

Chapter 7

Conservation of Plants and Animals

Deforestation and Its Causes

- Clearing forests by cutting trees on large scale is called deforestation.
- Causes of deforestation are:
 - ⇒ The trees in the forest are cut to obtain wood.
 - ⇒ To get land for building houses, factories, and industries
 - ⇒ The trees are cut to get land for cultivation.

Consequences of Deforestation

The consequences of deforestation are:

1. Increase in the temperature leading to Global Warming:

As we know that the carbon dioxide present in the atmosphere is used by plants/trees (for photosynthesis). Deforestation means less carbon dioxide will be used by trees due to which the amount of carbon dioxide in the atmosphere will increase. The carbon dioxide gas traps the heat rays of the sun reflected by the Earth. The increased level of carbon dioxide results in an increase in the temperature of the Earth's surface. This leads to global warming.

2. Increase level of carbon dioxide in the air:

Deforestation results in fewer trees which mean less carbon dioxide will be used by trees due to which the amount of carbon dioxide in the atmosphere will increase.

3. Decrease in the underground water level:

Plants absorb underground water through their roots and release it into the atmosphere in the form of water vapour during transpiration. This water vapour goes up and forms clouds and helps in bringing rain. The rain water gets percolated into the ground and stored as underground water.

Deforestation means fewer trees results in less rainfall which leads to a decrease in the underground level.

4. Flood:

The water holding capacity of soil decreases due to deforestation and the movement of water from the soil surface into the ground is reduced which brings the flood. So, deforestation reduces rainfall on the one hand and leads to flood on the other hand.

5. Desertification:

Deforestation means fewer trees which result in more soil erosion. When the fertile top layer of soil is removed, the lower, hard and rocky layer of soil is exposed. This layer of soil has less humus and is less fertile. Plants do not grow well in this less fertile soil. When the fertile land gets converted into deserts it is called desertification.

6. Animal life is affected by deforestation:

Forests are the natural habitats for many wild animals, birds and trees. Due to deforestation, the natural habitat of wild animals and birds gets destroyed.

Conservation of Forest and Wildlife

We should conserve forests and wildlife:

⇒ To preserve biodiversity. Biodiversity refers to the variety of organisms existing on the earth, their interrelationships, and their relationship with the environment.

⇒ To prevent endangered species from becoming extinct.

⇒ To maintain ecological balance in nature.

The government has established a protected area for the conservation of forests and wildlife. These are:

- Wildlife sanctuary
- National park
- Biosphere Reserve

Biosphere Reserve

- A biosphere reserve is a large protected area meant for the conservation of biodiversity and the traditional lifestyle of the people living in the area.
- A biosphere reserve is a very large area that may contain other protected areas like a Wildlife sanctuary and National park.
- Example: Pachmarhi biosphere reserve in Madhya Pradesh consists of one National park (Satpura) and two Wildlife sanctuaries (Bori and Pachmarhi).

Flora and Fauna

- The plants that grow naturally in a particular area are called flora and animals which live naturally in a particular area are called fauna.
- So, the plants and animals of a particular area are called flora and fauna of that area.

◆ Endemic species:

The species of plants and animals found exclusively in a particular area is called endemic species. Example: Giant squirrel, flying squirrel and bison are the endemic fauna, and sal and wild mango are endemic flora of Pachmarhi Biosphere Reserve.

Wildlife Sanctuary and National Park

◆ Wildlife sanctuary:

The wildlife sanctuary is a protected area of land where animals are protected in their natural habitat. Hunting is strictly prohibited and punishable by law in this area and trees cannot be cut down for any purpose. Example: Sanjay Gandhi Wildlife Sanctuary (Maharashtra), Bharatpur Bird Sanctuary (Rajasthan).

◆ National Park:

National Park is a large area (in comparison to wildlife sanctuary) preserves for wild animals and their environment as well as the scenic beauty and historical objects in the area. Example: Corbett National park (Uttarakhand), Gir National Park (Gujarat).

⇒ Extinct Species:

The species which no longer exist (which have died completely) on Earth are called extinct species. Ex: Dinosaur, dodo, cave lion, iris deer, and Caspian tiger.

⇒ Endangered Species:

The species which are at risk of extinction are called endangered species. Examples: Great Indian rhinoceros, tiger, snow leopard, Asiatic lion, lion-tailed macaque, etc.



The Red Data Book keeps a record of all the endangered animals and plants. It is maintained internationally by an organization. It is also maintained by India.

Migration

- The birds which move from extreme cold places to warmer places in winter and go back after the winter is over are called migratory birds.
- They escape from the extreme cold condition of their natural habitat in order to survive and for the breed (laying eggs).
- Ex: Siberian crane is the most common migratory bird which comes from Siberia to India (Bharatpur in Rajasthan, Sultanpur in Haryana) every year for a few months.

Recycling of Paper

17 full grown trees are needed to make 1 tonne of paper. We should save paper, reuse paper, and recycle paper to

- To save trees
- To save water and electricity needed for manufacturing paper.

Reforestation

Reforestation means planting trees in an area in which forests were destroyed. It is important that the planted trees should be generally of the same species which were cut down from the forest during deforestation. Reforestation can take place naturally if the deforested area is left undisturbed.