

FOREST RESOURCES

Many animals need forests to live and survive. Forests are very important and grow in many places around the world. They are an ecosystem which includes many plants and animals. Temperature and rainfall are the two most important things for forests.

USES OF FORESTS:

1. Commercial uses :

- Forests provide us a large number of commercial goods which include timber, firewood, pulpwood, food items, gum, resins, non-edible oils, rubber, fibers, lac, bamboo canes, fodder, medicine, drugs and many more items, the total worth of which is estimated to be more than 300 billion per year.
- Many forest lands are used for mining, agriculture, grazing, and recreation and for development of dams.

2. Ecological uses :

The ecological services provided by our forests may be summed up as follows:

- **Production of oxygen:** The trees produce oxygen by photosynthesis which is so vital for life on this earth. They are rightly called as earth's lungs.
- **Reducing global warming:** The main greenhouse gas carbon dioxide (CO₂) is absorbed by the forests as a raw material for photosynthesis. Thus forest canopy acts as a sink for CO₂ thereby reducing the problem of global warming caused by greenhouse gas CO₂.
- **Wild life habitat:** Forests are the homes of millions of wild animals and plants. About 7 million species are found in the tropical forests alone.
- **Regulation of hydro-logical cycle :** Forested watersheds act like giant sponges, absorbing the rainfall, slowing down the runoff and slowly releasing the water for recharge of springs. About 50-80 % of the moisture in the air above tropical forests comes from their transpiration which helps in bringing rains.
- **Soil Conservation :** Forests bind the soil particles tightly in their roots and prevent soil erosion. They also act as wind breaks.
- **Pollution moderators :** Forests can absorb many toxic gases and can help in keeping the air pure. They have also been reported to absorb noise and thus help in preventing air and noise pollution.

OVER EXPLOITATION OF FORESTS:

Excessive use of fuel wood and charcoal, expansion of urban, agricultural and industrial areas and overgrazing have together led to over-exploitation of our forests leading to their rapid degradation.

DEFORESTATION

Deforestation is the permanent removal of trees to make room for something besides forest. This can include clearing the land for agriculture or grazing, or using the timber for fuel, construction or manufacturing. Forests cover more than 30% of the Earth's land surface, according to the World Wildlife Fund.

Major Causes of Deforestation:

(i) Shifting cultivation:

- It is a form of agriculture, in which an area of ground is cleared of vegetation and cultivated for a few years and then abandoned for a new area until its fertility has been naturally restored.
- It is harmful for the environment because trees and leaves are burnt and their ash is added to the soil to increase fertility and after certain period of time the land gets abandoned and loses all its fertility and no crops can be grown on it.
- In India, we have this practice in north – east and to some extent in Andhra Pradesh, Bihar and M.P which contribute to nearly half of the forest clearing annually.

(ii) Mining :

- Oil and mining of coal require a large amount of forest land. Construction of roads leads to deforestation as they provide the way to remote land. The waste that comes out from mining pollutes the environment and affects the nearby species.

(iii) Logging :

- Illegal logging activities are very common that destroy the livelihoods of the people depending on forests. Wood-based industries like paper, match-sticks, furniture need a substantial amount of wood supply. Wood is used as fuel most commonly and so large amount of trees are cut down for fuel supplies. Firewood and charcoal are used as fuel.

(iv) Urbanization:

- Massive destruction of forests occurs for various development projects like hydroelectric projects, big dams, road construction, mining etc.
- As the population grows, the needs of people increases which further leads to deforestation. Forests shrink to a great extent to meet the requirements like for construction of roads, development of houses, mineral exploitation and expansion of industries.

(v) Forest Fires:

- We lose a large number of trees each year due to fires in the forest in various portions worldwide. This happens due to extreme summers and winters. The fire caused, by man or nature, results in huge loss of forest cover.

(vi) Overgrazing:

- The poor in the tropics mainly rely on wood as a source of fuel leading to loss of tree cover and the cleared lands are turned into the grazing lands. Overgrazing by the cattle leads to further degradation of these lands.

Major Consequences of Deforestation:

Deforestation has far reaching consequences, which may be outlined as follows:

- (i) It threatens the existence of many wild life species due to destruction of their natural habitat.
- (ii) Gases such as methane and carbon dioxide trap heat in Earth's atmosphere, leading change in climate. Trees absorb the carbon dioxide and release oxygen and water into the atmosphere and this contributes to global warming.
- (iii) Biodiversity is lost and along with that genetic diversity is eroded.
- (iv) Hydro-logical cycle gets affected, thereby influencing rainfall
- (v) Problems of soil erosion and loss of soil fertility increase.
- (vi) Deforestation leads to land erosion because the trees maintain the surface of the mountains. The water level of the rivers increases suddenly, causing floods.
- (vii) In hilly areas it often leads to landslides.

Solution to Deforestation:

Trees play a vital role in protecting our environment in several ways so we should protect the forest:

- (i) Ban on cutting of trees and new trees and planting more.
- (ii) There should be an implementation of regulations of laws at organizational and governmental levels due to the extent of deforestation.
- (iii) Spread the awareness about sensitization and organize educative campaigns about the effects of deforestation.

