

Class 10 Geography | NCERT | Chapter 2

# Forest and Wildlife Resources

## Complete Question Bank

30 MCQs | 20 Fill in Blanks | 10 Matching | 10 FAQs | 30 Short Q&A | 20 Long Q&A  
100% Natural Teacher Language | British English | Simple Meaning

**Teacher's Tip:** Children, this is your complete practice set for Chapter 2. Work through every section carefully. The answers are written exactly as a good teacher would explain them — simple, clear, and memorable. Good luck with your revision!

## Section 1 — Multiple Choice Questions — 30 Questions

**Teacher's Tip:** Read every option carefully before answering. Wrong options are designed to catch the careless reader. Think before you tick!

**Q1. Which year was the Indian Wildlife (Protection) Act passed?**

- (a) 1960
- (b) 1972
- (c) 1980
- (d) 1991

**Answer:** (b) 1972 — 1972 — This landmark act banned hunting, listed protected species, and set up National Parks and Sanctuaries.

**Q2. Project Tiger was launched in which year?**

- (a) 1970
- (b) 1975
- (c) 1973
- (d) 1980

**Answer:** (c) 1973 — 1973 — Launched after tiger numbers crashed from 55,000 to just 1,827. It became one of the world's most celebrated wildlife campaigns.

**Q3. Which of the following is NOT a forest category in India?**

- (a) Reserved Forests
- (b) Protected Forests
- (c) Classified Forests
- (d) Unclassified Forests

**Answer:** (c) Classified Forests — 'Classified Forests' does not exist. The three real categories are Reserved, Protected, and Unclassified.

**Q4. More than half of India's total forest land falls under which category?**

- (a) Protected Forests
- (b) Unclassified Forests
- (c) Reserved Forests
- (d) Community Forests

**Answer:** (c) Reserved Forests — Reserved Forests cover over 50% of India's forest land and are the most protected category.

**Q5. Which state has the largest area under Reserved Forests in India?**

- (a) Rajasthan
- (b) Uttarakhand
- (c) Kerala
- (d) Madhya Pradesh

**Answer:** (d) Madhya Pradesh — Madhya Pradesh — 75% of its total forest area is under Reserved Forests, the highest proportion in India.

**Q6. The Chipko Movement was primarily concerned with which issue?**

- (a) Water conservation

- (b) Preventing deforestation
- (c) Wildlife poaching
- (d) Soil erosion

**Answer:** (b) Preventing deforestation — The Chipko Movement — where people hugged trees — successfully resisted deforestation in the Himalayan region.

**Q7. What does JFM stand for?**

- (a) Joint Forest Management
- (b) Jungle Forest Mission
- (c) Joint Forest Monitoring
- (d) Junior Forest Management

**Answer:** (a) Joint Forest Management — JFM is a partnership programme between local village communities and the Forest Department to manage forests together.

**Q8. JFM has been in formal existence since which year?**

- (a) 1980
- (b) 1992
- (c) 1988
- (d) 2000

**Answer:** (c) 1988 — 1988 — Odisha passed the first resolution for Joint Forest Management, formally launching the programme.

**Q9. Which conservation strategy does NOT directly involve community participation?**

- (a) Joint Forest Management
- (b) Chipko Movement
- (c) Beej Bachao Andolan
- (d) Demarcation of Wildlife Sanctuaries

**Answer:** (d) Demarcation of Wildlife Sanctuaries — Boundary marking of sanctuaries is a government function — communities are not directly involved in this process.

**Q10. Tiger population in India had fallen to how many by 1973?**

- (a) 500
- (b) 1,827
- (c) 3,000
- (d) 10,000

**Answer:** (b) 1,827 — From an estimated 55,000 at the turn of the century, tigers fell to just 1,827 by 1973 — a catastrophic decline.

**Q11. Sacred Groves are locally known as which of the following?**

- (a) Dev Van or Deorai
- (b) Jungle Bachao
- (c) Aranya Raksha
- (d) Van Mahotsav

**Answer:** (a) Dev Van or Deorai — Sacred Groves are untouched forest patches known by names like Dev Van, Deorai, or Sarna depending on the region.

**Q12. Which animal is found ONLY in the Gir Forest of Gujarat?**

- (a) Bengal Tiger
- (b) One-horned Rhinoceros
- (c) Asiatic Lion
- (d) Snow Leopard

**Answer:** (c) Asiatic Lion — The Asiatic Lion is the world's rarest big cat and exists exclusively in the Gir Forest National Park, Gujarat.

**Q13. The Bishnoi community is especially known for protecting which animals?**

- (a) Tigers and Leopards
- (b) Blackbuck, Nilgai, and Peacock
- (c) Crocodiles and Gharials
- (d) Elephants and Rhinos

**Answer:** (b) Blackbuck, Nilgai, and Peacock — The Bishnoi of Rajasthan treat blackbuck, nilgai, and peacocks as sacred and feed and protect them daily.

**Q14. Which two countries together provide habitat to about two-thirds of the world's tiger population?**

- (a) China and Russia
- (b) Bangladesh and Sri Lanka
- (c) India and Nepal
- (d) India and China

**Answer:** (c) India and Nepal — India and Nepal together are home to approximately two-thirds of the world's surviving tigers.

**Q15. Beej Bachao Andolan took place in which region?**

- (a) Rajasthan
- (b) Assam
- (c) Tehri and Navdanya
- (d) Punjab

**Answer:** (c) Tehri and Navdanya — In Tehri and Navdanya (Uttarakhand), this movement revived traditional seeds and proved organic farming is viable.

**Q16. Which of the following is a 'Keystone Species' in the forest ecosystem?**

- (a) Peacock
- (b) Tiger
- (c) Sparrow
- (d) Rabbit

**Answer:** (b) Tiger — A keystone species keeps the whole ecosystem healthy. The tiger at the top of the food chain ensures balanced prey populations and healthy vegetation.

**Q17. The Great Indian Bustard is also known by what local name?**

- (a) Chinkaara
- (b) Hangul
- (c) Godawan
- (d) Nilgai

**Answer:** (c) Godawan — The Great Indian Bustard (*Ardeotis nigriceps*) is called Godawan. It is critically endangered and mainly found in Rajasthan.

**Q18. Which of the following is a threat to tigers?**

- (a) Poaching for trade
- (b) Shrinking habitat
- (c) Use of parts in traditional medicines
- (d) All of the above

**Answer:** (d) All of the above — Tigers face multiple simultaneous threats: poaching, habitat loss, prey reduction, human population growth, and demand for body parts in medicines.

**Q19. Which forest category is regarded as most valuable for conservation?**

- (a) Protected Forests
- (b) Unclassified Forests
- (c) Reserved Forests
- (d) Community Forests

**Answer:** (c) Reserved Forests — Reserved Forests are the most strictly protected and are officially regarded as most valuable for conservation of forests and wildlife.

**Q20. Almost one-third of India's total forest area falls under which category?**

- (a) Reserved Forests
- (b) Protected Forests
- (c) Unclassified Forests
- (d) Community Forests

**Answer:** (b) Protected Forests — Protected Forests cover almost one-third of India's total forest land, declared by the Forest Department.

**Q21. India is one of the world's richest countries in terms of:**

- (a) Mineral resources only
- (b) Biological diversity
- (c) Water resources only
- (d) Fossil fuels

**Answer:** (b) Biological diversity — India has an enormous variety of plant and animal species — possibly two to three times the number yet formally discovered.

**Q22. The inhabitants of five Alwar villages declared 1,200 hectares of forest as:**

- (a) Government forest
- (b) Mining zone
- (c) Bhairodev Dakav Sonchuri
- (d) Reserved Forest

**Answer:** (c) Bhairodev Dakav Sonchuri — They created their own rules, banned hunting, and kept outsiders away — a brilliant grassroots conservation success.

**Q23. Which trees are worshipped by the Mundas and Santhals of Chota Nagpur?**

- (a) Neem and Tulsi
- (b) Mahua and Kadamba
- (c) Peepal and Banyan
- (d) Mango and Tamarind

**Answer:** (b) Mahua and Kadamba — Mahua (*Bassia latifolia*) and Kadamba (*Anthocephalus cadamba*) have been considered sacred and protected for generations.

**Q24. Unclassified Forests belong to:**

- (a) Only the Central Government
- (b) Only state governments
- (c) Both government and private individuals and communities
- (d) Only tribal communities

**Answer:** (c) Both government and private individuals and communities — Unlike Reserved or Protected Forests, Unclassified Forests can be owned and managed by the government, private individuals, or communities.

**Q25. Conservation of forests preserves our life support systems, which include:**

- (a) Coal and petroleum
- (b) Water, air, and soil
- (c) Gold and silver
- (d) Roads and buildings

**Answer:** (b) Water, air, and soil — Forests maintain clean water, clean air, and fertile soil — the three most fundamental systems that make human life possible.

**Q26. In which decade did conservationists demand a national wildlife protection programme in India?**

- (a) 1940s and 1950s
- (b) 1980s and 1990s
- (c) 1960s and 1970s
- (d) 2000s

**Answer:** (c) 1960s and 1970s — Growing alarm at wildlife decline during this period led to the landmark Indian Wildlife (Protection) Act of 1972.

**Q27. Which of the following is NOT primarily a tiger reserve?**

- (a) Corbett National Park
- (b) Periyar Tiger Reserve
- (c) Kaziranga National Park
- (d) Sariska Wildlife Sanctuary

**Answer:** (c) Kaziranga National Park — Kaziranga is world-famous for the one-horned rhinoceros. The others are official tiger reserves under Project Tiger.

**Q28. Fisheries are heavily dependent on the maintenance of:**

- (a) Desert ecosystems
- (b) Aquatic biodiversity
- (c) Mountain glaciers
- (d) Agricultural land

**Answer:** (b) Aquatic biodiversity — Fish and aquatic life depend on biodiverse water ecosystems. Forests help maintain river and stream quality, which supports fisheries.

**Q29. Which state passed the first resolution for Joint Forest Management?**

- (a) Rajasthan
- (b) Madhya Pradesh
- (c) Odisha
- (d) Kerala

**Answer:** (c) Odisha — Odisha passed the first resolution for JFM in 1988, formally launching this landmark programme of community-government partnership.

**Q30. Which of the following best describes biodiversity?**

- (a) Total number of trees in a forest
- (b) Variety of all plants, animals, and micro-organisms in an area
- (c) Number of bird species in India
- (d) Variety of only cultivated plant species

**Answer:** (b) Variety of all plants, animals, and micro-organisms in an area — Biodiversity means the variety of all living organisms — plants, animals, bacteria, and micro-organisms — in a particular area.

## Section 2 — Fill in the Blanks — 20 Questions

**Teacher's Tip:** The answer is usually a specific year, name, number, or key term from the chapter. Read the whole sentence first, then decide.

- Q1.** India is one of the world's richest countries in terms of \_\_\_\_\_ diversity.  
**Answer: biological**
- Q2.** The Indian Wildlife (Protection) Act was implemented in the year \_\_\_\_\_.  
**Answer: 1972**
- Q3.** Project Tiger was launched in \_\_\_\_\_.  
**Answer: 1973**
- Q4.** Tiger population in India had dwindled to \_\_\_\_\_ by 1973.  
**Answer: 1,827**
- Q5.** The tiger population at the turn of the century was estimated at \_\_\_\_\_.  
**Answer: 55,000**
- Q6.** More than half of India's total forest land has been declared as \_\_\_\_\_ Forests.  
**Answer: Reserved**
- Q7.** Almost one-third of India's total forest area is under \_\_\_\_\_ Forests.  
**Answer: Protected**
- Q8.** Madhya Pradesh has reserved forests constituting \_\_\_\_\_ per cent of its total forest area.  
**Answer: 75**
- Q9.** Joint Forest Management (JFM) programme has been in formal existence since \_\_\_\_\_.  
**Answer: 1988**
- Q10.** The state of \_\_\_\_\_ passed the first resolution for Joint Forest Management.  
**Answer: Odisha**
- Q11.** The Chipko Movement is famous for resisting \_\_\_\_\_ in the Himalayan region.  
**Answer: deforestation**
- Q12.** Patches of forest left completely untouched by local communities are known as \_\_\_\_\_ Groves.  
**Answer: Sacred**

**Q13.** The inhabitants of five villages in \_\_\_\_\_ district of Rajasthan declared 1,200 hectares as Bhairodev Dakav Sonchuri.

**Answer: Alwar**

**Q14.** The Great Indian Bustard is locally known as \_\_\_\_\_.

**Answer: Godawan**

**Q15.** The Asiatic Lion is found only in the \_\_\_\_\_ Forest of Gujarat.

**Answer: Gir**

**Q16.** \_\_\_\_\_ and \_\_\_\_\_ together provide habitat to about two-thirds of the world's tiger population.

**Answer: India / Nepal**

**Q17.** The Beej Bachao Andolan proved that diverse crops can be produced without \_\_\_\_\_ chemicals.

**Answer: synthetic**

**Q18.** Biodiversity preserves the \_\_\_\_\_ diversity of plants and animals for better growth of species.

**Answer: genetic**

**Q19.** Conservation of forests preserves our life support systems — water, air, and \_\_\_\_\_.

**Answer: soil**

**Q20.** The Bishnoi community of Rajasthan treats blackbuck, \_\_\_\_\_, and peacocks as sacred animals.

**Answer: nilgai**

## Section 3 — Matching Questions — 10 Pairs

**Teacher's Tip:** Match each item in Column A with the correct description in Column B. Answers are given below the table.

Match the following:

Column A	Column B
(1) Reserved Forests	(a) Forests considered most valuable for conservation of forest and wildlife resources
(2) Protected Forests	(b) Forest lands protected from any further depletion by the Forest Department
(3) Unclassified Forests	(c) Forests and wastelands belonging to both government and private individuals
(4) Biodiversity	(d) Variety of all plants, animals, and micro-organisms found in an area
(5) Sacred Groves	(e) Patches of forest left completely untouched by local communities out of religious reverence
(6) JFM	(f) Government and village communities jointly managing forests since 1988
(7) Project Tiger	(g) A 1973 campaign launched after tiger numbers fell to 1,827
(8) Chipko Movement	(h) A Himalayan movement where people hugged trees to prevent felling
(9) Beej Bachao Andolan	(i) A Tehri movement promoting traditional seeds and organic farming
(10) Keystone Species	(j) A species whose presence keeps the entire ecosystem healthy

**Answers:**

Column A Item	Correct Match (Column B)
Reserved Forests	<b>Forests considered most valuable for conservation of forest and wildlife resources</b>
Protected Forests	<b>Forest lands protected from any further depletion by the Forest Department</b>
Unclassified Forests	<b>Forests and wastelands belonging to both government and private individuals</b>
Biodiversity	<b>Variety of all plants, animals, and micro-organisms found in an area</b>
Sacred Groves	<b>Patches of forest left completely untouched by local communities out of religious reverence</b>
JFM	<b>Government and village communities jointly managing forests since 1988</b>

Project Tiger	<b>A 1973 campaign launched after tiger numbers fell to 1,827</b>
Chipko Movement	<b>A Himalayan movement where people hugged trees to prevent felling</b>
Beej Bachao Andolan	<b>A Tehri movement promoting traditional seeds and organic farming</b>
Keystone Species	<b>A species whose presence keeps the entire ecosystem healthy</b>

## Section 4 — Frequently Asked Questions — 10 FAQs

**Teacher's Tip:** These are the questions students ask me most often in class. Read each answer carefully — they clear up the most common confusions in this chapter!

### Q1. What exactly is a 'keystone species'? Why is the tiger called one?

Answer: A keystone species is one so important to its ecosystem that removing it would cause the whole system to collapse — like pulling out the central stone from an arch. The tiger is a keystone species because it sits at the very top of the food chain. Healthy tigers mean sufficient prey animals, which means rich vegetation. A thriving tiger population is effectively a certificate of health for the entire forest ecosystem. Simple way to remember: No tiger = sick forest. Healthy tiger = healthy forest.

### Q2. What is the difference between a National Park, a Wildlife Sanctuary, and a Tiger Reserve?

Answer: National Park: Strictest protection. No human activity (including grazing) is allowed. Boundary is fixed by law.  
Wildlife Sanctuary: More flexible. Some human activities like grazing may be permitted. Focus is on protecting specific wildlife.  
Tiger Reserve: A specially designated area under Project Tiger. Usually includes a core zone (strictly protected, like a national park) and a buffer zone (some human activity is allowed nearby).

### Q3. Why do we need to conserve forests even if we do not use them directly?

Answer: Forests do enormous work silently in the background that affects everyone on Earth. They clean the air we breathe by absorbing CO<sub>2</sub> and releasing oxygen. They regulate the rainfall that grows our food. They hold soil together and prevent floods. They maintain groundwater supplies. They provide habitat for thousands of species and preserve genetic diversity for future medicines. Even if you live in a city and have never visited a forest, your drinking water, the rain that irrigates your food, and the air you breathe are all influenced by forests. Forests are not optional — they are essential.

### Q4. What happened to India's tiger population between 1900 and 1973?

Answer: At the turn of the 20th century, India had an estimated 55,000 tigers. By 1973, only 1,827 remained — a fall of over 96% in seven decades. Causes: poaching for skins and bones, loss of habitat as forests were cleared, reduction in prey animals, growing human encroachment into forests, and demand for tiger parts in traditional Asian medicines. The situation was so alarming that Project Tiger was launched in 1973 — and it became one of the most celebrated conservation campaigns in the world.

### Q5. What exactly is the Chipko Movement and why is it still relevant today?

Answer: The Chipko Movement began in the Himalayan region where local communities — mainly women — literally hugged trees ('chipko' means 'to stick' or 'hug') to prevent contractors from cutting them down.

It showed that organised communities can successfully resist large-scale environmental destruction without government help.

It is relevant today because deforestation continues globally at an alarming rate. The Chipko Movement demonstrated that ordinary people, acting together, can defend their natural environment — a lesson that continues to inspire environmental activists worldwide.

#### **Q6. What are Sacred Groves and how have they helped conservation?**

Answer: Sacred Groves are patches of forest left completely untouched by local communities out of religious reverence. Known as Dev Van, Deorai, or Sarna depending on the region.

No cutting, hunting, or interference is allowed. They preserve rare trees, medicinal plants, and wildlife for centuries without any government enforcement.

They are a brilliant example of how cultural and spiritual traditions protect biodiversity far more durably than laws and fences alone — because communities protect what they truly love and revere.

#### **Q7. What is JFM and how does it benefit local communities?**

Answer: JFM (Joint Forest Management) is a partnership between the Forest Department and local village communities to jointly manage degraded forest land.

Communities protect an assigned forest patch. In return, they receive non-timber forest produce (fruits, flowers, leaves, etc.) and a share of timber from successful restoration.

Benefits: regular forest resources, economic income, and a genuine role in managing the forests they live alongside. Running formally since 1988, starting with Odisha.

#### **Q8. Why are India and Nepal considered 'prime targets' for wildlife poaching?**

Answer: India and Nepal together provide habitat to roughly two-thirds of the world's surviving tiger population.

Illegal traders know this. Tiger skins, bones, and other parts fetch enormous prices on the black market — particularly in some Asian countries where they are used in traditional medicines.

So the higher the tiger population in a country, the greater the pressure from poachers. Both India and Nepal have had to invest heavily in anti-poaching enforcement and international wildlife crime co-operation.

#### **Q9. What does the NCERT text mean by 'life support systems'?**

Answer: 'Life support systems' refers to the basic natural processes that make life on Earth possible: clean water, clean air, and fertile soil.

Forests regulate rainfall and river flows (water), absorb CO<sub>2</sub> and release oxygen (air), and prevent soil erosion while enriching the ground with leaf litter (soil).

Without these systems functioning properly, agriculture collapses, clean water disappears, and breathing becomes dangerous. Forest conservation is therefore not just about animals and plants — it is fundamentally about human survival.

**Q10. How is community conservation different from government conservation, and which is more effective?**

Answer: Government conservation works through laws, national parks, enforcement officers, and designated protected areas — a top-down approach where the state decides what is protected and how.

Community conservation is bottom-up — local people voluntarily protect their environment, often without government instruction or funding. Examples: Sacred Groves, Chipko Movement, Bhairodev Dakav Sonchuri.

Which is better? Both are needed. Government conservation provides legal strength and large-scale planning. Community conservation provides local knowledge, voluntary commitment, and long-term sustainability. The ideal model — as the NCERT chapter argues — is one where local communities are placed genuinely at the centre of decision-making, supported by government law and resources.

## Section 5 — Short Answer Questions — 30 Questions

**Teacher's Tip:** Each answer should be 2–4 sentences. Write in your own words but make sure the key facts are accurate. Quality matters far more than length!

### Q1. What is biodiversity?

Biodiversity refers to the variety of all living organisms — plants, animals, and micro-organisms — found in a particular area. It includes diversity of form, function, and the complex web of interdependence among species. India is one of the world's richest countries in terms of biological diversity.

### Q2. Why is India considered a 'biodiversity-rich' country?

India is considered biodiversity-rich because it has an enormous variety of plant and animal species. The actual count is possibly two to three times the number yet formally discovered. This makes India one of the most ecologically significant countries on Earth.

### Q3. What is the Indian Wildlife (Protection) Act of 1972?

It is a landmark law to protect India's wildlife. It published an all-India list of protected species, banned hunting and illegal trade, established national parks and sanctuaries, and gave the government power to announce special conservation projects for endangered animals.

### Q4. What is Project Tiger and when was it launched?

Project Tiger is one of the most famous wildlife conservation campaigns in the world. Launched in 1973, it was a response to tigers falling from 55,000 to just 1,827. Its aim was to protect tiger populations and the entire forest ecosystem they depend upon.

### Q5. Name any five animals given legal protection under Indian law.

The following animals are legally protected: the tiger, the one-horned rhinoceros, the Kashmir stag (hangul), the gharial, the Asiatic lion, the Indian elephant, the black buck (chinkaara), the great Indian bustard (godawan), and the snow leopard.

### Q6. What are Reserved Forests?

Reserved Forests cover more than half of India's total forest land. They are regarded as most valuable for conservation of forests and wildlife. They are strictly managed and used for timber and forest produce under controlled conditions.

### Q7. What are Protected Forests?

Protected Forests cover almost one-third of India's total forest area, declared by the Forest Department. Once declared, these lands are specifically protected from any further

depletion — no more clearing or destruction is permitted.

#### **Q8. What are Unclassified Forests?**

Unclassified Forests are all other forests and wastelands not in the Reserved or Protected categories. They may belong to the government, private individuals, or communities. Many north-eastern states have high percentages of such forests, often managed locally.

#### **Q9. What is the Chipko Movement?**

The Chipko Movement was a community-based environmental movement in the Himalayas where people — especially women — hugged trees to prevent contractors from felling them. It successfully resisted deforestation in several areas and showed that organised community action can protect forests.

#### **Q10. What is the Beej Bachao Andolan?**

The Beej Bachao Andolan (Save the Seeds Movement) began in Tehri and Navdanya, Uttarakhand. It showed that diverse crops could be produced without synthetic chemicals, making traditional organic farming both environmentally sound and economically viable.

#### **Q11. What is Bhairodev Dakav Sonchuri?**

It is a community-protected forest in Alwar district, Rajasthan. The people of five villages declared 1,200 hectares as their own, created rules against hunting, and actively guard the wildlife against any outside encroachment — all without government involvement.

#### **Q12. What is Joint Forest Management (JFM)?**

JFM is a programme in which local village communities and the Forest Department jointly protect and manage degraded forest land. Communities receive non-timber forest produce and a share of timber in return. It has been formally running since 1988, starting with Odisha.

#### **Q13. What are Sacred Groves?**

Sacred Groves are patches of forest left completely untouched by local communities out of religious reverence. No cutting, hunting, or interference is permitted. They serve as natural refuges for rare plants and animals and are found across many regions of India.

#### **Q14. Name any two tiger reserves in India with their states.**

Corbett National Park in Uttarakhand and Sunderbans National Park in West Bengal are two famous tiger reserves. Others include Bandhavgarh (Madhya Pradesh), Sariska (Rajasthan), Manas (Assam), and Periyar (Kerala).

#### **Q15. How does conservation help agriculture and fisheries?**

Conservation preserves genetic diversity which helps develop better crop varieties,

ensuring food security. Fisheries depend on aquatic biodiversity — diverse water ecosystems support healthier fish populations. Forests also maintain the water cycles that both farmers and fisheries depend upon.

**Q16. Why is the tiger considered a 'keystone species'?**

A keystone species is so vital that its removal causes ecosystem collapse. Tigers sit at the top of the food chain. Their existence ensures prey populations are balanced and vegetation is healthy. A thriving tiger population is proof that the entire forest ecosystem is functioning well.

**Q17. What role do forests play in maintaining water quality?**

Forests act as natural water filters. Tree roots hold soil in place, preventing it from washing into rivers. Forests also absorb rainwater slowly, recharging groundwater. Without forests, rivers become silted, floods increase, and water supplies become unreliable.

**Q18. What does the textbook mean by 'life support systems'?**

Life support systems refer to clean water, clean air, and fertile soil — the basic natural processes that make life possible. Forests regulate rainfall, purify air by absorbing CO<sub>2</sub>, and protect soil from erosion. Losing forests threatens all three simultaneously.

**Q19. Explain the role of traditional conservation in India with one example.**

Traditional conservation in India is rooted in cultural and religious practice. The Bishnoi community of Rajasthan, for example, considers blackbuck, nilgai, and peacocks sacred and has protected them for centuries — long before any wildlife law existed.

**Q20. Why are India and Nepal considered primary targets for poaching?**

India and Nepal together hold approximately two-thirds of the world's surviving tiger population. Poachers and illegal traders target these countries specifically because tiger skins and bones fetch extremely high prices on the illegal international wildlife market.

**Q21. What is the significance of the Sariska Tiger Reserve example?**

Villagers in Sariska, Rajasthan, fought against illegal mining by citing the Wildlife Protection Act. This is a powerful example of communities using legal tools to protect their own environment rather than waiting for the government to act on their behalf.

**Q22. How have state governments contributed to forest conservation?**

State governments established national parks and sanctuaries under the 1972 Act. They participate in JFM programmes, support community conservation, and manage forest departments that protect Reserved and Protected Forests within their territories.

**Q23. What is the importance of genetic diversity for future generations?**

Genetic diversity provides the raw material for evolution, new medicines, and better crop varieties. Species lost before study takes with them unique chemical compounds and genes forever. Conservation therefore directly protects future scientific, agricultural, and medical possibilities.

**Q24. How does nature worship help conservation in India?**

Many Indian communities worship specific trees, animals, and natural features, leading to voluntary protection. Sacred Groves preserved as 'forests of the gods' are pristine biodiversity patches, protected not by law but by belief — which can be even more powerful and durable.

**Q25. Name the three types of crocodylians protected by Indian law.**

India has three legally protected crocodylians: the freshwater crocodile, the saltwater (estuarine) crocodile, and the gharial. All three are endangered and given full or partial protection under the Wildlife Protection Act of 1972.

**Q26. What does the chapter say about ecological farming?**

The chapter highlights that traditional conservation methods and ecological farming are being revived successfully. The Beej Bachao Andolan and Navdanya showed diverse crops are possible without synthetic chemicals and are economically viable — proving organic farming works.

**Q27. How has Madhya Pradesh distinguished itself in forest conservation?**

Madhya Pradesh has the largest area under reserved forests in India — constituting 75% of its total forest area. This makes MP one of India's most forested and ecologically significant states with the highest proportion of reserved forest cover.

**Q28. What is the role of Odisha in the history of JFM?**

Odisha holds a special place in JFM history as it passed the very first state resolution for Joint Forest Management in 1988. This pioneering step formally launched the programme and set a model for other states to adopt community forest management.

**Q29. What does Gautama Buddha's quote about trees tell us?**

Gautama Buddha's quote (487 B.C.) describes trees as beings of unlimited kindness that give shade even to those who destroy them. It tells us that appreciation for trees is ancient wisdom, and reminds us of our moral responsibility not to destroy what gives us so much.

**Q30. What is the main lesson the chapter draws from community conservation examples?**

The main lesson is that local communities must be genuinely involved in natural resource management — not as bystanders but as central decision-makers. Conservation that excludes communities is rarely sustainable, while conservation that empowers them has proven remarkably effective.



## Section 6 — Long Answer Questions — 20 Questions

**Teacher's Tip:** Write each long answer in 100–150 words. Use clear paragraphs, give specific examples from the chapter, and always end with a conclusion. Structure = marks!

**Q1. What is biodiversity? Explain why it is important for human lives. Give at least four reasons.**

Biodiversity means the variety of all living organisms — plants, animals, bacteria, and micro-organisms — found in a given area. India is one of the world's richest countries in biological diversity, with species counts possibly two to three times the number yet formally recorded.

Why Biodiversity Is Important:

1. **Ecological Balance:** Every species plays a role. Removing one triggers chain reactions affecting many others — for example, if bees disappear, pollination stops and crops fail.
2. **Food Security:** Greater biodiversity means more crop varieties. If one fails due to disease or climate change, others sustain the food supply.
3. **Medicines:** Many life-saving drugs come from plants and animals. More biodiversity means more raw material for future medical discoveries.
4. **Life Support Systems:** Biodiversity maintains clean air, clean water, and fertile soil — the three foundations of all human life.
5. **Cultural and Spiritual Value:** Many communities derive cultural identity, spiritual practice, and livelihood from local biodiversity.

Biodiversity is not a luxury — it is the foundation upon which all human life rests.

**Q2. Describe the Indian Wildlife (Protection) Act of 1972. What were its main provisions and which animals does it protect?**

The Indian Wildlife (Protection) Act of 1972 was a landmark law passed in response to conservationists' demands in the 1960s and 70s, when rapid wildlife and forest decline had become alarming.

Main Provisions:

- An all-India list of protected species was published, making their identification and protection legally clear.
- Hunting, capturing, and trading any protected species was strictly banned throughout India.
- Central and state governments were empowered to establish National Parks and Wildlife Sanctuaries.
- The government could announce special conservation projects for critically endangered species.

Animals Protected (Full or Partial Legal Protection):

The tiger, one-horned rhinoceros, Kashmir stag (hangul), freshwater crocodile, saltwater crocodile, gharial, Asiatic lion, Indian elephant, black buck (chinkara), great Indian bustard (godawan), and snow leopard.

Significance: This Act shifted India's approach from treating wildlife as a resource to be exploited, to treating it as a national treasure to be protected. It provided the legal backbone for all subsequent conservation efforts including Project Tiger.

**Q3. Explain Project Tiger in detail. What caused the fall in tiger numbers? What was the significance of this programme?**

Project Tiger is one of the world's most celebrated wildlife conservation programmes. Launched in 1973, it was the Indian government's urgent response to a dramatic ecological crisis.

The Crisis: At the turn of the 20th century, India had an estimated 55,000 tigers. By 1973, this had fallen to just 1,827 — a catastrophic collapse within seven decades.

Causes of Decline:

- Poaching: Tiger skins, bones, and claws were sold at very high prices on the international black market.
- Habitat Loss: Forests were cleared for agriculture, settlements, roads, and industrial development.
- Prey Base Reduction: Deer, wild boar, and other prey animals were also hunted, leaving tigers without enough food.
- Human Population Growth: People encroached into forest areas, fragmenting tiger territories.
- Traditional Medicines: Tiger body parts were used in Asian traditional medicines, creating continuous demand.

The Role of India and Nepal: Together, these two countries provide habitat to roughly two-thirds of the world's surviving tigers — making them prime targets for international poachers.

Significance: Project Tiger established a network of tiger reserves with strictly protected core zones and managed buffer zones. It saved the tiger from the brink of extinction, protected entire forest ecosystems, raised global awareness, and became a model for conservation worldwide. It proved that determined government action, combined with scientific management and public support, can reverse ecological disasters.

**Q4. Explain the three categories of forests in India — Reserved, Protected, and Unclassified — with their characteristics and state examples.**

India's forests are classified under three main categories by the government:

1. Reserved Forests: These cover more than half of India's total forest land and are the most valuable category for conservation. They are also used for timber and forest produce under strict management. States with the highest proportions include Madhya Pradesh (75%), Jammu and Kashmir, Andhra Pradesh, Uttarakhand, Kerala, Tamil Nadu, West Bengal, and Maharashtra.
2. Protected Forests: Almost one-third of India's total forest area is under this category. They are declared by the Forest Department and protected from any further depletion. States including Bihar, Haryana, Punjab, Himachal Pradesh, Odisha, and Rajasthan have large proportions in this category.
3. Unclassified Forests: All other forests and wastelands not in the above categories. They may belong to governments, private individuals, or communities. North-eastern states and parts of Gujarat have high percentages of such forests, often managed by local communities with their own rules.

Understanding these categories matters because each has different levels of legal protection, different management approaches, and different roles in India's overall conservation strategy. Reserved Forests provide the strongest protection; Unclassified Forests provide the most community control.

**Q5. Describe the role of community participation in forest conservation in India. Give at least four detailed examples.**

Community participation is one of the most powerful and proven tools for forest

conservation in India. Here are four detailed examples:

1. Chipko Movement (Himalayas): Local communities, especially women, hugged trees to prevent contractors from cutting them. It successfully stopped deforestation in several Himalayan areas and became a global symbol of grassroots environmental activism.
2. Beej Bachao Andolan (Tehri and Navdanya, Uttarakhand): Farmers and activists revived traditional seed varieties and proved chemical-free farming is both ecologically sound and economically viable, challenging the dominance of synthetic agriculture.
3. Bhairodev Dakav Sonchuri (Alwar, Rajasthan): The people of five villages declared 1,200 hectares of forest as their own protected area. They created and enforced their own rules against hunting and outside interference — independently, without government help.
4. Sariska Tiger Reserve (Rajasthan): Villagers used the Wildlife Protection Act to fight illegal mining, demonstrating that communities can use legal tools effectively to protect their natural environment.

Lesson: These examples prove that local communities, when empowered with information, legal rights, and genuine decision-making authority, can often conserve resources more effectively and sustainably than external government agencies. The NCERT chapter argues that local communities must be genuinely placed at the centre of conservation decision-making.

**Q6. What are Sacred Groves? How have they contributed to conservation of biodiversity in India? Give examples from different communities.**

Sacred Groves are patches of forest — or parts of larger forests — left completely untouched by local communities out of deep religious and cultural reverence. No cutting, hunting, or interference of any kind is permitted.

They are known by different regional names: Dev Van, Deorai, Sarna, Jahera, and others depending on the state and community.

How They Contribute to Conservation:

- They preserve pristine, undisturbed ecosystems for generations, sometimes centuries.
- They serve as refuges for rare plants, medicinal herbs, and animals that have disappeared from surrounding farmland and degraded forests.
- They are maintained voluntarily — no government enforcement is needed, making them highly cost-effective and durable.

Examples from Different Communities:

- Mundas and Santhals of Chota Nagpur: Revere Mahua (*Bassia latifolia*) and Kadamba (*Anthocephalus cadamba*) trees.
- Tribes of Odisha and Bihar: Consider the Tamarind tree sacred and do not harm it.
- All Indian Society: Mango trees are traditionally planted and protected at weddings; Peepal and Banyan trees near temples are never cut.
- Bishnoi Villages of Rajasthan: Blackbuck, nilgai, and peacocks are treated as sacred community members, fed daily, and fiercely protected.

Conclusion: Sacred Groves demonstrate that cultural and spiritual beliefs can be extraordinarily powerful conservation tools — sometimes far more effective than written law. Belief protects what law cannot always reach.

**Q7. What is Joint Forest Management (JFM)? How does it work? What are its benefits to local communities?**

Joint Forest Management (JFM) is a programme in which the government's Forest Department and local village communities work as genuine partners to protect and manage degraded forest land.

History: JFM has been formally running since 1988 when Odisha passed India's first state

resolution for it. Many other states have since adopted similar frameworks.

**How It Works:** Local village-level institutions (community committees) are assigned responsibility for protecting a specific patch of degraded forest that the Forest Department manages. The community guards the forest, prevents illegal cutting, and reports encroachments.

**What Communities Receive in Return:**

- Non-Timber Forest Produce (NTFP): Fruits, leaves, flowers, fodder, and medicinal herbs that communities can freely collect, use, or sell.
- A Share of Timber: When the protected forest recovers sufficiently, the community receives a portion of the timber revenue from 'successful protection'.

**Benefits to Communities:**

- Regular and reliable income from forest resources.
- A formal role in managing the very forest they depend upon for daily life.
- Improved forest quality over time, providing better resources in the long term.
- Strengthened community institutions and governance.

JFM is an excellent example of shared responsibility and shared rewards — making conservation genuinely beneficial to those who live closest to the forest.

#### **Q8. Explain how human activities have led to the depletion of forests and wildlife in India.**

Human activities have caused enormous and often irreversible damage to India's forests and wildlife. Here is a detailed examination:

1. **Deforestation:** Vast tracts of forest have been cleared for agriculture, urban settlements, industrial development, and infrastructure such as roads, dams, and railways. This directly destroys the habitat of countless species.
2. **Poaching and Hunting:** Illegal hunting for sport, trade, and traditional medicines has drastically reduced populations of tigers, rhinos, elephants, leopards, and many other animals. The illegal wildlife trade is worth billions globally.
3. **Pollution:** Industrial chemicals, agricultural pesticides, plastic waste, and air pollution have made many habitats unliveable for sensitive species.
4. **Mining:** Extraction of minerals from forested areas destroys habitats permanently and displaces wildlife with no possibility of recovery.
5. **Urbanisation:** Expanding cities and towns consume forest land and fragment habitats, cutting animals off from breeding grounds and migration routes.
6. **Introduction of Invasive Species:** Non-native plants and animals, introduced deliberately or accidentally, out-compete native species, reducing biodiversity.
7. **Over-exploitation:** Excessive collection of firewood, medicinal plants, and other forest produce beyond what the forest can naturally replenish degrades overall forest health.

The combined result: many species are now endangered or extinct, habitats are fragmented, ecosystems are under severe stress, and the life support systems that forests provide — clean water, clean air, fertile soil — are deteriorating.

#### **Q9. What lesson does the NCERT chapter draw from examples of environmental destruction and reconstruction in India?**

The NCERT chapter draws a powerful, clear, and politically significant lesson from both the successes and failures of conservation in India.

**The Central Lesson:** Local communities everywhere must be genuinely involved in natural resource management. Without their participation, conservation is neither sustainable nor truly effective in the long run.

**A Caution:** The chapter also honestly acknowledges that there is still a long way to go before local communities are truly at the centre stage of decision-making. Too often, they

are consulted after decisions are made, rather than being the primary decision-makers from the start.

The Criteria for Good Conservation: The chapter urges acceptance of only those developmental or economic activities that are:

- People-centric: genuinely benefiting the communities who live with and depend on the resource.

- Environment-friendly: not causing long-term ecological damage.

- Economically rewarding: sustainable and genuinely profitable over the long term.

Evidence from the Chapter: The Chipko Movement, Beej Bachao Andolan, Sariska villagers, and Bhairodev Dakav Sonchuri all prove that communities can manage resources responsibly, creatively, and sustainably when genuinely empowered.

Broader Lesson for Students: Nature conservation is not simply a scientific or environmental issue — it is a deeply political and social question about who has the power to make decisions about shared natural resources. Real conservation requires justice, inclusion, and respect for local knowledge — not just biology and law.

**Q10. How does the conservation of forests help maintain ecological balance? Explain with reference to food chains and ecosystem services.**

Forests are the foundation of terrestrial ecological balance. Here is how their conservation maintains the web of life:

The Food Chain: Every forest contains a complex food chain. Plants and trees are primary producers — converting sunlight to food through photosynthesis. Herbivores (deer, wild boar, elephants) eat plants. Carnivores (tigers, leopards) eat herbivores. Decomposers (fungi, bacteria) break down dead matter, returning nutrients to the soil.

If any link breaks — say trees disappear — the entire chain collapses. No trees means no herbivores; no herbivores means no carnivores; no carnivores means unchecked herbivore populations that devastate remaining vegetation.

Ecosystem Services Forests Provide:

- Climate Regulation: Forests absorb carbon dioxide and release oxygen, regulating temperature and weather patterns globally and locally.

- Water Cycle: Trees absorb and release water, generating rainfall, preventing floods, and maintaining river flows.

- Soil Health: Fallen leaves decompose into humus, enriching soil fertility. Tree roots prevent erosion.

- Air Purification: Forests filter dust, absorb pollutants, and maintain oxygen levels.

- Habitat: Forests provide shelter, food, and breeding grounds for thousands of species.

- Genetic Resources: Forests preserve the genetic diversity needed for future medicines and crop improvement.

Conclusion: Conserving forests is not about preserving pretty scenery — it is about maintaining the invisible, essential machinery that keeps our entire planet habitable and productive. Every ecosystem service forests provide is one that humans cannot replicate artificially at any reasonable cost.

**Q11. Describe the concept of sustainable conservation as suggested by the NCERT chapter. How can India balance development and conservation?**

Sustainable conservation means using and protecting natural resources in ways that meet present needs without compromising the ability of future generations to meet their own needs.

What the NCERT Chapter Recommends: The chapter makes a clear and firm recommendation — accept only those economic or developmental activities that are

people-centric (benefiting local communities), environment-friendly (not causing long-term ecological damage), and economically rewarding (generating genuine and lasting economic value).

The Chapter's Critique: It is critical of top-down conservation where governments make all decisions and local communities are treated as outsiders in their own forests. This model has repeatedly failed. Real sustainability requires local communities at the centre, not the periphery, of decision-making.

How India Can Balance Development and Conservation:

1. Expand and Strengthen JFM: Give communities genuine economic stakes in forest management and protection.
2. Develop Eco-tourism: Create income for local communities from wildlife and nature, without damaging ecosystems.
3. Promote Ecological Farming: As shown by Beej Bachao Andolan, traditional organic farming methods are productive and conservation-friendly.
4. Enforce Laws Rigorously: Strengthen and enforce laws against poaching, illegal mining, and encroachment into protected areas.
5. Educate Young People: The NCERT chapter itself is part of this solution — creating informed, aware citizens who demand and practise sustainable conservation.

The chapter's ultimate message is optimistic: India has the cultural traditions, community models, and legal tools for sustainable conservation. What is needed is the political will to genuinely place local communities at the centre of decision-making — not as afterthoughts, but as the primary stewards of India's magnificent natural heritage.