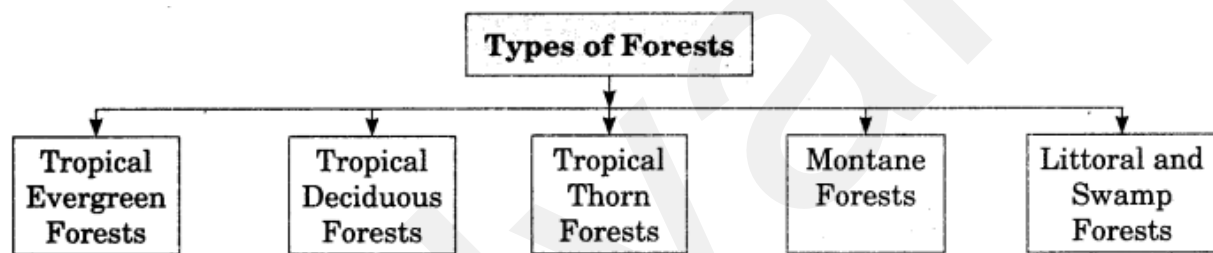


Class 11 Geography Notes Chapter 5 Natural Vegetation

On the basis of certain common features such as predominant vegetation type and climatic regions, Indian forests can be divided into the following groups:

Tropical and Swamp forests.

Tropical Evergreen forests are found in the western slope of the Western Ghats, hills of the north-eastern region and the Andaman and Nicobar Islands. They are found in warm and humid areas with an annual precipitation of over 200 cm and mean annual temperature above 22°C. In these forests, trees reach great heights up to 60 m or above. There is no definite time for trees to shed their leaves, flowering and fruition. As such these forests appear green all the year round. Species found in these forests include rosewood, mahogany, aini, ebony, etc.



The semi evergreen forests are found in the less rainy parts of these regions. Such forests have a mixture of evergreen and moist deciduous trees. The under growing climbers provide an evergreen character to these forests. Main species are white cedar, hollock and kail.

Tropical Deciduous Forests are the most widespread forests in India. They are also called the monsoon forests. They spread over regions which receive rainfall between 70-200 cm. On the basis of the availability of water, these forests are divided into two types: moist and dry deciduous.

The Moist deciduous forests are more pronounced in the regions which record rainfall between 100-200 cm. These forests are found in the north-eastern states along the foothills of Himalayas, eastern slopes of the Western Ghats and Odisha. Teak, sal, shisham, hurra, mahua, amla, semul, kusum, and sandalwood etc. are the main species of these forests.

Dry deciduous forest covers vast areas of the country, where rainfall ranges between 70-100 cm. On the wetter margins, it has a transition to the moist deciduous, while on the drier margins to thorn forests. These forests are found in rainier areas of the Peninsula and the plains of Uttar Pradesh and Bihar.

Tropical thorn forests occur in the areas which receive rainfall less than 50 cm. These consist of a variety of grasses and shrubs. It includes semi-arid areas of south west Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Uttar Pradesh.

In mountainous areas, the decrease in temperature with increasing altitude leads to a corresponding change in natural vegetation. Mountain forests can be classified into two types, the northern mountain forests and the southern mountain forests.

The Himalayan ranges show a succession of vegetation from the tropical to the tundra, which change in with the altitude. Deciduous forests are found in the foothills of the Himalayas. It is succeeded by the wet temperate type of forests between an altitude of 1,000-2,000 m.

In the higher hill ranges of north-eastern India, hilly areas of West Bengal and Uttarakhand, evergreen broad leaf trees such as oak and chestnut are predominant. Between 1,500-1,750 m, pine forests are also well-developed in this zone, with Chir Pine as a very useful commercial tree.

Deodar, a highly valued endemic species grows mainly in the western part of the Himalayan range. Deodar is a durable wood mainly used in construction activity. Similarly, the chinar and the walnut, which sustain the famous Kashmir handicrafts, belong to this zone. Blue pine and spruce appear at altitudes of 2,225-3,048 m.

In India, the mangrove forests spread over 6,740 sq. km which is 7 per cent of the world's mangrove forests. They are highly developed in the Andaman and Nicobar Islands and the Sunderbans of West Bengal. Other areas of significance are the Mahanadi, the Godavari and the Krishna deltas. These forests too, are being encroached upon, and hence, need conservation.

According to state records, the forest area covers 23.28 per cent of the total land area of the country. It is important to note that the forest area and the actual forest cover are not the same.

Both forest area and forest cover vary from state to state. Lakshadweep has zero per cent approx forest area; Andaman and Nicobar Islands have 86.93 per cent. Some of the states with less than 10 per cent of the forest area lie in the north and north-western part of the country. These are Rajasthan, Gujarat, Punjab, Haryana and Delhi.

Geographical area under forests are:

State/UTs	Per cent (approx)	State/UTs	Per cent (approx)
Andhra Pradesh	16.23	Mizoram	82.98
Arunachal Pradesh	81.23	Nagaland	80.49
Assam	35.33	Odisha	31.36
Bihar	6.07	Punjab	4.83
Chhattisgarh	41.75	Rajasthan	4.78
Delhi	7.51	Sikkim	45.00
Goa	56.59	Tamil Nadu	16.52
Gujarat	7.73	Telangana	25.00
Haryana	3.97	Tripura	67.38
Himachal Pradesh	25.79	Uttar Pradesh	5.71
Jammu and Kashmir	9.56	Uttarakhand	44.76
Jharkhand	19.29	West Bengal	12.05
Karnataka	19.29	Andaman and Nicobar	84.01
Kerala	40.04	Chandigarh	7.51
Madhya Pradesh	25.07	Dadra and Nagar Haveli	44.60
Maharashtra	15.43	Daman and Diu	5.63
Manipur	75.81	Lakshadweep	85.91
Meghalaya	69.48	Puducherry	7.45

The Government of India proposed to have a nation-wide forest conservation policy, and adopted a forest policy in 1952, which was further modified in 1988.

The National Commission on Agriculture (1976) has classified social forestry into three categories. These are urban forestry, rural forestry and farm forestry.

Urban forestry pertains to the raising and management of trees on public and privately owned lands in and around urban centres such as green belts, parks, roadside avenues, industrial and commercial green belts, etc.

Rural forestry lays emphasis on promotion of agro-forestry and community-forestry. Agro-forestry is the raising of trees and agriculture crops on the same land inclusive of the waste patches. It combines forestry with agriculture, thus, altering the simultaneous production of food, fodder, fuel, timber and fruits.

In 1972, a comprehensive Wildlife Act was enacted, which provides the main legal framework for conservation and protection of wildlife in India.

Now, there are 105 National parks and 514 wildlife sanctuaries covering an area of about 15.67 million hectares in the country.

Special schemes like Project Tiger and Project Elephant have been launched to conserve these species and their habitat in a sustainable manner. Project Elephant has been implemented since 1992.

Under Project Tiger, launched on 1 April 1973, 27 tiger reserves have been set up in 17 states covering an area of about 37,761 sq. km.

There are 18 Biosphere Reserves in India. Nine of them are recognized by UNESCO. They are :

- Nilgiri
- Nanda Devi
- Sunderbans
- Gulf of Mannar
- Great Nicobar
- Pachmarhi
- Amarkantak
- Norkek
- Simlipal.

Out of a total of 593 districts, 188 have been identified as tribal districts. The tribal districts account for about 59.61 per cent of the total forest cover of the country whereas the geographical area of 188 tribal districts forms only 33.63 per cent of the total geographical area of the country.

Class 11 Geography Notes Chapter 5 Important Terms:

- **Natural vegetation:** Natural vegetation refers to a plant community that has been left undisturbed over a long time, so as to allow its individual species to adjust themselves to climate and soil conditions as fully as possible.
- **Planted vegetation:** It refers to planting of trees under human supervision.
- **International convention:** An international convention is an agreement among member states of the United Nations.
- **Forest area:** The forest area is the area notified and recorded as the forest land irrespective of the existence of trees. It is based on the records of the State Revenue Department.
- **Actual forest cover:** The actual forest cover is the area occupied by forests with canopy. It is based on aerial photographs and satellite imageries.
- **Social forestry:** Social forestry means the management and protection of forests and afforestation on barren lands with the purpose of helping in the environmental, social and rural development.
- **Community forestry:** It involves the raising of trees on public or community land such as the village pasture and temple land, roadside, canal bank, strips along railway lines, and schools etc.
- **Rural forestry:** It lays emphasis on promotion of agro-forestry and community-forestry. Agro-forestry is the raising of trees and agriculture crops on the same land inclusive of the waste patches.
- **Biosphere reserve:** A Biosphere reserve is a unique and representative ecosystem of terrestrial and coastal areas which are internationally recognised within the framework of UNESCO's Man and Biosphere (MAB) Programme.

- **National park:** A national park is an area which is strictly reserved for the protection of the wildlife and where activities such as forestry, grazing or cultivation are not allowed.
- **Reserved forest:** An area notified under the provisions of Indian Forest acts having full degree of protection. In protected forests, all activities are prohibited unless permitted.
- **Protected forest:** An area notified under the provisions of Indian Forest Act or the State Forest Acts having limited degree of protection. In Protected Forests, all activities are permitted unless prohibited.
- **Sanctuary:** A sanctuary is an area which is reserved for the conservation of animals only and operations such as harvesting of timber, collection of minor forest products are allowed so long as they do not affect the animals adversely.
- **Unclassed forest:** An area recorded as forest but not included in reserved or protected forest category. Ownership status of such forests varies from state to state.
- **Conservation:** The protection of natural environment and natural resources for the future is called conservation. It includes the management of minerals, landscape, soil and forests to prevent their destruction and over exploitation.