

Conservation of Plants and Animals



Deforestation and Its Impact

Deforestation is the large-scale clearing of forests, primarily for:

- ➔ Timber and wood extraction
- ➔ Infrastructure development (buildings, industries)
- ➔ Agricultural expansion

Consequences of Deforestation

1. Global Warming & Temperature Rise

Trees absorb CO₂ for photosynthesis. Deforestation reduces CO₂ absorption, leading to atmospheric accumulation and increased global temperatures.

2. Higher Carbon Dioxide Levels

Reduced tree cover results in elevated CO₂ levels, negatively impacting the environment.

3. Decline in Groundwater Reserves

Plants facilitate water retention and rainfall through transpiration. Their loss leads to reduced rainfall and groundwater depletion.

4. Increased Flood & Drought Risks

Trees help soil retain water. Deforestation disrupts this balance, leading to floods and droughts.

5. Soil Erosion & Desertification

Without tree roots, fertile topsoil erodes, exposing infertile subsoil, turning land barren.

6. Wildlife Habitat Loss

Forest destruction threatens biodiversity, endangering species dependent upon on these ecosystems.

Forest & Wildlife Conservation

Conserving forests and wildlife ensures:

- ➔ Biodiversity preservation
- ➔ Prevention of species extinction
- ➔ Ecological stability

Protected Areas for Conservation

- ➔ **Wildlife Sanctuaries** – Preserve animals in their natural habitat (e.g., Bharatpur Bird Sanctuary, Rajasthan).
- ➔ **National Parks** – Protect wildlife and significant landscapes (e.g., Gir National Park, Gujarat).
- ➔ **Biosphere Reserves** – Large protected areas that conserve biodiversity while supporting traditional lifestyles (e.g., Pachmarhi Biosphere Reserve, Madhya Pradesh).

Key Conservation Concepts

- ➔ **Flora & Fauna** – Native plant and animal species of a region.
- ➔ **Endemic Species** – Organisms found only in a specific location (e.g., Giant squirrel, Sal tree).
- ➔ **Endangered Species** – At risk of extinction (e.g., Tiger, Snow leopard).
- ➔ **Extinct Species** – No longer found on Earth (e.g., Dodo, Caspian tiger).

The Red Data Book & Migration

- ➔ **Red Data Book** – Records endangered plant and animal species worldwide. India maintains its own list.
- ➔ **Migratory Birds** – Travel from colder to warmer regions for survival and breeding (e.g., Siberian crane migrates to India).

Sustainable Practices

- ➔ **Paper Recycling** – Saves trees, water, and energy.
- ➔ **Reforestation** – Restoring forests by replanting native species to maintain ecological balance.