

CBSE CLASS 9 SOCIAL SCIENCE

Geography — Contemporary India – I

CHAPTER 5: NATURAL VEGETATION AND WILDLIFE

ULTIMATE IMPORTANT QUESTIONS BANK WITH MODEL ANSWERS

Strictly Aligned with the Latest NCERT Syllabus & CBSE Assessment
Architecture



HIGH-VALUE DELIVERABLES INSIDE THIS EDITION:

- **Exhaustive Question Sets:** Focused 1-Mark, structured 3-Mark, and thematic 5-Mark long-form explanations.
- **Biogeographical Mapping:** Purpose-built map study matrices covering forest distributions, biosphere reserves, and national parks.
- **Ecological Structural Logic:** Detailed analysis of relief and climatic factors (photoperiod, precipitation) that shape bio-ecosystems.
- **Correction Portals:** Specialized callouts designed to eliminate systemic confusion between National Parks vs Wildlife Sanctuaries and Evergreen vs Deciduous characteristics.

SECTION 1: FREQUENTLY ASKED QUESTIONS (FAQS)

Q1. Compare and contrast the distinct structural features, rainfall requirements, FREQUENTLY REPEATED and prominent tree species of Tropical Evergreen and Tropical Deciduous Forests in India.

Tropical Evergreen and Tropical Deciduous forests are the two primary forest categories in India, distinguished as follows:

FEATURE	TROPICAL EVERGREEN FORESTS	TROPICAL DECIDUOUS FORESTS
Rainfall Threshold	Heavy rainfall regions receiving more than 200 cm of annual precipitation.	Widespread across regions receiving between 70 cm and 200 cm of annual precipitation.
Shedding Behavior	No distinct season for shedding leaves; the forest always appears vibrant green.	Trees shed their leaves for about six to eight weeks in dry summer to conserve moisture.
Stratification & Canopy	Multi-layered structure reaching heights up to 60 meters or above with dense upper canopies.	Open, less dense stratification; subdivided into Moist and Dry deciduous categories.
Key Commercial Species	Rosewood, Ebony, Mahogany, Cinchona, and Rubber.	Teak (most dominant), Sal, Shisham, Sandalwood, Khair, and Bamboo.



EXAM BOOSTER: BOTANICAL CLASSIFICATION

The Teak Identifier: Teak is the single most dominant commercial timber species of the *Tropical Deciduous* (Monsoon) forests. If a question asks about the most widespread forest type in India, the answer is always ****Tropical Deciduous Forests****.

Q2. Explain the five primary physical and climatic factors that directly influence the distribution of natural vegetation in India. ANNUAL EXAM CLASSIC

The distribution of flora across the Indian subcontinent is determined by a combination of relief and climatic factors:

1. **Land (Relief):** Land directly and indirectly affects vegetation type. Fertile, undulating plains are typically cleared for agriculture, while rugged hills, plateaus, and mountain slopes develop diverse woodlands and forests that provide habitats for wildlife.
2. **Soil (Relief):** Different soil types support different vegetation. Sandy desert soils support thorny scrub, wet marshy deltaic soils support mangroves, and deep hill soils on mountain slopes support coniferous trees.
3. **Temperature (Climate):** The character and extent of vegetation are determined by temperature along with humidity, precipitation, and soil. On the high slopes of the Himalayas above 915 meters, the fall in temperature alters the vegetation from tropical to subtropical, temperate, and alpine.
4. **Photoperiod / Sunlight (Climate):** The variation in duration of sunlight received at different locations due to differences in latitude, altitude, and season affects plant growth. Trees grow faster in summer due to longer photoperiods.
5. **Precipitation (Climate):** In India, almost the entire rainfall is brought in by the advancing southwest monsoon and retreating monsoons. Areas of heavy rainfall always develop denser forests compared to areas of low rainfall.

SECTION 2: PREVIOUS YEAR QUESTION COLLECTION

Q3. Describe the unique adaptations and distribution of Mangrove (Tidal) Forests in India. CBSE PAST YEAR FOCUS

Mangrove forests develop in coastal areas influenced by tides, where silt and mud accumulate:

- **Root Adaptations:** The most characteristic feature of mangrove plants is their **submerged roots**. The roots remain underwater, allowing them to anchor the plants in shifting mud and survive in salty water.
- **Deltaic Distribution:** These forests are found along the deltas of major rivers on the eastern coast, including the Ganga, Brahmaputra, Mahanadi, Godavari, Krishna, and Kaveri.
- **The Sundarbans:** In the Ganga-Brahmaputra delta, **Sundari trees** are abundant. They provide durable, hard timber. This region is known as the Sundarbans and is home to the Royal Bengal Tiger, turtles, crocodiles, and gharials.

SECTION 3: VERY SHORT ANSWER QUESTIONS (1 MARK)

Q4. Define 'Virgin Vegetation'.

Natural vegetation that has grown naturally without human aid and has remained undisturbed by humans for a long time.

Q5. Differentiate between Endemic and Exotic species of plants.

Endemic species are purely native Indian plants, while exotic species are those introduced to India from outside the country.

Q6. Define the terms 'Flora' and 'Fauna'.

Flora denotes the plant species of a particular region or period, while fauna refers to the animal species of that region or period.

Q7. What is an Ecosystem?

A community of plants and animals interacting with each other and their physical environment in a specific area.

Q8. Define a 'Biome'.

A very large ecosystem on land characterized by distinct types of vegetation and animal life.

Q9. Which forest type is most widespread across India?

Tropical Deciduous Forests (also known as Monsoon Forests).

Q10. Name the valuable medicinal plant endemic to India used to treat high blood pressure.

Sarpagandha.

Q11. How many biosphere reserves have been set up by the government of India?

Eighteen biosphere reserves have been established across the country.

Q12. In which year was the Wildlife Protection Act implemented in India?

In the year 1972.

Q13. Name the natural habitat of the Asiatic Lion in India.

The Gir Forest in Gujarat.

Q14. What are alpine grasslands called, and which nomadic tribes utilize them for pastoral grazing?

They are high-altitude pastures used extensively for transhumance by nomadic communities like the Gujjars and the Bakarwals.

Q15. Name two endangered bird species that are part of state conservation programs in India.

The Great Indian Bustard and the Siberian Crane.

SECTION 4: SHORT ANSWER QUESTIONS (2–3 MARKS)

Q16. Describe the characteristics and adaptations of plants found in the Thorn Forests and Scrubs.

Thorn forests develop in arid regions receiving less than 70 cm of rainfall, such as northwestern India. The plants have developed specific adaptations to conserve water:

- **Root Systems:** Trees have long, deep roots that penetrate into the soil to tap underground water sources.
- **Modified Leaves:** Leaves are mostly small, thick, or modified into spines to minimize transpiration and water loss.
- **Succulent Stems:** Stems are thick and succulent to store water, and perform photosynthesis. Common species include Acacias, Palms, Euphorbias, and Cacti.

Q17. Explain how the vegetation changes systematically with increasing altitude in mountainous regions (Montane Forests).

In mountainous regions, the decrease in temperature with increasing altitude leads to a corresponding change in natural vegetation zones:

1. **Wet Temperate Zone (1,000–2,000 meters):** Evergreen broad-leaf trees such as oaks and chestnuts dominate.
2. **Temperate Coniferous Zone (1,500–3,000 meters):** Softwood coniferous trees like pine, deodar, silver fir, spruce, and cedar are widespread.
3. **Alpine Zone (Above 3,600 meters):** Coniferous forests give way to alpine vegetation, featuring silver fir, junipers, pines, and birches, which transition into alpine grasslands.



CONSERVATION MATRIX

- **National Park:** A strictly protected habitat where human activities like grazing and forestry are completely banned.
- **Wildlife Sanctuary:** A protected reserve focusing on conserving specific animal species, where limited human activities may be permitted.

SECTION 5: LONG ANSWER QUESTIONS (5 MARKS)

Q18. Analyze the principal causes behind the threat to India's rich flora and fauna. What specific administrative steps has the government implemented to conserve this biodiversity?

India's diverse ecosystems face significant ecological imbalances due to human activities, driven by several key threats:

1. **Habitat Loss & Fragmentation:** The expansion of agriculture, commercial housing, industrial zones, and mining operations has led to the clearing of large forest areas, fragmenting wildlife habitats.
2. **Commercial Poaching:** The illegal hunting of animals for their skins, furs, tusks, horns, and bones threatens many species with extinction.
3. **Environmental Pollution:** The introduction of chemical pesticides, industrial effluents, and plastic waste poisons food chains and degrades habitats.
4. **Invasive Species & Deforestation:** Reckless logging and the introduction of non-native plant species disrupt local ecosystems.

To address these threats, the government has implemented several conservation measures:

- **Protected Area Network:** Established 18 Biosphere Reserves to protect large ecosystems, with several (such as the Nilgiri, Sundarbans, and Gulf of Mannar) recognized in the UNESCO World Network.
- **Legislative Framework:** Implemented the comprehensive **Wildlife Protection Act of 1972**, creating national parks and wildlife sanctuaries.
- **Targeted Conservation Projects:** Launched species-specific conservation programs, including **Project Tiger**, **Project Elephant**, and the Great Indian Bustard development program.
- **Financial & Technical Support:** Botanical gardens receive state grants for conserving rare and threatened plant species, alongside public awareness campaigns like Vanamohtsav.

SECTION 6: MAP-BASED QUESTIONS

Q19. Outline the specific location markers for key national parks and biosphere reserves required for standard map evaluations.

For map work evaluations, master the exact spatial location of these reserves:

- **National Parks:** Locate **Corbett** in Uttarakhand, **Kaziranga** in Assam (famed for the one-horned rhinoceros), **Kanha** in Madhya Pradesh, **Ranthambore** in Rajasthan, and **Simlipal** in Odisha.
- **Biosphere Reserves:** Identify **Nokrek** in Meghalaya, **Nanda Devi** in Uttarakhand, **Sundarbans** in West Bengal, and the **Nilgiris** at the junction of Karnataka, Kerala, and Tamil Nadu.

SECTION 7: CASE-BASED QUESTIONS

SOURCE TEXT: FORESTS AS INTERDEPENDENT ECOLOGICAL WEALTH

"Forests are renewable resources and play a major role in enhancing the quality of environment. They modify local climate, control soil erosion, regulate stream flow, support a variety of industries, provide livelihood for many communities and offer panoramic or scenic view for recreation. They control wind force and temperature and cause rainfall. They provide humus to the soil and shelter to the wildlife. India's natural vegetation has undergone many changes due to several factors, such as the growing demand for cultivated land, development of industries and mining, urbanisation and over-grazing of pastures."

Q18b. Based on the source text, answer the following questions:

(i) In what ways do forests support the survival of local wildlife and maintain soil quality?

Forests provide natural shelter and food sources for wildlife. They also add organic humus to the soil through decaying leaves, which helps maintain soil fertility and structure while preventing erosion.

(ii) Identify the key human-driven factors that have altered India's natural vegetation cover.

The vegetation cover has been changed by the clearing of land for agriculture, industrial development, mining operations, rapid urbanization, and the overgrazing of pastures by livestock.

SECTION 8: ASSERTION AND REASON QUESTIONS

STANDARD EVALUATION DIRECTIONS

Evaluate the statements and select the correct option:

- A:** Both Assertion and Reason are true, and Reason is the correct explanation of Assertion.
- B:** Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion.
- C:** Assertion is true, but Reason is false.
- D:** Assertion is false, but Reason is true.

Q19b. Assertion (A): Alpine vegetation undergoes a visible change in structure and height as it reaches higher altitudes near the snowline.

Reason (R): At extreme altitudes, growth seasons are short, temperatures drop sharply, and soils become thin, stunted trees blend into alpine scrub and shrubs.

Answer: A

Explanation: Both statements are true. As plants approach the snowline, the cold climate, short growing seasons, and thin soils slow their growth, causing tall trees to give way to stunted alpine shrubs and grasses.

SECTION 9: COMPETENCY-BASED QUESTIONS

Q20. Why does an ecological imbalance in a biome affect the survival of human communities? Explain the chain of impact.

An ecological imbalance triggers a chain reaction that directly impacts human communities:

- **Disruption of Ecological Services:** Clearing forests reduces the absorption of carbon dioxide, accelerates global warming, disrupts water cycles, and causes soil erosion, which can lead to severe flash floods.
- **Loss of Natural Resources:** Damaging a biome can lead to the loss of wild pollinators, medicinal plants, and natural pest control systems. This disruption harms agricultural stability, threatens food security, and impacts industries dependent on timber and forest products.

SECTION 10: MOST IMPORTANT EXAM QUESTIONS

★ **HIGHEST PROBABILITY QUESTION:** Outline the five major types of natural vegetation identified in India, along with their primary geographic distribution zones.

India's diverse terrain and climate support five main types of natural vegetation:

1. **Tropical Evergreen Forests:** Found in heavy rainfall areas like the Western Ghats, Lakshadweep, Andaman and Nicobar Islands, upper Assam, and the Tamil Nadu coast.
2. **Tropical Deciduous Forests:** The most widespread forests in India, spanning the eastern states, northeastern foothills of the Himalayas, Jharkhand, West Bengal, Odisha, and the eastern slopes of the Western Ghats.
3. **Tropical Thorn Forests and Scrubs:** Distributed across semi-arid regions of northwestern India, including Rajasthan, Gujarat, Haryana, and parts of Madhya Pradesh and Uttar Pradesh.
4. **Montane Forests:** Found along the high-altitude slopes of the Himalayas and parts of the southern hills.
5. **Mangrove Forests (Tidal Forests):** Located along coastal mudflats and river deltas influenced by ocean tides, notably the Sundarbans delta.

SECTION 11: CHAPTER QUICK REVISION

INSTANT REVISION SUMMARIES

- **Biodiversity:** The variety of plant and animal life within a specific habitat or globally.
- **Biosphere Reserve:** A large, protected area designed to conserve entire ecosystems and genetic diversity, combining conservation with sustainable development.
- **Sundari Trees:** A mangrove tree species found in the Ganga-Brahmaputra delta that produces durable, hard timber.
- **Project Tiger:** A conservation program launched in 1973 to protect India's declining tiger populations.

SECTION 12: COMMON MISTAKES STUDENTS MAKE

COMMON EXAM ERRORS TO AVOID:

1. **Confusing Forest Categories:** Students often mistake the most widespread forest type in India. Do not write Tropical Evergreen; the correct answer is **Tropical Deciduous Forests**, which cover the largest geographical area of the country.
2. **Mixing up Wildlife Reserves:** Ensure you do not confuse National Parks with Wildlife Sanctuaries on map questions. For example, remember that *Kaziranga* is a National Park in Assam, while *Sariska* is a Wildlife Sanctuary in Rajasthan. Mixing these up can result in lost marks.

SECTION 13: LAST-MINUTE REVISION SHEET

THE ULTIMATE BIOGEOGRAPHY CHEAT SHEET

Key Adaptations to Remember: Coniferous trees develop sloping branches and needle-like leaves to shed snow easily. Desert plants grow long roots and waxy leaves to minimize water loss from transpiration.

Conservation Summary: India has set up 18 Biosphere Reserves, 100+ National Parks, and 500+ Wildlife Sanctuaries to protect its biodiversity and support projects like Project Tiger and Project Elephant.