

Conservation of Plants and Animals

DEFORESTATION

❖ INTRODUCTION

The loss or continual degradation of forest habitat due to natural or human activities is called deforestation.

OR

Large scale cutting of trees is called deforestation

Causes of Deforestation

Trees are cut in the forest on a large scale to clear the land for some useful purposes listed below.

- Procuring land for agricultural use.
- Procuring timbers for building houses, roads, railway tracks, dams, etc.
- Procuring land for setting up industries and mining.
- Procuring land for setting up special economic zones (SEZ).
- To obtain forest products like wood, food, rubber, honey, resins, etc.
- Overgrazing.

Natural Causes of deforestation

- (i) Forest fire
- (ii) Drought Effects of Deforestation

- **Effect on Soil :** Roots of trees help in binding the soil particles together.
 - ✓ When this protective cover of vegetation is destroyed, soil is left loose, and hence, more soil is lost due to erosion by wind and moving water.
 - ✓ Loss of topsoil, which is rich in humus and nutrients, results in reduction in fertility of soil.

- **Effect on Wildlife :** Forests which are the natural habitat of many species of plants, animals, and birds.
- **Effects on recycling of materials:** Plants intake CO₂ and give out O₂ during photosynthesis. This O₂ is necessary for human beings to survive.
 - ✓ An increase in the concentration of CO₂ in the atmosphere causes green house effect or global warming.
 - ✓ O₂ level in atmosphere become low due to deforestation.
 - ✓ Trees draw ground water up through their roots and release water vapour into the atmosphere by transpiration. If a large number of trees are cut down, transpiration rate will be greatly reduced. this in turn will effect the water cycle.
- **Climatic changes :** Increase in the concentration of carbon dioxide gas in the atmosphere may lead to an increase in the temperature of the earth as carbon dioxide is a greenhouse gas, i.e., it allows the sun's infrared radiations to enter the earth but stops them from going out of the atmosphere. Hence, it results in an increase in temperature which makes the atmosphere drier.
 - ✓ This can lead to reduced rainfall. This could cause droughts.
- **Landslides and floods :** Vegetation helps to absorb the rainwater that falls on the earth.
 - ✓ Excessive falling of trees would mean that a greater proportion of the rain may reach the ground, which could give rise to floods. Loss of vegetation may lead to reduction in binding capacity of soil particles during rainy season which in turn lead to landslides in mountainous regions.
- **Desertification :** Deforestation is a major cause which leads to the change in soil properties.
 - ✓ Physical properties of the soil get affected by plantation and vegetation. Due to soil erosion the top fertile layer of soil is removed. Gradually the fertile land gets converted into deserts. It is called desertification.