

FORESTRY IN AFRICA

A forest is a large area of land covered with trees. Forestry is the science of managing of forests including the creation of new forest lands for regular supply of timber and associated products and for the well-being of the environment.

Africa has large areas of forests ranging from tropical rainforests to savanna woodland and forests planted by man.

Africa's timber production is still mainly hard wood, soft wood is of commercial importance in Swaziland, south Africa, Zimbabwe.

PROBLEMS FACED IN THE EXPLOITATION OF FOREST RESOURCES/FOREST EXPORTING COUNTRIES

- > Limited capital to exploit the forest resources.
 - > trees do not exist in pure stands, this makes exploitation difficult and time consuming.
 - > poor technology which results into ineffective exploitation as local/ rudimentary tools like pangas, axes are used.
 - > Limited internal market due to general poverty among the people and low population thus making them to turn to foreign market.
 - > Long distance to foreign market which increases transport costs.
 - > Hardwood is difficult to work on and it has limited uses.
 - > Under developed transport and communication ie the roads, railways, and waterways are not well developed.
 - > Trees take long time to mature esp. those in the tropical rainforests.
 - > Political instability in some areas affect exploitation of forests ie Nigeria, DRC, Central African Republic.
 - > Thick and impenetrable secondary growth limits accessibility to the trees
 - > High altitude limits accessibility to the tree species.
 - > Accidents during felling that affects the supply of labour.
 - > Corruption and embezzlement of funds meant for forest activities.
 - > Pests and diseases that lead to the destruction of trees.
 - > Competition from alternative raw materials eg plastic metals.
 - > Log jam during transportation of the logs along the narrow and winding river sections leading to delay in the delivery of logs to the processing centers.
- Wild animals eg snakes, baboons, which pose a great danger to the tree fellers.
- > Price fluctuation on the world market leading to reduction in foreign exchange, revenue and income.

FORESTRY IN SWAZILAND

Swaziland is one of the few countries in Africa which has developed major softwood, timber processing industry. It is a country where great efforts have been made to create forests through afforestation because it has very few natural forests. Swaziland's forests of pine and eucalyptus are among the world's largest planted forests.

CONDITIONS FAVOURING DEVELOPMENT OF THE FORESTRY INDUSTRY IN SWAZILAND.

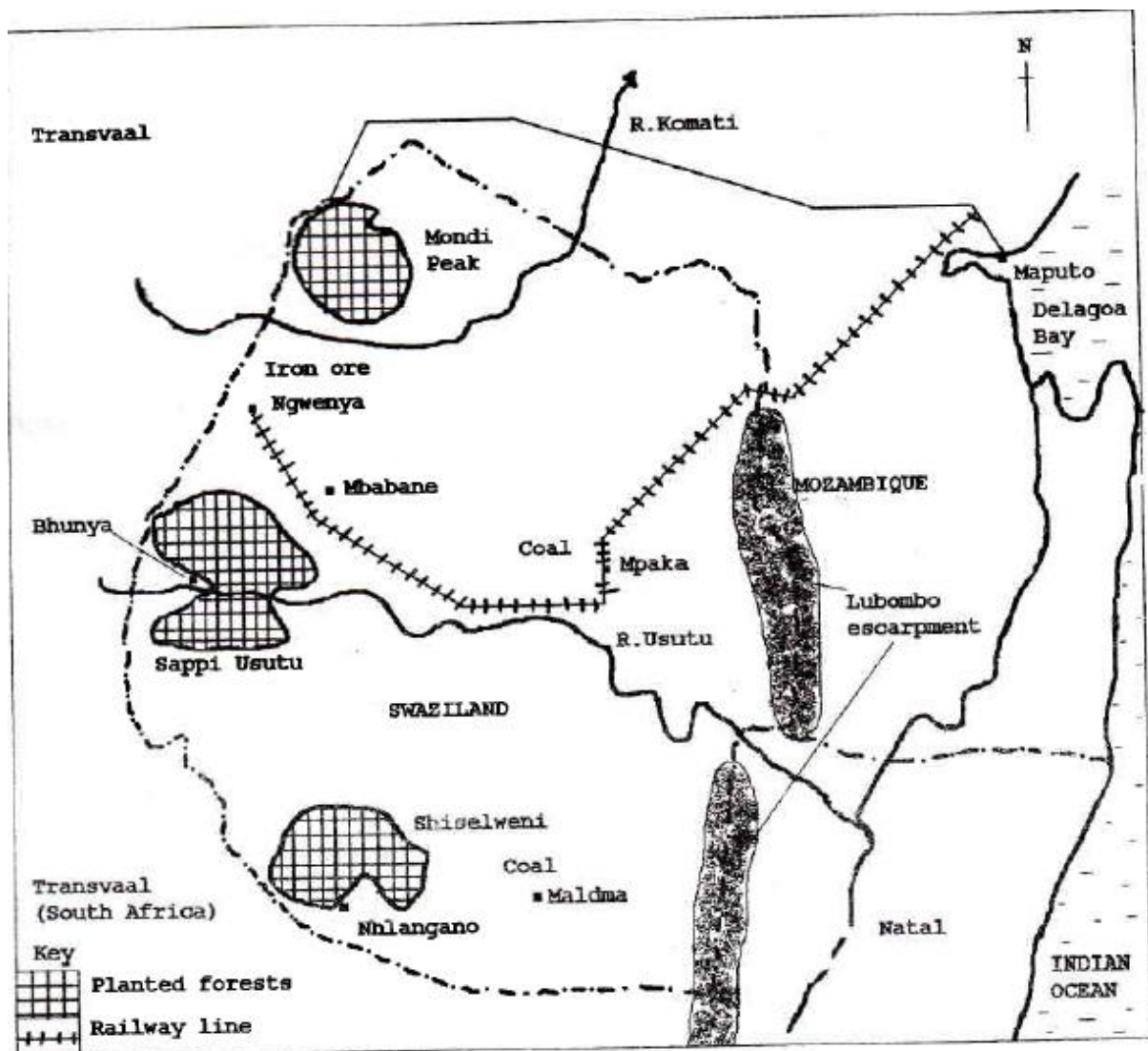
- > Presence of rugged relief, highlands of Swaziland in the west are rugged with thin soils which can not support the growth of crops hence the need for alternative forms of land use ie forestry.
- > Presence of a cool sub-tropical temperate climate that ensures growth of softwood trees which mature within 15 years. (quick maturing species)
- > presence of heavy rainfall between 1500-2250mm pa supports coniferous forests.
- > The need to prevent soil erosion along the hilly slopes and preserve catchment areas in the lower veld.
- > Favourable government policy that supports afforestation programs by providing capital for investment.
- > Availability of adequate capital from Swaziland government and the common wealth development co-operation to invest in forestry activities
- > Availability of a wide market for forest products at home and abroad.
- > Availability of a well-developed transport sector by road, railway and rivers to deliver logs to the processing centers
- > Availability of skilled labour within Swaziland and neighbouring countries for felling trees and processing of the products.
- > Availability of advanced technology eg use of electric chainsaws that ease the exploitation of forests.
- > Availability of stable power supply esp. H.P.E for use in timber processing industry

ADVANTAGES OF PLANTED FORESTS IN SWAZILAND

- > Forests make effective use of would be waste land (rugged landscape)
- > forests ensure continuous supply of timber since afforestation is done on rotational system.
- > Forests have led to the control of soil erosion on the steep slopes of hills hence increasing land productivity.
- > Forests modify climate leading to continuous rainfall and cool temperatures.
- > Development of pulp-paper industries that provide alternative employment.

- >Forestry has led to the development of tourism thus generation of foreign exchange.
- >Forest products are exported to earn foreign exchange (Taiwan, Japan, South Africa and U.S.A)
- >Forestry sector provide employment opportunities to the people of Swaziland leading to generation of income.
- >Development of towns/urbanization with associated advantages like trade and commerce.
- >Forestry has led to improvements in international relations hence a wider market for products from other sectors.
- >Provision of raw materials for industrial development eg pulp and paper industries.

A SKETCH MAP OF SWAZILAND SHOWING PLANTED FORESTS



FORESTRY IN GABON

Gabon in western is a good example of an African tropical hardwood producing nation. Gabon's forest land lies in the basin of R. Ogooue. Most of the country is covered by dense tropical rain forest except in the south and south west. The forests cover 77% of its land surface. They contain over 400 species of trees, with about 100 species suitable for industrial use.

Gabon's forests contain valuable hardwood eg ebony mahogany, sapele, African walnut, Movingui (Nigerian Satinwood), Zingana (African Zebrawood), teak, Kolanut, African redwood, Ironwood, Ozige, ilomba, azobe, padouk but the most valuable is the Okoume tree which grows nowhere else but Gabon and produces valuable soft wood.

Gabon is the largest exporter of raw wood in the region and its sales represent 20% of Africa's raw wood exports. Forestry is only second to the petroleum sector in export.

FACTORS FAVOURING THE DEVELOPMENT OF FORESTRY IN GABON.

- > Presence of heavy rainfall of over 1500mm pa and high humidity all year around has encouraged the growth of luxuriant forests.
- > Presence of commercially valuable species of trees eg mahogany, ebony, okoume, ozige, Sapele, Red heart etc.
- > Existence of navigable rivers eg R. Ogooue which transport the logs to the saw mills at the coast, besides the rivers are used to generate power for the saw mills/ presence of power/energy.
- > Availability of vast land due to the sparse population for planting forests.
- > Proximity of Gabon to the coast, as well as availability of numerous ports for timber export eg port Gentil, Owendo, Libreville, Mekambo, increases accessibility to external market.
- > Existence of well- developed port facilities that facilitates timber exports eg port Gentil.
- > Availability of adequate capital provided by both the government and foreign companies to invest in forest related activities.
- > Availability of efficient transport esp. on railway transport that facilitates the transportation of logs to the processing centers.
- > Favourable government policy on forest exploitation and conservation.
- > Availability of cheap labour provided by the local population and skilled labour from outside Gabon (foreigners).
- > Existence of extensive forest reserves esp. in the North Eastern part of Gabon.
- > Availability of advanced technology based on mechanical methods of exploitation eg use of chain saws that make work much easier.
- > Presence of low altitude that supports the growth of equatorial forests.
- > Availability of stable supply of power eg H.E.P to operate machines in the saw mills.

>Availability of a wide market for the forestry products in Gabon, African region and the rest of the world.

>Existence of extensive forest reserves esp. in Gabon in the Eastern part of Gabon that ensures regular supply of tropical wood for processing.

BENEFITS OF THE FORESTRY INDUSTRY IN GABON

>Production of timber and other forest products which are exported to earn Gabon foreign exchange that is used in international trade.

>Generation employment opportunities for the local population in lumbering and forest related industries leading to better standards of living.

Growth of infrastructure eg roads, railways etc. hence increasing accessibility in Gabon.

>Development of industries, saw mills at port Gentil, Owendo, Libreville, which provide alternative employment for the people of Gabon.

>Promotion of tourism hence generation of foreign exchange.

>Promotion of international relations between Gabon and the timber importing countries, hence opening up Gabon to more trading opportunities.

>Modification of climate thru formation of convectional rainfall that supports arable farming.

>Forests act as water catchment areas for numerous rivers and streams that are sources of water for domestic and other uses.

>Generation of income leading to improved standards of living.

>Promotion of education and research.

>Generation of revenue for government from taxing the forestry sector that is used to develop infrastructure.

>Diversification of the economy hence creating the alternative source of foreign exchange, revenue.

>Forests are sources of fuel for domestic and industrial use.

>Forestry has promoted the development of towns/urban centers with associated advantages like employment, trade and commerce.

Forests are a habitat for animals eg monkeys, chimpanzees, that attract tourists.

>Source of raw materials leading to the development of timber processing industries, eg the ply wood factory at port Gentil, saw mills at Kango and cellulose factories.

>Sources of medicines.

PROBLEMS FACING THE FORESTRY INDUSTRY IN GABON

>Fire outbreaks which destroy the trees.

>pests and diseases which affect the trees.

- >Wild animals which attack and scare away workers.
- >Accidents during felling.
- >Inadequate skilled labour supply.
- >Inadequate technology.
- >Poorly developed transport routes making some areas inaccessible.
- >Trees are big and bulky to cut and transport.
- >Heavy rains which interfere with work.
- >Difficulty in exploitation since trees do not appear in pure stand.
- >Competition for market with other producing countries such as DRC, Liberia and Ghana.

PROBLEMS RESULTING FROM FORESTRY ACTIVITIES IN GABON

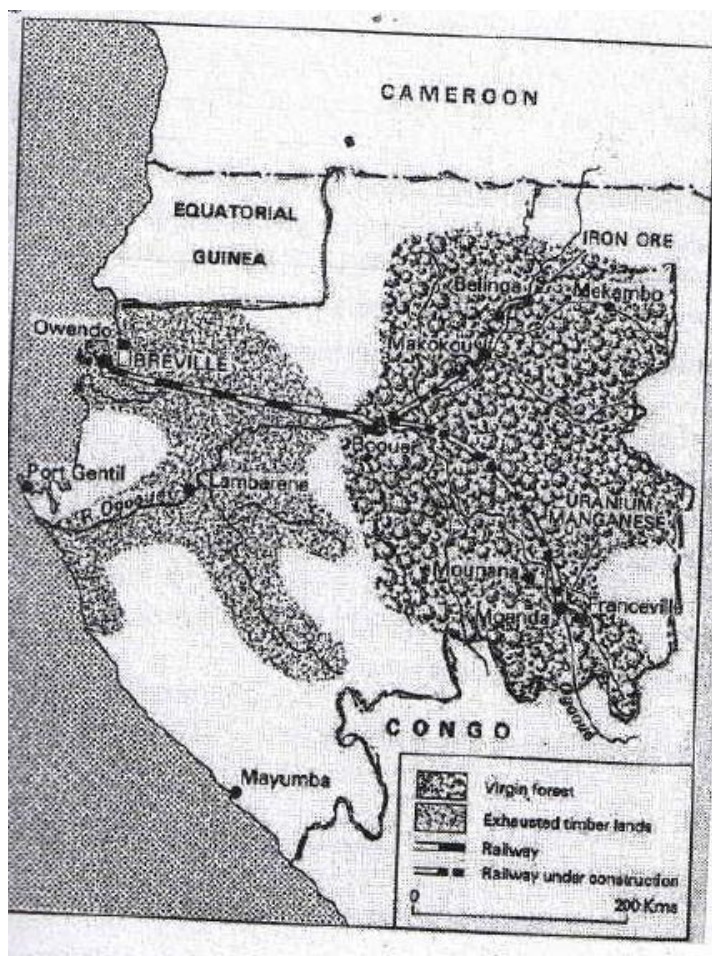
- >Over exploitation/ deforestation has led to loss of vegetation cover eg okoume trees esp. western part of Gabon.
- >Soil degradation/Soil erosion due to loss of vegetation cover.
- >Loss of bio-diversity (valuable species which take long to mature have been depleted).
- >Destruction of habitat for wild life.
- >Desertification as a result of deforestation.
- >Reduction in soil fertility due to reduction in supply of humus.
- >Lowering of the water table due to loss of vegetation cover.
- Increased global warming resulting from the destruction of trees.
- >Reduced rainfall totals.
- >Over dependence on timber exports which are subject to price fluctuations.
- >The concentration on forestry activities led to the neglect of agricultural sector.

STEPS TAKEN TO IMPROVE ON THE FORESTY SECTOR IN GABON

- >Reforestation and afforestation programs.
- >Education and awareness seminars for the local population.
- >Opening up new areas for forestry/afforestation.
- >Planting quick maturing tree species eg eucalyptus.
- >Diversification of the economy ie planted areas be used for agriculture.
- >Strengthen government policy on deforestation/legislation against deforestation.
- >Gazetting of forested areas to reduce rate of encroachment.

- >Soil conservation measures have been put in place eg application of organic manure.
- >Extension of feeder roads and railways further inland to formerly inaccessible areas eg the Trans-Gabon railway and the Ndjole-Bitam highway.
- >Development of research to produce new and fast maturing trees.
- >Use of energy saving technology reduce pressure on forests/ use of alternative fuels.
- >Carrying out selective thinning to protect valuable species like okoume.
- >Provision of loans from international financial institutions to invest in forestry.
- >Use of modern technology/ mechanization of forestry activities.
- >Spraying with chemicals to combat pests and diseases.
- >Use of protective gears

SKETCH MAP OF GABON SHOWING FORESTED AREAS



CAUSES OF DEFORESTATION/DESTRUCTION OF FORESTS

- >Increased population leads to increased encroachment on forests.
- >Increased demand for land for agriculture eg growing of coffee.
- >Wild fires which penetrate and destroy trees.
- >Increased demand for wood fuel for domestic and industrial use.
- >Pests and diseases which destroy the trees.
- >Presence of wild animals which destroy the trees as they search for food eg elephants.
- >Rebel activities have forced cutting down of forests.
- >Mining activities eg opencast mining leads to clearing of forest land in order to access the minerals.
- >Need for land for the construction and expansion of industries.
- >Construction of roads and railways thru the forests also causes large scale forests destruction.
- >Uncontrolled lumbering activities have led to large scale clearing of forests.
- >Intensive use of modern technology which leads to clearing of large forested areas.

NB: Apart from Gabon and Swaziland, other forest producing countries include;

Ivory coast, DRC, Ethiopia, Liberia, Nigeria, Equatorial Guinea, Cameroon, Ghana.