**FORESTRY**

1. a)i) Is science of planting caring and using trees/forests and their associated

resources or the practice of managing and using trees/ forests and their associated resources.

ii)

* The area receives high rainfall/1000 mm-2200mm throughout the year which
* encourages continuous growth of trees.
* The area has deep fertile volcanic soil that allow the roots for penetration deep
* into the ground support trees.
* The area is a gazetted reserve prohibiting cultivation and settlement hence
* allowing growth of trees
* The steep slopes discourage settlement thus forests thrive.

iii)

* The government policy of degazetement has allowed illegal cultivation and settlement in forest areas.
* Increased population of elephants that destroy trees
* Prolonged droughts have caused drying up of some trees.
* Plant diseases and pests destroy parts of forests.
* Over exploitation of certain species of trees

b)

* Legislations aimed of curbing encouraging public to participate in conservation of forests.
* Legislations aimed of curbing encroachment in forested areas.
* Encouragement in frosted areas
* Encouraging public to participate in conservation of forests.
* Setting up of buffer zones to hinder human encroachment into forested areas (Nyayo Tea Zones)
* Creation of forest reserves
* Encouraging agro-forestry
* Setting up presidential commission with the mandate of rehabilitation destroyed forested areas.

c) Give the difference in exploitation of softwoods forests in Kenya and Canada under following sub-headings.

 i) Period of harvesting

 ii) Transportation.

**Period of harvesting**

* In Kenya harvesting is done throughout the year while in Canada harvesting is in winter and early spring.

**Transportation**

* In Kenya transportation is mainly by road transport while in Canada transport is mainly by water transport.
* To ensure continuous supply of wood fuel, timber and raw materials for paper

 industries.

* To protect soil from being carried away (erosion)
* To protect water catchment areas
* To create room for conservation of wildlife
* To create employment opportunities
* To reduce importation of forest products thus saving foreign exchange
* To promote scenic beauty.

2.

* The low temperatures limit other land use activities making forestry a good

alternative.

* The thin infertile soils due to keep glacial erosion limit agriculture and favours
* forests
* Adequate precipitation throughout the year
* Many rivers with waterfalls provide HEP used in the timber related industries
* River provides cheap transport and water needed in the processing purposes.
* An extensive ready market for forest products in Canada and U.S.A.

3.

* Meru Oak
* Elgon teak
* Cmphor

4.

* Furniture making
* Wood carving industry
* Construction

5.

* Mature trees felled are replaced immediately.
* Tree farming is practiced in many parts with the aim of raising trees for future use.
* Regions which previously were devoid of trees are being planted with trees
* People are now being encouraged to plant trees and food crops in the same farms.
* The reduction of wastage e.g. the use of waste paper to produce newsprint.
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* People are required to seek permits if they have to cut trees. This reduces the rate of trees felling/unlicensed people do not cut down trees.
* The forest reserves are patrolled by guards to ensure that fires are reported promptly and also to ensure unlicensed people do not cut down trees.
* Forest reserves have been set aside to conserve indigenous species.
* Forestry department of the ministry of natural resources carry out research to produce and distribute seedlings to ensure the extension of forests.
* People are being educated through mass media on the importance of trees
* People are being encouraged to use alternative sources of energy/energy saving jikos.

6.

* There is a wide variety of trees species in a given area. This makes the exploitation difficult and expensive
* The buttress roots make the felling cumbersome
* The dense underground/thick forests and quick generation of plants hinder accessibility, exploitation difficult
* The heavy rainfall throughout the year results in muddy roads which makes transportation difficult.
* Inadequate capital limits the use of modern techniques in the exploitation of the forests.
* The demand within the region/markets are discouraging exploitation/expensive to transport/difficult to transport.
* River transport is hindered by waterfalls/rapids. This makes transport expensive.

7.

* Aridity that has reduced area under forests
* High population leading to clearing of forests for settlement
* Over exploiting of forests resources e.g timber fuel.
* Government policy of resettling people in forested areas.
* Forest fires which have contributed to destruction of forests.
* Pests and diseases which destroys trees.

8.

* Desertification
* Soil erosion/degradation
* Extinction of some tree species
* Decline in employment for those in forestry related areas
* Loss of plants with medicinal value
* Loss of aesthetic value
* Decrease in wild animals

9. Factors favoring forestry in Kenya

* Cool climate especially in the Kenya highlands.
* Fertile soils-Volcanic soils within the Kenya highlands and Rift valley.
* High precipitation ranging between 1000-2000 which favours growth of trees.
* Rugged landscape in some areas which discourages settlements and agriculture leaving growing of trees as the only alternative
* Varied altitude which favours growth of different types of trees due to varied temperatures and rainfall.
* High demand of forest products
* Creation of forests reserves which enables forests to develop without interference from humans

10. Secondary products of forests-Ply woods, Venner, fibre board, paper, wood, carvings wine, tannins

11. Mahogany, ebony, ironwood, rosewood, green heart, goarea, mahure, supele, duhuma, African walnut, camphor, palms.

12. a) Agro-forestry involves cultivation of both crops and trees.

b)

- Provides sources of firewood and charcoal

 - Source of income to farmers after selling tree products like fruits

 - Trees act as wind breakers

 - Trees create micro climate within the farm

 - Some trees are of medicinal value

 - Trees leaves decomposes to form fertile soils