

Natural vegetation grows naturally without human intervention. It varies based on **temperature, rainfall, and altitude**. **Flora** refers to plant species, while **forests** are large areas covered with trees and shrubs.

Types of Natural Vegetation in India

1. Tropical Evergreen Forests

- **Climate:** Found in areas with **250+ cm rainfall** and temperatures of **25°C–27°C**.
 - **Location:** **Western Ghats, Andaman & Nicobar Islands, Assam, Tamil Nadu, Lakshadweep.**
 - **Features:**
 - Trees grow up to **60m high** and remain **green year-round**.
 - Rich biodiversity due to **high rainfall**.
 - **Important Trees & Uses:**
 - **Rosewood** – Furniture, carvings.
 - **Ebony** – Musical instruments, sports goods.
 - **Sissoo** – Construction, furniture.
 - **Gurjan** – Flooring, packing boxes.
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2. Tropical Deciduous Forests (*Monsoon Forests*)

- **Climate:** Rainfall between **100–200 cm**, temperature **24°C–27°C**.
- **Location:** **Odisha, Chhattisgarh, Jharkhand, Western Ghats' slopes, Northeast India.**
- **Features:**
 - Trees shed leaves for **6-8 weeks** in dry season.
 - **Moist deciduous** in wetter areas, **dry deciduous** in drier regions.
- **Important Trees & Uses:**
 - **Sal, Teak** – Construction, shipbuilding.
 - **Sandalwood** – Aromatic oils, carving.
 - **Mahua** – Oil from fruits, liquor from flowers.
 - **Semul** – Matchboxes, toys.

3. Tropical Desert Forests

- **Climate:** Less than 70 cm rainfall, temperature 25°C–27°C.
- **Location:** Rajasthan, Gujarat, Punjab, Haryana, Madhya Pradesh, Maharashtra, Karnataka, Andhra Pradesh.
- **Features:**
 - **Sparse vegetation**, deep-rooted plants.
 - **Small, waxy leaves** to reduce water loss.
- **Important Trees & Uses:**
 - **Babool** – Medicinal gum.
 - **Ber** – Beverages, pickles.
 - **Neem** – Medicinal properties.

4. Littoral (Mangrove) Forests

- **Climate:** Found in **marshy, swampy coastal regions and river deltas**.
- **Location:** Sundarbans (West Bengal), Odisha, Andhra Pradesh coast.
- **Features:**
 - **Evergreen trees, stilt roots** submerged in water.
- **Important Trees:** Sundari, Keora, Bhara – Used for **construction & boat-making**.

5. Montane Forests

Vegetation changes with altitude.

Northern Montane Forests (Himalayan Region)

1. **Moist Temperate Forests** (*100–300 cm rainfall, 12°C–13°C*)
 - **Location:** Kashmir, Sikkim, Arunachal Pradesh.
 - **Trees:** Oak, Fir, Spruce, Deodar, Maple – Used for **commercial timber**.
2. **Dry Temperate Forests** (*Less than 100 cm rainfall, above 1500m altitude*)
 - **Location:** Ladakh, Chamba, Sikkim.
 - **Trees:** Juniper, Ash, Maple, Oak – Used in **construction & furniture**.

3. **Alpine Forests** (*2800–4000m altitude*)

- **Location:** High Himalayan altitudes.
- **Trees:** Silver Fir, Pine, Birch, Juniper – Used for timber, plywood, and fuel.
- **Above 3600m:** Mosses & lichens grow, forming **Tundra vegetation**.

Southern Montane Forests (*150+ cm rainfall, 18°C–24°C*)

- **Location:** Nilgiris, Western Ghats, Vindhyas.
 - **Important Trees:** Magnolia, Laurel, Plum, Wattle.
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Forests and Environment

Benefits of Forests:

- **Regulate climate, humidity, and precipitation.**
- **Absorb CO₂, control soil erosion, and prevent droughts.**
- **Provide habitat for wildlife and enrich soil fertility.**

Deforestation Causes:

- **Agriculture expansion & overgrazing.**
- **Urbanization & industrial use of timber.**
- **Large dam construction.**

Forest Conservation Methods:

- **Afforestation (Van Mahotsav programs).**
 - **Strict permits for timber cutting.**
 - **Sacred Groves protection by tribals.**
 - **Joint Forest Management (JFM) involving local communities.**
 - **Use of renewable energy (solar, wind, tidal).**
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National Forest Policy (1952)

Objectives:

- **Preserve biodiversity & ecological balance.**
- **Prevent soil erosion, deforestation, and floods.**
- **Involve public participation in conservation.**

Social Forestry & Agroforestry

Social Forestry (*Forest management with local communities*)

- Provides **wood, fodder, timber**.
- Supports **cottage industries**.
- **Conserves soil & water**.

Agroforestry (*Growing trees alongside crops/pastures*)

- **Prevents soil erosion & floods**.
- **Maximizes land use**.
- **Sustainable alternative to traditional forestry**.