Revision Notes

Class- 9 Social Science(Geography)

Chapter 5 - Natural Vegetation and Wildlife

CBSE Class 9 Social Science Geography Chapter 5 presents a picturesque description of India's natural vegetation and wildlife. The subcontinent stands fourth in Asia and tenth in the world in plant diversity, with about 47,000 plant species. It is one of the 12 mega-diversity hotspots around the globe. India accounts for 6% of the world's total flowering plants and boasts a rich diversity of non-flowering plants like algae, fungi, and ferns. Besides plants, India is home to a plethora of animal life, with over 90,000 species inhabiting different parts of the country. The wildlife includes mammals, birds, reptiles, amphibians, insects, freshwater, and marine fishes.

Flora and Fauna

The natural vegetation of a place refers to the plants naturally growing there without human interference or aid and has been left undisturbed for a long time. It is also termed virgin vegetation. Flora is used for defining the natural vegetation of a particular place. Fauna is the naturally occurring wildlife of a specific place.

Factors Affecting Flora and Fauna

A specific areas flora and fauna are determined by several factors, including relief and climatic factors. A combination of these factors together determines the natural vegetation and wildlife of a region.

1.Relief

● **Land:** The type of land determines to a large extent the type of vegetation in the area. Fertile lands are used for agriculture. Terrains with undulating and rough land are where woodlands and grasslands develop.
● **Soil:** Soils vary from place to place, and so does the natural vegetation of the place. For example, hill slopes support conical trees, desert sandy soil supports cactuses, and marshy deltaic grounds support mangroves.

2. Climate

● **Temperature:** The temperature of a region affects the vegetation of a place to a large extent. In the Himalayan region and the hills in peninsular India with altitudes above 915 meters, the temperature falls, affecting the vegetation. Tropical to subtropical to alpine is the change.

● **Photoperiod:** The duration and variation in sunlight affect the vegetation of a place. With a longer duration of the sun, plants grow better, like in summer.
● **Precipitation:** Areas that receive heavy rainfall have dense vegetation cover. In India, rain is brought in by advancing southwest monsoons and retreating northeast monsoons.

Natural Vegetation and Its Types

The various types of natural vegetation found in India are:

Tropical Evergreen Forest

● These forests are restricted to regions of extremely heavy rainfall in India.
● These forests are located in the Western Ghats, upper parts of Assam, Tamil Nadu coast, Andaman and Nicobar Islands, Lakshadweep Islands. These regions receive heavy rainfalls and usually do not experience a dry season. If the dry season persists, it is short.
● Trees here vary up to a height of 16 meters or above.
● These forests are moist all year round, along with being warm.
● They are home to luxuriant vegetation of various kinds like trees, shrubs, creepers, and a lot more.
●Trees here do not have a fixed time of shedding their leaves, and hence the forest appears green throughout the year.
● Commercially hardy trees like ebony, mahogany, cinchona, rosewood, and rubber are found in these forests. Elephants, monkeys, lemurs are few common animals that stay in these forests. The one-horned rhinoceros are found in these jungles of West Bengal and Assam, a rare species. Birds, scorpions, bats, moths, and snails are also found in these jungles.

Tropical Deciduous Forests

● They are also known as monsoon forests and found in regions that receive rainfall between 200 cm and 70 cm.
● They shed their leaves during dry summers for about six to eight weeks.
● There are two types of deciduous forests- dry and moist deciduous forests.
● The moist deciduous forest exists in the region, receiving rainfall between 200-100 cm. These forests are found along the foothills of the Himalayas, northeastern states, western Orissa, Jharkhand, Chhattisgarh, and eastern slopes of the Western Ghats. Trees found there are sal, Sheesham, sandalwood, bamboos, Khair, Kusum, Arjun, and mulberry. Teak is the most critical and dominant species of this forest.
● Dry deciduous forests were found in areas with rainfall of 100 to 70 cm. Dry deciduous forests are distributed in parts of the Indian mainland, the Bihar plains, and Uttar Pradesh. The plants that grow here are teak, salt, neem, and peach trees.
● These forests are cleared for cultivation and grazing.

● Typical animals found in tropical deciduous forests include a huge variety of lizards, birds, snakes, and tortoises. Along with these tigers, lions, elephants, and pigs are found here.

Thorn Forests and Scrubs

● These forests are found in regions with rainfall less than 70 cm. The natural vegetation here comprises thorny trees and bushes.
● They are found in Rajasthan, Gujarat, Chhattisgarh, Uttar Pradesh, Madhya Pradesh, and Haryana.
● The main plant species found here are acacia as euphorbias, cacti, and palms.
● The trees in the region are scattered and have long roots which penetrate very deep into the soil to obtain moisture. The stems are succulent for water conservation, and leaves are turned to spines to minimize transpiration.
● Animals in this forest are fox, wolf, tiger, lion, camels, horses, wild ass, rats, and mice.

Montane Forests

● These forests are found in high-altitude mountainous areas.
● Between 1000-2000 meters lies the wet temperate forests where evergreen broadleaved trees like oak and chestnut are predominant.
● The woods have conifers between 1500-3000 meters like pine, cedar, spruce, silver fir, and deodar.
● These forests cover the southern slopes of the Himalayas and places having high altitudes in North East and Southern India.
● At lofty heights of more than 3600 meters, the temperate grasslands and forests transform into alpine vegetation. Trees found are birch, junipers, etc.
● Higher than this, there are only scrubs and shrubs.
● Even higher, only mosses and lichens are found and form a part of the tundra vegetation.
● Wildlife found here are wild sheep, Kashmir stag, Tibetan antelope, snow leopard, jackrabbits, yaks, squirrels, sheep and goats, Red panda, bear, and shaggy horned wild ibex.

Mangrove Forests

● Mangroves are tidal forests found in coastal regions.
● Plants here have their roots submerged under the water.
● These forests are found in deltas of Ganga, Mahanadi, Krishna, Kaveri, and Godavari.
● Ganga-Brahmaputra delta abounds in Sundari trees which supply hard, durable timber. Other plants growing here are coconut, agar, palm, etc.
● The famous Royal Bengal tiger, crocodiles, snakes, turtles, and gharials are found in these forests.

Wildlife

India accounts for 13% of the world's total animal and bird species, which numbers 90,000 and 2000. Elephants are mammals found in the forests of Assam, Karnataka, and Kerala. The swampy and marshy lands of West Bengal and Assam are home to the one-horned rhinoceros. Rann of Kutch and Thar desert is home for wild asses and camels, respectively.

The Indian bison, nilgai, chousingha are the various species of deers found in India. India is one country that is home to both lions and tigers. Gir forest of Gujarat is famous for its majestic lions. Tigers live in the woods of Madhya Pradesh, the Sundarbans of West Bengal, and the Himalayas. Leopards have also been found in the country. The high freezing altitudes of Ladakh are home to yaks, shaggy horned wild ox, Tibetan antelope, wild sheep, snow leopard, bear, and Red panda, etc. Coastal regions harbor crocodiles and turtles. India is home to a plethora of birdlife inhabiting various forests and wetlands. They are parrots, cranes, pigeons, ducks, etc.

Natural Vegetation and Wildlife Conservation

● The government has set up 18 biosphere reserves in the country to protect the natural vegetation and wildlife.

● Out of these 10 of them- the Sundarban, Nanda Devi, Nilgiri, Great Nicobar, Gulf of Mannar, Manas, Norkek, Simlipal, Panchmari, and AchanakmarAmarkantak are included in the world biosphere network.

● Financial assistance along with technical aid has been provided to the botanica gardens since 1992.

● Project tiger, project Great Indian Bustard, and project Rhino have been introduced. 103 national parks, 535 wildlife sanctuaries, and several other zoological gardens have been set up for conservation.

Important Questions and Answers

1. Which factors determine the distribution of plants and animals in India?

Ans: Factors that determine natural vegetation and wildlife in a specific area are:

● Land: Land affects natural vegetation to a large extent. Fertile land is used for agricultural activities, while rough land is where grassland and woodland are found. According to land type varies the wildlife of a specific area.

● Soil: Soil varies over various regions, and along with that varies the natural vegetation. Sandy soil in the desert is perfect for cactus and thorny bushes, while wet marshy soils of the delta region support mangroves. Mountain slopes have soil with depth. These are perfect for the growth of conifer trees.

● Temperature: Temperature is another critical factor affecting the natural vegetation of a particular area like the Himalayas and the peninsular region.

With changing temperatures, vegetation changes from tropical to subtropical temperate and alpine.
● Photoperiodism: The duration of sunlight received by an area is another factor that determines the vegetation in an area.
● Precipitation: The extent and density of natural vegetation cover in India areas of heavy rainfall are denser than sites that receive less rainfall. In India, the prime source of rain is the advancing south-westerly monsoons and the retreating monsoons.

2. Name some medicinal plants found in India along with their usage.
Ans: India is famous for herbs and spices. Indian Ayurveda uses 2000 species of Ayurvedic plants, out of which 500 are regularly used. Some of the medicinal plants of India are-
● Jamun- Jamun is used to prepare vinegar. It is carminative, and a diuretic and has excellent digestive properties. Jamun seed powder is used for diabetes treatment.
● Arjun- It is known to have properties to control headache and earache. It is used for diabetes treatment.
● Neem- Neem is known to possess antimicrobial properties.
● Tulsi- Tulsi is used to cure a cold and cough.
● Babul- Babul is known to be a gum tonic. It is also used for fixing eyesores.
● Sarpagandha- This plant is only found in India and is used to treat blood pressure.
● Kachnar is excellent for curing asthma and ulcers, and also its buds and roots have excellent digestive properties.

3. What are the natural vegetation and wildlife conservation strategies taken up by the government of India?
Ans: The Government of India has taken a few steps to conserve natural vegetation and wildlife. These are:
● 18 Biosphere Reserves were set up in the country. Out of which, ten of them are among the world network of biosphere reserves.
● Financial assistance and technical aid have been provided to botanical gardens since 1992.
● Ecological development projects such as Project Tiger, Project Rhino, and the Indian Bustard have been established to save these endangered species.
● 535 wildlife sanctuaries and 103 national parks were set up in the country, along with many zoological gardens to conserve the natural heritage.

4. What is a biosphere reserve? Name the biosphere reserves in India.
Ans: The biosphere can be defined as an ecosystem consisting of naturally growing plants and animals of a specific region of unusual scientific and natural interest. UNESCO gives a place the label of a biosphere reserve. It is an entity

for sustainable development. Biosphere reserves include terrestrial and coastal ecosystems. The biosphere reserves in India are Sundarban, Shimlipal, Gulf of Mannar. Dihang-Dibang, Nilgiri, Dibru Saikhowa, Nanda Devi, Agasthyamalai, Great Nicobar, Panchmari, and AchanakmarAmarkantak.

5. Why does India have rich flora and fauna?
Ans: India is a diverse country. There is a striking diversity of land reliefs, soil types, temperature ranges, humidity, and precipitation all across India. Even the monsoon season varies across the grids. Each place in India has a unique combination of factors that determine the growth of natural vegetation in a particular place. These critical factors which influence flora and fauna vary widely from South to North and East to West. Hence India has rich flora and fauna which are suited to grow in various regions. The position of India in both the Tropical and the temperate zone is also an important reason for the existence of such a plethora of fauna and flora in the country.

6. Why are a few species of animals and plants endangered in India?
Ans.: Few animal and plant species are endangered in India, while some have become extinct. Human activities have been a significant threat to nature. Hunting by greedy hunters and poachers, pollution due to anthropogenic activities, the introduction of alien species in a natural ecosystem, indiscriminate cutting down of forests for cultivation, habitation, and grazing have created an imbalance in nature, and natural ecosystems have been disturbed.

7. Write a short note on migratory birds.
Ans: Migratory birds are those which travel from the polar regions during the winters to warmer places. The wetlands of India are famous for harboring such migratory birds. During the winters, Siberian cranes visit the country in large numbers. The Rann of Kutch is one such place where you can spot these migratory birds. Here the desert merges with the sea, and pink flamingo plummets come in considerable numbers to build nests from the salty mud. It is a brilliant sight to behold at. The Keoladeo National park in Bharatpur, Rajasthan, is famous for harboring migratory birds.

8. Why is it essential to conserve natural vegetation and wildlife?
Ans: Natural vegetation and wildlife are considered as natural wealth of the country. This is because they are indispensable to us. We extract numerous benefits from these natural sources. For example, plants provide us with food, timber, etc. Medicinal plant extracts give us medicines. Animals provide transportation, meat, and eggs. Fish is an exceptionally nutritious food item and is exported to earn foreign revenues. Insects help in pollination and fruit and

crop formation. The ecosystem, as a whole, is essential and contributes to our sustenance.