

## Chapter- 7 Conservation of Plants and Animals

Deforestation and Its Causes

Biosphere Reserve

Recycling of Paper

Reforestation

## Deforestation and Its Causes



Man has cut down trees since we first appeared, changing and adapting the environment to suit our needs in order to provide the things we require to live successfully. Deforestation is clearing Earth's forests on a massive scale, often resulting in damage to the quality of the land.

### Reasons for deforestation

- The world's rain forests could completely vanish in a hundred years at the current rate of deforestation.
- Forests are cut down for many reasons the biggest driver of deforestation is agriculture. Farmers cut forests to provide more room for planting crops or grazing livestock.
- Increasing demand for wood which are raw materials for industries has mounted the pressure on the forests and these are cut as a result of growing urban sprawl.
- Sometimes deforestation is caused by a combination of human and natural factors like wildfires and subsequent overgrazing, which may prevent the growth of young trees.

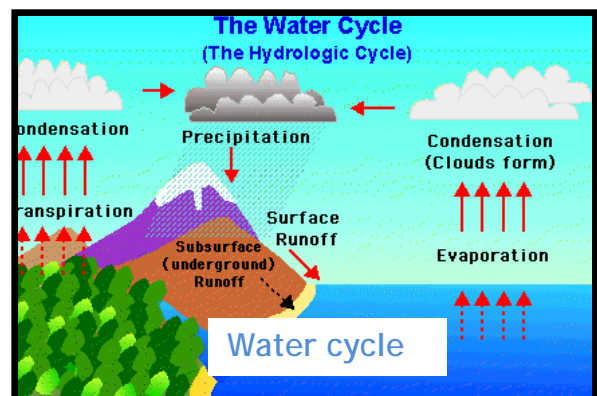


### Deforestation

### Consequences of deforestation

Deforestation has many negative effects on the environment.

- The most dramatic impact is a loss of habitat for millions of species. Seventy percent of Earth's land animals and plants live in forests, and many cannot survive the deforestation that destroys their homes.
- Deforestation also drives climate change. Forest soils are moist, but without protection from sun-blocking tree cover they quickly dry out. Trees also help perpetuate the water cycle by returning water vapor back into the atmosphere. Without trees land may convert into



deserts.

- 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.
- With the loss of a protective cover of vegetation more soil is lost and eventually leads to soil erosion.



- Trees also play a critical role in absorbing the greenhouse gases that fuel global warming. Fewer forests mean larger amounts of greenhouse gases entering the atmosphere—and increased speed and severity of global warming.

- The increase in temperature on the earth disturbs the water cycle and may reduce rainfall. This could cause **droughts**.

## Conservation of Forest and Wildlife

To protect our flora and fauna and their habitats, **protected areas** called sanctuaries, national parks and biosphere reserves have been earmarked. Plantation, cultivation, grazing, felling trees, hunting and poaching are prohibited there. The government lays down rules, methods and policies to protect and conserve them. The protected areas are for conservation of plants and animals present in that area.

## Biosphere Reserve

Biosphere reserves are the areas meant for conservation of biodiversity. Biodiversity is the variety of plants, animals and microorganisms generally found in an area. The biosphere reserves help to maintain the biodiversity and culture of that area. A biosphere reserve may also contain other protected areas in it. The Pachmarhi Biosphere Reserve consists of one national park named Satpura and two wildlife sanctuaries named Bori and Pachmarhi.

### Flora and Fauna

The plants and animals found in a particular area are termed **flora** and **fauna** of that area. *Sal*, teak, mango, *jamun*, silver ferns, *arjun*, etc are the flora and *chinkara*, blue-bull, barking deer, *cheetal*, leopard, wild dog, wolf, etc. are examples of the fauna of the Pachmarhi Biosphere Reserve



Flora

### Endemic Species

Endemic species are those species of plants and animals which are found exclusively in a particular area. They are not naturally found anywhere else. A particular type of animal or plant may be endemic to a zone, a state or a country.

Sal and wild mango are two examples of the endemic flora. Bison, Indian giant squirrel and flying squirrel are endemic fauna. The destruction of their habitat, increasing population and introduction of new species may affect the natural habitat of endemic species and endanger their existence.

Animals whose numbers are diminishing to a level that they might face extinction are known as the **endangered animals**.



Bison

An **ecosystem** is made of all the plants, animals and microorganisms in an area along with non-living components such as climate, soil, river deltas, etc.

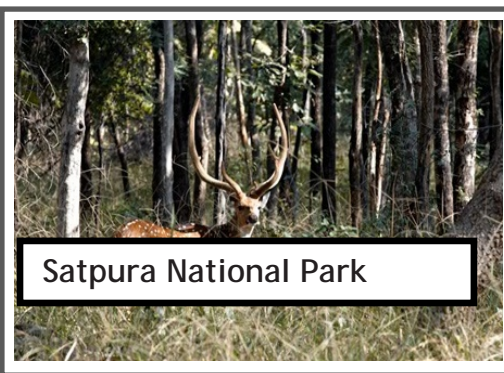
## Wildlife Sanctuary

Some of the threatened wild animals like black buck, white eyed buck, elephant, golden cat, pink headed duck, *gharial*, marsh crocodile, python, rhinoceros, etc. are protected and preserved in our wild life sanctuaries. Indian sanctuaries have unique landscapes—broad level forests, mountain forests and bush lands in deltas of big rivers.



Periyar wildlife sanctuary

## National Park



These reserves are large and diverse enough to protect whole sets of ecosystems. They preserve flora, fauna, landscape and historic objects of an area. Satpura National Park is the first Reserve Forest of India.

**Project Tiger** was launched by the government to protect the tigers in the country. The objective of this project was to ensure the survival and maintenance of the tiger population in the country.

## Red Data Book

Red Data Book is the source book which keeps a record of all the endangered animals and plants.

## Migration

Migration is critical in the life cycle of a bird, and without this annual journey many birds would not be able to raise their young. Birds migrate to find the richest, most abundant food sources that will provide adequate energy to nurture young birds. Siberian Cranes travel about 4000 km from Siberia to India every year in winter season.



## Recycling of Paper

Paper can be recycled five to seven times for use. If each one saves at least one sheet of paper in a day, we can save many trees in a year. We should save, reuse used paper and recycle it. By this we not only save trees but also save energy and water needed for manufacturing paper. Moreover, the amount of harmful chemicals used in paper making will also be reduced. In India, we have some method of paper recycling by way of rag pickers and dealers of old and waste items.



Recycling of Paper

## Reforestation



Reforestation

A more workable solution is to carefully manage forest resources by eliminating clear-cutting 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. The number of new tree plantations is growing each year, but their total still equals a tiny fraction of the Earth's forested land.