

IX Geography CHAPTER-5 NATURAL VEGETATION AND WILD LIFE

India is one of the twelve mega bio-diversity countries of the world. With about 47,000 plant species India occupies tenth place in the world and fourth in Asia in plant diversity. There are about 15,000 flowering plants in India which account for 6 per cent in the world's total number of flowering plants. The country has many non-flowering plants such as ferns, algae and fungi. India also has approximately 90,000 species of animals as well as a rich variety of fish in its fresh and marine waters.

Factors Responsible for Diversity in Flora and Fauna

RELIEF: Land Soil

CLIMATE: Temperature Photoperiod (*Sunlight*) Precipitation

TYPES OF VEGETATION

The following major types of vegetation may be identified in our country.

- (i) Tropical Evergreen Forests (ii) Tropical Deciduous Forests (iii) Tropical Thorn Forests and Scrubs (iv) Mountain Forests (v) Mangrove Forests

WILD LIFE

India is rich in its fauna. It has approximately 90,000 of animal species. The country has about 2,000 species of birds. They constitute 13% of the world's total. There are 2,546 species of fish, which account for nearly 12% of the world's stock. It also shares between 5 and 8 per cent of the world's amphibians, reptiles and mammals.

The elephants are the most majestic animals among the mammals. They are found in the hot wet forests of Assam, Karnataka and Kerala.

One-horned rhinoceroses are live in swampy and marshy lands of Assam and West Bengal.

Arid areas of the Rann of Kachchh and the Thar Desert are the habitat for wild ass and camels.

Indian bison, *nilgai* (blue bull), *chousingha* (four horned antelope), gazel and different species of deer are some other animals found in India

India is the only country in the world that has both tigers and lions. The natural habitat of the Indian lion is the Gir forest in Gujarat.

Tigers are found in the forests of Madhya Pradesh, the Sundarbans of West Bengal and the Himalayan region.

Ladakh's freezing high altitudes are a home to yak, the shaggy horned wild ox weighing around one tonne, the Tibetan antelope, the bharal (blue sheep), wild sheep, and the *kiang* (Tibetan wild ass).

In the rivers, lakes and coastal areas, turtles, crocodiles and gharials are found.

Peacocks, pheasants, ducks, parakeets, cranes and pigeons are some of the birds inhabiting the forests and wetlands of the country.

To protect the flora and fauna the government has taken followings steps.

- (i) Fourteen biosphere reserves have been set up in the country to protect flora and fauna.
- (ii) Financial and technical assistance is provided too many Botanical Gardens by the government since 1992.
- (iii) Project Tiger, Project Rhino, Project Great Indian Bustard and many other eco developmental

projects have been introduced

- (iv) 89 National Parks, 490 Wildlife sanctuaries and Zoological gardens are set up to take care of Natural heritage.

Fourteen Bio-reserves	
Sunderbans	Simlipal
Gulf of Mannar	Dihang-Dibang
The Nilgiris	Dibru Saikhowa
Nanda devi	Agasthyamalai
Nokrek	Kanchenjunga
Great Nicobar	Pachmari
Manas	Achanakmar-Amarkantak

Multiple Choice Questions (MCQ)

- Q.1 Which of the following word is used to denote plants of a particular region ?
 (a) Flora (b) Fauna (c) Natural Vegetation (d) Vegetation
- Q.2 Which of the following word is used to denote species of animals of a particular region ?
 (a) Flora (b) Fauna (c) Natural Vegetation (d) Vegetation
- Q.3 Where are mangrove forests found ?
 (a) Desert (b) Deccan Plateau (c) The Himalayas
 (d) The coastal area influenced by tides
- Q.4 A very large ecosystem on land having distinct types of vegetation and animal life is called...
 (a) Ecosystem (b) Flora and Fauna (c) Biome (d) Vegetation
- Q.5 Which of the following vegetation is not found in India ?
 (a) Tropical Evergreen Forests (b) Tropical Deciduous Forests
 (c) Mangrove Forests (d) Mediterranean type
- Q.6 Which parts/regions of India have tropical evergreen forests ?
 (a) Western Ghats, Upper parts of Assam (b) North Western parts of country
 (c) The Deltas of the Ganga and the Mahanadi (d) Mountainous areas
- Q.7 In which of the following states forests you will find one horned rhinoceros ?
 (a) Madhya Pradesh (b) Assam (c) Gujarat (d) Kerala
- Q.8 Which of the following is not a tree of Tropical Evergreen Forests ?
 (a) Acacia (b) Rosewood (c) Ebony (d) Rubber
- Q.9 Which of the following is the most wide spread vegetation of India ?
 (a) Tropical Evergreen Forests (b) Tropical Deciduous Forests
 (c) Mangrove Forests (d) Mediterranean type
- Q.10 Which of the following animal is not found in mountain forests ?
 (a) Kashmir Stag (b) Leopard (c) one horned rhinoceros (d) Yak
- Q.11 Which is the famous animal of the mangrove forests ?
 (a) Royal Bengal Tiger (b) Leopard (c) Monkey (d) Lion

Q.12 In which of the following states/ regions the wild ass are found ?

- (a) Assam (b) Rann of Kachchh (c) Tamil Nadu (d) Manipur

Q.13 Which of the following has not been included in the world network of Biosphere reserves ?

- (a) Sunderbans (b) Manas (c) Nanda Devi (d) Nilgiris

Q.14 In which of the following states is the Simlipal Biosphere reserve located ?

- (a) West Bengal (b) Andhra Pradesh (c) Maharashtra (d) Orissa

Q.15 Which of the following is not correctly matched ?

- (a) Dudhwa – Rajasthan (b) Manas – Assam (c) Dachigam – J & K (d) Gir - Gujrat

Q.16 To which one of the following types of vegetation does rubber belong to?

- (a) Tundra (b) Himalayan (c) Tidal (d) Tropical Evergreen

Q.17 Cinchona trees are found in the areas of rainfall more than

- (a) 100 cm (b) 70 cm (c) 50 cm (d) less than 50 cm

Q.18 In which of the following state is the Simlipal bio-reserve located?

- (a) Punjab (b) Delhi (c) Odisha (d) West Bengal

Q.19 Which one of the following bio reserves of India is not included in the world network of bio reserve?

- (a) Manas (b) Nilgiri (c) Gulf of Mannar (d) Nanda devi

Short Answer Questions

Q.1 Mention any three features of Nokrek Biosphere Reserve.

Ans

1. Nokrek Biosphere Reserve is a national park located 2 km from Tura Peak in the Garo Hills district of Meghalaya in India.
2. UNESCO added this National park to its list of Biosphere Reserves in May 2009.
3. There is a vast range of plants and animals found in the park, including the fishing cat, the serow and the tiger. Famous sites in the park include the famous Siju Cave.

Q.2 How does relief and rainfall influence the distribution of natural vegetation in India. Explain.

Ans The relief and rainfall of any region determine the natural vegetation of that place. In Indian sub-continent it can be seen through the following points:

1. The western slopes of the Western Ghats receive more than 200 cm of rainfall. Due to heavy rainfall, tropical evergreen forests are found in this region on a large scale.
2. Indifferent mountainous regions different types of vegetation are found, at the height of 1500 to 3000 coniferous trees are found but at the height of 1000 to 2000 wet temperate forests are found.
3. In areas with rainfall of 70 cm to 100 cm and in semi-arid regions, the vegetation consists of acacias and palm.

Q.3 What is biome? State the number of biomes into which land ecosystem is divided with their names.

Ans A large ecosystem on the land having distinct type of vegetation and animal life is called biome. In general, biomes are divided into the following categories:

1. Forests: It consists of evergreen forests, deciduous forests, and coniferous forests.
2. Grasslands: Savana grasslands.
3. Alpine/Tundra vegetation.
4. Desert vegetation.

Though the animals are also included in the biomes but they are not counted in the classification of biomes.

Q.4 Distinguish between flora and fauna.

Ans The major differences between Flora and Fauna are as follows:

Flora	Fauna
1. Natural vegetation growing in an particular area is referred as flora.	1. Wild life living in a particular area of the globe is termed as Fauna.
2. It makes its food with help of solar energy.	2. They cannot make their own food so they are dependent upon the flora.
3. It was the very first form of life that appeared on the earth in the chronological history of earth.	3. They developed on earth after flora because they are dependent upon flora.

Q.5 Why has India a rich heritage of flora and fauna? How can you say that India has rich bio-diversity?

Ans This is because the factors like, temperature, sunlight, precipitation, soil and relief are suitable for the growth and development of both animal and plant kingdom in India. These five factors are essential for the growth of the bio-diversity.

India has been listed among the twelve mega biodiversity countries of the world. 47,000 plant species and 89,000 animal species are found here. Besides these species, there are about 15,000 flowering plants in India.

Q.6 Distinguish between thorn forests and mangrove forests.

Ans

Thorn Forests	Mangrove Forests
1. Rainfall: Rainfall in these types of forests are somewhere 70 cm or less.	1. Rainfall: These types of forests develop in the deltaic region, and does not concern with the rainfall.
2. Vegetation: Babool, kiker, palm, cacti and acasia are the main plants.	2. Vegetation: Sundari is the major tree type in these types of forests. The others are Agar and Keora.
3. Location: Found in semi-arid regions of Gujrat, Rajasthan, Haryana and Uttar Pradesh.	3. Location: They are found in the deltas of Ganga, Mahanadi, Kaveri, Krishna and Godavary.

Q.7 "India has extremely rich and wild variety of fauna." Explain this statement.

Ans India has a rich variety of wild fauna. It can be explained through following ways:

1. The richness of wild variety of fauna is due to the high variety of variation in the relief, rainfall, temperature, etc. There are 89,457 known species of flora, out of which many are in

the list of endangered species.

2. The variety of fauna can be seen in different parts of India such as in the mountains, the deserts, the plateaus, the rivers, the lakes, etc.
3. If we try to divide the species then it may make several groups as follows: Mammals – 390, Fish – 2546, Birds – 1232, Insects – 60,000, Reptiles – 456, Mollusks – 5,000, Amphibians – 209.

Q.8 Write any three major factors responsible for the huge diversity in plant and animal kingdom?

Ans The three factors, which are responsible for the huge diversity in flora and fauna kingdom, are as follows:

(i) Relief: Natural vegetation are different in mountains, plateaus and plain areas mainly due to the difference in their relief. It is also different in wet and dry land. Fertile level plains are generally devoted to agriculture. The undulating and rough terrains are devoted to terrace cultivation.

(ii) Soil: Different types of soils provide basis for different types of vegetation. The sandy desert soils support cactus and thorny bushes. Wet, marshy and deltaic soils support mangroves and deltaic vegetation. The hill slopes with some depth of soil have conical trees.

(iii) Temperature: On the hills of the Himalayas above the height of 915 metres, the temperature get reduce and affects the types of vegetation and its growth. This changes it from Tropical to Subtropical, Temperate and Alpine Vegetation.

Q.9 Why are forests important in our life? Write any six points.

Ans Forests play a vital role in the life of human beings by:

- (i) Modifying local climate.
- (ii) Controlling soil erosion.
- (iii) Supporting a variety of industries.
- (iv) Providing livelihood for many communities.
- (v) Controlling wind and temperature and cause rainfall.
- (vi) Providing humus to the soil and shelter to the wild life.

Q.10 Distinguish between Montane Forests and Mangrove Forests. Give three differences.

Ans The major differences between montane forests and mangrove forests are as follows:

Montane forests	Mangrove forests
1. The decrease in temperature with increasing altitude leads to the appearance of montane forests at higher altitude. 2. These forests are mainly found along the southern slope of the Himalayas, places having high altitude innorthern and north-east India. 3. Evergreen broad-leaf Oaks and Chestnuts are the common trees. Between 1500 and 3000 meters, temperate forest containing coniferous trees like pine, deodar, silver fir, spruce and cedar, are found.	1. These forests are found in the coastal areas where mud and silt get accumulated. 2. The deltas of the Ganga, the Mahanadi, the Krishana, the Godavari and the Kaveri are covered by such vegetation. 3. Dense mangroves are the common varieties with roots of the plants submerged under water. Palm, coconut, keora, agar, also grow in some parts of the delta.

Q.11 What is a Biosphere Reserve? Name the four-biosphere Reserves of India, which

have been included in the world network of biosphere reserve?

Ans Biosphere reserves are areas of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use.

Four-biosphere reserves of India, which have been included in the world network of biosphere reserves are:

- (i) The Sunderbans in the West Bengal
- (ii) Nanda Devi in Uttranchal
- (iii) The Gulf of Mannar in Tamil Nadu
- (iv) Nilgiris of Kerala, Karnataka and Tamil Nadu

Map Questions

Q.1 Label the following on the outline map of India:

- 1. Two wild life sanctuaries in each, northern, southern and eastern parts in India.
- 2. Two bird sanctuaries in south India.

Q.2 On an outline map of India, label the following:

- 1. Rain Forest.
- 2. Tropical Deciduous Forest.
- 3. Montane Forest.
- 4. Mangrove Forest.

Q.3 On an outline map of India, show the following:

- a. Gir forests.
- b. Jim Corbett national park.
- c. Manas national park.
- d. Bandipur national park.

Q.4 Four features from (i) to (iv) are shown in the given outline political map of India. Identify these features with the help of the following information and write their correct names in your answer book:

- (i) A wildlife sanctuary in Jammu & Kashmir
- (ii) Type of forest
- (iii) A National park in Assam
- (iv) A bird sanctuary in Rajasthan

Q.5 Four features from (i) to (iv) are shown in the given outline political map of India. Identify these features with the help of the following information and write their correct names in your answer book:

- (i) A national park in Assam
- (ii) A National Park in Madhya Pradesh
- (iii) A Wildlife Sanctuary in Uttaranchal
- (iv) A Bird Sanctuary in Karnataka

SCIENCE

MATHS