

CHAPTER - 5

FORESTS OF INDIA

In this chapter, you learn about the following:

- *Types of forests in India and their distribution*
- *Conservation of forests and methods of conservation*
- *Wildlife sanctuaries and national parks*
- *Bio-sphere reserves*

The total plant life growing naturally in an area is called forest or natural vegetation. This is influenced by various ecological factors like temperature, rain, land forms, soil etc. According to a survey of 2009, India has approximately 6.9 lakh km² (i.e. 69 million hectares) of forest forming an average of 21.2% of the geographical area.

India is a vast country having various types of natural environment and based on the natural vegetation they can be divided into 6 main types:

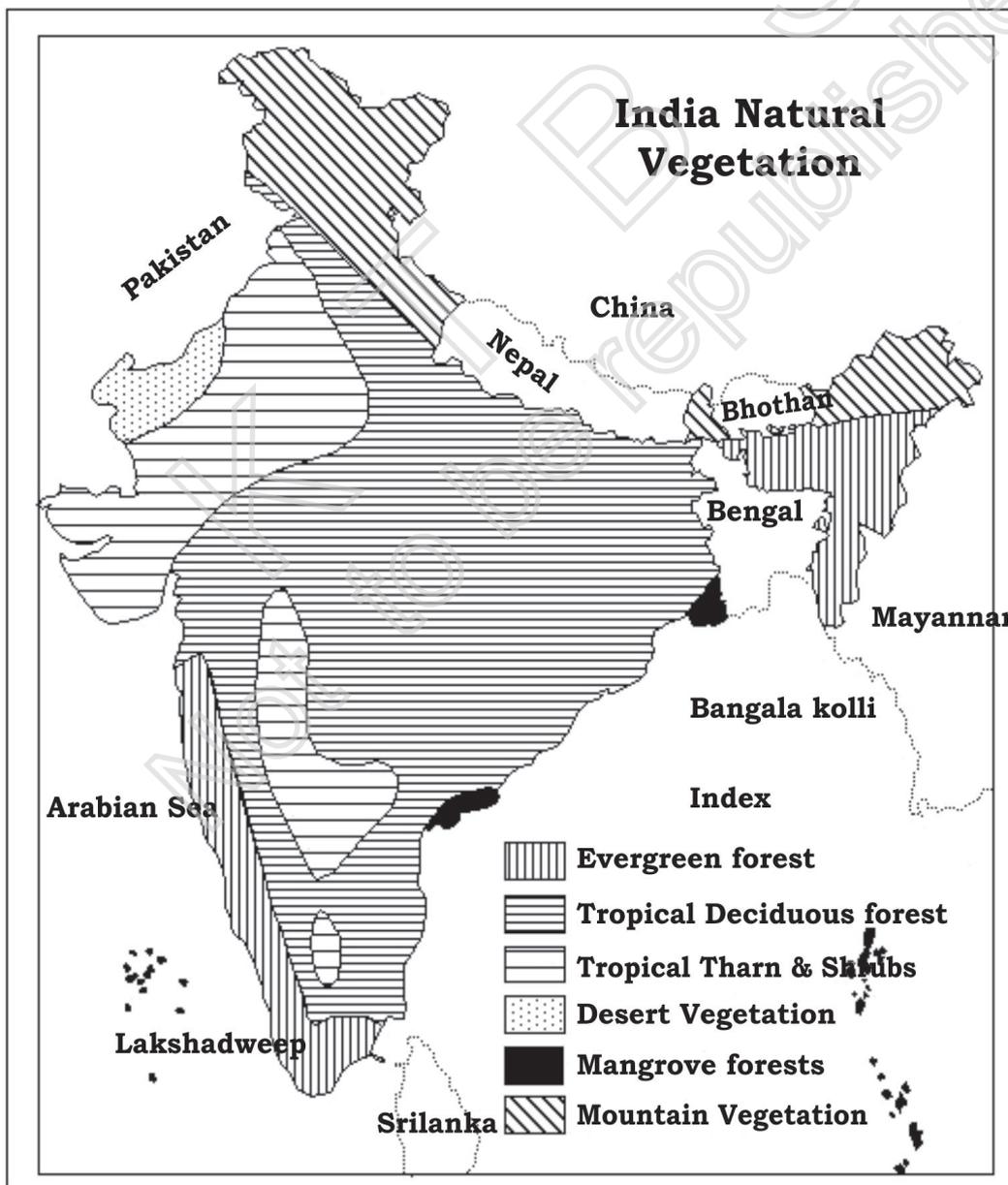
1. Evergreen forests 2. Deciduous monsoon forests 3. Tropical Grasslands 4. Mangrove forests 5. Desert vegetation and 6. Alpine forests of Himalayan.

1. Evergreen forests: In India, evergreen forests are found in regions which are not more than 900 mts above sea level and receive an annual rainfall of more than 250 cms. This type of forests are found in Western Ghats, North Eastern states of Assam, Meghalaya, Tripura, Manipur, Nagaland and Andaman-Nicobar islands. Evergreen forests occupy about 2.6 lakh hectares. Since the trees are always green they are called Evergreen forests.

2. Deciduous monsoon forests : This type of forests are more widely distributed in India. They are seen in areas receiving 75 to 250 cms of rainfall. It forms about 65.5% of the total area of forests. Since India has mainly monsoon climate, this type of forest is distributed widely. The trees shed their leaves during the dry winters. As such these are also called deciduous monsoon forests.

3. Tropical Grassland : This type of vegetation are found in the areas receiving 60 to 75 cms of rain fall. These areas have tall grass and small herbs are rarely seen here and there. Central parts of the peminsular Plateau, border areas of Thar desert to the west of Aravalli hills have this type of vegetation. Babool, Seesum and Sabhai type of grass are seen in these areas.

4. Mangrove forests : These forest are formed due to tides. The Mangrove forests are found along the deltas and coastal regions and estaries of revers, that are subjected tides. River delta of the Ganga, Mahanadi, Godavari and Krishna have this kind of forests. The 'Sundari' trees are plenty in the Ganga basin and hence these forests are called 'Sunderbans'. The total area of these forests is about 4.4 thousand km².



5. Desert forests : This type of vegetation is found in regions receiving less than 50 cms of rain. The Thar desert in Rajasthan and its adjoining areas in Punjab, Haryana and Gujarat have these forests. The plants are deep-rooted and consists mainly of thorny shrubs.

6. Alpine forests of Himalayan : Different types forests are found in the Himalayas. As the height increases, the tropical type of climate changes into the polar type of climate. According to the changes in climate, various types of plants are found. The important types of trees growing in this type of forest are sal, byra, toon, silver spruce, laurel etc. These trees have pointed leaves.

DISTRIBUTION OF FORESTS :

Scientists opinion that, for any area to possess a good environment, it should have 33% of its land area under forests. When the forest area is compared to the total area of the country are very less. India has very lesser area of forests. Madhya Pradesh has largest area under forests whereas Haryana is in the last position which has the area under forests. Karnataka state is in the 13th position in terms of area of forests.

Conservation of Forests : Protection of forests from human beings, animals and natural disasters is called Conservation of forests. Indian forests area are gradually decreases, because of expansion of agriculture, animal-grazing, counstruction of roads and rail routes, irrigation projects, forest fires, mining forest fires etc are the main causes for the destruction of forests. Hence it is very essential to protect forests. Certain measures have to be taken towards this purpose.

Methods of Conservation : Cutting down dried-up and abrasing trees which causes forest fires; Protecting the forest trees against diseases; planting saplings; sowing seeds; guarding against illegal cutting of trees; avoiding grazing of domestic animals in forests; motivating people to plant saplings; creating awareness among people about trees and encouraging them to protect them; implementing the social forestry projects speedily and successfully.

Wild-life Sanctuaries: Wild-life sanctuaries have been set up to protect animals in their natural habitat. There are around 523 wild-life sanctuaries in India today. The important ones among them are:

- **Tamil Nadu:** Annamalai Wild-life Sanctuary, Coimbatore, Nilgiri
- **West Bengal:** Madarihaat, Jaldapara
- **Rajasthan:** Bharatpur, Kivola Divo Bird Sanctuary
- **Haryana:** Sultanpura, Goregaon
- **Punjab:** Birmotibagh, Patiala
- **Andhra Pradesh:** Guntur, Nagarjuna Sagar

National Parks: Jim Corbett National Park in Uttaranchal is the first national park to be established in India. The main national parks in India are:

1. Kaziranga National Park, Sibsagar, Assam
2. Sunderbans, 24 Paraganas district
3. Hazaribagh National Park, Bihar
4. Gir National Park, Junagad, Gujarat
5. Kanha National Park, Maandya and Balaghat, Madhya Pradesh
6. Tandova National Park, Chandrapur, Maharashtra

Biosphere Reserves : India has large diversity of flora and fauna. In order to preserve this biodiversity, 18 biosphere reserves have been identified. They are Nilgiri, Nandadevi, Nokrek, Great Nicobar, Galf of Mannar, Manas, Sunderbans, Similipal, Kanchenganga, Amarakantaka, cold desert (Himachal Pradesh), Panna and Seshachalam Nilgiri was the first Biosphere reserve of India .

Do you know this?

- *There are around 523 wildlife sanctuaries in India.*
- *99 national parks*
- *70 botanical gardens*
- *275 zoos*

EXERCISES

I Fill in the blanks with suitable words:

1. The forests found in Assam and Meghalaya are _____ type of forests.
2. The Himalayas have _____ kind of forests.
3. The Ganga river delta is also called _____.
4. Bannerughatta National Park is in _____ state.
5. In sunderban forest _____ trees are growing.

II Answer the following after discussing them in groups:

1. How much of area is under forests in India?
2. Name any two National parks of Karnataka.
3. What is meant by natural vegetation?
4. What are your suggestions for conservation of forests?
5. What is meant by bio-diversity?
6. Explain the characteristics and distribution of deciduous forests in India.
7. What is conservation of forests? Explain its significance and methods of conservation.

III Activities:

1. Identify and mention the natural vegetation in your region. List the important plant and animal species found there.
2. List the names of the different types of trees you have come across.

VI Project Work:

1. Prepare an album with photographs of animals found in wild-life sanctuaries.
2. Locate and name the Biosphere reserves in the map of India.