

Lesson No. 2

Forest and Wildlife Resources

MODULE-1

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Introduction:

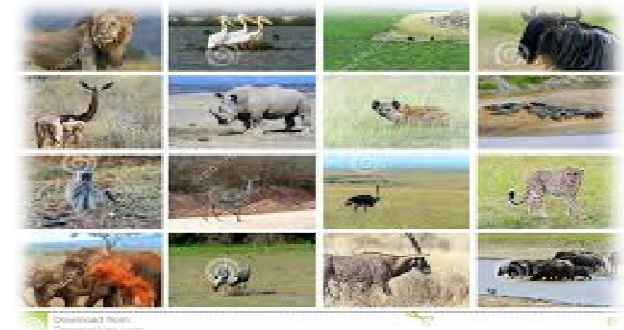
- The Earth has immense biodiversity.
- We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence.
- Forests play a key role in the ecological system as these are also the primary producers on which all living beings depend.



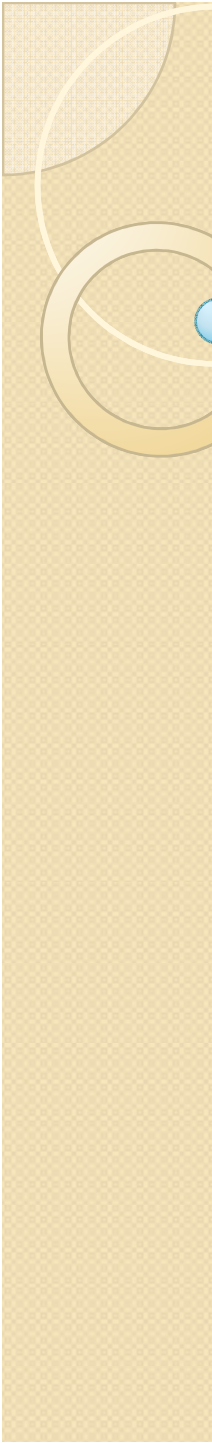
Biodiversity or **Biological Diversity** is immensely rich in wildlife and cultivated species, diverse in form and function but closely integrated in a system through multiple network of interdependencies.

Various organism play different roles of producer, consumer and decomposers. The existence of other organism along with humans depend on these role. The existence of living being simultaneously termed as bio-diversity.

Flora and Fauna in India



- India is one of the world's richest countries in terms of its vast array of biological diversity and has nearly 8% of the total number of species in the world.
- 90,000 species of fauna , 74,000 species of flora.
- 15000 flowering plants, 2000 species of birds.
- 10% of flora and 20% of mammals are on threatened list.
- The forest cover 79.42 million hectare which 24.16% of the total geographical area.



The different categories of existing plants and animal species based on the International Union for Conservation of Nature and Natural Resources (IUCN) –

1] *Normal Species*: Species whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents, etc.

2] *Endangered Species*: These are species which are **in danger of extinction**. The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate. The examples of such species are black buck, crocodile, Indian wild ass, Indian rhino, lion tailed macaque, sangai (brow antler deer in Manipur), etc.

3] Vulnerable Species: These are species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate. The examples of such species are blue sheep, Asiatic elephant, Gangetic dolphin, etc.



4] Rare Species: Species with small population may move into the endangered or vulnerable category if the negative factors affecting them continue to operate. The examples of such species are the Himalayan brown bear, wild Asiatic buffalo, desert fox and hornbill, etc.



5] Endemic Species: These are species which are only found in some particular areas usually isolated by natural or geographical barriers. Examples of such species are the Andaman teal, Nicobar pigeon, Andaman wild pig, mithun in Arunachal Pradesh.

6] Extinct Species: These are species which are not found after searches of known or likely areas where they may occur. A species may be extinct from a local area, region, country, continent or the entire earth. Examples of such species are the Asiatic cheetah, pink head duck.



Fig. 2.2: A few extinct, rare and endangered species

Factors that cause such fearful depletion of the flora and fauna-

- Resources obtaining directly and indirectly from forest and wildlife.
- In colonial period: the expansion of railways, agriculture, commercial and scientific forestry and mining activity.
- After Independence: Expansion of agriculture.
- Plantation: Single commercially valuable species was extensively planted.
- Large-scale development projects.
- Mining and Grazing.
- Fuel wood collection.
- Industrialization and urbanisation
- Hunting poaching
- Over exploitation
- Environmental pollution
- Poisoning and forest fires
- Unequal access ➤ Shifting cultivation in forested regions.
- Inequitable consumption of resources and differential sharing of responsibility for environmental well-being.
- Over-population.

Social effect of Resource Depletion:

- Women bear the major responsibility of collection of fuel, fodder, water and other basic subsistence needs
- As these resources are depleted, the drudgery of women increases and sometimes they have to walk for more than 10 km to collect these resources
- This causes serious health problems for women and negligence of home and children because of the increased hours of work, which often has serious social implications.
- The indirect impact of degradation such as severe drought or deforestation-induced floods, etc.
- Poverty in these cases is a direct outcome of environmental destruction.



➤ The destruction of forests and wildlife is not just a biological issue.

➤ The biological loss is strongly correlated with the loss of cultural diversity.

➤ Such losses have increasingly marginalised and impoverished many indigenous and other forest-dependent communities, who directly depend on various components of the forest and wildlife for food, drink, medicine, culture, spirituality, etc.

