

PUC 1st Year-Semester-2

Unit VII: Environmental issues: Causes, effects and control measures

Module No 41: Deforestation

Deforestation is clearing Earth's forests on a massive scale, often resulting in damage to the quality of the land. Such problem arises due to over-grazing, indiscriminating felling of trees and over-exploitation of land resources.

Forests are cut down for many reasons, but most of them are related to money or to people's need to provide for their families. The biggest driver of deforestation is agriculture. Farmers cut forests to provide more room for planting crops or grazing livestock.

Logging operations, which provide the world's wood and paper products, also cut countless trees each year. Loggers, some of them acting illegally, also build roads to access more and more remote forests-which lead to further deforestation.

The devastating effects of deforestation in India include soil, water and wind erosions, estimated to cost over 16,400 crores every year. It was the growing demand of the cities that also destroyed our forests. Besides this local cattle, goats, sheep etc., not only destroy the vegetation but also pull out the roots of plants.

Not all deforestation is intentional. Some is caused by a combination of human and natural factors like wildfires and subsequent over grazing, which may prevent the growth of young trees.

Effects of deforestation

Deforestation has a major impact on the productivity of our crop lands. This happens in two ways.

- i. Soil erosion increases manifold and the soil actually gets washed by increasing runoff and reducing the protection of the soil from tree litter, leading to an accentuated cycle of floods and drought
- ii. But equally important is the impact of the shortage of firewood on the productivity of our croplands. When fire wood become scarce, people begin to use cowdung and crop wastes as fuel, mainly for cooking. Thus every part of the plant gets used up gradually and nothing goes back to soil. Over a period of time, this nutrient drain affects crop productivity due to loss in soil fertility.

When forests die, ecological balance maintained by nature breaks away and floods or drought are the terrible consequences. The trees not only increase rainfall of an area, but also conserve the water which falls on the ground as rain. Plants also reduce evaporation thus allowing water to remain in soil for a long time. Without trees to fill these roles, many former forest lands can quickly become barren deserts.

Reduced biodiversity

Deforestation and forest degradation can cause biodiversity to decline. The most dramatic impact is a loss a habitat for millions of species. When forest cover is removed, wild life is deprived of habitat and becomes more vulnerable to hunting. Considering that about 80% of the world's documented species can be found in tropical rain forests, deforestation puts at risk a majority of the Earth's biodiversity.

Removing trees deprives the forest of portions of its canopy, which blocks the sun's rays during the day and holds in heat at night. This disruption leads to more extreme temperatures swings that can be harmful to plants and animals.

Release of green house gas emissions

Trees also play a critical role in absorbing the greenhouse gases that fuel global warming. Fewer forests means larger amount of green house gases entering the atmosphere- and increased speed and severity of global warming.

Disrupted water cycles

As a result of deforestation, trees no longer evaporate ground water, which can cause the local climate to be much drier.

Disrupted livelihoods.

Millions of people rely directly on forests, through small-scale agriculture, hunting and gathering, and by harvesting forest products such as rubber. Deforestation continues to pose severe social problems, some time leading to violent conflict.

The quickest solution to deforestation would be to simply stop cutting down trees to make sure that forest environments remain intact. The cutting that does occur should be balanced by the planting of enough young trees to replace the older ones felled in any given forest.



Questions

1. Write an essay on Deforestation
2. What is deforestation? Explain the effects of deforestation