

Topic: Forest and Forest Uses

Forest

A forest can be defined as an area of land set aside for the production of timber and other forest products. It consists of a group of trees and community of many other living organisms including animals. Forest can be defined as a large area of land covered with trees and brushes, either growing wild or planted for some purposes. A **forest** is a large area dominated by trees. The forest is a complex ecosystem consisting mainly of trees that buffer the earth and support a myriad of life forms. The trees help create a special environment which, in turn, affects the kinds of animals and plants that can exist in the forest. Trees are an important component of the environment. They clean the air, cool it on hot days, conserve heat at night, and act as excellent sound absorbers.

The branch of study which deals with the application of scientific knowledge, skills and techniques to the production and management of timber and other forest products for the benefit of mankind is known as forestry.

Forestry is the art of planting, tending and managing forests, including the utilization of their products, silviculture is the study of forest trees and other related trees. Managing forests sustainably means increasing their benefits, including timber and food, to meet society's needs in a way that conserves and maintains forest ecosystems for the benefit of present and future generations.

Types of Forest

Tropical forests (rainforests but also others) occur near the equator and are the most ecologically rich of all forest types. They regenerate very rapidly but they are the most threatened forests, primarily by logging (reforestation is rare but it has been successfully achieved in some places) and clearance for agriculture (which is often permanent and leads to soil erosion).

They are characterized by 25-35 m tall trees with a multi-layered and continuous canopy, a highly diverse flora, and a fauna including numerous birds, bats, small mammals, and insects.

There are four tropical forest types: evergreen rainforest, seasonal rainforest, semi-evergreen forest and moist/dry deciduous forest.

Temperate forests occur in eastern North America, northeastern Asia, and western and central Europe. Regeneration is slower because the growing season is short. Their total area has not changed much in recent years but plantations have steadily replaced old-growth forests.

Temperatures vary from -30°C to 30°C and precipitation (75-150cm) is evenly distributed throughout the year. The soil is fertile and the canopy moderately dense. There are some 3-4 species of flora per square kilometer and fauna is represented by squirrels, rabbits, birds and deer among others.

There are five temperate forest types: moist conifer forest, dry conifer forest, Mediterranean forest, temperate coniferous and temperate broad-leaved rainforest.

Boreal forests, or taiga, represent the largest terrestrial biome. They are found in areas with shorter, warm summers and long winters. Hence the growing season is very short, and regeneration occurs slowly. There are boreal forests in Europe, Asia, Siberia, and North America. Because of the cold climates, plant life in the boreal forest is sturdy, consisting mainly of evergreens and other resilient vegetation. The forest canopy is so dense that little light reaches the forest floor. Annual precipitations (mostly snow) range from 40 to 100 cm. The soil is nutrient-poor and acidic. Flora is mostly cold-tolerant evergreen conifer and fauna includes woodpeckers, bear, lynx, fox and wolf among others.

Importance or Uses of forest

- Provision of food
- Provision of fuel
- Provision of medicinal herbs
- Provision of employment
- Forest serves as wind-break
- Formation of rain

- Prevention of soil erosion
- Purification of air
- Prevention of excessive leaching
- Addition of nutrients to soil
- Home of wild animals
- Forest serve as tourist centre
- Provision of foreign exchange
- Provision of timber
- Provision of pulp
- It beautifies the environment
- Reduces atmospheric pollution
- Sources of raw materials

Uses of Forest Products

1. Timber – used for building houses, canoes, local bridges and furniture. It is also exported to other countries and this earns the country valuable foreign exchange
2. Fuel – Firewood, coal and charcoal got from forest trees form excellent source of fuel
3. Source of Employment – It provides source of employment for many categories of workers such as forest guards, game wardens, hunters, sculptors.
4. Medicines – The trees of some forests can serve medicinal purposes e. eucalyptus, calabar bean
5. Food – Forests form excellent source of food to majority of people. Wild fruits, roots, stems, antelopes, grass cutters can be obtained from the forest.

6. Tourist attraction – The forest and game reserves are great tourist attraction and is also suitable for recreation.
7. Raw materials for Industries – certain trees provide raw materials such as fibre, ropes, dyes, resins, gums which are used by some industries as raw materials
8. Home for wild animals
9. Education – Forests provides opportunities for teachers as well as students in the department of forestry and wild life.

Human Activities that Affect Forest

Deforestation

Deforestation is the continuous removal of forest stands (trees) either by bush burning or indiscriminate felling without replacing them. Economic trees such as iroko, obeche, mahogany, etc. are cut down so they can be used for various purposes

Causes of deforestation

- Unfavorable climatic factors
- Man's farming activities
- Timber exploitation
- Natural disaster
- Government policy

Effects of Deforestation on the Environment

The effects of deforestation include:

1. Destruction of windbreaks which gives way for adverse wind attack.
2. Soil erosion which causes destruction to farmland and buildings.
3. Global warming caused by large concentration of CO₂

4. Intense evaporation of soil water and soil nutrients due to exposure of the soil.
5. Danger to wildlife and possible extinction of some species of plants and animals.
6. Shortage of food due to drought.
7. Destruction of arboreal habitat.
8. Leads to loss of forest resources.

Afforestation

Afforestation is the process of establishing forest plantation in any area. It involves the complete removal of natural vegetation before planting new forest species.