed in order to improve upon agriculture through irrigation from R.Orange.

To generate hydro electric power that was necessary for both industrial and domestic use. This favoured industrialization

The project was also set up to create employment opportunities to the inhabitants of South Africa who worked as engineers on the power stations.

The project was set up in order to control flooding during the wet seasons in areas around R.Orange.

FACTORS THAT FAVOURED THE ESTABLISHMENT OF THE PROJECT

Physical factors

The presence of R.Orange which acted as a constant water supply which provided water for irrigation.

Presence of hard basement rocks which provided a firm foundation for the construction of dam facilities for example power stations.

The presence of the fast flowing water of the Orange River which would run the turbines for the generation of hydro electric power

The presence of a large stretching land which provided a large space for the establishment of the dam, and its facilities.

Human factors

Availability of a large population in South Africa which favoured the establishment of the project through the efforts that space for the establishment of the project through efforts that they provided.

Availability of a positive government that is positive with the construction of dam facilities for hydro electric power generation

Availability of adequate capital provided by the governments of USA and United Kingdom for the establishment of the dam

Availability of advanced technology that have been used in the establishment of the project for example construction of gorge and maintaining its control.

Importance of the Orange River project

The project has led the improvement in agriculture through provision of irrigation water in the Western desert (Kalahari desert) crops like cotton maize, wheat and bay are being grown on the irrigated lands.

It has enhanced the generation of hydro electric power which is important for both domestic and industrial use.

The project has stimulated the growth of towns such as Petrusville, Kimberly and Kroonstad through utilization of hydro electric power generated.

The trading of hydro electric power generated from the project has enhanced the earning of foreign exchange that is necessary for the development of South Africa i.e Hydro electric power is exported to Namibia from South Africa.

Generation of government revenue through billing of hydro electric power to consumers in Kimberley. Cape Town, Bioemfontein etc has stimulated the development of infrastructure.

It has stimulated industrial development for example the textile and food [processing factories in Cape town and Bloernfontein have been set up due to the presence of the project.

It facilitated the construction of the other dams like Kalkfontein, P.K.Le.Rouse dams which have promoted tourism in South Africa hence the earning of foreign exchange.

The project has strengthened cooperation between South Africa and then neighboring countries such as Namibia, Botswana who either import hydro electric power or the food staffs grown on the scheme.

The land and sea breezes in the region have led to an improvement in climatic conditions hence human habitation.

The project has stimulated the infrastructure developments that link towns e.g construction of canals, roads and railways lines linking to Johannesburg and Cape town.

People have earned employment opportunities on the project to work as engineers, farmers ets

The reservious created for example Ver Woerd dam have provided fishing grounds for South Africa.

A SKETCH MAP OF SOUTH AFRICA SHOWING THE ORANGE RIVER PROJECT

PROBLEMS ARISING FROM THE CONSTRUCTION OF THE ORANGE RIVER PROJECT

The irrigation along the project has led to an increase in salination hence a decline in land productivity

Increased government expenditure through dredging to remove the silt

The amounts of water reaching the industrial centers have been reduced. This has led to the relocation of high water consumption industries e.g textiles to coastal parts like Cape town, Durban, East London etc.

Loss of lives during the process of dam construction

The project has stimulated the growth of towns and their association evils such as slum development and congestion in areas like Venter stand, Petrusville etc

Irrigation canals in the hot humid. Semi desert have increased the possibility of spreading water borne disease e.g bilharzias.

KARIBA DAM PROJECT

This is located on the Zambia-Zimbabwe border on River Zambezi.

OBJECTIVES FOR THE CONSTRUCTION OF THE PROJECT

The dam project was constructed in order to generate hydro electric power for the Zambia copper belt and reduce on the importation of coal,

To control the flooding of R.Zammbezi in the Wet season

To create employment opportunities to the people of Zambezi

To improve upon the agricultural sector of Zambezi through irrigation

To improve farming activities around the dam.

FACTORS THAT FAVOURED THE ESTABLISHMENTS OF THE PROJECT

Physical factors

The presence of a hard basement rocks that provided the hard surface for the construction of dam facilitated for example power houses.

The presence of R.Zambenzi which provided water for the construction of the dam protect and establishment of hydro electric power

Te presence the presence of the fast flowing water from R.Zambezi which is used to run the turbines for the generation of hydro electric power the presence of a large extensive land that provided adequate space for the dam construction.

Human factors

Availability of a large force that used in the construction of the project. This labour includes both skilled and semi skilled

Availability of a positive government policy towards the construction of the project and its facilities

Availability of adequate capital; that is provided by the government of USA and United Kingdom for the facilitation of the dam project.

The availability of advanced technologies that are for the controlling of the dam facilitates for example that are for the controlling of the dam facilities for example the opening and closing of the gorge.

Advantages of the Kariba Dam project to Zambezi

The dam provides a relatively cheap hydro electric power which is generated at the Kariba North Bank power station. This power is used for both domestic and industrial use.

The dam has facilitated industrialization hence reducing on the government revenue through the exportation of goods like copper from the copper belt for processing

The dam has provided adequate power to the mining sector for example in the copper belt in Zambia.

Lake Kariba that is formed behind the Karibandam serves as an important water away between Zambia and Zimbabwe

Generation of foreign exchange through power exported to Mozambique.

The billing of hydro power exports to Mozambique

The billing of hydro electric power to consumer in Zambia and Zimbabwe has facilitated the generation of government revenue. This revenue used for infrustural development

Power stimulated from Kariba dam has enhanced the growth of towns such as Monzio, Mazabuka and Kafue in Zambia. This provides health accommodation and education services.

The project created employment opportunities to the people who are involved in hydro electric power generation, transmission, billing, farming etc

Lake Kariba promotes fishing activities which is a source of proteins for the local population. Some of the fish caught are Usipa and the brightly coloured (golden) fish called Cichids which are exported for aquarium around the world.

The project stimulated industrial growth for example the Zmbkia copper smelters, textiles, food processing industries in Lusaka, Kabwe etc

The protect creates beautiful scenery for example L.Kariba and Kariba dam that have promoted tourism and so foreign exchange in flow.

The dam has stimulated agricultural development through provisions of irrigation water to the flower farms in Zimbabwe and Zambia.

L.Kariba behind the Kariba dam has led to climate modification through land and sea breezes and rainfall formation that facilities agriculture.

The project has stretched international cooperation between Zambia and Zimbabwe since they are sharing the project benefit i.e 51% for Zambia 49% for Zimbabwe.

The dam has promoted economic diversification by developing industries and agriculture as substitute to copper mining along the Zambia belt.

A SKETCH MAP SHOWING THE LOCATION OF KARIBA DAM PROJECT

Problems faced by the Kariba dam project

There was loss of lives through the construction of the dam

The destruction of natural beauty (water falls) through the dam construction.

High costs of maintenance have led to government expenditure

The growth of towns like Mababuka and their related evils like slum development, congestion.etc

The formation of L.Kariba behind the dam led to the development of people along the River Zambezi valley

Industries that grown up have enhanced pollution leading to health problems to people.

The flooding of L.Kariba led to the loss of agricultural land.

CABORABOSSA DAM PROJECT ALONGRR.ZAMBEZI IN MOZAMBIQUE

The Caborabossa dam is located along R.Zambezi around Quebrabasa gorge down dream stream of R.Zambezi in Mozambique . The dam was wax started in 1969 and the first phase was finished six years later in March 1975. . This dam was financed by South Africa and it around 1983, 80% of the shares were owned by the Portuguese and 20% by the Mozambique.

AIMS/ OBJECTIVES OF CONSTRUCTION OF CABORABOSSA DAM

To control seasonal flooding of R.Zambezi especially during the wet season

To generate hydro electric power which would be used during material exploitation for industrial purposes.

To provide watyer for irrigation during the dry season using water from the manm,ade lake (L.Kabira)

To improve on water transport along River Zambei to create reliable navigation facilitiers as far up stream as tette

To create a man made lake behind the dam (L.Kariba that would be used for fishing activities.

FACTORS WHICH INFLUENCED THE LOCATION OF CABORABOSSA MULTI PURPOSE PROJECT

Physical factors

The presence of R.Zimbezi which provided constant order to run the turbines that generate hydro electric power.

The existence of a narrow gorge ideal for the establishment of the dam that is to say it made it easier for dam construction.

The existence of water falls which provided a suitable site for hydro electric power generation

The existence of hard basements rocks which provided affirm foundation for the construction ofb dam facilities for example power stations and power houses

The existence of extensive land which provided large scale for construction opf dam facilities and other infrastructure

Availability of a broad valley up stream to accommodate the reservoir (L.Kariba)

The need to control floods on the valley down steam necessitate the construction of the dam project

Human factors

Availability of advanced technology which was mainly provided by the South African government used in the construction of the dam

Abundant capital which was provided be the South African government and Portuguese government used to buy materials and paying of workers during construction.

Availability of skilled and semi skilled labour that is provided by the population in South African and Portuguese who worked as engineers, managers.etc

BENEFITS/ IMPORTANCE OF THE CABORABOSSA SCHEME TO THE PEOPLE LIVIBNG IN SORROUNDING AREAS

Hydro electric power was generated from the dam which used for mining industrial and domestic purposes

The creation of a reservoir (man made lake) provided water which wax used for domestic purposes during the dry season

The creation of the man made lake (L.Kariba) promoted the fishing industry in the region since it was used as a fishing ground

The scheme stimulated the development of industries through provision of cheap power and these industries employed a big proportions of the population.

It controls seasonal flooding along R.Zambezi hence protecting agricultural farms and property near the banks of R.Zambezi

It generated foreign exchange to the country through exportation of power to the neighboring countries such as

This foreign exchange obtained was used in the provision of social services.

It increased both food and cash crop production through irrigation by opening up m ore land for agriculture ,.crops such as cotton, sugar and rice were grown ion irrigation basis using water from the scheme

The scheme created employment opportunities to the people who were engaged in constructing the dam of hydro electric power. As a result they earned income which improved their standards of living.

PROBLEMS WHICH RSULTED FROM THE ESTABLISMENT OF CABORABOSSA MULTI PURPOSE PROJECT.

There was siltation of the dam and lake which required constant dredging which was expensive.

The back ponding of the Zambezi waters led to floods up stream

There was displacement of people in the area to create space for the reservior(L.Kariba)

There were costs of resettling the displaced people by the government of Mozambique

There was spread of water borne diseases for example Bilharzias especially in the lower valley of L.Kariba.

There was drowning of the agricultural land by the man made lake (L./Kariba) which affected agricultural activities.

There was loss of vegetation cover in the area where the dam has constructed and this resulted into loss of bio-diversity.

A SKETCH MAP OF CABORABOSS DAM

REVISION QUESTIONS

Study the figure below of the Caborebossa multi purpose river development scheme and answer questions that follow.

a)Name the

i)Water bodies marked A,B and C

ii) Countries marked 1 and 2

ii) Dam marked 3

Towns marled4 and 5

b)Why was coborassa multi purpose over scheme establishment

The scheme was established in order to generated for industrialization

The scheme was established in order to control n the seasonal flooding of Kariba

To provide water for irrigation to the farmmers in Zinbabwe Malawi, Zambia

To improve water transport along L.Kariba

c) Explain the benefits of the Caborabossa scheme to the 'people living the surrounding area

It has led to creation of employment opportunities to the people who work on the power stations to generate hydro electric power

The she has provided ideal conditions for the practice of agriculture through the provision of water for irrigation

It has led to the increase in food and crop production since crops are grown year in and year out due to the presence of water for irrigation

It has favoured water transport on the new created lake L.Kariba

d) Explain the problem brought out by the establishment of the scheme

There s a problem of displacement of people from the areas in order to establish he scheme.

The was drowning of agricultural land by the man made lake (L.kariba) hence affecting agricultural activities

It led o incurring of high costs to the government of Mozambique in order to resettle the displaced ones.

The back ponding of the Zambezi waters which led to floods of stream.

FISHING IN AFRICA

Fishing is one of the most important economic activities to man today. The fishing industry in Africa generally not well developed

There are two major sources of fish in Africa;

i) In land fisheries (Fresh water fisheries consisting lakes and rivers and swamps

The most important sources of in land fishing are L.Victoria, L.Chad, L.Tnganyika, L.Malawi, L.Chilwa,, L.Nasser and L.Kariba. Major fish species caught in these fishing grounds are; Nile parch, tilapia, silver fish, Cat fish, Haprochlorius, Mud fish, lung fish etc.

ii) African coast line

(Fishing in salty waters). Fishing here is mainly done in the Indian Ocean, Atlantic ocean, Pacific ocean, fishing grounds here are mainly along the Souh African, Namimbia, Angola, Nigeria, and Ghana. Major fish species caught there are Sardines, Mackerel, Herrings, Pilchards etc.

The major producers of fish in Africa include; South Africa, Morocco, Angola, Namibia, Ghana, and Ivory Coast.

Major fishing grounds in Africa

1. Along the coast of Morocco in the North West
2. South African coast line
3. South West coast line
4. West African coast line
5. Along the East African coast line

A SKETCH MAPO AFRICA SHOWING THE MAJOR FISHING GROUNDS

METHODS OF CATCHING FISH IN AFRICA

In Africa local rudementally methods of fishing are used, however, the modern methods of fishing are mainly used in marine fishing grounds and these include;

a) Gil netting

With gill netting a rectangular net is vertically into the water body. It is fitted with floats and weights at the top and bottom to help balance well into the water body. It is normally placed a few meters below the water surface where fish will swim into the net and it will entangled (trapped) by the gills and it un able To move forward or back wards because the head is b trapped. This method is mainly used to catch pelagic fish for example sardines anchoves, pilchards etc. this method is very similar to drifting.

b) Trawling

A bag shaped net is used n this method hose mouth is kept open by outer boats. The net has floats on top and weights at the bottom to keep it floating and balanced. The net is tied to a stationary boat by along rope.

When fish enters into the net the mouth of the net is closed pulling the ropes and fish is trapped inside he net. This method is mainly used to catch dermasal fish such as cod fish, haddock, halibut etc

c) Purse seining

A circular net wit floats and weight s lowered into the water body. It is tied with two ropes at the cod ad of the net. The fish are directed into the net by wings that are faster. With long ropes. These are then drawn to a stationary ship forcing the fish the centre o the net by closing the bottom with a string. The fish are prevented From escaping beneath The net and he sein is hauled onto the boat.

Other methods used include;

d) Log lining/Trolling
e) Drifting

Inland methods of fishing and line method

a) Use of basket methods
b) Use of boat, arrows, and spears
c) Use of simple book and line method
d) Lampara method

FISHING METHODS METHODS

Refer to 273/1 Geography paper 1

Factors or conditions that have favoured the development of fishing in Africa

Physical factor

The presence of a variety fishing grounds in land and marine such as lakes, rivers,

And oceans were a variety of fish species are caught Presence of a shallow continental shelf in Marine fishing ground for example The Indian Ocean that allows penetration of sun light which favours the growth of planktons which attract a number of fish species.

The effect of current for example the cold Banguela currents alon the coast of South Africa the cold canary currents along th North West African coast, which provide suitable conditions for the growth f planktons that attract fish species, in these fishing grounds.

Presence of a smooth sea along the Atlantic Ocean and Indian Ocean that favours the use of modern methods or fishing like trawling and purse seining.

Presence of extensive fishing area in form of fishing grounds e.g around the Atlantic coast in The south East which offers a wide area for carrying out fishing activities.

Presence of indented coastlines along the south African coast And west African coast. the coast lines are indented with bays and gulfs which creates conducive sites for development of landing sites and fishing ports.

For the development of landing sites and fishing ports.

Human factors

The availability of a ready source of market both local and foreign main port Africa

Nly offered by the fish processing factories and over seas territories like German and USA

Who

Availability of adequate capital mainly offered by foreign investors to purchase modern fishing equipment, pay the workers and to transport fish products to market areas.

The presence of several fish processing centers that have been set up along the coast of Africa at Casablanca ,Agadir, cape town,, Walvis bay which transform into finished products.

The supportive government policies of African governments such as offering tax subsides that develop the fishing sectors.

Problem facing the fishing sector in Africa

There is stiff competition for fishing grounds among Africans. The conflicts over owners hip of fishing grounds and fishing rights especially along the West Africans countries amoung countries o the e.g Senegal,Guinea,Nigeria.

The poor transport network in Africa is still affecting the development of the fishing sector ie roads linking the fish landing site to market centers are pot hold and get simply during the rainy season which affects the movement of fish and its products to the market centers.

Pollution of the fishing grounds by the near settlers and industries has led to the death of fish specie. And at times affected the quality of fish products

There is still a narrow market (limited) for Africa's fish products on international scale since they are still of the poor quality

The in land fishing grounds in Africa is still remotely located which has affected the transportation of fish products and fishing equipments to and from the fishing grounds and processing plants

There is over fishing n Africa marine grounds and this has led to the extinction of commercially valuable fish species.

MEASURES BEING TAKE TO IMPROVE THE FISHING SECTOR IN AFRICA

Restocking of more fish species in Africa's fishing grounds to supplement oon the lost species due to over fishing.

Encouraging foreign fishing films(companies) to invest in the fishing sector of Africa. This is being done by offering subsidies to foreign companies investing in the fishing sector.

Carrying out massive sensitization programs or education to the fisher men about modern methods Of fishing and fish preservations

Identification and demarcation of international boundaries or territorial waters o minimize conflicts among African countries over ownership or fishing grounds an fishing rights.

Carrying out intensive research in modern fishing methods and technology used to process fish into finished products so as to increase on the quality of fish products that compete favorably on the international scale carrying out or imposing of heavy fines and penalty on fisher men who carry out over fishing and indiscriminant fishing,

Potting in lace of anti-pollution laws restricting dumping of wastes products into the fishing grounds

Improvement on the transport routes linking the fishing land site to the, market centers'

Improvement on the transport routes linking the fishing land sites to the market centers

Formation of comparative societies among fisher men to help them access loans from financial institutions and search for wider markets on the international scale.

Advising the of fisher men to carry out fish farming to the supplement or increase upon fish out put. This can also minimize over fishing dine in Africa's fishing grounds.

BENEFITS OR IMPORTANCE OF THE FISHING INDUSTRY TO AFRICAN COUNTRIES

The fishing sector has provided employment opportunities to the people of Africa hence earn income which improves on their standards of living

The industry is the source of foreign exchange through exporting of fish products to over seas courtiers like china, USA, UK etc. this foreign exchange is used to provide social services to the people of Africa

The fishing industry is the source of revenue to African governments through taxing, fish expors and foreign companies engaged in the fish sector. This revenue is used to construct social infrastructures such as school, roads and health centers.

The fishing industry has led to the development of infrastructure such as roads, schools and modern port handling facilities using income got from fish scales

The fishing sector has led to the development of industries ie fishing processing industries that use fish as araw material
the fishing has led to diversification of African states that is to sat avoiding reliance on a few like agriculture, mining and industry

The fishing industry in Africa has promoted international cooperation between African coutrries and other trade partners such as Saudi Arabia, France, and Germany etc that import African fish

Case study

FISHING IN NAMIMBIA

In Namibia marine fishing is the most important form of fishing carried out it is done in the south Africa Atlantic ocean, the major fishing ports in Namibia are;

Walvisbay,Hudentz,Swakopmund

Dermersal lake is the most important species port in Namimbia. Other fish species caught in Namimbia include mackerel, Labista, dermasal, Mouk, mouth fishe, red crab, anchovies,pilchuids etc

Namimbia has several fishing processing and exporting comoanies mainly located in Walvisbay and Hudentz.. examples of such companies are; benglac product, Aqua marine fishing Namibia wind hock, Agatha bay , Orongo marine enterprises best at Nalvis bay

Conditions that have led to the development of fishing in Namibia.

Presence of large quantities of fish species in Atlantic Ocean

The indented nature of the south West coast line with by such as Walvis Bay.

The presence of a small sea bay in Atlantic Ocean which makes it easier to use modern fishing methods

The presence of large fishing grounds along the Atlantic ocean

The presence of intensive continental shelf along the Atlantic ocean which enables fishing breeding and reproduction

Human factors

Favorable government policy of the Namibia government

Limited economic activities due to the hostile conditions leaving fishing as the best alterative activity

Ready market (foreign and domestic

Availability of capital from the government and foreign cooperation

Presence of skilled semi-skilled labor to work in the fishing sector.

revision questions

study the yable below showing the number of people working in the fishing sector in Africa (2000) and answr the questions that follow

Country	Number of people employed in the fishing sector
Chad	300,000
Cote d'ivore	20,000
Gabon	8000
Namibia	3000
Senegal	56000

a) Draw a bar graph to represent the information contained in the table (7marks)
b) Identify the country which employees

has the largest number of people in the fishing sector (2mks)

c) Describe the conditions which have favoured the development of the fishing sector in any one country given in the table (6mks)

i) Bemnefits of the fishing sector to thecountry chosen in b) above (5mks)

Chad acquires revenue from the processing and export of fish and its products. It is this revenue which is used in the set up of infrastructure in the country.

The presence of fishing cooperative socities has attracted many people in Chad to take on the activity so, it provides employment opportunities to the inhabitants of Chad.

Fish is used as a raw material for some industries so it has favoured the industrialization in Chad through setting up fish processing industries

The development of ports and port handling states has been favouyred by the development of the fishing sector

ii) Steps which have ben taken to improve the fishing sector to the country chosen in © above

There is improvement upon the transport routes that link the fishing land sites and the market centers

Restocking of more fish species in Africa's fishing grounds to supplement on the lost species due to over fishing

Putting in place of anti-pollution laws restricting dumping of waste products in the fishing grounds

Improvement on the fishing equipment on the fishing equipment by advancing new forms of technologies.