

## **FORESTRY IN THE WORLD**

Forestry is the scientific management of forests involving exploitation conservation. A forest is a conservation of trees of vegetation like natural forests growing according to physical conditions and artificial forests planted by man.

### **TYPES OF FORESTS IN THE WORLD.**

#### **EQUATORIAL TROPICAL RAIN FORESTS**

These are found in the tropics, equatorial regions like in the Congo Basin, Amazon basin. Caribbean islands, pacific islands in countries like DRC, Gabon, ALgentina.

#### **Characteristics**

- they have buttress roots to support the heavy and tall trees.
- Arranged in layers known as canopies like the top, middle and lower layer.
- They have broad or big leaves to help in transpiration.
- They are ever green because the areas receive rainfall throughout the year. No shading leaves.
- They have tall trees growing to a height of 30-50 metres because of fertile soils, wet climate in growing in attempt to get sunlight.
- They are dense thick and concentrated, luxuriant because of fertile soils and wet climate.
- The species are mixed up (not in pure stand) because they grown according to natural conditions.
- They have small plants like mosses and algae which grown on stems, branches because of wet conditions.
- They have hard wood species, mvule, mahogany, ebony, musizi, rose wood, iron wood.
- They have a long gestation period of 30-50 years because they are hard wood species.
- They have limited or no under growth because of dense canopies.
- They have climbing plants like lianas, cucumber, epiphytes.
- The trees have no wax but they have gum, glue and rubber.
- They have very many species making them good for tourism and for environment protection.
- They grow according to physical and natural conditions like wet climate, fertile soils, relief like low lands, highlands and Mt. slopes.
- They have smooth barks (stems and branches).

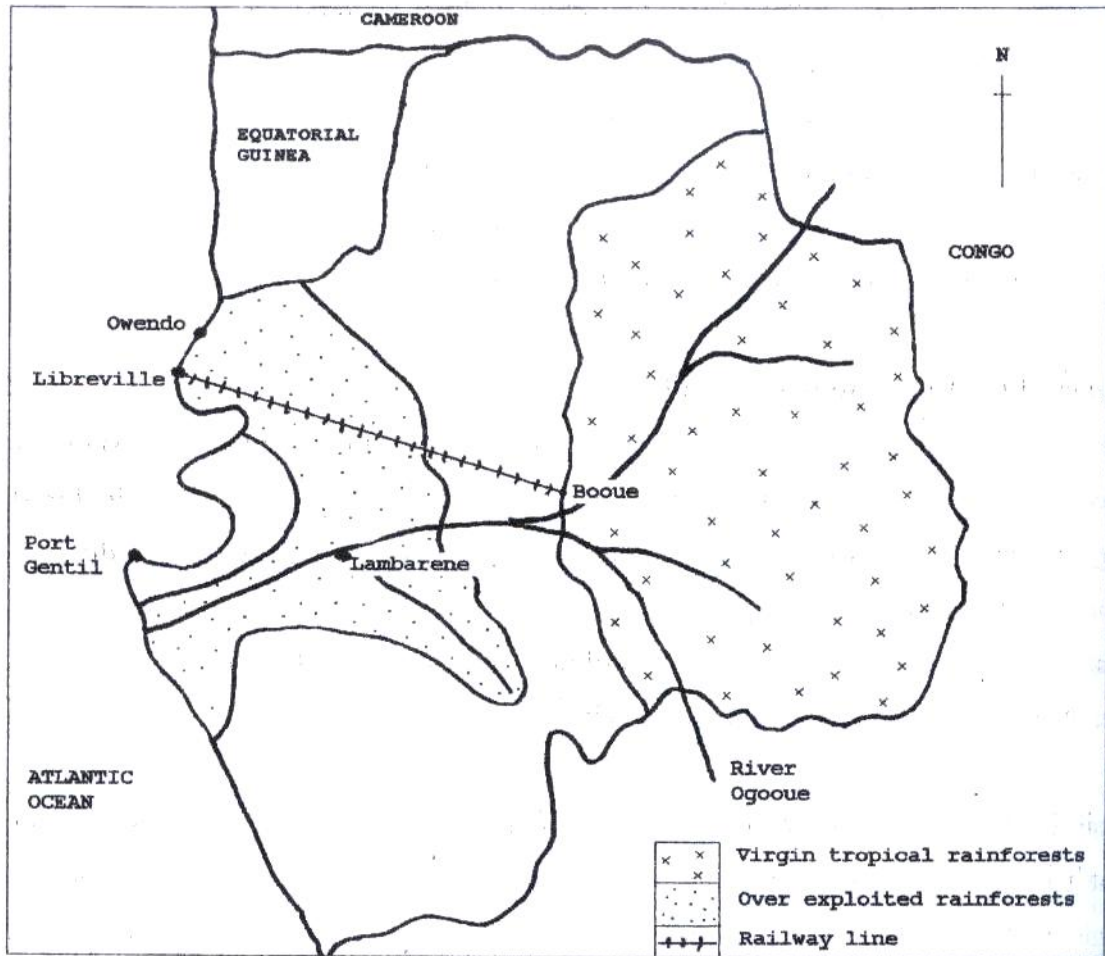
#### **Problems faced in exploitation and onservation of Equatorial or Tropical rain forests.**

They have physical and human problems affecting exploitation and conservation.

- Presence of wild animals like lions, snakes, hyenas, scaring labour supply.
- Wet climatic conditions like heavy rainfall affecting labour productivity, making transport routes like roads slippery and muddy.
- Presence of pests and diseases affecting labour supply like mosquitoes, tsetse flies, snails, causing diseases like malaria, sleeping sickness and Nagana.
- Occurrence of accidents during lumbering leading to the destruction of people and property because of water bodies, steep slopes.
- Poor transport and communication because the areas are remote and backward affecting the movement of labour and marketing.
- Poor science and technology leading to use of poor tools like pangas, axes, causing low production.
- Political instabilities like rebel activities in the DRC scaring labour supply.
- Limited capital to purchase modern equipment to develop infrastructure, processing factories because of low income in LDCs.
- Presence of heavy and bulky logs which are expensive to exploit and transport.
- Poor government policies like high taxes, not giving loans and gazetted forested areas for environmental conservation.
- Fire outbreak caused by human activities and natural conditions leading to destruction of forests like by shifting cultivators, hunters, smokers.
- Limited market because of low incomes and low population leading to low production.
- Competition with other countries on the world market e.g. Canada, Norway, Sweden and because of having other substitutes.
- Price fluctuations on the world market affecting planning because of depending on forces of demand and supply.
- Population increase causing forest enlargement like for settlement and for agriculture.
- Illegal lumbering causing over exploitation and exhaustion of forest species.
- Presence of buttress roots affecting lumbering and transport.
- Long gestation because they are hardwood species affecting afforestation and re-afforestation programmes.
- Profit repatriation by foreign investors causing capital outflow and lowering the national income.
- Limited power supply like expensive oil is used in lumbering and processing.
- Ignorance and backwardness like the pygmies in the DRC scaring investors, workers and the shifting cultivators burning the forests.

- Presence of poor hardwood species, not good for commercial exploitation and they have low demand on the world market.
- Presence of other resources like minerals, water bodies for fishing, fertile soils for agriculture leading to diversion of labour and capital.
- Presence of mixed species making the forest dense, concentrated making it a jungle increasing on the costs for exploitation.
- Presence of physical obstacles like relief features, water bodies, land forms making areas remote and backward.

## FORESTRY IN GABON



### Factors for the development of forestry in Gabon.

There are physical and human factors accounting for the growth of forestry industry in Gabon i.e favouring exploitation and conservation.

- Wet climatic conditions like high rainfall around 1500mm, humidity of 70%, temperature around 23<sup>0</sup>c because it is found in equatorial region leading to growth of natural forests.
- Presence of fertile soils like loam soils and alluvia soils in lowlands and valleys, well drained deep volcanic soils found in highlands, hills and plateaus i.e. Mt. Ibodgi the lowland and the valleys of R. Ogoume.
- Presence of relief like lowlands, hills and plateaus, highlands helping in transport and mechanization like coast of Atlantic ocean, around Belinga, Makoku.

- Presence of water bodies or drainage features providing water for the growth of forests leading to high rainfall providing fertile soils and helping in cheap transport. R. Ogooué, R. Ivindo, Atlantic ocean.
- Availability of commercial tree species like Okoué softwood and hardwood species like Iron wood, Rose wood, Ebony, Ozigo, Ozobe, Mvule this helps in marketing and it leads to increased production.
- Availability of extensive land leading to large forestry for commercial purposes because the area has sparse population and it has limited economic activities because it has pests and diseases, it is poorly drained.
- It has pests and diseases, it is poorly drained.
- Gabon has limited resources like minerals, limited water bodies for fishing and this has discouraged other activities leading to specialization in the forestry industry.
- Strategic location of Gabon near Atlantic ocean has led to the development of its own ports like port Gentile, port Libreville, port Koundou and using cheap water transport through Atlantic ocean like exporting forest products to UK, Britain, Japan, Germany because it is near the coast.
- Gabon has limited pests and diseases to destroy the forests like ants, termites, caterpillars, amphibians and this encouraged the growth of forest and promotion of afforestation, re-afforestation in areas where natural forests have become exhausted like on the coast of Atlantic ocean.
- It has limited physical obstacles like relief features, landforms, water bodies and this makes exploitation of forests easy and cheap e.g. hills, plateaus.
- Presence of power supply like using oil in lumbering, HEP in processing factories leading to increased production for commercial purposes.
- Presence of wide market both internal and external because of high population in towns like port Koundou, areas of Makou, Lambare and foreign market by exporting to Germany, Japan and UK.
- Improved transport and communication like using R. Ogooué, R. Ivindo, constructing roads, railway lines, connecting the forested areas to industries and markets,, ports for export to UK, Japan, Germany..
- Presence of large capital or adequate capital used in availing extension, purchasing equipment, building factories, paying labour like engineers, technicians, mechanics, forest and environmental officers helping in exploitation and conservation.
- Positive and supportive government policies like providing loans to farmers, constructing industries , gazetted forested areas, carrying out afforestation and re-afforestation programmes and attracting investors.

- Presence of good international relations and regional relations like Britain, Germany, Japan helping in getting loans, marketing neighbouring countries like Togo, Cameroon helping in providing labour.
- Political stability and security helping in attracting investors and diverting resources to economic activities, infrastructure and social services.
- Presence of research stations like at port Gentile leading to development of nursery beds helping in afforestation and re-afforestation programs and it also helped in controlling pests and marketing, processing.
- Presence of labour supply both the skilled and unskilled because of increased population in towns using migrants from neighbouring countries and professionals from developed countries helping in lumbering and working in processing factories.

### **Importance / effects of forests in Gabon**

- Source of materials for making local herbs, medicine, drugs and chemicals for treating people and livestock.
- Source of building materials like timber, plywood, cardboards, wood pulp, cellulose and these materials are used for furniture.
- Provision of employment opportunities like in lumbering, carpentry, furniture workshops leading to increased standards of living.
- Development of tourism industries due to the presence of wild life (flora and fauna) because the sports and games done in forests, hunting, falling, camping sites because of industries, increased income and for picnics.
- Improvement in transport and communication like the construction of roads, railway lines, development of water ways, ports like gentile.
- Economic diversification by influencing other activities like transport, trade, tourism, industrialization reducing on the dependency value.
- Promotion of international relations and regional co-operations by exporting forestry products to Japan, Britain leading to international trade.
- Source of foreign exchange by exporting forest products like timber, plywood, wood pulp.
- Source of government revenue by taxing people, companies, industries leading to capital accumulation and improvement in international income.
- Climate modification leading to high rainfall in the surrounding areas through evaporation evapotranspiration leading to development of agriculture.
- Environmental protection by providing habitats for plant species and animal species and soil formation and conservation because the humus and control of soil erosion, landslide and mass wasting.

- Promotion of education and research by visiting forests with flora and fauna visiting processing factories, furniture and carpentry workshops and furniture for getting skills and technology.
- Growth of urban centres like towns and ports around industrial areas, marketing centres because of increased population helping in promoting trade and improving social services.
- Protection of water catchment areas like sources of rivers e.g. R. Ogouwe, Livindo because of increased rainfall.
- Control of pollution and global warming by providing oxygen using companies providing dumping sites helping in protecting ozone layer.
- Settlement of backward communities depending on hunting and food gathering like forested areas in the interiors of Gabon like the pygmies.
- Alternative land use because of limited resources like minerals and protecting forests for future population expansion and increase in human activities.

### ***Negative effects***

- They hinder the development of transport and communication routes. The roads and railway lines are difficult to construct in the thick impenetrable forests in the interior.
- The forests harbour dangerous pests and diseases which affect people living near them as well as their animals and plants. Mosquitoes causing malaria and tsetse flies causing sleeping sickness in humans and Nagana in livestock are common diseases in forested regions of Gabon.
- Forests harbour wild animals which attack man and destroy his crops when they go beyond the forest boundaries e.g. elephants, buffalos, chimpanzees, hippopotamuses, crocodiles and large snakes.
- In Gabon, logging is mainly carried out by large foreign firms which repatriate their profits to their mother countries such as France and Portugal.
- Timber processing industry leads to the pollution of the environment through the emission of dust, smoke and other toxic gases to the atmosphere e.g. the large plywood factory and a cellulose factory based on forest resources found at port Gentil.
- Forest exploitation is difficult and risky as it is associated with loss of lives during felling.
- Forest exploitation and the processing of forest products has led to the growth of urban centres and their associated problems such as unemployment, high crime rates and slum development e.g. port Gentil, port Owendo and Liberaville.
- Environmental degradation especially where forests have been depleted like the coastal areas.
- Tropical rain forests are seen as an obstacle in the expansion of agricultural land.

- Some forests have few valuable trees species and therefore the low commercial value and uneconomical to exploit.
- Logs are often floated down river Ogoove to the processing centre at the coast. This interferes with fishing as well as fish breeding.
- The forested landscape hinders the exploitation of mineral deposits.

### **CONIFEROUS FORESTS / TEMPERATE TAIGA BOREAL**

These are found in higher latitudes like 10° North or South of the equator like in the temperate region, polar region. Tundra like in areas affected by winter and snow e.g. Scandinavian, like Norway, Finland, Sweden and other countries like Canada, Russia, S.A, Algeria, Tunisia.

#### **Characteristics**

- They are found far from the equator ie. Sweden, Canada, Finland.
- They are short and small with a height of 10-15m because of infertile soils.
- They are conical shaped reducing on destruction during winter season, ever green no shading leaves because of wet conditions like snow and winter.
- They are less concentrated because of infertile soils like in highlands and mountains.
- They are in pure stands different species are separated.
- They have soft wood species like western Hemlock, Balsam, Fir, Cedar.
- They have short gestation period like 10-15 years because they are softwood.
- They have few and limited species.
- They have needle shaped leaves to reduce on water loss by transpiration e.g. pine.
- Their fruits and stems have hard and rough surface to reduce on destruction by wet conditions.
- They don't have buttress roots because they are short and light hence no need of support.
- Mostly used for building and construction like getting timber, wood pulp, card boards.
- Mostly found near rivers and at the coast and they decline as you move northwards because of cold deserts.
- Mostly found in developed countries like Canada, Scandinavian countries, Mediterranean countries.
- They grow naturally according to physical conditions like low temperatures, rugged and steep slopes, infertile soils.

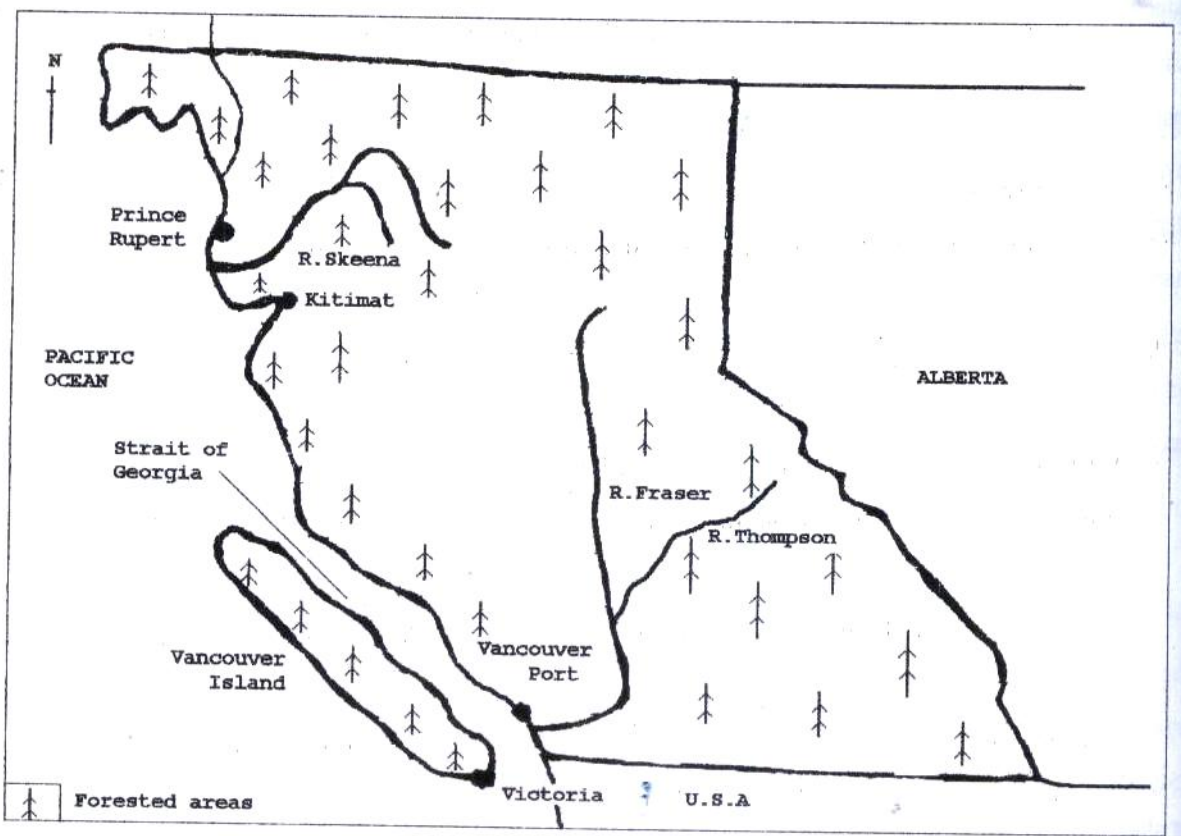
Qn: Differentiate between tropical coniferous forests.



## FORESTRY IN CANADA /BRITISH COLUMBIA IN NORTH AMERICA

Canada is a developed country found in North America and it is important for coniferous and temperate forests especially in the province of British Columbia and the forested areas are found around Atlantic, Pacific ocean near R. Frazer, R. Skeena, R. Yukon. In mountainous areas and in the dry areas near Alaska. It is important for soft wood species growing naturally like pine, cypress, spruce, scots, Basalam, Douglas fir, western Hemlock, cedar, pudocapus. It has processing factories and marketing centres like at Vancouver, Churchill, prince Rupert, Fort George, Fort John, Fort Nelson and they produce forest products like timber, plywood, wood pulp, cardboards, cellulose, printing materials for internal and foreign market.

### A SKETCH MAP OF BRITISH COLUMBIA, CANADA SHOWING FORESTED AREAS



### Factors for the development of ind. Of forests in Canada.

They are physical and human factors facilitating exploitation, conservation and growth

- Presence of extensive land for large scale forestry because of sparse population in mountainous areas near water bodies and because of harsh temperate climate.
- Presence of infertile soils found in highlands and mountains because of glacial erosion discouraging arable farming.

- Presence of wet temperate climate affected by winter and snow with high precipitation discouraging agriculture and promoting forestry industries.
- Presence of water bodies or drainage features providing water to the forests and providing transportation of logs through floatation e.g. R. Skeena, Frazer, Yukon, Pacific ocean.
- Strategic location near the coast of pacific ocean leading to development of ports like Vancouver, Churchill, prince Rupert and using cheap water transport to USA, Japan and Britain.
- Presence of variety of commercial species of soft wood like cedar, spruce, balsam fir, western hemlock, pine, cypress leading to increased demand on the world market and leading to high production.
- Canada has limited resources like minerals for mining, fertile soils for agriculture, it has harsh temperate climate discouraging other activities and promotion of forestry.
- Nature of the forests like soft wood species which are good for afforestation, re-foresttaion programs.
- They are less dense, the species are separated leading to easy exploitation.
- Presence of power supply like oil for lumbering with machines and using H.E.P and coal in processing factories leading to high production.
- Improved science and technology leading to availability of skilled labour helping in exploitation and conservation.
- Presence of industries related to forestry i.e. processing factories, publishing paper industries, printing industry, and saw mills, art and craft, carpentry and furniture.
- Availability of labour supply because of increased population in towns like Vancouver, Churchill and using immigrants in less developed countries.
- Improved transport and communication like the construction of roads, railway lines, modern ports, water ways connecting forested areas to markets and industries like using R. Frazer, R. Yukon.
- Presence of wide market because of increased population in towns like Vancouver, Churchill and foreign market by exporting to USA, Japan and Britain.
- Presence of positive and supportive government policies like giving loans, carrying out afforestation programs, construction of industries.
- Presence of research stations helping in afforestation and re-afforestation programs for sustainable development, helping in marketing, processing.
- Good international relations and regional co-operation with USA, Japan and Britain helping in marketing. It also helps in transport.
- Presence of capital provided by the government and private investors used in construction of industries, paying labour, buying machines.

- Political stability and security helping in attracting investors, diverting resources to economic activities, infrastructure, social services.
- Big companies and entrepreneurs for large scale forestry because of good management, heavy capital investment producing forestry products for internal and external market.

### **Problems facing forestry in Canada (MDCs) temperate forests**

- Competition with other countries on the world market e.g. Norweign, Finland, Sweden and because of having other substitutes.
- Fire outbreak causing destruction like the Natural fires and accidental fires by the tourists pollution by dumping wastes and sewage from industries, urban areas causing destruction of forests.
- Accidents during lumbering and in processing factories destroying people and property.
- High transport costs like forests in the interior, in mountainous areas which are rugged and steep, log jam in water bodies, over exploitation causing forest exhaustion because of using capital intensive technology.
- Poor species of less commercial importance like the small and scattered trees in the Northern parts near the cold deserts.
- Limited and skilled labour because of increased standards of living leading to increased costs of using immigration.
- Presence of wild animals i.e. seals and bears scaring labour and investors.
- Limited power supply due to exhaustion of coal and limited other potentials of oil and HEP.
- Population increase causing encroachment and over exploitation.
- Poor government policies like gazetting forests for environmental conservation and investing in other activities.
- Presence of other resources diverting labour and capital like Canada to fishing and tourism.
- Temperate climate with winder and snow affecting transport and labour supply and transport.
- Presence of physical obstacles like water bodies, highlands and mountains hindering exploitation and conservation.

### **Importance / effects**

#### ***Positive***

- Source of foreign exchange by exporting forest products like timber, plywood, wood pulp helping in importation and investment to USA.

- Development of industries related to forestry e.g. printing and publishing of paper industry, art and craft, saw mill for lumbering, carpentry and furniture at Vancouver.
- Improvement in transport and communication like construction of roads, railway lines, modern ports, water ways e.g. at Vancouver, Churchill, Prince Rupert.
- Environmental protection by providing habitats for plants and animals through soil formation and conservation like seals and bears.
- It has helped in climate modification leading to increased rainfall through the process of evaporation and eva-transpiration.
- Promotion of international relations and regional co-operations by exporting foreign products to USA, Japan and Britain leading to development of international trade.
- Promotion of education and research by visiting forested areas, industries leading to acquisition of skills and improvement in science and technology like Vancouver, Prince Rupert, Fort John and Nelson.
- Growth of towns and ports into urban centres because of increased population and the development of industries leading to development of trade and improvement in social services.
- Development of tourism industries by visiting forests for sports and games like hunting, filming, photography, for picnics, visiting the industries, camping sites like Vancouver and because of increased incomes.
- Control of pollution by providing oxygen using carbondioxide, providing dumping sites helping in protecting the ozone layer, climate change and global warming.
- Source of building materials and materials for making furniture e.g. timber, plywood, wood pulp, cardboards.
- Source of government revenue by taxing people and companies helping in capital accumulation and leading to improvement in National income.
- Provision of employment opportunities like lumbering activities in carpentry and furniture workshops leading to increased standards of living.
- Canada has limited resources and it is not good for other economic activities making forestry an alternative land use pattern and helping in exploiting resources for economic growth and development.

### ***Negative***

- Displacement of people and activities by occupying big areas like the coast of pacific ocean.
- Urban problems because of increased population around industrial areas and marketing centres like Vancouver, Rupert, Kitmat.

- Pollution of air, water and land because of waste and sewage from industries around saw mills during lumbering affecting plants and animals.
- Over exploitation because of using capital intensive technology, lumbering using machines causing forests exhaustion around coastal towns.
- Promotion of accidents during lumbering leading to destruction of people and property.
- Hiding places for wild animals which are dangerous to people like the seals and the bears.
- Economic dependence because of specialization and regional imbalance like Vancouver, Prince Rupert, Churchill.
- Hindrance in transport and communication like the construction of roads, railway lines in forested areas. It is difficult and expensive.
- Diversion of labour and capital into the forestry sector affecting other economic activities.
- Marketing problems because of price fluctuations, competition having other substitutes and this affects planning.

### **FORESTRY IN SCANDINAVIAN COUNTRIES IN EUROPE**

These countries are found in Northern Europe in the temperate, polar, tundra region and affected by winter snow with extreme cold conditions e.g. Sweden, Norway, Finland and they are import for temperate or coniferous forest with soft wood species e.g. Balsam fir, western hemlock, cedar, pine, scots, Cyprus, spruce.

Sweden is important for forestry in the Scandinavian region it has forested areas around the North sea in the mountainous areas, Baltic sea near Rivers like R. Dniestr.

**A sketch map of Sweden showing forested areas.**

## Factors for forestry in Sweden

### *Positive:*

- Availability of extensive land because of sparse population because it is mountainous, it has many water bodies, it is affected by winter and snow discouraging settlement leading to growth of large scale forests.
- Presence of highlands and mountains which are rugged and steep discouraging agriculture and promoting forestry.
- Presence of temperate climate with cold conditions affected by winter and snow leading to wet conditions, high precipitation encouraging the growth of soft wood species.
- Presence of water bodies like the North sea, Baltic sea, R. Pat provide in water, fertile soils and used for the transportation of logs through floatation.
- Presence of infertile soils like in highlands and mountains because of glacier erosion discouraging arable farming and promoting forestry.
- Sweden has limited resources like minerals, it has infertile soils, it is mountainous, it is affected by winter and snow discouraging other economic activities and promoting forestry.
- Sweden has limited pests and diseases because of cool climate leading to growth of forests without interference and reducing on the cost for forest conservation.
- Presence of variety commercial species like soft wood growing naturally e.g. cedar, spruce, pine leading to increased production and help in marketing.
- Strategic location for Sweden surrounded by rich European countries which provide market like Germany, Denmark and it is near the coast of North sea it has rivers Dal leading to use of cheap water transport.
- Nature of the forests in Sweden like softwood species with quick maturity, being in pure stands, having no buttress roots, no climbing plants, less dense helping in exploitation and conservation.
- Presence of wide market both internal and external like in towns like Stockholm and exporting to other countries like Germany, Sweden
- Availability of labour supply both skilled and unskilled helping in lumbering and working in processing factories.
- Adequate capital provided by the government and private investors for investment in the forestry industry, construction of industries and transport routes.
- Improved transport and communication like construction of roads, railway lines, modern ports using water transport connecting forested areas to markets and industries.
- Presence of positive and supportive government policies like giving loans to people, constructing industries, gazetted forested areas, putting strict laws and regulations.

- Political stability and security leading to a favourable investment climate and diverting resources to economic growth and development.
- Improved science and technology leading to availability of skilled labour like engineers, mechanics helping in exploitation and conservation.
- Presence of industries related to forestry i.e. art and craft industry, saw mills for lumbering, carpentry and furniture workshops, printing and publishing.
- Availability of power supply like using coal, oil, natural gas, HEP in lumbering and processing factories.
- Presence of research stations helping in afforestation and re-afforestation programs, helping marketing and processing.
- Presence of large companies and entrepreneurs providing capital and managerial skills for large scale forestry.
- Good international relations and regional co-operation helping in marketing, transport, getting labour supply like in Germany, Britain.

### **Importance of forests in Sweden / Effects**

#### ***Positive:***

- Source of government revenue by taxing people and companies leading to capital accumulation and improving the national income.
- It leads to economic diversification by influencing other activities like transport, trade, industry, tourism, fishing reducing on the dependency value.
- Climate modification through evaporation and evapotranspiration leading to high /heavy rainfall in the surrounding areas.
- Control of pollution by providing oxygen using carbondioxide protecting the ozone layer and reducing on the effects of global warming and climate change.
- Promotion of education and research by visiting forests for wildlife, industries helping in acquiring skills and improving technology.
- Development of urban centres i.e. towns and ports because of increased population, industrial activities like Stockham, Sundoval helping in promoting trade and improving social services.
- Source of foreign exchange by exporting forest products like timber, pulp, cardboards, wood pulp to countries like Germany, Britain.
- Provision of employment opportunities like in lumbering activities, in carpentry and furniture workshops leading to increased standards of living.
- Development of tourism because of sports and games, presence of wild life, visiting the industries because of increased incomes.

- Improvement in transport and communication like the construction of roads, railway lines, modern ports benefiting the surrounding communities.
- Environmental protection by providing habitats for plant species and animal species e.g. softwood species, bears, seals and helping in soil formation and conservation by providing humus, by controlling soil erosion.
- Development of industries like the art and craft industry, saw mills for lumbering, carpentry and furniture workshops, printing and publishing.
- Building materials like timber which is used in building houses
- Materials for local herbs.

### ***Negative effects***

- Hiding wild animals like the seals, bears which are dangerous to people and livestock especially during winter season.
- Displacement of people and activities by occupying big areas like near the North sea, R. Dal.
- Pollution of air, water and land around the saw mills for lumbering, processing factories, carpentry and furniture workshops leading to waste and sewage which affects plants and animals.
- Hindrance of transport and communication by making the construction of transport routes difficult and expensive making areas remote and backward.
- Regional imbalance causing economic problems like stockham, sundsvaal, Lulea.
- Diversion of labour and capital into the forestry sector affecting other economic activities.
- Economic dependency because of specialization causing market problems, price fluctuations, competition.
- It leads to urban problems because of increased population like at Storkham, Sundsvaal
- Soil exhaustion because of monoculture and specialization

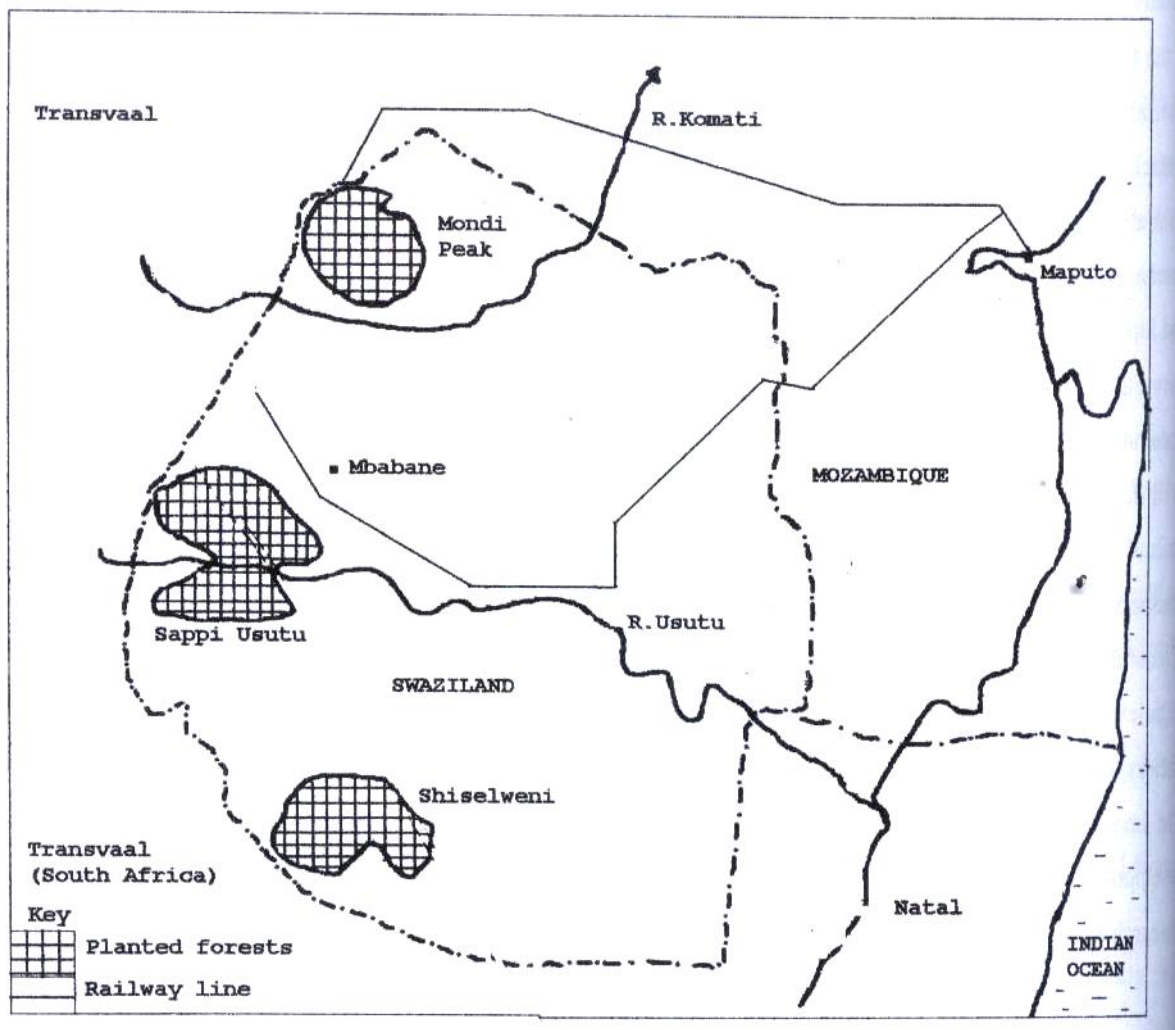
## **FORESTRY IN SWAZILAND**

(Artificial / planted forests)

Swaziland is a less developed country found in the southern region of Africa and it is important for artificial or planted forests with forested areas around Piggs plateau, great Usutu, Nnalangano. Artificial forests were planted after the exhaustion of original natural forests. It has soft wood species like Douglas fir, Western hemlock, spruce, cypress, pine, cedar, scots, Basalam, eucalyptus. The processing factories at Mbabane for making forest products like timber, plywood, wood pulp, cellulose, cardboards for internal and foreign market.



A sketch map for Swaziland showing forested areas.



#### Problems faced by forestry sector

- Landlocked
- Rugged steep slopes
- Soil erosion, landslides
- Over dependency
- Displacement
- Fire outbreak
- Pests and diseases
- Forest exhaustion
- Competition for market
- Price fluctuations
- Limited capital

## **Factors for forestry in Swaziland**

There are physical and human factors;

- Availability of land because of sparse population like in highlands, lowlands, near water bodies like Piggs plateau, Nnalangano, great Usutu.
- Presence of processing factories like saw mills for timber, industries making plywood, printing and publishing, cellulose, art and craft.
- Large capital provided by the government private investors for financial forest conservation and exploitation like afforestation, reforestation and lumbering.
- Positive and supportive government policies like afforestation, reforestation programmes, providing loans, developing infrastructure, putting strict laws and regulations.
- Presence of relief features like highlands, lowlands and valleys which are not good for arable farming leading to development of forestry industry like great Usutu, Piggs plateau.
- Improved transport and communication like the construction of roads, railway lines using rivers, connecting forested areas to markets and industries in Mbabane, S.A.
- Presence of labour supply both skilled and unskilled because of increased population in towns like Mbabane and using immigrants from neighbouring countries like Zimbabwe, Botswana.
- Nature of the forests like planted and artificial which are planned with softwood species being in pure stand, having short gestation making exploitation and conservation easy.
- Presence of variety of commercial species like softwood e.g. spruce, Basalm, leading to increased production and helping in marketing.
- Water supply due to the presence of water bodies leading to wet conditions, alluvial soils, helping in transport like great Usutu (river) and Nnalangano.
- Limited resources like minerals, fertile soils for agriculture, dry climatic conditions, discouraging arable farming.
- Political stability and security leading to a favourable investment, climatic and diverting resources to economic growth and development by king Muswati.
- Improved science and technology leading to availability of skilled labour like engineers, technicians, mechanics, forest and environmental officers, helping in conservation and exploitation.
- Presence of large companies and entrepreneurs providing capital and managerial skills for large scale forestry commercial purposes.
- Wet climatic conditions for the growth of forests like planted and artificial forests with soft wood species which can also survive in dry conditions.

- Presence of fertile alluvial soils in lowlands and valleys with poor drainage like Usutu, Nhalangano and infertile soils in the Piggs plateau not good for agriculture.
- Presence of power supply like using HEP, using oil, helping in exploitation and processing on a large scale for commercial purposes satisfying internal and external market.
- Presence of good international relations and regional co-operations helping in marketing loans getting immigrant labour like in S.A, Zimbabwe, USA, Japan, Britain.
- Presence of research stations leading to better breeds for afforestation and reafforestation programmes helping in processing, marketing.
- Limited pests and diseases to destroy the forests like ants, termites and caterpillars, amphis, encouraging the planting of artificial forests.
- Nature of the population being hardworking, innovative, enterprising helping in exploitation, resources, developing economic activities, improving infrastructure, social services leading to economic growth and development.

### **Importance / effects of forestry in Swaziland**

- Timber and timber products nearly all of the local timber production leaves the country as logs, pulp or rough cut plants and are exported to Japan, Taiwan, South Africa, United Kingdom. This earns the country foreign exchange. Timber products form about 14% of Swaziland's exports.
- The forests are a source of raw materials for industries e.g. sawmill, pulp mills and the furniture industries Tannin extraction plants were established at Nhalangano by Swazi wattle industry in partnership or joint venture with Swazi and south African investors. The raw material for the two tannin plants is supplied by the regional Swazi nation land wattle growers co-operative societies in Shiselweni and Manzini.
- Generation of employment opportunities for thousands of Swazi people working in the forestry industry. The forestry industry sector including the secondary processing sector, provides employment to approximately 8000 people, which is 8% of total formal employment in Swaziland.
- They protect the water catchment areas for rainfall and water in rivers for irrigation agriculture in the lower areas. The growing of sugarcane under irrigation in the low lands depends on such water.
- Conservation of soils especially from the hilly areas from erosion.
- The forests are used for research or education purposes.
- They act as tourist attraction thus earning the country foreign exchange. Planted forests undoubtedly perform a great role in the economy of Swaziland. Planted forests are not of importance in Swaziland alone, but also in other African countries such as Nigeria, Gabon, Ethiopia, South Africa, Botswana and Lesotho.

## **FACTORS FOR FORESTRY IN SWAZILAND**

- Large tracks of land.
- Favourable climate
- High altitude
- Massive deforestation
- Quick maturity species
- Adequate capital
- Cheap labour
- Government policies
- Improved transport
- Improved technology
- Ready market
- Forest reserve for research

## **Value of forests**

- Water catchment areas
- Foreign exchange
- Raw material saw mills
- Employment opportunities
- Government revenue
- Environment
- Urban centres e.g. Nnalangano, Piggs plateau
- Improved transport
- Better landuse
- Wood fuel
- Building material
- Development of towns
- Crafts industry
- Medicinal herbs
- Research education

## **FOREST DESTRUCTION / ENVIRONMENTAL DESTRUCTION**

There are physical and human factors causing deforestation or environmental degradation.

- Population increase causing deforestation for settlement and agriculture in densely populated areas e.g. Nigeria, China, India, Bangladesh.

- Excessive lumbering for timber and other building materials in densely populated areas.
- Development of industries destroying forests for raw materials and causing pollution which leads to destruction of vegetation e.g. China, Egypt, Sudan, Tokyo in Japan, USA.
- Construction of transport routes like roads, railway lines, expansion of ports leading to destruction of forests and wetlands e.g. Trans African Highway, Tanzam railway line, Kampala-Jinja highway.
- Fire outbreak caused by natural and human factors like by shifting cultivators, nomadic pastoralists, smokers like in the Conga and Amazon basin, Fulan in Chad, Mali and Senegal.
- Climatic change causing drought desertification and aridity leading to global warming and discouraging the growth of vegetation e.g. Sahara desert.
- Presence of pests and diseases destroying vegetation e.g. locusts, termites, ants, caterpillars like in Sahara desert, Karamoja and they discourage the planting of trees.
- Getting fuel like firewood and charcoal used for domestic and industrial purposes like rural areas in developing countries.
- Mining and quarrying using open cast method leading to the destruction of the landscape and vegetation e.g. South Africa, Zambia copper belt, great lakes conurbation, copper mining in Kasere.
- Use of poor methods of farming causing soil exhaustion and discouraging the growth of vegetation e.g. nomadic pastoralism like in the Fulani region, monoculture maize growing at Gezira, shifting cultivation in Zambia, Brazil.
- Weakness of the government in implementing laws and regulations leading to illegal activities e.g. forest encroachment, bush burning, illegal lumbering.
- Political instabilities and insecurity leading to use of ammunition destroying the landscape and vegetation causing bush burning e.g Somalia, S. Sudan.
- Ignorance and backwardness about environmental matters causing bush burning, illegal lumbering, forest encroachment like peasants in rural areas, shift cultivators.
- Presence of wild animals destroying vegetation like elephants and herbivorous animals which cause overgrazing.
- Occurrence of landslides and mass wasting leading to destruction of landscape and vegetation through rock fall, rock slide, rock slump common in areas of mountainous areas and highlands.
- Corruption in the forestry departments and environmental conservation cooperation causing illegal lumbering, forest encroachment, excessive lumbering.
- Presence of wind system which causes dry conditions like the North East trade winds in Karamoja and Turkan, Harmattan winds for Sahara desert.

- Occurrence of soil erosion in highlands, mountainous areas and desert areas causing soil exhaustion through gully, rill, sheet erosion.
- Presence of cold ocean currents leading to dry conditions in the surrounding areas e.g. Cool Canary for Sahara, cool Benguel for Namibia.
- Presence of infertile soils discouraging the growth of vegetation like in Karamoja, Sahara.
- Drilling or construction of boreholes in dry areas, lowering the water table and discouraging the growth of vegetation.
- Distance from the sea leading to less effect of ITCZ (ocean currents) and encouraging desertification like Sahara desert.
- Latitude like areas far from the equator less affected ITCZ e.g. Sahara or Karamoja.
- Presence of relief features like highlands and mountains encouraging landslides, mass wasting and causing dry conditions in the leeward side Rwenzori.
- Presence of poor vegetation like herbs and shrubs in the Sahara desert leading to rainfall.
- Absence of water bodies leading to low rate of sea and land freeze causing dry conditions, Sahara.
- Absence of cloud cover in the atmosphere causing excessive evaporation leading high temperature range and dry conditions, Sahara.
- Control of pest and diseases leading to destruction of forests for destroying the habitats like for mosquitoes, snails, tsetse flies.
- Occurrence of natural calamities and hazards like floods in lowlands and valleys, volcanic eruptions, earth quakes, destroying the landscape and vegetation.

### **Effects of deforestation**

- It leads to soil erosion e.g. sheet, rill causing soil exhaustion
- It leads to reduction in rainfall, humidity causing climatic change, global warming, destruction of the ozone layer. Aridity and desertification Sahara, Namibia.
- Decline in tourism industry reducing on foreign exchange.
- It leads to pollution due to accumulation of carbon dioxide and reduction of oxygen, destruction of dumping sites, destruction of the ozone layer e.g. in developed countries and urban centres.
- Reduction in human activities which depend on forestry like lumbering leading to shortage of timber and other building materials, unemployment, low economic growth and development (over exploitation of resources).

- It leads to siltation, segmentation and sedimentation and deposition of water bodies, affecting fishing, navigation and the water quality e.g. lake Wamala, Katonga, Port bell water, R. Manafa, R. Rwizi (Ug).
- Occurrence of floods in lowlands and valleys causing destruction of people, property, transport routes, causing breeding grounds, drainage channels, Mozambique, Japan, Australia.
- Spread of pests and diseases like water born and air born diseases e.g. Bilharzia, Dysentery, cholera, flue, TB, cough.
- It leads to low life expectancy because of poor quality of life like in less developed countries.
- Development of tourism industry because of desert land forms like rock out crop sand dunes, Isenberg earning foreign exchange.
- Availability of land for settlement, agriculture, industrialization, in the areas which were covered by forests.
- Mining of sand which is used for building and construction like of houses, dams, transport routes.
- Promotion of quarrying from exposed rocks helping in getting murram, boulders, pebbles, stones used building and construction.
- There is easy transport and communication like the construction of roads due to reduction in obstacles or barriers.
- Destruction of hiding places for criminals like rebels, smugglers, rapists leading to peace and security.
- Destruction of habitats for disease vectors reducing on the effects of pests and diseases like mosquitoes, tsetse flies.
- Development of industries which need a lot of space and space craft like in USA, industry making ammunition.
- Development of irrigation farming like growing fruits, vegetables, cotton like in Sudan and California.
- Development of arable farming like growing of cereal and annual crops which are drought resistant, sorghum millet.
- Environmental protection like gazetting N. Pames Game and forest reserves.
- Development of livestock farming helping in providing animals productions like Karamajongs.
- Promotion of sports and games for leisure and creating like car rallies, hunting, donkey and camel riding, filming.
- Provision of reserve areas for accommodating landless people like for resettlement skills like refugees.

- Development of art and craft industry by using desert vegetation like herbs and shrubs and using stones for decoration.

#### **Ways of environmental conservation (Solutions, steps, measures, policies)**

- Encouraging tree planting through afforestation and re-afforestation programmes with soft wood species proving habits, controlling soil erosion, landslides.
- Promotion of mass education and mobilization on environmental matters like using UPE, USE, opinion leaders, massmedia.
- Using modern methods of farming helping in soil conservation like ranching, Agro-forestry, intercropping or intensive farming, irrigation.
- Strengthening laws and fines reducing on illegal activities like laws against bush burning, forestry encroachment.
- Privatization helping in attracting investors into the forestry industry leading to good management, availability of capital and high production.
- Using alternative resources of energy and power like HEP, solar energy, biomas, biogas reducing forest destruction for firewood and charcoal.
- Using alternative building materials e.g. plastic and metallic, tiles, furniture reducing on deforestation.
- Improvement in transport and communication leading to easy movement of workers helping in marketing and reducing on fuel consumption.
- Economic diversification by exploiting other resources reducing on dependency burden and land pressure.
- Using soil conservation measures helping in maintaining soil fertility like terracing, mulching, mixed cropping.
- Gazetting areas as national parks, game reserves, forest reserves reducing on human activities.
- Using government agencies and nongovernmental organizations which help in environmental matter like UNEP, NEMA, IGAD, LVMP, NFA, CARE, UWA, UTB.
- Population control by using modern methods of family planning by using condom, pills, setting population policy.
- Promotion of research on resource exploitation, land use management and on tree planting leading to environmental sustainability.
- Training skilled labour like forest officers, environmental officers helping in supervision, monitoring education.
- Controlled exploitation by giving licences by people carrying out lumbering, fishing, mining charcoal, selling firewood to control the number.



- Using fire fighting measures like using fire extinguishers, control towers, water bombers, patrol (aeroplane).
- Getting loans from financial institutions and development agencies for conservation and exploitation programmes.
- Government supports giving seedlings, inputs, equipments, extension workers.
- Promoting tree planting campaigns involving women, youth, local communities leading to easy supervision and monitoring.
- Proper waste management using recycling, treatment of wastes and having dumping sites.
- Controlling pests and diseases by spraying using insecticides like locusts in Sahara desert, termites, ants.
- Market expansion by exporting forest products to other countries like USA, Japan and Britain.
- International relations and regional cooperation helping in marketing, joint investments like E. African community, PTA, COMESA, African Union.
- Improvement in science and technology leading to availability of skilled labour helping in conservation and exploitation.
- Political stability and security helping in attracting investors, reducing on the use of ammunition and diverting resources to economic activities.

Qns:

1. Assess the role played by forestry industry in the economic development of either Canada or Tunisia.
2. Account for the development of the forestry industry in either Sweden or Gabon.
3.
  - a. Distinguish between temperate forests and equatorial forests.
  - b. Examine the causes for forest destruction in the Sahel region.
  - c. Examine the problems facing the forestry in either DRC or Canada.
  - d. Outline the steps being taken to solve the problems in the country chosen.
4. Account for the occurrence of desertification in Africa.

## **TOURISM IN THE WORLD**

This is the movement of people to different areas for leisure, education and research and you pay a fee for your services like visiting gazetted areas, entertainment centres, historical sites and areas with economic activities. It is lucrative (profitable) and invisible export dealing with services.

### **Tourism in Switzerland**

Switzerland is a developed country found in Western Europe and it is the most important for tourism in the world with tourism areas like winter, resort centres like in the Alps, Jura mountains around St. Martiz, Gstaad, Oberland, Lausanne, Lucern for winter games like skating, hunting, indoor games, skiing. Summer resort centres like in the swiss plateau at Geneva, Zurich, Basel, Bern, St. Gallen, Lake Lugano for summer games like swimming, sun bathing, viewing land forms, visiting industries and for outdoor games like volleyball, basket, football.

**Sketch map of USA showing major tourism areas.**

### **Factors for the development of tourism in Switzerland**

They're physical and human factors accounting for the development of tourism industry in Switzerland.

- Presence of temperate climate with winter and snow attracting tourists by winter games, skiing, skating in the Alps and Jura mountains and for summer games like swimming, sunbathing in the areas of Zurich and Geneva.

- Presence of beautiful scenery with different land forms like pyramidal peaks, hanging valleys, V-shaped valley, waterfalls and rapids, beaches attracting tourists to exploration e.g. Alps, mountains on R. Rhine and around L. Geneva.
- Relief features of highlands and mountains like the Alps in the Jura attracting tourists for mountain climbing, filming, photography and leisure.
- It is strategically located in the heart of Europe surrounded by Germany, France which provide market and it is near R. Rhine for cheap water transport.
- Availability of water bodies like drainage features R. Rhine, R. Rhone, Geneva, L. Lugano attracting tourists for sport and games, swimming, sunbathing and for viewing landform i.e. waterfalls, rapids and beaches.
- It has limited resources like minerals, infertile soils, limited land because of mountains, harsh temperate climate discouraging other activities and promoting tourism.
- Presence of (wild life) flora and fauna animals species and plant species like coniferous forests, bears, seals attracting tourists during winter for research and exploration.
- Availability of extensive land, limited activities like in the Alps and Jura mountains providing enough land for gazetted national parks, forest reserves, resort centres, Zurich, Oberland.
- Presence of Alpine vegetation in coniferous and temperate forests in the Alps, the Jura mountains for sports and games, filming, photography for picnics, camping sites.
- Political stability and security due to its policy of neutrality attracting many tourists, investors and reducing expenditure on defence saving it from world war construction.
- Good financial banking systems for easy transfer of money like using Western union ATM cards, electronic transfer, credit cards, and mobile money transfer.
- Improved marketing and advertisement by using internet, tour companies, trade shows, printing magazines, T-shirts, using CNN, Voice of America, Aljazeera helping in creating awareness internally and externally.
- Improved transport and communication using electrified railway lines to the Alps and Jura mountains, modern ports like Basel, constructing roads using R. Rhine good telegram services, telephone services, teletax.
- Presence of positive and supportive government policies like gazetted tourism areas, giving loans, developing infrastructure, social services, maintaining political stability.
- Presence of modern hotels, beaches, lodges, guest houses, apartments with international standards attracting tourists of high class like in Geneva and Zurich.
- Hospitality by speaking many international languages like English, French, Arabic, Swahili helping in marketing and attracting many tourists.
- Presence of labour supply both the skilled and unskilled working in hotels, beaches, tour companies leading to better services and good management.

- Presence of market because of high population in towns with high incomes like Basel, Bern, Geneva, Zurich and getting foreign tourists from USA, Britain, Japan, Germany.
- Presence of capital provided by the government and private investors for financing tourism activities like building hotels, beaches, transport routes because of high incomes.
- Good international relations and regional cooperation attracting many tourists from Germany, USA and helping in transport because it is a land locked country.
- Presence of economic activities attracting tourists for businesses like watch making, trading activities in towns like Geneva.
- Presence of cultural and historical sites like art and craft, museums, customs and beliefs attracting tourists for exploration and leisure.
- Presence of international bodies like world bank, red cross, human rights, FIFA headquarters, employing people of high class who go for tourism activities.
- Presence of improved social services like water supply, power supply, health facilities leading to high standards of living attracting tourists of high class like Geneva, Zurich.
- Improved science and technology leading to availability of skilled labour helping in research, exploiting tourism potentials, improving social services, infrastructure.
- Presence of big companies and entrepreneurs like tour companies, transport companies, helping in providing capital, good management and better services.
- Nature of the population of the Swiss people being hardworking, innovative, good planners, enterprising people, helping in resource exploitation developing economic activities, infrastructure, social services despite having a difficult environment.
- Presence of many urban centres like towns and cities with dense population for market and labour with economic activities, entertainment centres for leisure and recreation.

### **Importance / effects of tourism**

#### *Positive:*

- Source of foreign exchange through payment for the services, pure housing commodities like art and craft, watches, textile products helping in importation and investment.
- Provision of employment opportunities like people working in hotels, beaches, tour companies, resort centres like Zurich, Bern leading to increased standard of living.
- Growth of urban centres around tourism gazette areas due to increase in population leading to improvement in trade and social services like Geneva, Zurich, Bern, Lucern, Oberland.
- Economic diversification by influencing other economic activities reducing on the dependence burden like Agriculture, mining.

- Promotion of international relations and regional co-operation helping promoting trade and political stability like USA, France, Italy and China.
- Improvement in transport and communication like the construction of roads, railway lines, modern ports, Airports, telephone services in areas with tourism potentials e.g. like railway lines to Alps and the Jura around Zurich, Geneva.
- Promotion of education and research by visiting tourism gazetted areas like Alps and Jura, Geneva, Zurich, Bern leading to better skills and technology.
- Source of government revenue by taxing people and companies leading to capital accumulation, improvement of national income and developing other economic projects.
- Promotion of sports and games for leisure and recreation like mountain climbing, skiing, skating, sunbathing, swimming, volleyball.
- Development of industries because of getting market from tourists, watch making, textile industry, art and craft in Bern, Basel, Geneva, Zurich.
- Alternative land use because of limited resources having infertile soils, limited minerals, being mountainous having temperate climate discouraging other activities.
- Environmental protection by gazetting areas with plant and animal species like National parks, game and forest reserves, zoos, game sanctuaries e.g. in the Alps and Jura mountains.
- Cultural and traditions have been preserved by gazetting historical sites like museum, entertainment centres, historical sites like Lucern for sports gala.

*Negative:*

- It leads to diversion of labour and capital into tourism sector affecting other economic activities by employing so many people and using a lot of money for investment
- It leads to pollution of air, water and land because of industries, population increase, heavy traffic affecting plants and animals and disposal of wastes from hotels, beaches, etc.
- Displacement of people and activities by gazetting national parks, tourist resort centres, beaches, hotels like Bern, Zurich, Geneva.
- It leads to urban problems like high costs of living, congestions, high crime rates because of high population in tourism gazetted areas like Zurich, Geneva, Bern.
- Environmental degradation because of deforestation, swamp reclamation, destruction of the landscape because of construction work i.e. roads, hotels, beaches, Basel, Zurich.
- Change of cultures due to interaction with foreigners causing social problems like ways of dressing, eating, speaking.
- High costs of maintenance and rehabilitation like transport routes, beaches, hotels.

- Regional imbalance causing economic problems like in the Swiss plateau it is more developed than others.
- Tourism is a season activity with fluctuating numbers and this affects planning and it is mostly affected by competition.
- Provides hiding places for wild animals and diseases, vectors like the seals and the bears.
- It causes conflicts and tensions like tourists coming as tourists e.g. Alameda network.
- It leads to easy spread of diseases by interacting with foreigners like Alps through prostitution, Ebola.

### **TOURISM IN USA (NORTH AMERICA)**

USA is a developed country found in North America and it is important for tourism with tourism areas around the great lakes conurbation. It is important in California desert, around Tennessee valley Authority and Rocky mountains, Appalachian mountains, around towns and industrial areas (New York city, Los Angeles, Chicago, South Cotton Belt, around water bodies like coast of Atlantic ocean, Indian ocean, R. San Joaquin, L. Superior.

**A sketch map of USA showing many tourism areas**

### **Factors for the development of tourism in USA**

- Presence of water bodies attracting tourists for sunbathing, viewing landforms for exploration e.g Niagara falls on R. St. Lawrence, coastal beaches around Atlantic ocean, Pacific ocean.

- Presence of tropical warm climate attracting tourists for sunbathing like desert climate in California e.g. tourists from temperate countries during winter seasons like Norway, Sweden, Iceland, Canada, Greenland.
- Presence of relief features attracting tourists for exploration like the rocky mountains, Appalachian, desert land forms in California and sports and games like mountain climbing, filming, photography.
- USA is strategically located near the coast of Pacific Ocean, Atlantic Ocean leading to development of ports and using cheap water transport in the interior and to other countries.
- Availability of land gazetted for tourism in areas with sparse population like the rocky mountains, Appalachian mountains, California desert.
- Presence of wild like plant species and animal species attracting tourists for exploration and for sports and games e.g. around the rocky and Appalachian mountains, California desert.
- Limited resources discouraging other activities and promote tourism like in California desert, rocky and Appalachian mountains.
- Presence of vegetation types like forests in California attracting tourists for education and research, for filming, picnics, camping sites.
- Improved transport and communication in using St. Lawrence sea way, construction of roads railway lines, telephone services, using the internet helping in marketing and accessing tourism areas.
- Political stability and security because of good governance, defence, international relations attracting investors, tourists and diverting resources to economic activities. FBI, CIA, Pentagon intelligent systems.
- Good hotels and accommodation on international standards giving excellent services like in New York City, Los Angeles, Chicago.
- Presence of international bodies like UNO, International Monetary Fund employing people of high class giving market to tourism.
- presence of wide market both internal and external because of increased population in towns like New York City and getting foreign tourists from Britain, Japan.
- Presence of capital provided by the government and private investors used for building transport routes and communication system, hotels, construction of beaches, paying abundant labour.
- Availability of labour supply working in hotels, beaches, tourism companies leading to better services and good management.
- Improved science and technology helping in exploitation of resources improving infrastructure, social services and maintaining tourism facilities.

- Good international relations and regional co-operation helping in marketing like with Canada, Britain, Japan.
- Hospitality by speaking many languages like English, French helping in marketing and communication.
- Improved marketing and advertisement like using the internet, trade shows, tour companies, using BBC, CNN, V.O.A
- Improved social services like water and power supply, health facilities, leading to high standards of living and attracting tourists of high class.
- Presence of big companies and entrepreneurs providing capital, good managements attracting a big number of tourists.
- Presence of economic activities attracting tourists for business like industries in USA trading activities in Chicago, mining in California desert.
- Presence of many urban centres with different economic activities better social services, entertainment centres attracting a big number of tourists e.g. Chicago, New York city.

### **Importance / Effects**

#### *Positive:*

- Provision of employment opportunities like in hotels, beaches, tourists leading to increased standards of living.
- Source of government revenue by taxing people, companies like in New York, Los Angeles leading to capital accumulation and improving the national income.
- Promotion of international relations and regional co-operations leading to international trade and political stability with USA, Canada, Britain, Japan.
- Growth of urban centres around tourism areas because of high population leading to development of trade and improvement in social services for example Los Angeles.
- Promotion of education and research by visiting National parks, Game reserves, hotels, leading to better skills and technology like the Tennessee valley authority, Great Lakes conurbation, forests in California.
- Improvement in transport and communication like construction of roads, railway lines, telephone services benefiting the surrounding communities.
- Promotion of economic diversification by influencing other activities like trade, transport, industrialization, agriculture reducing on the dependence burden.
- Promotion of sports and games for leisure and recreation like swimming.
- Development of industries because of getting market from tourists like art and craft, textile industry, breweries, beverages.
- Source of foreign exchange by providing commodities and payment for services helping in importation and investment.



- Alternative land use because of limited resources and land like in New York city, California desert, rocky mountains, Appalachian mountains.
- Environmental protection by gazettement national parks, games and forest reserves, wetlands like in California, rocky and Appalachian mountains.
- Preservation of cultures and traditions by gazettement historical sites, museums, entertainment centres.
- Urban problems like high cost of living, slums, increased crime rate, congestion like in New York city, Chicago.
- Regional imbalance causing economic problems like the Great lakes conurbation, New York city, Los Angeles.
- Pollution of air, water and land because of waste from industries, urban areas, heavy traffic, dense population.
- Displacement of people and activities by gazettement National parks, game reserves, forest reserves, building hotels, beaches.
- Environmental degradation by constructing hotels, beaches, transport routes like in California New York city.
- Diversion of labour and capital into the tourism sector affecting other economic activities like for hotels, beaches, tour companies.
- Hiding places for wild animals and breeding grounds for disease vectors like in National parks, game and forest reserves.
- Promotion of conflicts and tensions because of terrorists coming as tourists Al Qaeda network, led to the destruction of the Pentagon and the World trade.
- Spread of diseases by interacting with foreigners like AIDS, Ebola, and swine flu.
- Change of cultures and traditions by interacting with tourists causing social problems like the western influence like prostitution, homosexuality, drug addiction, lesbianism.

## **TOURISM IN EGYPT**

Egypt is a developing country found in North Eastern Africa and it is important for tourism with major tourism areas around Nile delta, Sinai, Peninsular, Persian Gulf, Aswan high dam, Suez canal, around the pyramids, towns like Cairo, Port Said, Alexandria, around water bodies, R. Nile, red sea, Mediterranean sea, Lake Nasser, Qattara depression, mining areas, industrial and irrigated areas.

**A sketch map of Egypt showing tourism areas**

### **Factors for tourism in Egypt**

- Presence of desert climate with warm conditions attracting tourists for sunbathing especially from temperate countries e.g. Canada, Sweden, Iceland.
- Presence of desert vegetation composed of herbs and shrubs attracting tourists for education, research and for sports and games like hunting, filming, picnics, photography, camping sites.
- Availability of water bodies in different landforms for exploitation like Nile delta, Quatarra depression / oasis. They are also good for sports and games like swimming, boat riding i.e. R. Nile, Red sea, Mediterranean sea.
- Availability of extensive land because of sparse population helping in gazetting National parks, game and forest reserves, which are good for tourism e.g. Sinai, Peninsular or Persian gulf, around Quatarra depression.
- Presence of beautiful scenery with different landforms attracting tourists for exploration like the Nile Delta, Sand dunes, inselburgs, Quatarra depression.
- Presence of desert animals attracting tourists for exploration for hunting like donkeys, camels, snakes around Quatarra depression, Sinai Peninsular.
- Strategic location of Egypt near the Suez Canal, red sea, Mediterranean sea, leading to easy connection for tourists from Europe, middle east using cheap water transport.
- Egypt has limited resources for other activities like infertile sandy soils, dry climatic conditions discouraging other activities and promoting tourism.
- Presence of political stability and security attracting many tourists, investors and diverting resources to economic activities instead of defence.
- Presence of improved transport and communication like using Egyptian Air, constructing roads, railway lines, using the Suez Canal, telephone services helping in movement and marketing.
- Improved marketing and advertisement by using tour companies, using the internet, trade shows, printing magazines, T-shirts, attracting foreign and internal tourists.
- Presence of improved accommodation like hotels, beaches, lodges, guest houses, apartments with better services and good management like Sheraton, Alexandria beach.
- Presence of economic activities attracting tourists for business, education and research e.g. oil mining, irrigation farming, industries in Cairo.
- Presence of labour supply both the skilled and unskilled working in hotels, beaches, tour companies with better services and good management like in Cairo.
- Hospitality by speaking many international languages like English, French, Arabic, Swahili, helping in marketing and leading to easy communication.
- Presence of good international relations and regional co-operations attracting many tourists and investors from USA, Britain, Saud Arabia, Uganda.

- Presence of historical sites like the pyramids, Sinai, peninsular areas of ancient civilization, museums attracting tourists for education, exploration, plus different cultures and traditions.
- Availability of capital provided by the government and private investors for financial tourism activities like building hotels, beaches, constructing transport routes.
- Presence of improved social services like water and power supply health facilities leading to increased standards of living attracting many tourists like Cairo, around Aswan High dam, port Said.
- The construction of Aswan High dam, Dahe Nasser, Suez canal attracting many tourists for demonstration and exploration.
- Presence of sports and games entertainment centres found in urban areas attracting tourists for leisure and recreation like soccer, dancing halls, casino halls for gambling.
- The nature of population being hardworking, innovative, good planners because of ancient civilization helping in exploiting resources, developing economic activities, improving infrastructure and social services.

### **Importance / Effects of tourism in Egypt**

#### ***Positive***

- Provision of employment opportunities i.e. leading to increased standards of living like working in the museums, Sheraton hotel, port Said.
- Improvement in transport and communication like Egyptian air, constructing railway lines, modern ports round tourism gazette areas around Aswan High dam.
- Source of government revenue by taxing people and companies leading to capital accumulation and improving the national income.
- Source of foreign exchange through payment for the services and purchasing commodities like Art and Craft materials helping in importation and investment.
- Development of industries by getting market from tourists e.g. art and craft industry, textiles, breweries, food processing.
- Environmental conservation by gazetting national parks, games and forests reserves, wetlands, game sanctuaries with different plant species and animal species.
- It leads to economic diversification by influencing other activities reducing on dependency burden, industries, mining, transport, agriculture, trade.
- It leads to development of urban centres because of high population e.g. port Said, Alexandria, Cairo, Bena, Asguit, Aswan.
- Preservation of cultures and traditional by gazetting historical sites, museums, pyramids, entertainment centres, areas of ancient civilization, Sinai peninsular.

- Promotion of leisure and recreation because of different sports and games such as hunting, swimming.
- Promotion of international relations and regional co-operation leading to development of international trade like with USA, Saudi Arabia.
- Improvement in accommodation like hotels, lodges, apartments, guest houses, like in Cairo, Alexandria.
- Promotion of education and research on landforms, historical sites, beaches leading to better skills and technology.

### ***Negative***

- Pollution of air, water and land because of population increase, heavy traffic, development of industries causing destruction of plants and animals.
- Displacement of people and activities by gazetted national parks, forest and game reserves, constructing beaches, hotels, historical sites.
- It leads to profit repatriation because of foreign companies like Sheraton hotel causing capital outflow.
- It leads to change of cultures and traditions by interacting with foreigners causing social problem like the western influence leading to problems like drug addiction, prostitution, lesbianism, homosexuality.
- It leads to spread of diseases by interacting with foreigners like AIDS thus prostitution, Ebola, Swine & bird flu.
- It causes urban problems because rural urbanization like slums, high cost of living like in Cairo, Alexandria, Port Saidi.
- It leads to regional imbalance in economic development causing problems of income inequalities like Cairo.
- It leads to diversion of labour and capital into the tourism sector affecting other economic activities.
- It causes insecurity and political problems like terrorists coming as tourists.
- It leads to breeding grounds for disease vectors like mosquitoes, tsetse flies, snails, and habitats for wild animals which are dangerous to people, crops and livestock like in national parks, game sanctuaries, game and forest reserves.

### **TOURISM IN KENYA**

Kenya is found in East Africa and it is the most important for tourism with tourism areas around Mombasa coastal area, Malindi, Indian ocean, L. Nakuru, Mt. Kenya, R. Valley area, L. Magadi, towns like Nairobi, Kisumu, Fort Jesus, Nairobi Museum, Tsavo National park, L. Nakuru national park, Amboseli, industrial areas like Bumburi in Mombasa, cultures like the Masai.

**A sketch map of Kenya showing tourism areas.**

**Factors for the tourism in Kenya**

- Kenya is strategically located at the coast of Indian ocean leading to development of ports like Mombasa, Malindi and easy movement of tourists from European Middle East using cheap water transport.
- Relief features giving a beautiful scenery for exploration like coral reefs at Mombasa, R.V and for sports and games like climbing Mt. Kenya.
- Presence of historical sites for the preservation of cultures and traditions attracting tourists for exploration and education and research like Fort Jesus, Nairobi museum, Malindi port, Masai culture.
- Availability of water bodies with land forms for exploration like Indian Ocean and for sports and games like swimming, sun bathing.
- Presence of wild life like plants and animal species are found in gazetted areas like flamingos at L. Nakuru national part, Lions in Tsavo national park, Mangrove trees or vegetations at E. African coast.
- Presence of urban centres with economic activities, entertainment centres, better social services, infrastructure in Nairobi, Kisumu, Mombasa.
- Kenya has limited resoures discouraging other activities and promoting tourism e.g. Tsava national park (dry area), Mt. Kenya forest, Malindi park in the Indian ocean.
- Improved transport and communication like using Kenya Airways, Mombasa port, water transport, Safaricom. It helps in marketing and communication.
- Hospitality by speaking many international languages like Swahili, French, Arabic helping in communication and marketing.

- Improved accommodation like hotels, beaches, apartments, guest houses with better services and good management like Serena, Hilton, Intercontinental, Diplomate.
- Political stability and security helping in attracting investors, many tourists and diverting resources to tourism development.
- Positive and supportive government policies like giving loans to people, setting hotels, constructing roads, gazettement of tourism areas, attracting investors, maintaining political stability.
- Presence of capital provided by the government and private investors for financing tourism activities like hotels, beaches, transport.
- Presence of tropical climate because it's found near the equator attracting tourists for sunbathing like from Iceland, Greenland, Canada.
- Good international relations and regional co-operation attracting many tourists from Japan, British.
- Availability of land gazetted for tourism in areas with sparse population like top of Mt. Kenya, Tsavo national park, Nakuru, Malindi.
- Presence of labour supply both skilled and unskilled working in hotels, beaches, working in tour companies, Kenya airways, Hilton, Serena, Diplomate hotel.
- Presence of market both internal and external because of increased population in towns like Nairobi, Kisumu, Mombasa and getting foreign tourists from USA, British, Japan.
- Presence of entrepreneurs and big companies with better services and good management capital, tour companies, Serena, Hilton, Kenya airways.
- Improved marketing and advertisement by using the internet, trade shows, magazines, t-shirts, BBC, CNN, News papers.
- Presence of economic activities attracting tourists for business like Bamburi settlement in Mombasa, salt mining at Magadi transport at Mombasa.
- Improved science and technology leading to availability of skilled labour for developing economic activities and maintenance of tourism facilities.

### **Importance / effects of Tourism in Kenya**

#### *Positive:*

- Provision of employment opportunities leading to high standards of living among the workers in the museum, hotels and beaches.
- Improvement in transport and communication like using of the Kenya airways, railway, cheap water transport on the Indian ocean.
- Source of government revenue generated from foreign exchange earned from tourists improving the national income.

- Development of industries through getting market from tourists i.e. Art and craft industry, textile industry and food and processing industry.
- Environmental conservation through gazettement of national parks, game reserves, forest reserves which are used to attract tourists.
- It leads to economic diversification by influencing other activities reducing on the dependency burden mining, transport, agriculture, trade, industrial.
- It has led to development of urban centres like Nairobi, Nakuru, Kisumu because of the high population.
- It has led to preservation of culture and tradition through gazettement museum, entertainment centres, ancient civilization.
- Promotion of recreation activities like sports and games such as hunting, swimming.
- It leads to diversification of labour and capital into the tourism sector affecting other economic activities.
- Displacement of people and activities by gazettement national parks, forest and game reserves, constructing beaches, hotels, historical sites.
- It leads to regional imbalance in economic development causing income inequalities like Nairobi.
- It causes urban problems like rural urban migration resulting into slums, high costs of living i.e. in Nairobi, Kisumu, Nakuru.
- It causes insecurities and political problems like terrorists coming as tourists like the Alshabab.
- It leads to change of cultures and traditions by interacting with foreigners causing social problems like prostitution, lesbianism, homosexuality.
- Pollution of air, land and water through poor waste disposal, population increase, development of industries causing destruction of plants and animals.
- It leads to profit repatriation because of foreign companies like causing capital outflow.

## **TOURISM IN SOUTH AFRICA**

South Africa is a developing country important for tourism with major tourism areas around the rand conurbation, the mining areas of wit waters rand, Kimberly and gazetted areas like Limpopo, national Kuge national park, historical sites like Robben island, Zulu kingdom area, coastal areas like around cape town, Durban, East London, Port Elizabeth, Indian ocean and Atlantic ocean, around river dam projects like on river Orange, river Vaal, around the Drankesburg mountains.

**Sketch map of South Africa showing major tourism areas.**

## **Factors favouring tourism in South Africa.**

- Presence of water bodies or drainage features with land forms like water falls on R. Orange, beaches like Suncity attracting tourists for exploitation and for sports and games like swimming and sunbathing around Indian ocean and Atlantic ocean.
- Presence of wild life like plant and animal species in national parks, around Drakensburg mountains attracting tourists for viewing, education and research.
- Presence of historical sites attracting tourism for historical studies like Zulu kingdom, Robben island prison, Cape town (cape of good hope) which was used by explorers.
- Large capital base provided by the South African government and private investors for financing tourism activities like hotels, beaches, transport routes like around the rand conurbation and the coastal areas.
- Presence of tropical warm climate and Mediterranean climate attracting tourists for sun bathing especially for temperate regions during the winter season e.g. from Green land, Ice land.
- Strategic location near the coast of Atlantic and Indian ocean developing its own ports like Elizabeth, Durban, East London, Alfred and easily accessed by cheap water transport from Europe to the Middle East.
- Limited resources like around great Limpopo national park, Kruger national park in the northern parts near Kalahari and Namib desert, in the rand conurbation and coastal towns with limited land for other activity.
- Availability of land gazetted for tourism in areas with low population e.g. areas around great Limpopo national park, Kruger national park, Drakensburg mountains, Robben island, etc.
- Political stability for security since independence in 1994 ending the apartheid era leading to a favorable investment climate attraction on many tourists and diverting resources to economic activities like tourism.
- Improved transport and communication network making areas with tourism attraction accessible by constructing roads, railways, using water ways, air services like S. African air, temperate services.
- Supportive government policies like giving loans, developing infrastructure attracting investors, gazetting, tourism areas like Drakensburg mountains and for sports and games like mountain climbing.
- Presence of vegetation types like Mediterranean vegetation e.g. growth of citrus fruits around cape provinces and desert vegetation consisting of shrubs and herbs in the Northern part attracting tourists for sporting activities like filming, photography, camping sites, picnics, exploration, education and research.



- Skilled labour leading to good management of better services like sunbathing beaches, around Limpopo national park working in S. African airways, modern hotels like in Cape town, Johannesburg, Pretoria.
- Improved marketing and advertisement like using the internet, trade shows, international radios like BBC, using CNN, Magazine, t-shirts and Born churches, tour companies.
- Presence of economic activities attracting tourists for business research e.g. trade, mining areas around the Witwatersrand, Kimberly, vehicle assembling in Johannesburg, ship building in Cape town, Durban.
- Presence of many areas with urban centres like cinema halls, social services leading to high standards of living e.g. Durban, Natal, Pretoria, Cape town, Johannesburg.
- Wide market because of high population in towns and people with high incomes like around Johannesburg, Pretoria, and getting foreign tourists from Britain, USA, Middle East, Japan.
- Improved accommodation facilities like having international communication networks, leisure parks.
- Good international relations and regional co-operation attracting tourists from other countries like Britain, USA, Japan, Middle East countries.
- Hospitality by speaking many languages helping in communication and marketing e.g. using English and French.

### **Importances**

- Tourism has led to infrastructural development in South Africa in form of roads, railway lines which has promoted economic development.
- Provision of employment opportunities to the people of South Africa as tour guides, working in hotels.
- Foreign exchange by purchasing commodities, paying for services like around Great Limpopo national park, Kruger National park, Robben island.
- International relations and regional co-operation promoting international trade by encouraging foreigners coming as tourists e.g. from USA, Britain.
- Environmental conservation by gazetted areas like national parks, game reserves, forest reserves e.g. Kruger national park, etc.
- Preservation of cultures and traditions by gazetted historical importance like museums, Zulu kingdom national park, Cape town, Robben island.
- Growth of urban centres because of high population with high incomes helping in improving trade and social services like schools, roads e.g. Cape, Pretoria.

- Development of industries like art and craft, food processing industry, textile industry because of getting market for tourists.
- Improvement in transport and communication like S. Africa air, railway services around the coastal towns and the rand conurbation.
- Sports and games for leisure and recreation like soccer.
- Economic diversification by influencing other activities like trade, transport, agriculture, industrialization.
- Alternative land use in areas with limited resources and land for other activities like Drunkensburg mountain around Kruger national park, Great Limpopo.
- Insecurity like terrorists coming as tourists.
- Limited land and displacement of people and activities like around Limpopo national park and Kruger national park.
- Change of cultures by interacting with foreigners like Europeans.
- Diversion of labour and capital affecting other sectors and promoting economic imbalances in development.
- Hiding places for wild animals like lions, snakes, leopards.
- Breeding grounds for disease vectors like mosquitoes, tsetse flies, snails.
- Urban problems because of high population like slum development in Soweto, Johannesburg.
- Tourism is a seasonal activity affecting planning with fluctuating numbers.
- Pollution because of high population, heavy traffic around industries.

## **TOURISM IN EAST AFRICA**

E. Africa is made up of countries like Uganda, Kenya, Tanzania and the countries are important for tourism with tourism areas gazetted and these are Serengeti national park, Tsavo, Queen Elizabeth national park, coastal areas around Mombasa, Kisumu, Fort Jesus, mountainous areas like around Rwenzori, East African rift valley, around historical sites like Old vai George, Namugongo, Martyrs shrine, major towns like Kampala, Nairobi, Dar-es-salaam, water bodies like Victoria, river Nile, economic Tororo, Nairobi, area of Masai Mara.

**A sketch map of East Africa showing major tourism areas.**

### **Factors for the development of tourism in East Africa.**

- Presence of drainage features attracting tourists for exploration like the source of the Nile and for sports and games like swimming and sunbathing around Mombasa and Dar-es-Salaam on the E. African coast around beaches on L. Victoria e.g. Gaba and Lido beach.
- Beautiful scenery like relief features attracting for exploration like the E. African rift valley, glaciated land forms e.g. on Mt. Rwenzori, Kilimanjaro, Mt. Kenya, Volcanic land forms like Tororo plug, coral reefs, around Mombasa and Dar-es-salaam.
- Presence of wild life like plant and animal species found in gazetted areas like Flamingos around L. Nakuru, Mt. Gorillas, in Mugahinga national park, Bwindi, Ostriches in Kidepo national park, Mt. vegetation like on Mt. Elgon around pipa falls and on Mt. Kilimanjaro, Tropical rain forests like Mbarara, etc.
- Tropical warm climate because E. Africa is found around winter season like from Green land, Canada, Switzerland, Ice land for sunbathing.
- Vegetation types like Mt. Elgon, Mabira, forest reserve, Mt. Kilimanjaro, Mt. Kenya attracting tourists for filming, photography, picnics, forest walks, education and research.
- Availability of land in areas with low population giving enough land for nature conservation like Kidepo national park in Karamoja, Tsavo national park, Mburu national park, around Mt. Rwenzori and Kilimanjaro.
- Strategic location of E.African (Kenya and Tanzania) which are near the coast of the Indian Ocean and are easily accessed by tourist from Europe and USA, Japan using cheap water transport.
- Limited resources discouraging other activities like Kidepo national park in Karamoja semi desert, Serengeti and Tsavo national park, around mountains like Elgon, Moroto.
- Presence of historical sites attracting tourists for exploration and research e.g. Fort Jesus, Uganda National museum, Namugongo martyrs shrine, around Bigobya mugenyi, old vai George.
- Cultures and traditions attracting tourists for leisure and recreation for example the Karamajong way of life, traditional dances, traditional dishes like Luwombo, Malakwanga, Atapa and African art and craft like backcloth.
- Improved transport and communication making areas with tourist attractions accessible e.g. by using Kenya airways, air Tanzania, Eagle Air, MTN mobile phones, using water transport like Kalangala Islands.
- Improved accommodation facilities like roads, hotels, beaches on international standards with better services and good management e.g. Serena hotel, Speke resort, Emin Pasha hotel, Hilton hotel, Kilimanjaro hotel, Speke resort Munyonyo.

- Hospitality by speaking many languages like French helping in communication and marketing like using English, Swahili, German.
- Political stability attracting investors and many tourists and diverting resources to economic activities infrastructure and social services e.g. Tanzania.
- Improved marketing and advertising like using internet, trade shows, magazines, t-shirts, tour companies helping in creating awareness internally and externally.
- Privatization and economic liberalization leading to better services good management attracting many tourists e.g. Serena, Sheraton, Emin Pasha, Hilton hotel, etc.
- Good international relations and regional co-operation attracting investors and many tourists like East African community, African Union with European countries like USA, Japan.
- Presence of skilled labour trained in tourism handling e.g. degree in tourism and certificate in catering, providing services in hotels and beaches.
- Large capital base provided by the government and private investors for developing tourist infrastructure e.g. Kenya airways, Serena hotel, Hilton hotel, Air Tanzania.
- Supportive government policies like gazetting areas like Rwenzori national park, Tsava, Serengeti developing infrastructure, giving loans and attracting investors.
- Presence of economic activities attracting tourists for business research like industries in Mombasa, copper mining in Kilembe, plantation agriculture like tea in Kericho.
- Presence of many urban areas with improved social services leading to high standards of living and having entertainment centres like dance halls, cinema halls e.g. in Kampala, Dar-es-salaam, Jinja, etc.

### **Importance of Tourism in E. Africa**

Tourism provides employment to many people in E.Africa e.g. tour guides, game rangers which leads to improved standards of living in areas around tourist attractions e.g. in Kampala and Nairobi.

Tourism has led to conservation of plants and animal species which are growing in gazetted areas for example giant lobelia growing on Mt. Elgon and animal species like elephants, hippos in Queen Elizabeth national park.

Led to the development of industries in E. Africa like art and craft industry, food processing industry because of the market provided by the tourists.

Tourism has led to economic diversification because it has influenced other activities like trade, transport, agriculture and industrialisation.

Tourism has led to improvement in transport and communication lines like railway lines e.g. the Uganda, Kenya railway line, Kenya airways, road transport and development of ports like Mombasa which has provided cheap water transport.

Growth of urban centres like Nairobi, Kampala, Dar-es-salaam because of high population improving trade, social services like hospitals, roads, schools e.g. around Nairobi, Kampala, Mombasa.

Source of foreign exchange by purchasing commodities, paying for the social services like around Queen Elizabeth national park, services in hotels like Sheraton, etc.

Source of government revenue by taxing for companies like Serena, beaches like Lido hence improving on the national income.

Promotion of international relations to regional co-operations promoting international trade by encouraging foreigners and people from other countries coming as tourists e.g. from Japan, USA, Britain, Libya, Egypt, etc.

### **Problems facing tourism industry in LDCs.**

Low developed countries are found in Africa, S. America, Austria, some parts of Asia. They have enough tourism potentials but the tourism sector is still underdeveloped because of physical and human problems.

Poor transport affecting marketing and making areas with tourism attractions not easily accessible for example the Congo basin, Amazon basin.

Competition with other countries because of having the same tourist attractions like wild life and land forms.

Presence of hostile tribes like the Nandi, backward cultures and ignorance, scaring tourists and investors e.g. the Karamajongs, Masai, Turkana, Fulani, Pygmies.

Limited capital to develop tourist infrastructure like hotels, beaches, transport routs because of low incomes.

Tropical pests and diseases causing encroachment of gazetted areas like national parks, game reserves, forest reserves, wetlands and in the proves they affect wildlife.

Illegal activities like poaching reducing on animal species, bush burning destroying wildlife and encroaching in gazetted areas like near the nomadic pastoralists.

Poor marketing and advertisement like using a local media leading to low number of tourists like using local radios, tvs, newspapers.

Political instability and insecurity in LDCs scaring tourists and investors and diverting resources to defence e.g. Somalia, Sudan, DRC.

Climatic changes causing drought, desertification affecting plants and animals like in the Sahel region, Karahari region.

Presence of other resources leading to other economic activities diverting labour and capital like forestry in Gabon, fishing in Morocco, agriculture in Uganda.

Profit repatriation by foreign investors causing capital outflow in LDCs.

Limited skilled labour leading to poor mismanagement like hotels and beaches in rural areas.

Limited government support in form of loans, high taxes on hotels and gazetted tourism areas for activities, poor supervision and monitoring.

Poor accommodation facilities like hostels, beaches with poor services like in rural areas.

Poor science and technology affecting exploitation of resources affecting improvement in social services.

Tourism is a seasonal activity like most of the tourists come during winter seasons in their countries with fluctuating numbers affecting planning.

Poor social services leading to low standards of living discouraging the growing of tourists like in the Congo and Amazon basins.

Competition and embezzlement causing mismanagement, poor services and diversion of public resources e.g. Uganda, Kenya, Nigeria.

Environmental degradation caused by population increase, over grazing in national parks, dumping wastes, bush burning, destroying plants and animals like Rwenzori national park affected by Hima factory, Kasese cobalt industry.

Limited research affecting exploitation of tourism potentials marketing and causing specialization in wild life.

Weak laws in LDCs causing bush burning, encroachment, illegal lumbering, fishing, poaching affecting tourism areas.

### **Ways of developing the Tourism industry / steps / policies / measures (remedies)**

Improving marketing and advertisement like using the internet, trade shows, tour companies using BBC, CNN, printing, magazines, T-shirts.

Acquisition of loans from financial institutions and development agencies for developing tourist infrastructure e.g. world bank, IMF, European union.

Improvement in transport and communication helping in marketing and accessing tourism areas like using air transport, developing water ways, using railway lines, internet, telephone networks.

Ensuring political stability and security through regional cooperation, good governance and experience attracting investors and tourists e.g. Africa, Kenya.

Strengthening laws and regulations by putting money fines hence reducing on illegal activities e.g. South Africa, Kenya.

Promotion of mass education and mobilisation by using formal and informal education helping in creating awareness.

Improvement in accommodation by constructing modern hotels, beaches, lodges which are on the standard with better management and good services.

Promotion of international relations and regional co-operation helping in marketing and attracting many tourists like PTA, E.A.C, African Union.

Training skilled labour leading to better services and good management like Kenya airways, Serena hotel, Sheraton hotel, S. African airways.

Gazetting areas as national parks, game reserves, forest reserves, wetlands, historical sites for easy protection and preservation.

Privatization and economic liberalization leading to better services and good management e.g. Sheraton, Serena.

Population control reducing on environmental degradation by using modern methods of planning and having population policies like in Nigeria, Kenya, etc reducing on poaching.

Supportive government policies like giving loans, gazetting tourism areas, strengthening laws and regulations e.g. Kenya, S. Africa improving social services leading to high standards of living especially in services through research and planning attracting many tourists.

Hospitality by using many international languages helping in marketing communication e.g. Latin.

Proper waste management by gazetting dumping sites using recycling.

Economic diversification reducing on economic dependence by exploiting other resources.

**Qns:**

1. Compare and contrast tourism in E. Africa and Europe.
2. Account for the development of the tourism industry in either S. Africa or California.
3. Examine the problems affecting development of tourism industry in either S. Africa or California.
4. Examine the problems affecting development of tourism industry in either Kenya or Tanzania.
5. What steps are taken to solve the above problems.
6. To what extent have physical factors influenced the development of tourism industry in either Canada or Europe.

**Problems of tourism in developed countries (USA)**

- Competition
- Pollution
- Climatic changes (global warming)



- Environmental degradation
- Insecurity (terrorism)
- High transport costs
- Government policies most areas gazetted for environmental protection
- High labour costs because of high standards of living
- High costs for maintenance
- Presence of other economic activities diverting labour and capital

## FISHING

This is the exploitation of the aquatic animals from water bodies like lakes, rivers, ponds, seas, oceans for commercial and subsistence purposes. It is common in countries like Canada, Norway, Japan, S. Africa, Morocco, Namibia, Angola, Nigeria, Finland, Sweden, Chile.

### **Types of fishing**

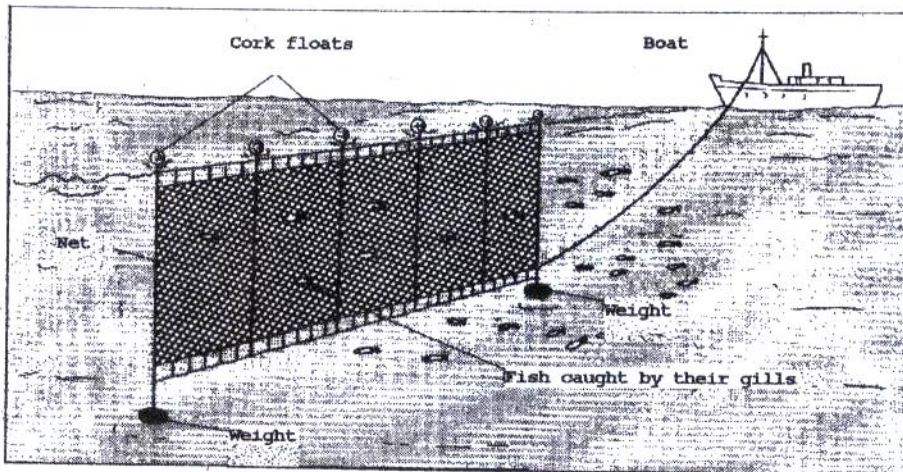
There are two types of fishing:

**Marine fishing** takes place in oceans, seas and it is most important for commercial purposes and for large scale. It helps in exploitation of marine species like Tuna, Cod, Mackerel, Heming, Sardines, Haddock, Anchovies, Crabs, Halibut, Oysters, Yellow star fish, Whales, Sharks, Bonito. Takes place in pacific, Atlantic ocean, North sea, Indian (takes place in salt water).

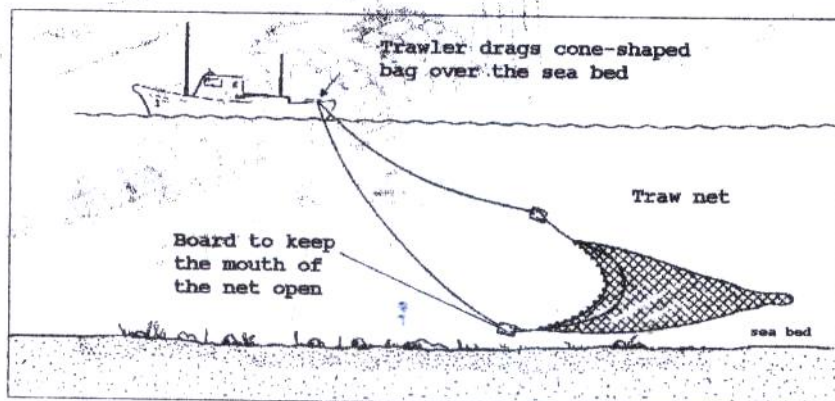
**Fresh water fishing:** this takes place in fresh water bodies found in the interior or inland like in lakes, rivers, swampy areas, streams, ponds. Fresh water species like Tilapia, mud fish, Nile perch, Silver fish, lung. This is common in the tropics equatorial regions, low developed countries like the Congo and Amazon basin. It is less developed and it contributes to small percentage.

## Methods of fishing:

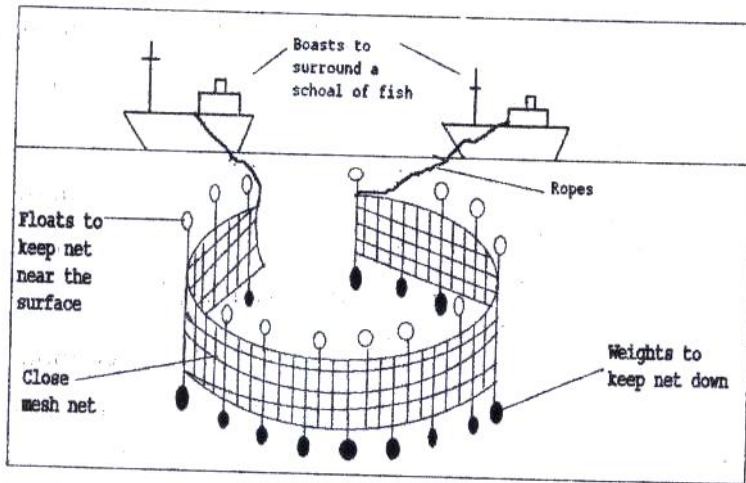
1. **Drifting**: This is the use of drift nets which are hanged vertically in the sea like tennis with open end where the fish enters. It has floaters on top and sinkers at the bottom which help it in balancing. It is tied with a rope and pulled by a boat. It has locks for opening and closing. It is mostly used for getting pelagic fish which live near the surface of water like sardines, herrings mackerel.



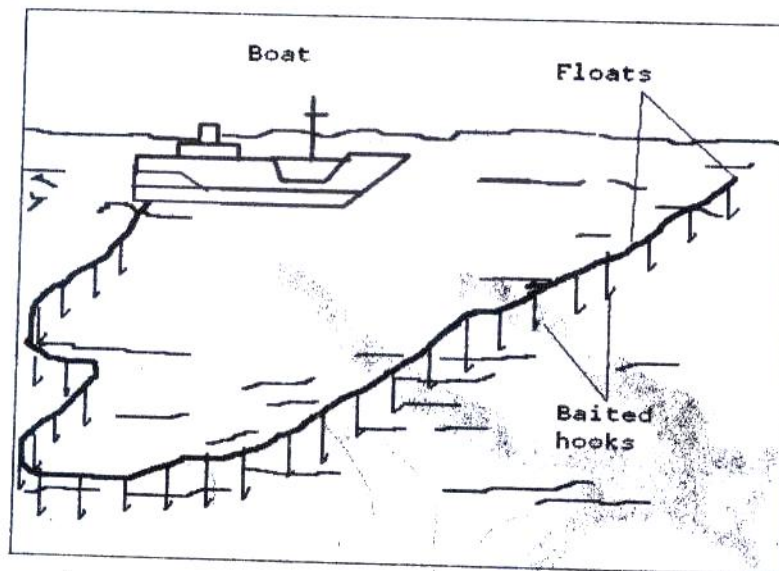
2. **Trawling**: This is the use of trawl nets shaped like a bag with open end where the fish enters. It has sinkers at the bottom and floaters on top tied with a rope and pulled by a boat. It has locks for opening and closing, it is mainly used for getting demersal fish which live at the bottom of the sea. It is mostly used in seas and oceans with smooth sea bed. It is used for getting big fish like tuna, cod, Halibut, Haddock, sharks, whales.



3. **Purse seining:** This is the use of seints tide with rope & pulled by two small boats it has open end where the fish enters, it has floaters on top & sinkers at the bottom helping it in balancing it is used for getting pelagic fish which live near surface of water tibe sardines, mackerel, Herrings.



4. **Long lining:** This is the use of hooks which are many in number like 500 on the hooks there are baits which attract fish the hook are tied with rope and pulled by boat. It is mostly used for getting big fish like luna, cod, halibut, haddock , sharks, whale, mostly used in seas and oceans with rough sea bed(sea bed with obstacles) for commercial purpose.



Other methods.

5. Gill netting, mostly used in fish water bodies like lakes, fishing pounds is getting tilapia, Nile perch, mud fish.
6. Baskets. Used in fresh water bodies like swampy areas for tilapia and mud fish, rivers and lakes.
7. Spearing. Used for getting fish in flooded areas on a small scale.
8. Lumps used for getting silver fish (moon fish).
9. Hooks used for getting big fish like Nile perch, Tilapia, mud fish on a small scale.

### **Methods of fish preservation/storage**

The modern and commercial methods include using ice, refrigerators, fish canning, containers, traditional methods include sun drying, fish smoking, salting frying.

### **Types of fish**

1. Pelagic fish, these live near the surface of water and they are usually small in size like sarline, mackerel, Herring and mostly exploited by drifting.
2. Demersal fish , these live at the bottom of the sea and they are big in size for example cod, tuna, haddock , halibut , sharks, whale mostly exploited by trawling.
3. Anadromas, these live in fresh and salty water, they migrate during the time of reproduction for example salmon.

### **Fishing grounds in the world (CANADA, NORTH AMERICA, B.C, DEVELOPED COUNTRY, NORTH EAST PACIFIC).**

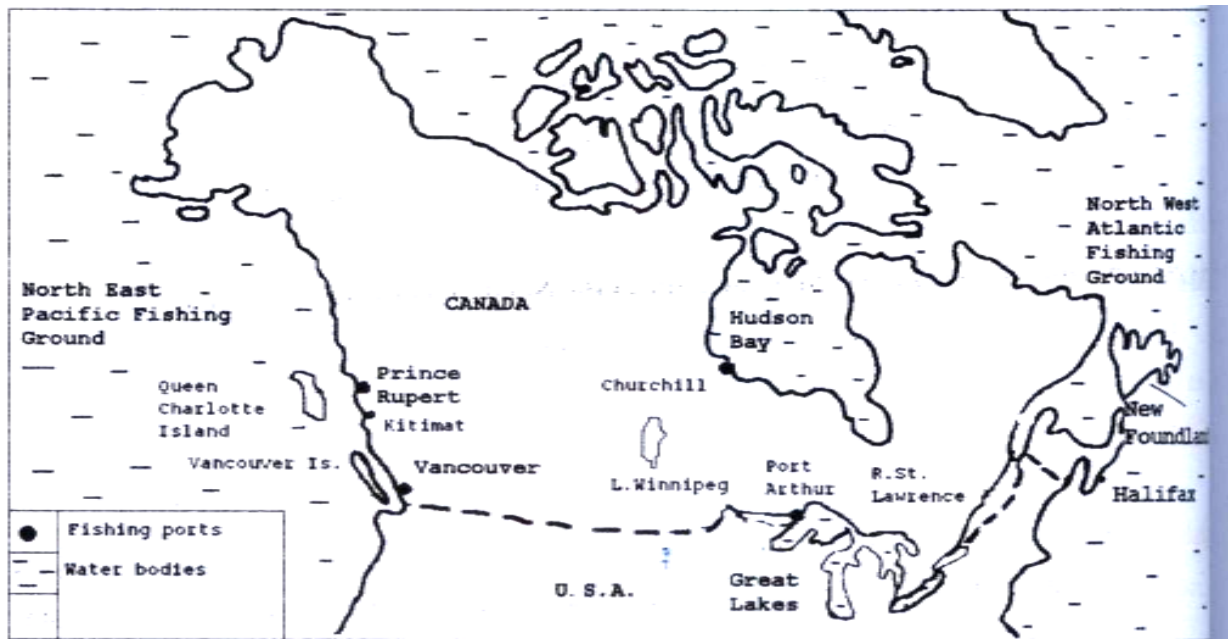
Canada is an developed country found in North America .It is important for commercial marine and fresh water fishing and fishing grounds like pacific, Atalan tic ,river franzer,Skeena, s'tikine in British Columbia around Atlaska,Vancouver Island New fond land or new England with fish landing sites i.e Vancouver church hill, prince Rupert species salmon, tuna, cod, Halibut, Haddock.

### **Some factors for development of fishing in Canada.**

Canada has limited resources like infertile soils like for agriculture .It is mountainous with rugged and steep slope .It has limited mineral resources with poor temperate climate with winter and snow discouraging other activities and promoting fishing.

Presence of many water large bodies with absence of mud ,floating vegetable with fertile soil for planktons, cool climate giving a wide area for commercial fishing for example Atlantic ocean, River fraver, Skeena, Stikine.

### A sketch map of Canada showing fishing grounds



### Factors for development of fishing in CANADA.

They are physical and human factors accounting for the development of commercial fishing in Canada

- Presence of shallow continental shelf for easy penetration of light and oxygen for growth of planktons and multiplication of fish e.g pacific Atlantic ocean.
- Presence of temperate/coniferous forests providing for making beds, firewood and charcoal for preservation using tree species like pine , soruce, Balvamfir.
- Availability of many/different commercial species leading to high production and helping in marking e.g salmon, tuna, cod, halibut, haddock, herrings.
- Presence of irregular and indented coast lines with caves ditts, fords, headlands, Rias, pensulars, Islands protecting against strong waves leading to the development of natural harbours , ports, fish landing sites and providing breeding ground for the fish e.g Vancouver, church hill, prince Rupert, coast of pacific ocean.
- Presence of smooth sea bed with limited obstacles like rocks, pot holes promoting the use of trawling for demersal fishing at the bottom of the sea like getting big species like tuna, cod, haddock, halibut, sharks.
- Presence of ocean currents like warm California from the south and cool Labrador, warm Gulfstream providing good conductions for the growth of planktons and multiplication of fish e. g Pacific Atlantic ocean, coast of British Columbia.
- Presence of planktons like the zoo plankton because of many water bodies, cool climate, fertile soil, absence of mud giving enough food for the growth of fish.

- Canada is strategically located at the coast of Pacific, Atlantic ocean, Vancouver, Island leading to the development of ports like Vancouver, church hill and using cheap water transport for exporting to other countries like United States of America, Japan.
- Presence of wide and shallow continental shelf at the coast of Atlantic, pacific ocean leading to the easy penetration of light and oxygen for the growth of plankton and fish.
- Use of modern methods of fishing like trawling, drifting, purseining, long lining, getting fish in big quantities and mature fish.
- Use of modern preservation and storage like using ice, refrigerators fish canning, using containers helping in transportation of, marketing and maintaining high quality.
- Presence of wide market both internal and external like selling fishing towns like prince Rupert, port George , Nelson, John and exporting fish to United States of America, Japan and Britain.
- Availability of large capital base provided by government, private investors used before purchasing modern fishing gears, paying workers, transport routes.
- Improved transport and communication like construction of road, ports, waterways, railway lines connecting fishing grounds to the markets and industries like using church hill, R. fraser, Vancouver, R. Skeena, Stikine.
- Presence of research stations at the coastal towns helping in breeding fish for restocking over fished areas and helping in processing, marketing for easy exploitation and conservation.
- Cultures and traditions of the Canadians being sailors they don't fear water fish consumers because it has many water bodies e.g R. Stikine, Skeena.
- Presence of positive and supportive government policies like gazetting fishing grounds caring out research, giving out loans, paying labour supply.
- Political stability and security leading to the favourable investment climate and diverting resources to developing infrastructures, social services, economic activities leading to economic growth and development.
- The good international relation and regional cooperation helps in marketing, transport and fish conservation like in USA, Japan, Britain and it has also reduce on conflicts and tensions.
- Presence of labour supply both skilled and unskilled working as fishermen, processing factories because of increased population in towns like Vancouver, church hill and using immigrants from less developed countries.
- Presence of industries related to fishing or supporting fishing industries making nets, hooks, animal feeds, fertilizers, extracting oil, art and craft, processing fish.

- Presence of big co's, cooperation and entrepreneurs providing capital and managerial skills for large scale commercial fishing.

### **Importance/effects of fishing in Canada.**

#### ***Positive effects.***

- Improvement in transport and communication like construction of industries, modern ports, railway lines, water ways connecting the fishing areas to markets and industries benefiting the surrounding communities like areas of Vancouver, church hill, prince Rupert.
- Source of food like proteins, vitamin, mineral salt by consuming fish species like salmon ,haddock, herring reducing on problem of hunger, malnutrition on food imports.
- Source of foreign exchange by exporting fish and it's products to USA, Britain helping in importation and investments.
- Provision of employment opportunities e.g fishermen in fish processing factories in areas of Vancouver, church hill leading to increased standards of living.
- Growth of urban centres like towns and ports around fishing industries, market areas like Vancouver, church hill ,port John, Neloan leading to the development of trade and improvement in social services.
- Source of government revenue by taxing people co's improving national income for other development projects, social services and infrastructures.
- Provision of internal relation and regional cooperation through export trade of fish like USA, Japan and Britain.
- Development of industries e.g fish processing, making boats, chemicals, drugs, oil, nets, art and craft, fertilizers, leather products.
- Economic diversification by influencing other economic activities like industrialization, transportation reducing on dependency burden tourism.
- Pollution of fishing grounds or water bodies because of dumping wastes sewages from urban and industrial areas causing obstructions of fish in discouraging the growth of planktons e.g at Vancouver, prince Rupert.
- High transport cost because of mountainous and rugged having many water bodies being touristic especially in the interior.
- It is lead by accidents destroying people and properties scaring fishermen and investors because of water rapid, obstacles, strong waves, and poor visibility.
- Presence of fish predators consuming young and small fish like the shark and whale reducing on fish production.
- The presence of conflicts and tensions over territorial boundaries in water bodies.

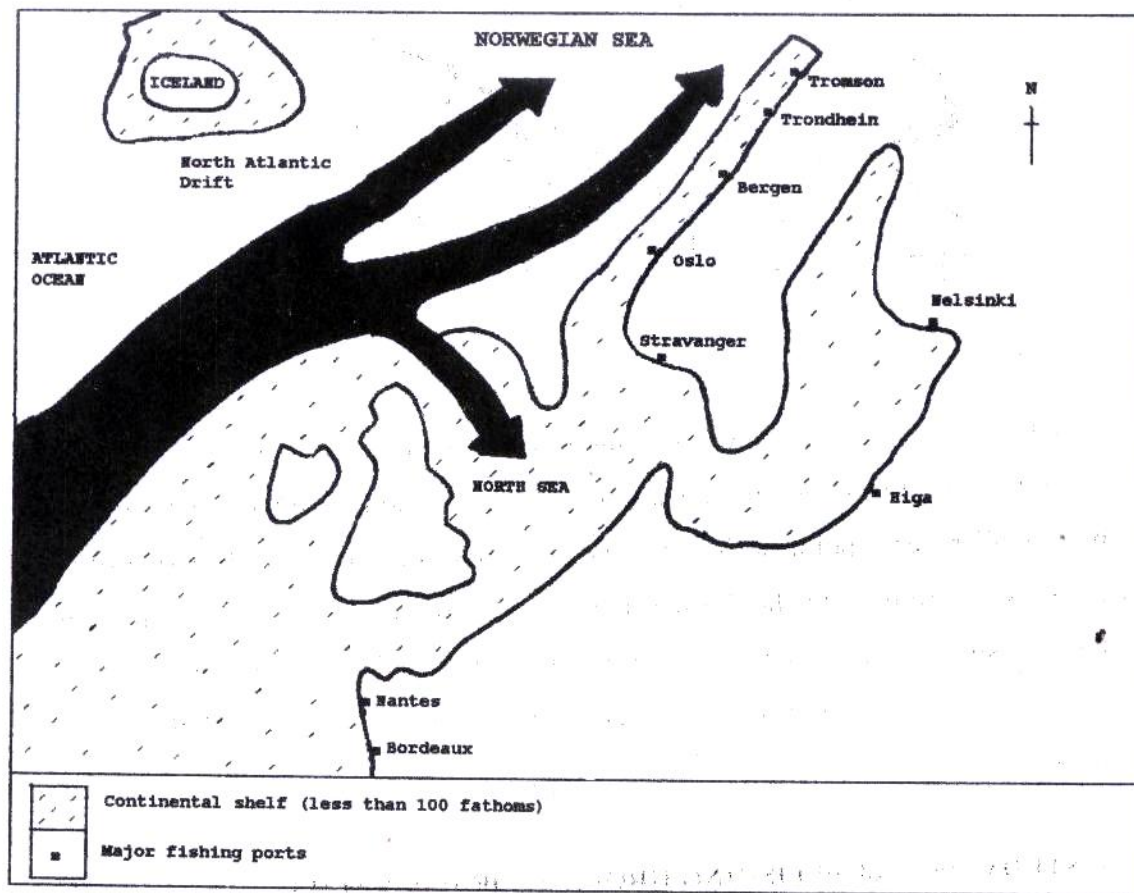
- Limited unskilled labour because of high standard of living leading to shortage of manual and casual labourers and cause sparse population in the interior.
- Limited internal markets because of sparse population and having other substitutes.
- Government policies (unfavourable) like gazetting fishing grounds for environmental protections, diverting resources to other activities like forestry.
- International laws and regulations hindering the exploitation of sharks, whales because they are endangered species and discourage deep water fishing for navigation purposes.
- Price fluctuations on the world markets affecting planning.
- Presence of poor species of less commercial importance like oyster, crab.
- Presence of obstacle like rocks, vegetation, potholes affecting the movement of boats and the use of nets.

### **FISHING IN EUROPE (N.E Atlantic, Scandinavia countries (Norway)**

Norway is a developed country found in western Europe. It is important for commercial marine fishing among Scandinavia countries with fishing grounds like Atlantic ocean, North sea, Norwegian sea Barents sea, fishing landing site like Jan Stavanger, Bergen Oslo, Tromso, Brest, Hammerfest, Sebastian. It is important for fishing species like Herring, cod, Haddock, Halibut, Tuna, Sardines, mackerel and Bonilo.



### A sketch map of Norway showing the major fishing grounds



### Factors for fishing in Norway

- Presence of shallow continental shelf for easy penetration of light and oxygen for the growth of planktons (zoo) and multiplication of fish e.g Atlantic ocean and Barents sea, North sea.
- Presence of temperate coniferous forests providing timbers for making boats, firewood and charcoal for preservation using tree species like pines, spruce, fir.
- Availability of many different commercial species leading to high production and helping in marketing .Tuna, cod, Herring, Halibut.
- Presence of indented and irregular coastline with caves, cliffs, fjords, Headland, Rias, Islands protecting against strong winds (waves) leading to development natural harbours, ports, fishing landing sites and provide breeding ground for animals like fish e.g Vancouver, church hill, prince Rupert, coast of Atlantic ocean.
- Presence of smooth sea bed with limited obstacles like rocks, portholes promoting the use of trawling for demersal fishing at the bottom of the sea like getting big species like Tuna, Cod, Haddock, Halibut.

- Presence of ocean current like North Atlantic drift from the South providing good condition for the growth of plankton and multiplication of fish e.g Atlantic.
- Presence of planktons like the zoo because of many water bodies, cool climate, fertile soil absence of mud giving enough food for the growth of fish.
- Norway is strategically located at the coast of Atlantic ocean, Norwegian sea, leading to the development of ports like Bergen, Stavanger using cheap water transport for exporting fish to other countries like Sweden, Denmark, USA.
- Presence of wide and continental shelf at the coast of Atlantic Norwegian sea leading to easy penetration of light and oxygen for the growth of planktons.
- Use of modern methods of fishing like trawling, drifting, purse seining, long lining getting fish in big quantities and mature fish.
- Use of modern methods of preservation and storage like using ice, refrigerators, fish canning, using containers helping in transportation, marketing .
- Presence of wide market both internal and external like selling fish in town like Stavanger, Tromso and exporting fish to Japan in USA.
- Availability of capital base provided by the government, private investors used for purchasing modern fishing gears, paying workers, transport routes.
- Improved transport and communication like construction of roads, ports, waterway, railway lines connecting fishing grounds to markets and industries like using Stavanger, Hammerfest.
- Presence of research stations at the coastal towns helping in breeding of fish for restocking over fished areas and helping in processing, marketing for easy exploitation and conservation.
- Cultures and traditions of the Norwegians being sailors, fish consumers because it has many water bodies. Presence of positive and supportive government policies like getting fishing ground, caring out research, giving out land, paying labour supply.
- Political stability and security leading to favourable investment climate and diverting resources to developing infrastructures, social service, economic activities leading to economic growth and development.
- The good international relationship and regional co-operation helping in marketing , transport and fish conservation like in USA, Japan, Britain and it has also reduced on conflicts and tensions.
- Presence of labour supply, both skilled and unskilled working as fishermen, processing factories because of increased population in towns like Stavanger, Tromso and using migrants from less developed countries.
- Presence of industries related to fishing or supporting of fishing industries making nets hooks, animal feeds, fertilizers, processing fish.

- Presence of big co's , cooperative and entrepreneurs providing capital and managerial skills for large scale commercial fishing.

### **Importance /effects of fishing industries in Norway.**

- Improvement in transport and communication like construction of roads, railway lines, water ways connecting fish areas to markets and industries benefiting surrounding communities like areas of Stavanger, Tromso, Bergen.
- Source of food like proteins, vitamin, mineral salts by consuming fish species like Herring, cod , Halibut, reducing on the problem of hunger , malnutrition and food import.
- Source of foreign exchange by exporting fish and its products to USA, Japan helping in importation and investments.
- Provision of employment opportunities e.g fishermen in fish processing factories in areas of Bergen, Stavanger leading to increased standard of living.
- Growth of urban centres like Stavanger, Bergen, Tromso around fishing industries and marketing areas leading to development of trade and improvement in social services.
- Source of government revenue by taxing people and co's improving national income for other development projects, social service, infrastructures.
- Promoting of international relationship and regional co-operation through export trade of fish like USA, Japan, Britain.
- Development of industries e.g fish processing industry making boats, chemicals, drugs, oil, nets, art and craft and leather products.
- Economic diversification by influencing other economic activities like industrialization, transport, reducing on the dependency burden.
- Provision of raw material for drugs, chemicals, cosmetics, art and craft.
- Development of tourism industry like the fish landing site and boats use as beaches then visiting the industries and because of increased incomes(fishers.)
- Alternative land use because of limited resources help in resource exploitation for economic growth and development.

### ***Negative effects***

- Environmental degradation for firewood, charcoal and timber through the construction of industries, transport routes developing landing sites of Tromso, Stavanger and Britain.
- Over exploitation of resources like fish because of using modern methods of fishing leading to extinction of some species like sharks and whale.
- It leads to pollution of air, water and land because of industries like at Bergen using boats with engines in Pacific Ocean and fish smoking for preservation.

- Diversion of labour and capital in to the fishing sectors affecting other economic activities like agriculture, tourism, forestry because of investors and workers who has gone in to fishing.
- It leads to urban problems because of high population at fish landing site like port Nelson, church hill increased cost of living, increased crime rates, slums.
- Displacement of people and activities by developing fish landing sites like Stavanger, Bergen, constructing industries, transport routes, constructing fish ponds.
- Regional imbalance causing economic imbalance causing problems like labour mobility, wage differences.
- It leads to accident destroying people and properties by drowning in water because of strong waves, mist and fog, obstacles like rocks, big aquatic animals e.g hippos, sharks.
- Promotion of conflicts and tensions because of unclear territorial boundaries in water bodies.
- It is affected by price fluctuation, competition and this affects planning.

#### **Problems facing fishing in Norway**

- Competition with other countries on the world market like Canada Sweden because of other substitutes.
- Winter season with snow and ice affecting labour supply on transport.
- Over fishing causing fish exhaustion and extinction of some species like the shark, whale because of using modern methods of fishing.
- Pollution of fishing ground or water bodies because of dumping wastes, sewage, from urban and industrial areas causing destruction of fish on discouraging the growth of planktons e.g at Vancouver, prince Rupert.
- High transport cost because of mountainous and rugged having many water bodies being forested especially in the interior.
- It is affected by accident destroying people and property scaring fishermen and investors because of obstacles, poor visibility.
- Presence of fish predators consuming young and small fish like the shark, whales reducing on fish production.
- The presence of conflicts and tensions over territorial boundaries.
- Limited unskilled labour because of high standard of living leading to shortage of manual and casual labours and because of sparse population in the interior.
- Limited international market because of sparse population on having other substitutes.
- Government policies (un favourable) like gazetting fishing ground for environmental protecting, diverting resources to other activities like forestry.

- International laws and regulations hindering the exploitation of sharks, whale because they are endangered species and discouraging deep water fishing for navigation purposes.
- Price influences on the world market affecting planning.
- Presence of fish poor fish species of less commercial importance like oysters, crab.
- Presence of obstacles like rocks, vegetation, potholes affecting the movement of boats and use of nets.

## **FISHING IN SOUTH AMERICA (PERU) OR S.E PACIFIC**

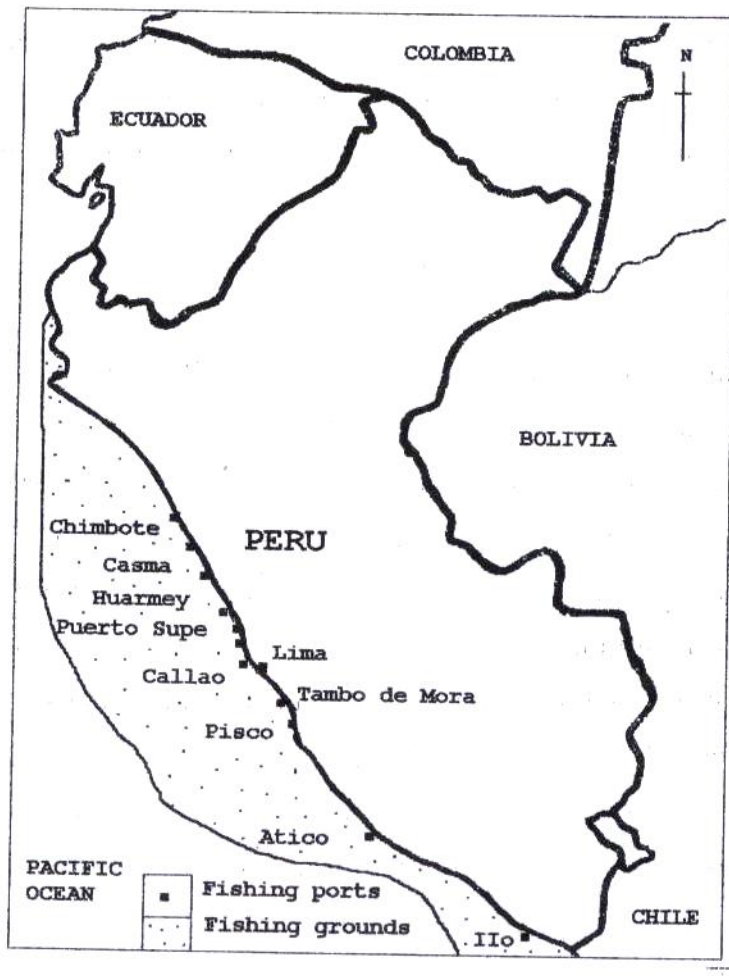
This is a less developed country found in South Africa and it is important for commercial marine fishing with fishing ground in south east pacific ocean along Peruvian coast with fish landing sites, coastal towns, industrial areas e.g lima, Pisco, Chimbote, Callau, Mollendo, Traniso and Atico it has species like Anchories, Tuna, cod, mackerel Herrings, sardine.

### **Factors for fishing in PERU**

- Shallow and wide continental shelf for the growth of planktons and fish at the coast of Pacific Ocean.
- Presence of ocean currents like the Humbolt current cool from the south and warm ocean currents from the north providing good condition for the growth of planktons and fish.
- Use of modern method of fishing helping in getting mature fish and in large quantities e.g purse seining, trawling, drifting.
- Use of modern method of preservation and storage helping in marketing, transporting and maintaining good quality e.g refrigeration, canning and containers.
- Positive and supportive government polices like extending fish areas from 22km-130km giving a wide area for fishing and attracting investors.
- Presence of capital provided by the government, private co's used in paying labour, availing extension workers, purchasing equipment like nets.
- Presence of research stations in Lima for breeding fish, for restocking in fished areas, developing fish farming in ponds, processing and marketing fish.
- Presence of labour supply both the skilled and unskilled because of increased population in towns like Lima, Pisco, Chimbote working as fishermen and in processing factories.
- Improved transport like construction of roads, railway lies, water ways, modern ports connecting fishing grounds to markets and industries.

- Availability of commercial species helping in marketing and leading to high production i.e. Cod, Tuna, Anchovies.
- Strategic location near the coast of Pacific ocean leading to development of ports like Lima, Chimbote and using cheap water transport to export.
- Smooth sea bed of Pacific ocean with limited obstacles encouraging the use of trawling for demarcel fishing like for getting cod, Haddock.
- History culture and traditions of being fishermen, sailors, fish consumers because Peru is near Pacific ocean.
- Good international relations helping in marketing getting loans, labour supply, investors with USA, Japan and Britain.
- Peru has limited resources like land for agriculture, limited minerals leading to specialization in fishing.
- Presence of natural harbours used as ports and fish landing sites because they are indented, irregular and they provide breeding grounds for the fish e.g. Lima, Chomote, Pisco, Mollendo.
- Presence of planktons giving enough food for the fish because Pacific ocean has fertile soils brought by rivers and there is absence of mud and floating vegetation.
- Presence of sea birds providing droppings known as Gwam providing fertile soils for the growth of planktons.
- Presence of wide market both internal and external like selling fish in towns like Lima, Chimbote, Pisco and exporting fish to other countries e.g Japan, USA, Britain.
- Political stability and security leading to a favorable investment climate like attracting investors and diverting resources for fishing.
- Presence of tropical forests in the Andes mountains providing timber for making boats, firewood and charcoal for preservation.
- Cod climatic conditions helping in fish preservation, growth of planktons and fish found near Pacific ocean.

**Sketch map of Peru showing major fishing grounds.**



### **Importance / effects of fishing in Peru**

#### *Positive effects*

- There has been creation of employment opportunities to fishermen, in fish processing factories in area of Lima leading to increased standards of living.
- Improvement in transport and communication like construction of roads, water ways connecting fish areas to markets and industries benefiting surrounding communities.
- Source of food like proteins, rits, mineral salts by consuming fish like cod, therrings, Halibut, reducing on hunger and malnutrition.
- Source of foreign exchange by exporting fish and its products to USA, Japan helping in importation and investment.
- Growth of urban centres like Pisco, Lima, Mollendo around fishing industry and marketing areas leading to development of trade and improvement in social services
- Source of government revenue by taxing people and companies thereby improving national income.

- Provision of raw materials used in making drugs, cosmetics, oils, chemicals.
- Promoting international relationships and regional cooperation through export trade of fish to USA, Japan and Britain.
- Development of industries e.g. fish processing industry, making boats, chemicals, crafts and leather products, animal foods, oil.
- It leads to urban problems because of high population around fish landing sites of Lima, Pisco and these problems include, high crime rates, development of slums.
- Displacement of people and activities by developing fish landing sites like Pisco, Mollendo through constructing of industries, transport routes.
- Over exploitation of fish because of using modern methods of fishing leading to extraction of more fish species like sharks and whales.
- Environment degradation because of deforestation for firewood, charcoal through the construction of roads, industries developing landing sites of Pisco, Lima.
- Economic diversification by influencing other economic activities like industrialization, tourism, transport reducing on the dependency burden.
- Promotion of conflicts and tension because of under territorial boundaries in water bodies.
- It leads to pollution of air, land and water by using boats with engines, fish smoking for preservation at Lima, Pisco.
- Regional imbalance around fishing landing sites and the surrounding areas due to quick development of the landing sites than the surrounding areas.
- It leads to accidents like drowning due to poor visibility, poor climate associated with fog and mist, obstacles, rocks, big aquatic animals.
- Diversion of labour and capital affecting other activities like agriculture, forestry because of the investors and workers going into fishing.
- Profit repatriation by foreign investors causing capital outflow from Japan, USA and Britain.

## **FISHING IN AFRICA**

Marine fishing grounds in Africa; North West Africa (Magreb region) i.e. Morocco, fishing in Atlantic ocean, West Africa i.e in Nigeria, Ghana, Atlantic ocean, South West Africa i.e. in Namibia, Angola and Atlantic ocean.

There is less commercial fishing at the coast of East Africa like Kenya and Tanzania and at the coast of North East Africa like Somalia and Ethiopia (Indian ocean).

Fresh water fishing grounds lakes i.e L. Victoria, L. Tanganyika, L. Chad, L. Turkana, L. Malawi and in rivers i.e. in R. Nile, Congo, Limpopo, Swampy areas or wetlands i.e. Shores of L. Victoria,



banks of R. Katonga, R. Katu, R. Nile, R. Congo, East African coast (mangrove swamps), West African coast.

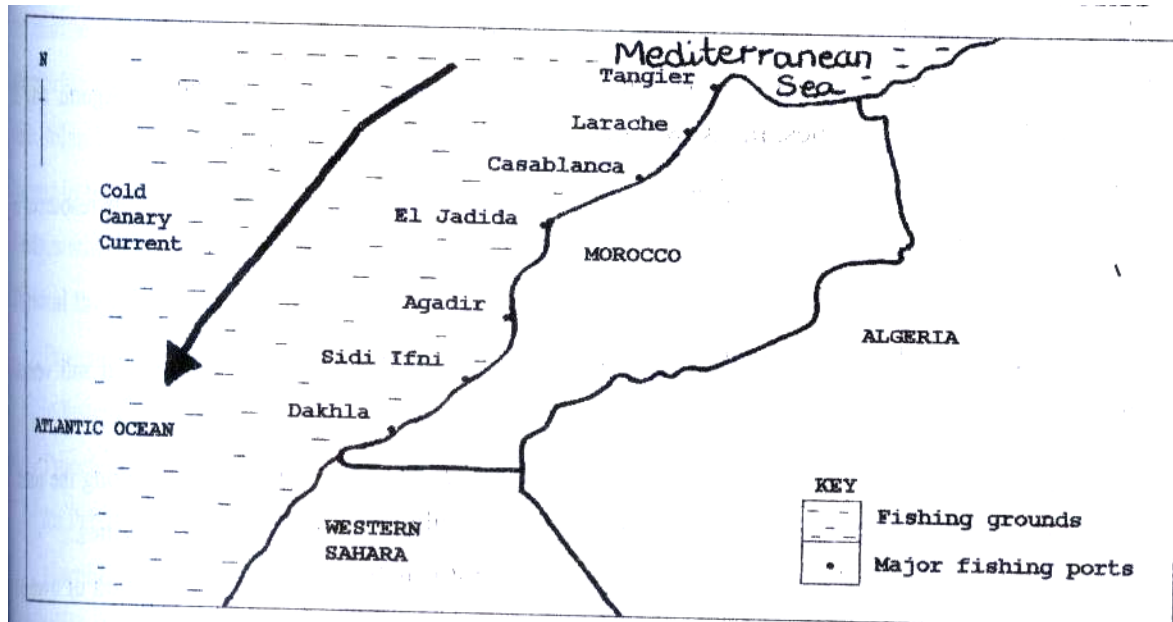
Fishing in ponds like Kajansi, Mbale, Wakiso, Kabale. Marine fishing in Africa contributes 75% and fresh water fishing contributes 25% and African contributes 6% on total world production.

**A sketch map of Africa showing major fishing grounds**

## Fishing in Morocco

Morocco is a less developed country found in West Africa and it is important for commercial marine fishing in North West Africa, magreb region, Atlantic ocean with fish landing sites like Rabat, Casablanca, Tangier, Agadir, WQandier, Safi, Ejjadid and it has marine species like Tuna, Cod, Mackerel, Sardines, Anchiores, Herrings.

### A sketch map of Morocco showing major fishing grounds



### Factors for fishing in Morocco

Presence of commercial species contributing to high production and helping in marketing e.g. ardines, cod, Tuna, Herrings.

Presence of large water bodies giving a wide area for commercial fishing e.g. Atlantic ocean.

Presence of national harbours which are indented and irregular leading to development of ports, fish landing sites and breeding areas for fish.

Presence of ocean currents like warm Guinea, cool canary giving good conditions for the growth of planktons and multiplication of fish.

The use of modern methods of fishing like trawling, drifting, long lining leading to high production and fish conservation.

The use of modern methods of preservation like using ice, refrigerators, freezers helping in marketing, transport and reducing on wastage or maintain good quality.

Presence of industries related to fishing have also led to fishing in Morocco i.e. Art and craft industry, tourism industry, Chemical oil.

Presence of labour supply because of high population in the coastal towns like Casablanca, Rabat working as fishermen and in processing factories.

Presence of wide market both internal and external like selling fish in towns and exporting to other countries.

Cool Mediterranean climate leading to growth of planktons, fish and making preservation easy and cheap.

Presence of planktons because of cool conditions and fertile soils in Atlantic ocean.

Morocco has limited resources like minerals, it is dry with infertile soils discouraging other activities.

Presence of shallow and wide continental shelf like the coast of North West Atlantic ocean or coastline of North West Africa leading to growth of planktons and fish.

Supportive and positive government policies e.g. giving loans, Attracting investors, gazetting fish area, employing marine police.

Political stability and security leading to favourable investment climate and controlling sea pirates, smugglers.

Good international relations and regional cooperation providing capital and good management.

Cultures and traditions of living fishermen, sailors, fish consumers because Morocco is near Atlantic ocean.

Presence of research stations for breeding fish, processing fish and marketing.

Availability of capital provided by the government and private investors used for paying labour, availing extension workers, constructing of industries, machines.

Improved science and technology helping in exploitation and conservation.

### **Importance of fishing in Morocco (Effects)**

#### *Positive*

- Improvement in transport and communication like construction of roads, modern ports connecting the fishing areas to markets and industries benefiting the surrounding communities like areas of Rabat, Safi, Agadir.
- Source of food like proteins, mineral salts by consuming fish species i.e. Tuna, Cod, Herrings reducing on hunger, malnutrition and food imports.
- Source of foreign exchange and through exporting fish and its products to USA, Japan, Britain helping in importation and investments.
- Provision of employment to fishermen in processing factories in areas of Rabat, Safi, Agadir, Ejadida.
- Growth of urban centres and ports around fishing industries and marketing areas in Safi, Rabat, Agadir leading to development of trade and improving social services.
- Source of government revenue by taxing people and companies improving national income for other development projects, social services, infrastructure.
- Promotion of international relationships and regional co-operation through export trade of fish like USA, Japan, Britain.
- Development of industries e.g. fish processing industry, leather making industry, chemical, boat making, nets and art and craft.
- Economic diversification by influencing other economic activities like industrialization, transport, tourism, reducing on the dependency burden.
- Provision of raw materials to industries like drug, chemical, art and craft and leather making.
- Provision of tourism industry like fish landing sites and ports used as beaches then visiting the industries and because of increased income (fishermen).
- Alternative land use because of limited resources helping in resource exploitation for economic growth and development.

#### *Negative*

- Environmental degradation because deforestation for firewood, timber, through the construction of industries, transport routes developing landing sites of Rabat, Agadir.
- Over exploitation of resources like fish because of using modern methods of fishing to extinction of some species like sharks and whales.
- It leads to pollution of air, water and land because of industries like at Casablanca, Rabat using boats with engines in Atlantic ocean and fish smoking for preservation.

- Diversion of labour and capital into the fishing sector affecting other economic activities like agriculture, tourism because workers and fishers have gone into fishing.
- Displacement of people and activities by developing fish landing sites like Casablanca, constructing industries, transport routes and constructing fish ponds.
- Regional imbalance causing economic imbalance causing problems like labour mobility and wage differences.
- It leads to accidents destroying people and property by drowning in water because of strong waves, mist and fog, obstacles like rocks, big aquatic animals e.g. sharks and whales.
- Promotion of conflicts and tensions because of unclear territorial boundaries in water bodies.
- It is affected by price fluctuations, competition and this affects planning.

### **Problems of fishing in LDCs (case study Peru)**

There are physical and human problems.

- The tropical warm climate between December and March causing El Niño effect leading to migration of fish into deep waters and disrupting the growth of planktons.
- Presence of fish predators like sea birds consuming fish and big fish like whales and sharks eating small and young fish.
- Price fluctuations on the world market affecting planning because fish is perishable and cannot be easily stored.
- Over fishing causing fish exhaustion because of smugglers from USA, Japan, using poor methods of fishing exploiting the young ones.
- Presence of poor species of less commercial importance like Grabs, Oysters, sardines which are used for making animal feeds and fertilizers.
- Political instability and insecurity like in 1970 which destroyed infrastructure, fishing industries and discouraged investments.
- Limited capital to purchase modern equipment, construct transport routes, industries causing low production.
- Use of poor methods of fishing like spearing, using hooks, baskets causing low production by local fishermen or companies.
- Profit repatriation by foreign investors causing capital outflow and lowering the national income.
- Poor preservation and storage like using salting, sun drying, smoking, frying of fish affecting the quality of fish and causing wastage.
- Reduction in guano because it is used by agriculturalists for fertilizers.

- Poor transport in the interior because of Andes mountains and poorly developed ports affecting marketing.
- Presence of other resources leading to other economic activities, diverting labour and capital e.g. mining, tourism, lumbering.
- Limited market because of low income and having other substitutes causing low production.
- Competition with other countries on the world market e.g. Morocco, Japan, Canada, Norway, USA.
- Poor science and technology leading to limited skilled labour affecting exploitation and conservation.
- Pollution from fishing grounds because of wastes from industries and towns like Lima, Chimbote.
- Limited government support in form of loans, putting heavy taxes discouraging fishing.
- Limited offshore islands thus limiting deep water fishing.
- Siltation, segmentation and deposition of water bodies by floods discouraging the growth of planktons and fish.
- Environmental degradation because of population increase leading to encroachment of fishing areas and causing climatic changes like drought.
- Limited research affecting exploitation and conservation like fish farming in ponds.
- Limited skilled labour like biochemists for processing fish, agriculture officers to work as extension workers to provide extension services.
- Ignorance and backwardness by local fishermen and investors leading to use of small size nets, limiting the market for fish.
- Occurrence of accidents causing destruction of people and property scaring fishermen and investors because of strong waves, poor visibility, obstacles, submergence of coastal areas.
- Presence of obstacles like rocks, floating vegetation affecting fishing and navigation.

#### **Solutions / steps / measures / policies or ways of modernization**

- Promotion of research like breeding fish for restocking, for processing and marketing fish.
- Introduction of modern methods of fishing like using trawling, drifting, pursuing, long lining leading to high production and getting mature fish.
- Strengthening laws and regulations reducing on illegal activities like encroachment on the fishing areas, polluting water bodies and using small sized nets also against smuggling.

- Improvement in science and technology by promoting sciences leading to availability of skilled labour helping in exploitation and conservation.
- Improvement in transport and communication like roads, railway lines, modern ports helping in marketing and movement of workers.
- Introduction of modern methods of preservation and storage like using ice, containers, cold rooms, refrigerators helping in marketing, transport reducing wastage.
- Acquisition of loans from financial institutions, government, development agencies used for purchasing modern equipment, carrying out research, building industries.
- Proper wastage management by gazettement dumping sites, treating of wastes using recycling around landing sites like Lima, Chimbote.
- Positive and supportive government policies like gazettement fishing areas, attracting investors, carrying out research, extending fishing areas from 22km to 100km
- Monopolizing fishing industries.
- Market expansion by exporting to other countries of USA, Japan, Britain.
- Formation of cooperatives and big companies in marketing, supervision, monitoring, processing.
- Mass education and mobilization about environmental conservation and fish modernization.
- Improvement in political stability and security helping in attracting investors and putting marine police for controlling sea pirates and smugglers.
- Privatization and economic liberalization helping in attracting investors with good management and capital.
- Training fishermen by using workshops, seminars helping in exploitation and conservation.
- Restocking over fished areas with young fish and other breeds from hatcheries.
- Controlling accidents by using boats with engines, life jackets, studying the weather reducing on destruction.
- Development of industries connected to fishing like the chemicals, nets, hooks.
- Environmental conservation by gazettement fishing areas, national parks, games and forest reserves.
- Constant maintenance and rehabilitation of the fishing grounds and landing sites through constant dredging for removing silt, floating vegetation, transport routes.

*Questions:*

1. To what extent have physical factors influenced the development of the fishing industry in either Canada or Namibia.
2. Examine the problems facing marine or fresh water fishing.

3. Examine the steps being taken to solve the problems of fishing in either Peru or Canada.
4. Assess the role played by fishing industry in the economic development of either Japan or Chile.