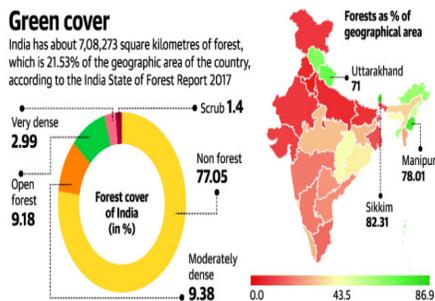


9. DEFORESTATION

- Humans has altered natural ecosystem according to their needs.
- Expansion in agriculture, urbanization, industrialization resultant a large scale of cutting trees from forest.
- Forests can be defined as the area with trees and other plants including the forest floor.
- The trees create a special environment which in turn affect the kind of plants and animals that live there.



- Forest are ecological as well as socio-economic resource, products provided by forests are approximately one-third of the earth's total area is covered by forest.
- Forest Cover of India



- Forest may be natural forest and plantation (man-made forests). Forests can be tropical rain forest, temperate deciduous, boreal forest.
- Early life of humans on this planet began as forest dweller.
- Food, fodder, shelter, agriculture, fuel, wood, raw materials for industry, essential oil, medicinal plants, resins, turpentine, fulfill

aesthetic need of humans and abode for organisms are being provided from forests

USES OF FORESTS



- Forests have great biological importance as genetic diversity.
- Main vital functions of forests are productive, protective and regulative.
- India and other tropical countries have particularly abundant timber and heartwood resources.
- Timber-based industries include plywood manufacture, saw milling, paper and pulp, composite wood, matches, man-made fibres, furniture, sports goods, and particle boards etc.

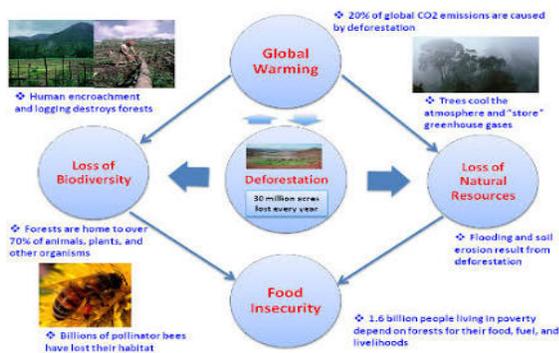


- About 40% of all the drugs used throughout the world have active ingredients extracted from plants and animals. Some examples as –

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Plant	Medicine used to cure disease
Cinchona tree(<i>Cinchona officinalis</i>)	Malaria
<i>Digitalis</i> (Foxglove plant)	Chronic heart trouble
<i>Vinca rosea</i>	Leukemia
<i>Taxus brevifolia</i>	Taxol

- Deforestation can also be defined as the removal or damage of vegetation in a forest to the extent that it no longer supports its natural flora and fauna.
- Deforestation refers to the loss of tree cover.
- Deforestation is one of the most serious and widespread environmental problems.



- The most common reason for deforestation is cutting of wood for fuel, lumber and paper.
- The main causes of deforestation are:
 - agriculture;
 - shifting cultivation
 - demand for firewood;
 - demand of wood for industry and commercial purposes;
 - urbanization and developmental projects
- Forests may sometimes suffer from natural calamities such as overgrazing, floods, forest fires, diseases and termite attack
- Tribal people protect the biodiversity of that particular area and the local culture, including knowledge and resource-management skills of the local community.

- In India the tribal populations constitute about 7% of the Indian population. They live in some 450 Communities or tribal units of different sizes
- Deforestation affects both physical and biological components of the environment.
 - Soil erosion and flash flood
 - Climatic change
 - Loss of biodiversity
- Ultimate fate of every species is extinction but after industrialization this rate has increased tremendously. The extinct species only exist in museums and photographs.
- Over the past 2000 years, 600 species of animals have become extinct or are going to be extinct from the earth. Similarly, about 3000 species of plants need to be conserved
- India has nearly 45,000 species of plants and 75,000 species of animals.
- This biological diversity ought to be preserved for maintaining stability of ecosystems.
- Deforestation coupled with desertification has destroyed the natural treasure of the earth to a large extent,



- Desertification can be defined as 'the diminution or destruction of the biological potential of the land which can ultimately lead to desert like conditions.
- Desertification is a systemic phenomenon resulting from excessive felling of trees which manifests itself in the loss of soil fertility, high wind velocity, low precipitation, increasing aridity and extremes of temperatures in the affected area

- About 76.15% of the total Indian desert area has resulted from manmade desertification process.
- Another 19.5% of the total area is subjected to medium or slight desertification.
- Most of the deserts in India are found in the state of Rajasthan and Western Gujarat.
- Deforestation and desertification are two interlinked problems which have arisen from the overexploitation of natural resources through human activities causing irreparable damage to earth.



Check Yourself

1. Forest is the abode of:
 - a. Plants and humans only
 - b. Plants and animals both
 - c. Plants and fungi
 - d. Plants, animals and microorganisms
 2. Main functions of the forests are:
 - a. Productive
 - b. Protective
 - c. Regulative
 - d. All the above
 3. Quinine is a drug which is obtain from the bark of :
 - a. Pine
 - b. Willow
 - c. Cinchona
 - d. Equisetum
 4. When was Van Mahostava start in India to promote afforestation or tree plantation?
 - a. 1957
 - b. 1965
 - c. 1950
 - d. 1971
 5. Clouded leopard includes in the categories of ----- species:
 - a. endangered
 - b. rare
 - c. depleted
 - d. intermediate
1. d 2. d 3.c 4. c 5. b



Stretch Yourself

1. Define forest.
2. What is deforestation?
3. Define desertification.
4. List any four timber based industries.
5. Name the cold desert of North West Asia.



Test Yourself

1. Mention importance of forest with examples.
2. What are the main causes of deforestation?
3. Give reasons why tribal people were able to protect forests without any harm?
4. Describe main reasons for extinction of wild life.
5. Which human activities are responsible for desertification?