

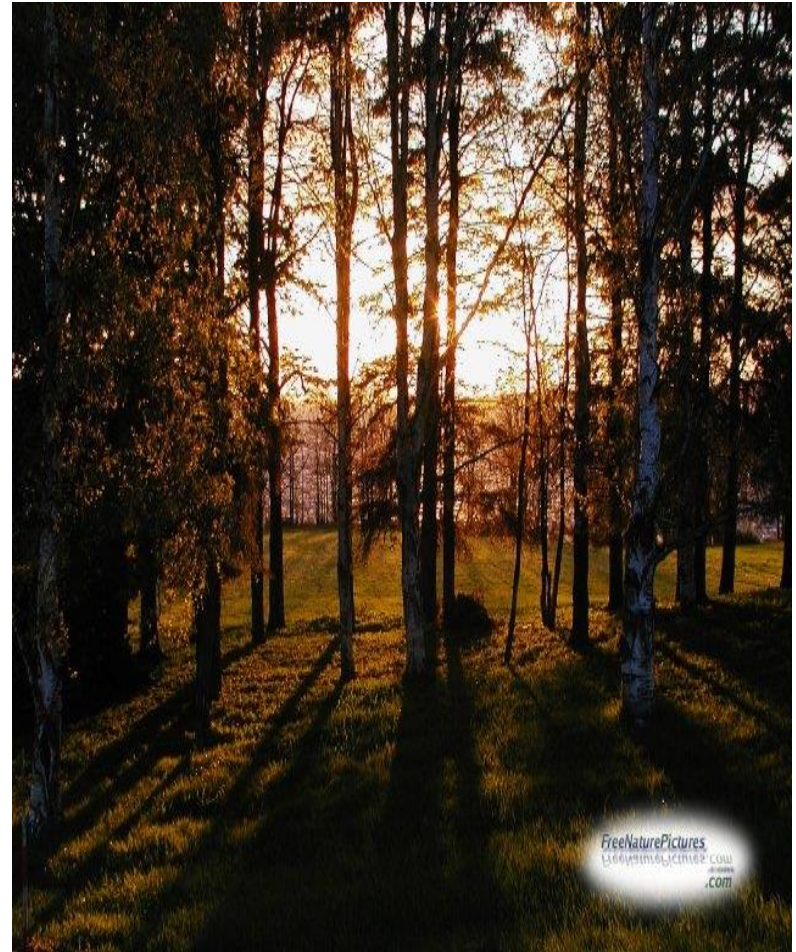
A photograph of a forest with tall, thin trees and green undergrowth. On the left, there is a blue tent. On the right, an elephant is visible, partially obscured by a tree trunk. The word "FORESTS" is written in large, yellow, stylized letters across the center of the image.

FORESTS

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Introduction

Forests are major renewable natural resource. It not only produce innumerable material goods, but also provide many environmental benefits which are essential for life. About one third of the total land of the earth is covered by forests. Forest play a great role in the economic development of a country.





Introduction

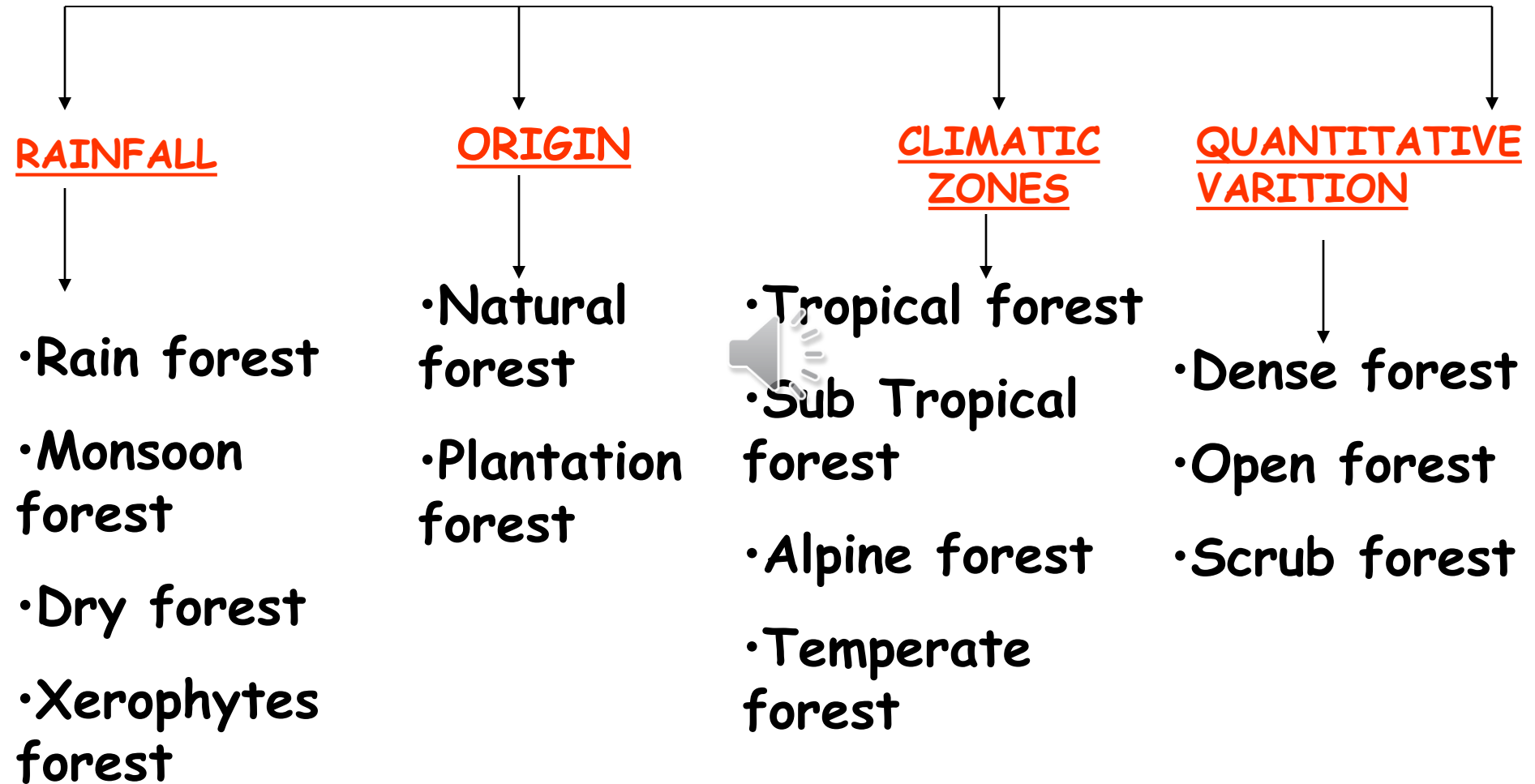
- Forest is derived from latin word “foris” which means “outside.”
- **FAO (Food and Agriculture Organisation): every country must have 33% area under forest.**
- As per National Forest Policy, 33% area must be covered with forests for plains and 67% area for hills.
- **India has approx. 21.67% area is under forest.**

Important terms related to forests:

Forests are the Green Gold of the country

- Plantation: large artificially established forest, farm, where crops are grown for sale.
- Woodland: an open canopy area closer to habitation of human beings managed and maintained by mankind.
- Forestry: branch of science, deals with the establishment, protection, management and sustainable exploitation of forests.
- Silviculture: branch of forestry deals with the study of cultivation and breeding of forests plants.

Types of forest



Tropical rain forest



- Near the equator
- 20-25 degree Celsius temperature
- Annual rainfall exceeds 2000mm
- Soil is nutrient poor and acidic; subject to leaching
- Multilayered canopy with little light penetration



Temperate forests



- Found in eastern North America, north-eastern Asia, western and central Europe
- Well defined seasons with distinct winters
- Temperature varies from 30-35 degree Celsius
- 75-150mm distributed evenly rainfall
- Fertile and enriched with decaying litter soil
- Moderately dense canopy, allows light to penetrate
- Flora distinguished by broad leaves

Boreal/ Taiga forests

- Found in Eurasia, North America, Alaska and Canada
- Short, moist and moderately warm summers, and long, cold dry winters
- Low temperature
- 40-100mm annually rainfall, mainly snow
- Soil thin, nutrient-poor and acidic
- Canopy permits low light penetration
- Flora is mainly conifers

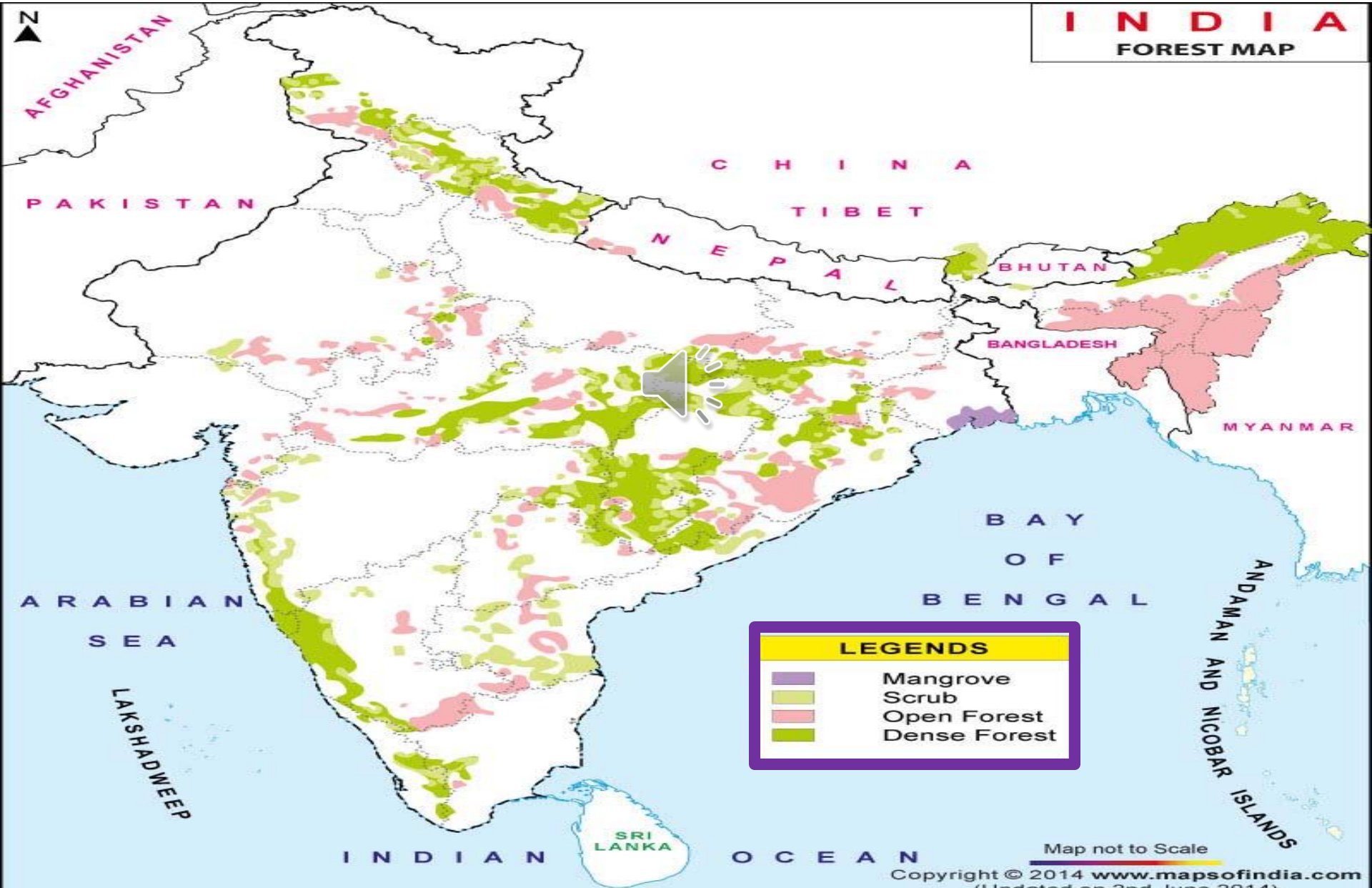


Coniferous forests

- Inhabit the cold, windy regions around the poles
- Both Hardwoods and Conifers found in this region
- Conifers are evergreen
- Hardwoods are deciduous



PRESENT STATUS OF FOREST



Types of vegetation in India

- **TROPICAL RAIN FOREST**

- Large amount of sunshine and rainfall
- Plains of West bengal and Orissa
- Western ghats
- North-eastern India
- Mahogany, Rosewood and Ebony



- **TROPICAL DECIDUOUS**

- Provide natural cover to the entire country

- **MONSOON FOREST**

- 75-200 cm rainfall annually

- Kerala, valleys of Himalayas, eastern slopes of western Ghats, north eastern region of peninsular plateau.

- Effective, substantial and less resistant towards fire



• THORN FORESTS AND SHRUBS

➤ Found in dry places

➤ Annual rainfall below 70cm

➤ Western region of India: Punjab, Madhya Pradesh, south western part of U.P. and Bundelkhand plateau.

➤ Long roots, broadness and radial patterns of dispersed trees

➤ Plants like kikkar, babul and coarse grasses



- **TIDAL VEGETATION**

- alongside the rivers and coasts
- covered with mangroves trees

- **GRASSLANDS**

- are mainly found at higher altitudes
- altitude between 1000m to 2000m
Evergreen trees such as Chestnut, Oak
Maple
- altitude between 1500m to 3000m
Coniferous trees such as
Pine, Silver fir, Deodar,
Spruce



Indian Tidal or Mangrove Forests



- **ALPINE VEGETATION**

- grows at an altitude of over 3600m
- show stunted growth
- Trees such as pine, silver fir, birch, juniper, Lichen and mosses



- **RAIN FOREST**

- south-western coasts of Kerala
- coconut trees are found
- Arunachal Pradesh and Andaman and Nicobar Islands
- teak, sandal, Dalbergia sisso





Uses of forest

- Forest is the foster mother of mankind

F: 5F's (Fuel, Fodder, Fibre, Fertilizer, Fire)

O: Oxygen generation

R : Removal of Pollutant

E : Energy Generation

S : Soil Conservation

T : Temperature Regulation

S : Sustains Biodiversity



ROLE OF FORESTS

▶ PROTECTIVE AND REGULATIVE



- Controls global warming
- Habitat for wild life
- Reduce atmospheric pollution
- Maintain hydrological cycles
- Attract rain bearing clouds
- Mitigate floods & drought
- Check soil erosion
- Maintain ecological balance
- Absorption of dust and noise



▶ Material Goods

- Wood

- Oils

- Medicinal plants

- Fruits

- Gums & resins

- fodder

- Dyes & paints



▶ **Socio ecological services**

- Employment
- Recreation
- Income source
- Reduced urbanization
- Biodiversity preservation



Threats to forest

- Overgrazing
- Excessive removal of fuel, timber, wood
- Encroachments
- Unscientific cultivation and poor forest unkeep



21 MARCH
INTERNATIONAL DAY OF FORESTS 2020

FORESTS AND BIODIVERSITY
Too precious to lose

Forestry programmes in India

Van Mahotsava carried out since 1950 by government and private agencies during July and February every year.

Objective :-



1. Afforestation:- Planting of tree where vegetation has long been absent.
2. Reforestation:- Planting and preserving of local trees and plants in the areas where forests are degraded.
3. Social Forestry:- Planting of tree for community development on community level and waste lands in the country. It is started by NCA in 1976.

Forestry programmes in India

- 1927 Indian Forest Act
- 1931 The Van Panchayat Act
- 1988 National Forest Policy
- 1990 Joint Forest Management Program



Social forestry



- Term first used in 1976 by National Commission on Agriculture, Gol
- J.L.Westoby (1972) gave this concept
- Objectives:
 - ❖ fuel wood supply to replace cow dung
 - ❖ timber and fodder supply
 - ❖ protection of agricultural lands against winds
 - ❖ recreational needs
 - ❖ improve the environment from adverse climatic conditions



Types of Social Forestry

(Concept introduced in Sixth V year plan)

1. Farm Forestry (Agro forestry)
2. Rural Forestry (Community Forestry)
3. Urban Forestry
4. Extension Forestry



Importance

- ✓ Fuel wood supply to replace of cow dung.
- ✓ Timber supply
- ✓ Fodder supply
- ✓ Protection of agricultural land against winds and
- ✓ Recreational needs



Types of Social Forestry

- Farm forestry: Safeda, Poplar, Sisham, Mango
- Community forestry: popular
- Agro-forestry: food crop together with tree
- Urban forestry: ornamental and greenery in urban area
- Extension forestry: roads, railway lines, canals



Movements for protection of trees

- Chipko movement
- Started in March, 1973 by Sunder Lal Bahuguna
- Gauri Devi of Rani village first protested cutting the trees by hugging them (1972), Tehri, Garhwal, Uttaranchal
- In 2009, Bahuguna was honoured with Padma Vibhushan, India's second highest civilian award



SOME SUCCESS STORIES

- Mr. Abdul Karim has created a forest in the kasargod district of kerela. 
- Mr. Ishwar Singh has created a forest near Chandigarh.
- Mr. Vishweshwar Dutt Saklani created a forest in Pujargaon, Garhwal village near Dehradun, where he planted more than 2 lakh saplings like: oak, rhododendron, cedar, walnut etc. the Government also awarded him prestigious Indira Priyadarshini Vrikshmitra award in 1986.
- Baba Sewa Singh, chief organiser of Kar Sewa, Khadoor Sahib, Tara-taran (Punjab), launched a plantation drive in 1999 and succeeded in growing indigenous species like: Neem, Banyan, Jamun and Peepal in Punjab, Rajasthan and Madhya Pradesh.
- The Lambra (Punjab) based NGO have planted more than one lakh saplings in Punjab



Conclusion

Our aim must be to achieve true development—"an environmentally sound & sustainable development".we have to plan our actions ecologically for sustenance.



or



Choice is yours