

Natural vegetation described as the plant community which has grown naturally on its own without the aid of human beings and has been left undisturbed for a long time. This is also known as virgin vegetation. Cultivated crops on farms, orchards of fruits and flowers also form part of vegetation but they are not included in natural vegetation.

Natural Vegetation, Different Types of Forests of India

Classification of Natural Vegetation of India

Distribution of natural vegetation in India is controlled and regulated by the following factors:

1. Distribution of rainfall
2. Orography (altitude and slope of the region)

Based on these factors, the natural vegetation of India is broadly classified into the following categories:

1. Tropical Evergreen and Semi-Evergreen Forests
2. Tropical Deciduous Forests
3. Tropical Thorn Forests and Scrubs
4. Montane Forests
5. Mangrove Forests

Tropical Evergreen and Semi-Evergreen Forests

- Constitute those parts of India which have **an annual rainfall of 200 cm and above**.
- Rainfall here occurs almost throughout the year with a short dry season.
- Wet and warm climate support luxuriant vegetation of all kinds- trees, shrubs and creepers giving it a multilayered structure.
- Trees do not shed leaves for a definite time period. So, the forests appear green all-round the year.
- Some of the commercially available trees are **Sandal Wood, ebony, mahogany, rosewood, rubber, cinchona etc.**
- Important animals in these forests are elephants, monkey lemur, deer, one-horned rhinoceros etc.
- Western coast; Western Ghats; island groups of Lakshadweep, Andaman and Nicobar; upper parts of Assam; and Tamil Nadu coast are covered with these forests.
- These are similar to Equatorial rainforests.

Tropical Deciduous Forests

- These are the **most widespread and the most extensive forests of India**.
- They are also known as **monsoon forests**.
- These are connected with those parts of India which receive **annual rainfall between 200 cm and 70 cm**.
- Here rainfall is seasonal in nature.
- In this forest type, trees shed their leaves for about six to eight weeks in dry summer.

- The animals found in these are: *lion, tiger, pig, deer, elephant, a variety of birds, lizards, snakes, tortoise, etc.*

(i) Tropical Moist Deciduous Forests

- Annual rainfall between 200 & 100 cm.
- Found in: (a) an eastern part of India- northeastern states, along with the foothills of Himalayas, (b) Jharkhand, West Orissa and Chhattisgarh, (c) on the eastern slopes of the Western Ghats.
- **Examples:** *teak, bamboos, sal, shisham, sandalwood, khair, kusum, arjun, mulberry, etc.*

(ii) Tropical Dry Deciduous Forests

- Annual rainfall between 100 & 70 cm.
- Found in: (a) the rainier parts of the peninsular plateau and (b) the plains of Uttar Pradesh and Bihar.
- **Examples:** *teak, sal, peepal, neem etc.*

Tropical Thorn Forests

- These are connected with those parts which receive rainfall less than 70 cm.
- Here, rainfall is erratic, irregular and inconsistent.
- Xerophytes dominate regions covered with the tropical thorn.
- Found in the north-western part including *semi-arid areas of Gujarat, Rajasthan, Madhya Pradesh, Chhattisgarh, Uttar Pradesh and Haryana.*
- Main plant species here are ***acacias (babool), palms, euphorbias, Cactus, khair, , keekar etc.***
- In this vegetation type, stem, leaves and roots of plants are adapted to conserve water.
- Stem is succulent and leaves are mostly thick and small to minimize evaporation.
- Common animals here are *rats, mice, rabbits, fox, wolf, tiger, lion, wild ass, horses, camels, etc.*

Tropical Montane Forests

- The decrease in temperature with the rise in altitude is responsible for the corresponding change in natural vegetation.
- There exists the same hierarchy from foothills of the mountain to the top of it as is observed from tropical to tundra region.
- Mostly found in the southern slopes of Himalayas, places having high altitude in Southern and Northeastern India.
- Upto 1500 m of height, tropical moist deciduous forests exist with *shesham* as the main tree.
- Between 1000-2000m of height, wet temperate type of climate persist wherein evergreen broad-leaf trees like *oaks and chestnut*
- Between 1500-3000 m of height, temperate forests covering coniferous trees like ***Chir, pine, deodar, silver fir, spruce, cedar, etc.***
- At higher altitudes above 3500m wet temperate grasslands are common like *Merg (Kashmir), bugyals (Uttarakhand), etc.*
- They get progressively stunted as they approach the snowline.

- Ultimately through shrubs and scrubs, they merge into Alpine grasslands.
- These grasslands are extensively used for grazing by nomadic tribes like *Gujjars and Bakkarwals*.
- At higher altitudes, some vegetation mosses and lichens form part of tundra vegetation.
- Common animals that are found in these forests are *Kashmir stag, spotted deer, wild sheep, jackals, yak, snow leopard, rare red panda, sheep and goats with thick fur*, etc.
- In India, there are studied under two groups: Northern Montane Forests and Southern Montane Forests.
- **Northern Montane Forests:** These are connected with Himalayan mountain ranges. Vegetation types are controlled by sunlight, temperature and rainfall which is described above.
- **Southern Montane Forests:** These are connected with hills of *Nilgiris, Anaimalai and Cardamom*. These are wet temperate forests which have great endemic biodiversity and these are described as Shola forests.

Mangrove Forests

- Mangrove forests are connected with deltaic regions of tropical and sub-tropical zones.
- These are also known as **tidal forests and littoral forests** as these are connected with the inter-tidal region.
- Their biodiversity and forest density are comparable with equatorial rainforest and tropical evergreen and semi-evergreen forests.
- Mangroves are salt tolerant plants with roots being adapted to become **pneumatophores** (these roots emerged from the ground and grow in upward direction).
- Mangrove ecosystem is a unique ecosystem as it has tolerance for periodic flooding and dryness; and mild salinity as well.
- India has the largest cover of Mangrove forest in the world.
- Sunderban, Mahanadi, Godaveri-Krishna and Kaveri delta are most importantly covered with these forests.
- *Sunderban* is the largest mangrove in the world. It is famous for ***Sundari tree*** which provides durable hard timber.
- Some other example are **Rhizophora, Avicennia** etc.
- *Palm, coconut, keora, agar*, etc. also grow in some parts of the delta.
- *Royal Bengal Tiger* is a famous animal in these forests.
- *Turtles, crocodiles, gharials, snakes*, are also found in these forests.
- Bhitarkanika mangrove of Mahanadi delta is also famous for its rich biodiversity.