

# 5

## Chapter

# Conservation of plant and animals

We'll cover the following key points:

- Biodiversity in India
- Wildlife Conservation
- Wildlife Sanctuaries



Hi, I'm EeeBee

Do you Remember:

Fundamental concept in previous class.

In class 7<sup>th</sup> we learnt

- Living Organisms in Forest

Still curious?  
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scanning  
the QR code.



## Learning Outcomes

**By the end of this chapter, students will be able to:**

- Comprehend biodiversity's role in maintaining ecological balance.
- Distinguish between flora and fauna, with a focus on endemic species.
- Learn about the Red Data Book and animal migration patterns.
- Appreciate the role of recycling and reforestation in environmental conservation.
- Examine the causes and consequences of deforestation, alongside methods for forest and wildlife conservation.

## Guidelines for Teachers

Begin the chapter with an interactive discussion that highlights the relevance of biodiversity in students' daily lives. Using visual aids like diagrams and illustrations can clarify key ideas and deepen students' understanding. Aim to create a stimulating learning environment that fosters curiosity and a sense of responsibility towards protecting our natural world.

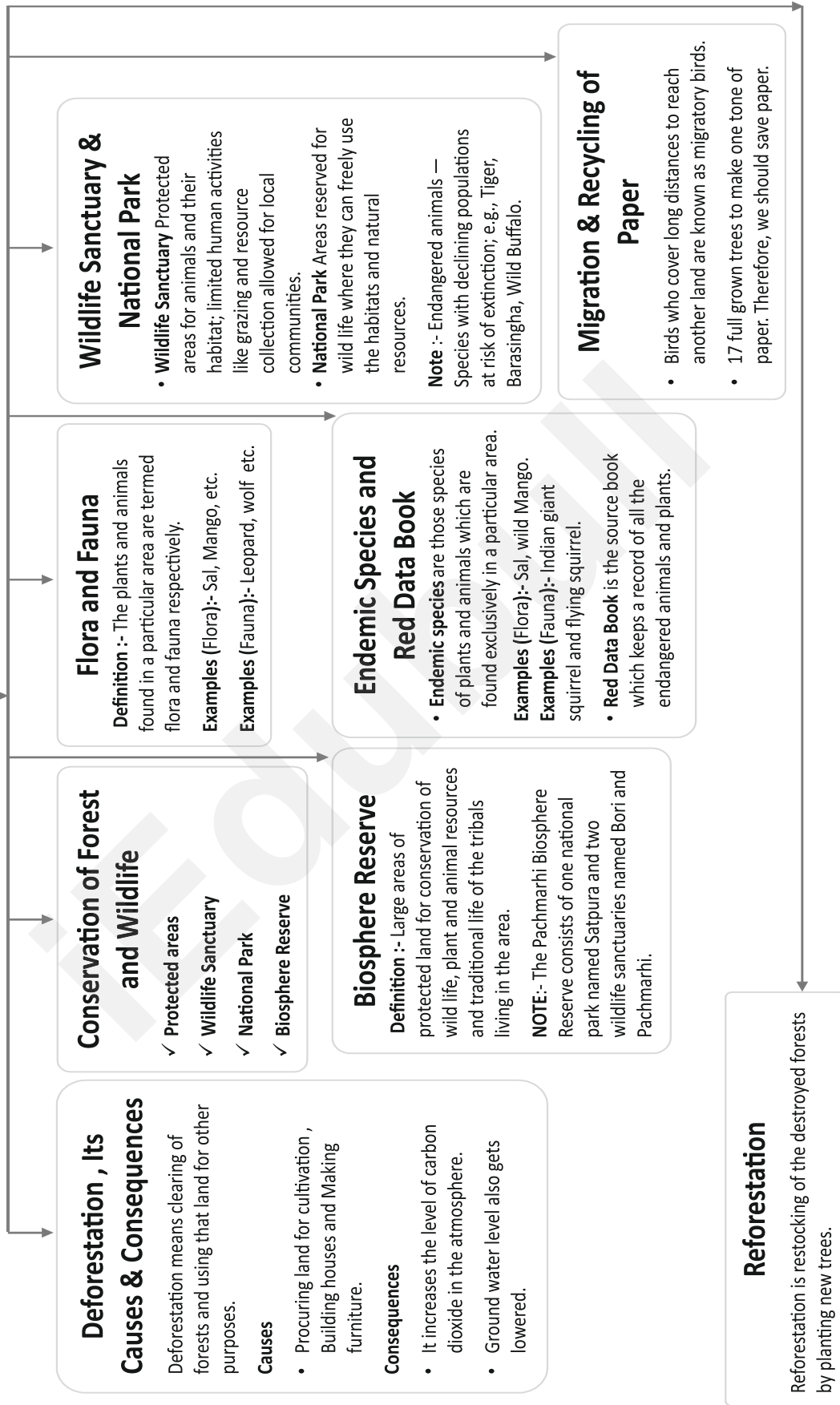
## NCF Curricular Goals and Competencies

This chapter aligns with the competency CG-6 (C 6.1), which emphasizes understanding natural processes through scientific exploration and inquiry.



Mind Map

## CONSERVATION OF PLANTS AND ANIMALS



## Introduction

Where can you find these animals? Either in a forest reserve or a park. Name some natural parks and the animals you find there.

In the past, India was covered with large areas of forests. As the population increased over the years, more and more land was occupied by humans to build cities and to cultivate crops.

The good news is that the forest cover in the country has increased by 1% (from 20% to 21%) according to the biennial state of forest reports 2017 released by the Forest Survey of India. But this percentage is very small as forests are of utmost importance to the existence and well being of living organisms of earth.

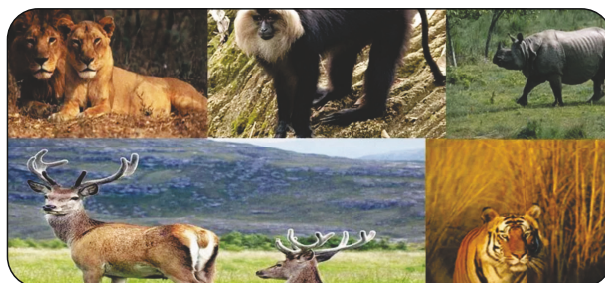
Some of the important functions of forests are given below:

- They provide habitat for various plant and animal species.
- They provide clean air to breathe for all other living organisms.
- They control the amount of carbon dioxide in the atmosphere, thereby preventing **global warming**.
- They regulate the climate of a region.
- They prevent soil erosion, thus protecting a valuable resource.
- They provide useful products, such as timber, resin, and gum, to humans.

It may be defined as the variety of life forms found on our planet in a particular area.

## In History...

The concept of conserving plants and animals has been around for centuries, but modern environmental conservation efforts began in the 19th century. In 1875, the establishment of Yellowstone National Park in the United States marked the first formal effort to protect natural landscapes and wildlife. Globally, efforts to conserve **endangered species** and habitats gained momentum in the 20th century, particularly after the 1972 United Nations Conference on the Human Environment. This led to the formation of important international agreements like the Convention on Biological Diversity (1992), which emphasized the importance of preserving biodiversity for future generations. Today, conservation efforts are focused on protecting **ecosystems**, preventing species extinction, and promoting sustainable use of natural resources.



## KEYWORDS

**Endangered Species:** Species at risk of extinction due to habitat loss, climate change, or human activities.

**Ecosystems:** Communities of living organisms interacting with each other and their physical environment.

**Global Warming:** The long-term rise in Earth's average temperature caused by increased greenhouse gas emissions.

## Biodiversity in India

India has a rich and varied biodiversity because of a variety of habitats such as deserts, grasslands, tropical and temperate forests, coastal wetland and alpine vegetation. More than 50% of the total species of plants and animals found on the earth are present in India. Therefore, India is one of the mega biodiversity nations. It has just 2.4% of world's land area but contributes over 8% to the global biodiversity. Western Ghats and Eastern Himalayas have been designated as two of the world's twenty five hotspots of global biodiversity.

## Threat to biodiversity

The various factors leading to extinction of wild species and depletion of biodiversity are;

### Habitat loss due to increase in human population

Great increase in human population in the last 70 years is responsible for the rapid decline of biodiversity because more and more land is needed for agriculture housing for making roads, and for constructing dams, bridges, power houses and industries.

### Deforestation and overgrazing

Indiscriminate cutting of trees by humans causes deforestation. Similarly overgrazing by increased population of cattle and sheep causes shrinkage of grasslands and loss of habitat of wild animals.

### Pollution

Air and water get polluted with insecticides used in agriculture, toxic elements released from industries and petroleum products. Weak and susceptible species are unable to tolerate the pollutants and are eliminated.

### Introduction of exotic species

The species introduced into a new locality from some other area is called exotic species. It competes with the species already existing in that area and may cause extinction of some native species.

### Climatic changes

Human activities are causing changes in the temperature and rainfall pattern. These are responsible for global warming and melting of glaciers. Such changes have adverse effect on biodiversity.

### Human greed

International trade in wildlife and wildlife products have threatened the existence of tigers, bears, foxes, elephants and crocodiles etc.



## Need for conservation of biodiversity

Conservation of biodiversity is essential because of the following facts :

- Biodiversity maintains balance in nature or balance in ecosystem.
- Wild animals and plants provide a variety of commodities.
- Wildlife is needed for breeding programmes in agriculture, horticulture, sericulture and apiculture etc.

We are a part of nature and all the components of nature are interdependent. Any damage to its biodiversity will threaten the whole support system and will be a threat to human existence. Therefore biodiversity needs to be conserved.

## Flora and Fauna

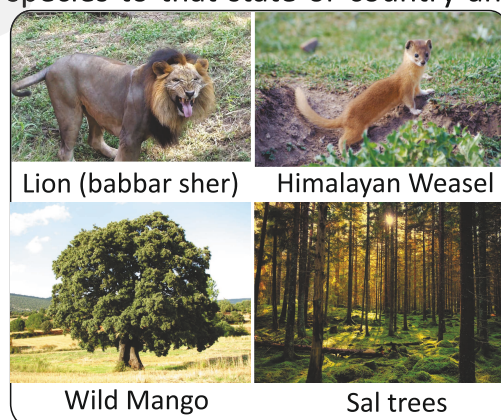
The plants found typically in particular area form the flora of that area. The term 'fauna' represents the wild animals found in a particular place or a particular geographical region. For examples, trees of jamun, mango, guava, pine, chir, oak, deodar, bamboo form the flora of Himanchal Pradesh and the trees of dhak, salai, jamun, arjan, and ber form the flora of Rajasthan. Tiger, leopard, antelope, sambar, chinkara, nilgai, porcupine, hyena, and wild boar represent the fauna of Rajasthan.

## Endemic species

Some species of plants and animals are found exclusively in a particular area and do not occur naturally anywhere else. Such species are called endemic species to that state or country and geographical area. For example;

- Lion is endemic to Gir Forests in Gujarat.
- Himalayan weasel is endemic to Himalayan region.
- Snow leopard is endemic to Himalayan range found from Kashmir to Sikkim.
- Wild mango and sal trees are endemic to flora of Panchmarhi biosphere reserve.

The existence of endemic species is often threatened due to introduction of exotic species from some other geographical area.



## Conservation of biodiversity

Conservation of biodiversity essentially implies:

- Conservation of forests
- Conservation of wildlife

**Conservation of Forests :** Forests are the natural treasures and the lungs of nature. Therefore the conservation of forests is quite essential.

**Causes of Deforestation :** Deforestation is the cleaning of forest for using the land for other purposes. This poses a serious threat to our resources, economy, quality of life and our environment. There are various causes of deforestation.



## Man-made causes of deforestation

Human beings are felling trees for :

- Procuring land for cultivation of crops, vegetables, fruits, and for building houses, factories, roads etc.
- Cleaning land for mining.
- Cutting trees for making furniture and for obtaining firewood.

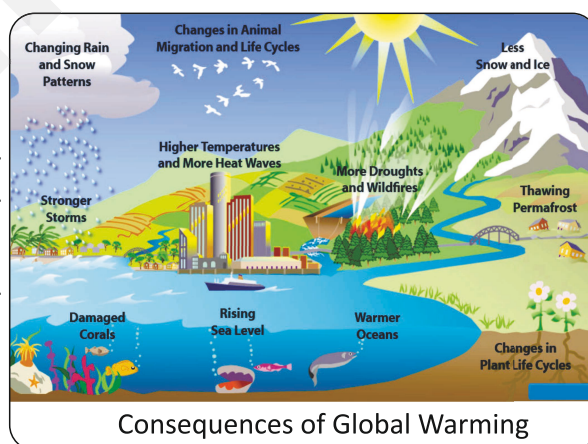
## Natural causes of deforestation

- Forest fire
- Severe droughts
- Flood, earthquakes and landslides
- Pest , viral and fungal diseases of plants.

## Consequences of deforestation

Deforestation has the following consequences;

- **Global warming** : Deforestation increases level of CO<sub>2</sub> in the atmosphere causing global and greenhouse effect.
- **Desertification** : The felling of trees causes change in the physical property of the soil. The water holding capacity of the soil changes, and level of subsoil water is lowered making the top layer soil dry. Gradually the fertile soil gets converted into desert.
- **Change in climate** : Deforestation increases the temperature, reduces rainfall and increases wind velocity. These changes lead to climatic change.
- **Loss of wildlife** : Deforestation leads to loss of natural habitats of wildlife animals and depletion of food sources.
- **Depletion of resources** : Forests provide a variety of essential commodities like food, fodder, firewood, fruit, fishes, medicines, aromatic oils etc. They support a variety of human races living in forests.
- **Soil erosion and floods** : Deforestation leads to decreased water holding capacity of the soil, consequently reducing infiltration of water into the ground. So, there are frequent floods and fertile top soil is washed away with water.
- **Drought** : Disturbed water cycle, reduced rains and lowering of water table due to the removal of trees causes frequent draughts.



## Forest conservation and management

Conservation of forests is required to ensure a regular supply of forest products along with maintaining ecological balance. This can be achieved by adopting the following ways;

- Forest resources should be used rationally, economically and miserly.
- Alternative sources of fuelwood should be explored. Biogas is a good alternative to fuelwood.
- **Preventing overgrazing** : Grazing by the cattle should be regulated.
- **Protection from fire, pests and disease** : Forests should be protected from fire, by putting restriction on smokers, campers for burning debris, and from pests and diseases.
- Felling of trees should be made punishable activity. The Government of India has put complete restriction on cutting of trees.

## Let's recall what we know

### Apply Concept in Real-Life Context

Apply

1. What role do endemic species play in maintaining a balanced ecosystem?
2. In what ways does the destruction of natural habitats affect the diversity of species?

**Skills Practiced:** Critical and logical thinking, brainstorming, application, problem-solving

### Further Analysis

Analyse

1. Why did society move away from hunting animals for food and clothing, and how has this shift impacted wildlife conservation?
2. What government initiatives are in place to protect endangered species, and how effective are they?

**Skills Practiced:** Critical and logical thinking, brainstorming, problem-solving.

### Self-Assessment Questions

Evaluate

1. Can you explain the concept of biodiversity in your own words?
2. How would you describe the difference between flora and fauna?
3. What distinguishes extinct species from endangered ones?
4. What are some human activities that contribute to the loss of biodiversity?
5. How would you define an endemic species, and why is it significant?

### Creative Task

Create

Develop a presentation using MS PowerPoint or Libre Office Impress that explores the disappearance of dinosaurs, focusing on theories related to their extinction and the evidence supporting these ideas.

**Skills Practiced:** Creativity, critical and logical thinking, brainstorming, research, digital literacy

SCAN TO ACCESS



Take a Task



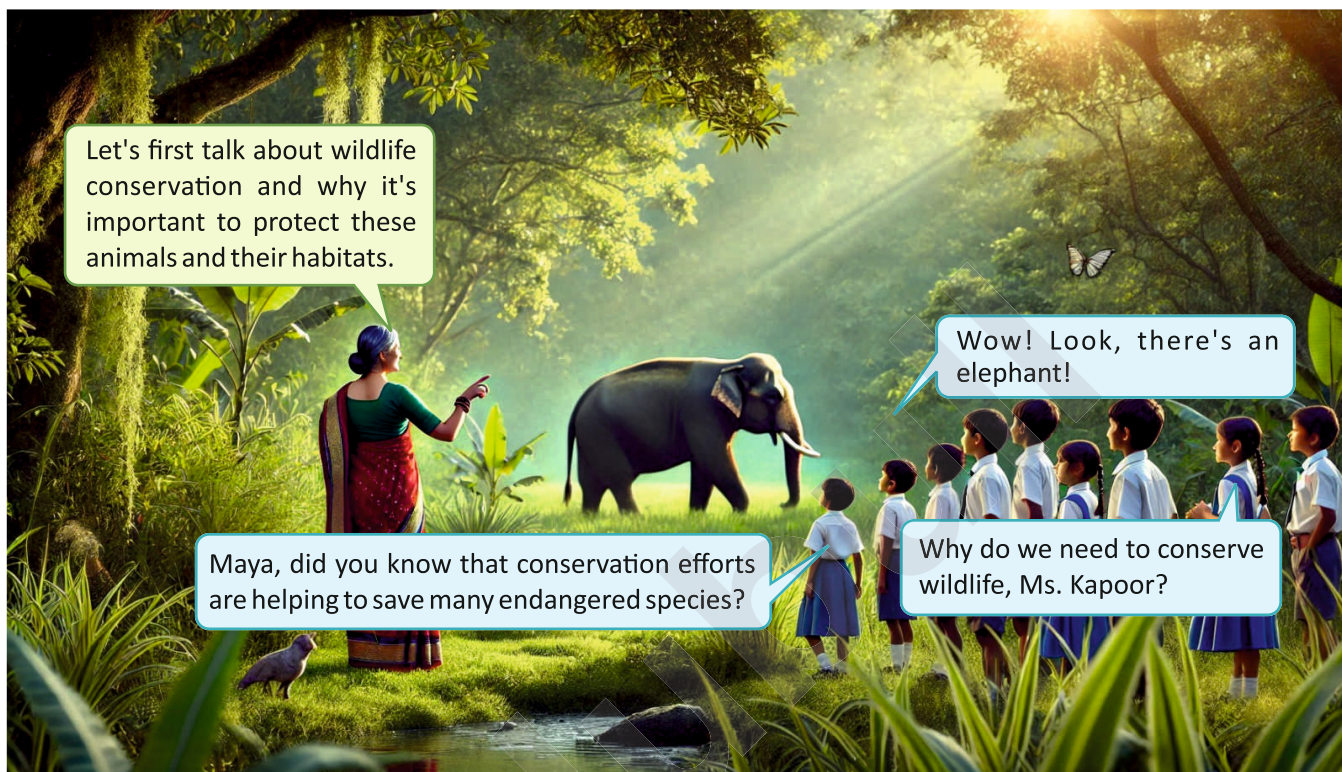
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**Bloom's  
Taxonomy**



## Basic Practices of Wildlife Conservation

Maya, Rohan, and their classmates join their teacher, Ms. Kapoor, on a field trip to the Nature Reserve. As they explore, they observe various animals and eagerly ask questions to understand more.



### Wildlife Conservation

Wildlife basically refers to organisms living in their natural habitats, like tigers, and elephants in dense forest, crocodiles and alligators in natural water bodies and trees and shrubs in jungles.

### Causes of Wildlife Conservation

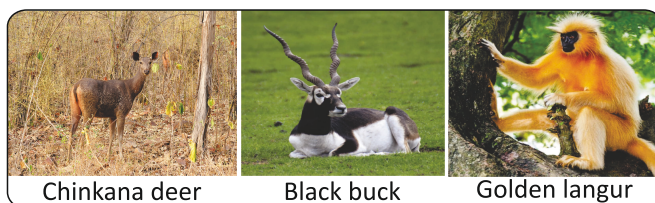
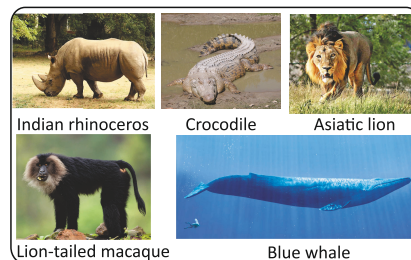
Wildlife is a valuable biological resources. The various factors responsible for wildlife destruction and depletion are as follows :

- **Habitat loss** : The destruction of natural habitats of animals by deforestation disturbs the life, growth and reproductive potential of wild animals.
- **Indiscriminate hunting** : Indiscriminate killing and poaching of wild animals for food, skin, fur, horn, tusk etc. has caused reduction and elimination of many wild animals.
- **Pollution** : Air, water and soil pollution is also responsible for death and elimination of sensitive wild animals.

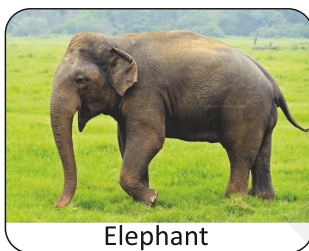
### Threatened species

The species of plants and animals whose members are greatly reduced in number or near to extinction are called threatened species. The International Union of Conservation of Nature and Natural Resources (IUCN) has classified threatened species into following categories;

- **Endangered species (E)** : The species which are not likely to survive, and will soon become extinct if the same causative factors continue are called endangered species. Indian rhinoceros, Asiatic lion, lion-tailed macaque, crocodile and blue whale are some examples of endangered species.
- **Vulnerable species (V)** : These are species which are likely to move to endangered category in near future, if causative factors continue to operate. Chinkana deer, black buck and golden langur are examples of vulnerable species.



**Rare species (R)** : These species are such species that exist in small numbers, are localised only in certain geographical areas and may enter into vulnerable category. **Golden cat, elephant, wild buffalo and Asiatic wild ass** are some examples.



## Red Data Book

Red Data Book contains a record of all those species of plants and animals which are under the threat of extinction or are rare and vulnerable for extinction.

The Red Data Book is being maintained by (IUCW) Switzerland. Now this is known as (World Conservation Union). This book provides information about the distribution and status of **threatened species** and guides their conservation programmes.



## Did you know

In 1969, the world's first wildlife trust dedicated solely to protecting a single species was founded in Kenya. The David Sheldrick Wildlife Trust (now Sheldrick Wildlife Trust) began as a way to rescue and rehabilitate orphaned elephants whose parents had been killed by poachers.

The fun twist? The trust's first rescued baby elephant, named Aisha, used to follow its caretakers everywhere—like a loyal puppy! Aisha's antics charmed visitors and sparked global attention toward the plight of African elephants.

## KEYWORDS

**threatened species:** Species that are at risk of extinction due to declining populations or habitat loss.



## Let's recall what we know

### Apply Concept in Real-Life Context

Apply

1. How does conserving wildlife contribute to ecological stability?
2. What are the effects of human encroachment on wildlife habitats?

**Skills Practiced:** Critical and logical thinking, Identification, Application thinking

### Further Analysis

Analyse

1. What are the reasons behind the prohibition of poaching, and how does this affect wildlife populations?
2. Which government policies and international agreements are in place to protect endangered wildlife, and what are their impacts?

**Skills Practiced:** Critical and logical thinking, brainstorming, application, problem-solving, responsibility

### Self-Assessment Questions

Evaluate

1. What does wildlife conservation mean to you?
2. Why is it important to protect both common and endangered species?
3. How does climate change impact wildlife populations and their habitats?
4. What are some key threats to wildlife, and what role do humans play in these?
5. What do you understand by the term "sustainable conservation practices"?

### Creative Task

Create

Create a presentation using MS PowerPoint or Libre Office Impress to explore the role of wildlife sanctuaries and national parks in conservation. Highlight specific examples, their challenges, and how they help in preserving biodiversity.

**Skills Practiced:** Creativity, critical and logical thinking, brainstorming, research, digital literacy

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Take a Task

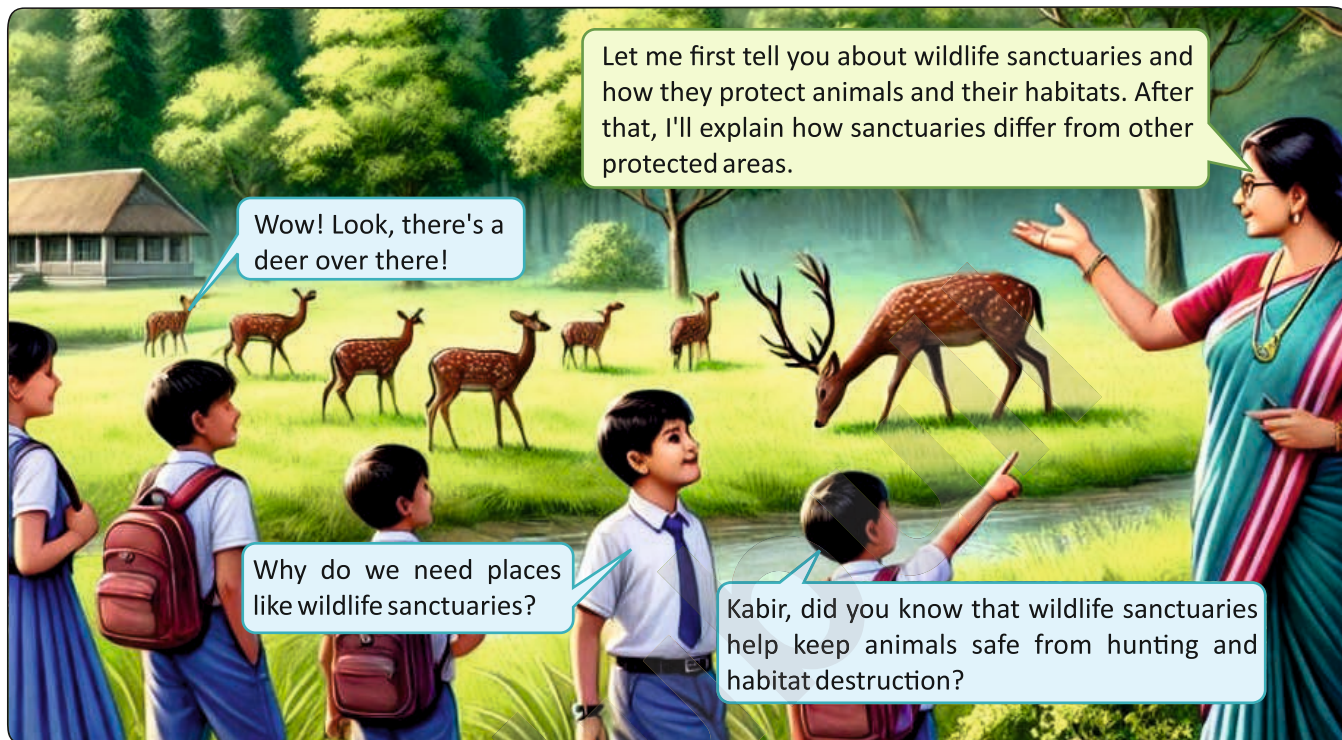


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Taxonomy**

## Basic Practices of Wildlife Sanctuaries

Riya, Kabir, and their classmates join their teacher, Ms. Fernandes, on a field trip to a Wildlife Sanctuary. As they explore the sanctuary, they curiously observe the surroundings and ask questions.



### Wildlife Sanctuaries

A sanctuary is a protected area reserved for the conservation of wild animals, birds, and plants. Hunting is strictly prohibited here. In India there are 492 wildlife sanctuaries.

### Biosphere reserves

A biosphere reserve is a specified land area in which multiple use of land is permitted for preserving biodiversity. It is divided into three zones for different activities.

- **Core Zone** : Where no human activity is permitted.
- **Buffer Zone** : Where limited human activity is allowed.
- **Manipulation Zone** : Where several human activities are permitted.

There are 243 biosphere reserves in the world including 14 in India. A biosphere reserve helps in maintaining the biodiversity as well as the culture of that area.

A biosphere reserve may also contain other protected areas like national parks and wildlife sanctuaries. For example, Pachmarhi Biosphere Reserve includes Satpura National Park and two wildlife sanctuaries—Bori and Pachmarhi.

### Some Wildlife Projects in India

The Government of India has started some breeding projects to save endangered species. Some of them are Project Tiger, Gir Lion Project, Crocodile Breeding Project, Himalayan Musk

Deer Project, Rhino Conservation Project. etc

**Project Tiger** : Project Tiger was launched in 1973 to save tigers from hunting. Under this project, 23 tiger reserves have been established in India.

**Gir Lion Project** : This project was started by the government of Gujarat in 1972 to protect Asiatic lion.

Cheetahs, the extinct animals in India brought from Namibia. Eight African cheetahs are freed on the grassland of Kuno National Park in Madhya Pradesh in Central India. They are brought from Namibia under an agreement between the Indian and the Namibian governments.

## Let's recall what we know

### Apply Concept in Real-Life Context

Apply

1. Why is it essential to establish wildlife sanctuaries for the protection of animal species?
2. How do wildlife sanctuaries contribute to preserving the natural habitat of endangered species?

**Skills Practiced:** Critical and logical thinking, brainstorming, application

### Further Analysis

Analyse

1. What impact do wildlife sanctuaries have on local communities and ecosystems surrounding them?
2. What policies and regulations govern the management of wildlife sanctuaries, and how do they support conservation efforts?

**Skills Practiced:** Critical and logical thinking, brainstorming, application

### Self-Assessment Questions

Evaluate

1. What is a wildlife sanctuary, and how does it differ from a national park?
2. Describe some of the key features of a well-maintained wildlife sanctuary.
3. What are the main threats to wildlife within sanctuaries, and how are these managed?
4. How do wildlife sanctuaries support biodiversity in their regions?
5. Why might a particular region be chosen as a location for a wildlife sanctuary?

### Creative Task

Create

Create a presentation using MS PowerPoint or Libre Office Impress that showcases notable wildlife sanctuaries around the world. Include details on the unique species they protect and the challenges they face in conservation efforts.

**Skills Practiced:** Creativity, critical and logical thinking, brainstorming

SCAN TO ACCESS



Take a Task



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# SUMMARY



## 1. Biodiversity in India

### Definition:

Biodiversity refers to the variety of life forms, including plants, animals, and microorganisms, in a particular habitat or ecosystem.

### India's Rich Biodiversity:

- One of the 17 megadiverse countries in the world.
- Hosts 8% of the world's total species despite covering only 2.4% of the Earth's land area.
- Diverse ecosystems include forests, deserts, wetlands, grasslands, and marine ecosystems.

### Endangered Species:

India is home to numerous endangered species, such as the Bengal tiger, Indian rhinoceros, Asiatic lion, and Great Indian bustard.

### Threats to Biodiversity:

- Deforestation, urbanization, and climate change.
- Overexploitation of natural resources and habitat destruction.

## 2. Wildlife Conservation

### Definition:

Efforts and strategies aimed at protecting and preserving animal species and their habitats.

### Importance of Conservation:

- Maintains ecological balance and ensures the survival of essential species.
- Protects genetic diversity for future generations.
- Prevents the extinction of species and sustains natural ecosystems.

### Methods of Wildlife Conservation:

- **Legislation:** Enforcing laws like the Wildlife Protection Act, 1972, and international agreements like CITES.

- **Reforestation:** Restoring forests to provide natural habitats.
- **Community Involvement:** Encouraging local participation in conservation efforts through eco-tourism and education.
- **Captive Breeding Programs:** Breeding endangered species in controlled environments for reintroduction into the wild.

## 3. Wildlife Sanctuaries

### Definition:

Protected areas specifically created to preserve wildlife and their natural habitats. Human activity is restricted but not entirely banned.

### Characteristics:

- Serve as safe havens for threatened and endangered species.
- Aim to protect entire ecosystems, including flora, fauna, and microhabitats.

### Examples in India:

- **Jim Corbett National Park (Uttarakhand):** Known for Bengal tigers.
- **Sundarbans Wildlife Sanctuary (West Bengal):** Protects Royal Bengal tigers and estuarine ecosystems.

### EeeBee: Your AI Buddy

Explore! **Conservation of Plants and Animals** with EeeBee AI Buddy.

Hi Friend! Use prompts to ask me questions about the chapter we just finished! eeee, lets go!

Start by Scanning this QR Code:





Gap Analyzer™  
Take a Test



# EXERCISE

That turn curiosity into confidence—let's begin!



## A. Choose the correct answer.

- Which of the following is a biodiversity hotspot in India?  
(a) Western Ghats ☐ (b) Thar Desert ☐  
(c) Sundarbans ☐ (d) Satpura Hills ☐
- What is the primary goal of wildlife conservation?  
(a) Increasing urban development ☐ (b) Protecting natural habitats ☐  
(c) Hunting regulation ☐ (d) Encouraging monoculture farming ☐
- Which of the following animals is found in Gir National Park?  
(a) Tiger ☐ (b) Asiatic Lion ☐  
(c) Snow Leopard ☐ (d) Nilgai ☐
- Kaziranga National Park is famous for the conservation of which animal?  
(a) One-horned Rhinoceros ☐ (b) Bengal Tiger ☐  
(c) Peacock ☐ (d) Elephant ☐
- How do wildlife sanctuaries help in conservation?  
(a) By banning tourism ☐  
(b) By controlling the population of endangered species ☐  
(c) By providing a natural habitat for animals to live safely ☐  
(d) By creating artificial environments for animals ☐

## B. Fill in the blanks.

- The variety of plant and animal life in a particular habitat is called \_\_\_\_\_.
- \_\_\_\_\_ is a UNESCO World Heritage Site and home to mangrove forests in India.
- Deforestation leads to loss of biodiversity and contributes to \_\_\_\_\_ change.
- Wildlife sanctuaries and national parks aim to protect \_\_\_\_\_ species from extinction.

## C. Write True or False.

- Deforestation can lead to soil erosion. \_\_\_\_\_
- Sanctuaries allow some human activities like grazing and wood collection. \_\_\_\_\_
- Project Tiger was launched to protect Asiatic Lions. \_\_\_\_\_
- The Eastern Himalayas are recognized as a biodiversity hotspot. \_\_\_\_\_



### D. Define the following terms.

1. Biodiversity
2. Endangered Species
3. Wildlife Conservation
4. National Park
5. Biosphere Reserve

### E. Match the columns.

#### Column A

1. Project Elephant
2. Coral Reefs
3. Asiatic Lion
4. One-horned Rhinoceros
5. Sundarbans

#### Column B

- (a) Marine Life Protection
- (b) Gir Forest
- (c) Kaziranga
- (d) Mangroves
- (e) Large Land Animals

### F. Give reasons for the following statements.

1. Biodiversity hotspots are important for conservation efforts.
2. Cutting down forests impacts the water cycle.
3. National parks restrict human activities.
4. Mangroves protect coastal biodiversity and reduce flooding.
5. Conservation of endangered species is necessary for ecological balance.

### G. Answer in brief.

1. What are biodiversity hotspots? Name two found in India.
2. How do wildlife sanctuaries differ from national parks?
3. What steps can be taken to reduce deforestation?
4. Discuss the role of mangroves in biodiversity conservation.
5. Why is wildlife conservation essential for the future of the planet?

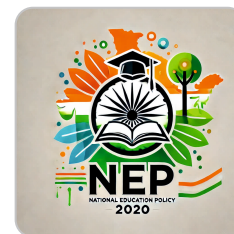
### H. Answer in detail.

1. Explain the importance of biodiversity and the threats it faces.
2. Discuss the different types of protected areas in India with examples.
3. Describe how deforestation impacts biodiversity and contributes to climate change.
4. What measures can individuals and governments take to conserve wildlife?
5. Explain the importance of conserving endangered species and their habitats.



**More Play, Less Pressure!**

The policy encourages bagless days and internships even for school students, so you learn through fun and hands-on experience.

**Exploring Forest Conservation****STEM**

One of the critical resources that influence climate, air quality, and biodiversity is forest cover. Deforestation due to urban expansion, agriculture, and industrialization has led to a significant loss of forested areas, impacting the environment in various ways. Here is some sample data showing forest loss in India;

Year	Forest Loss (in kilo Hectares)	Year	Forest Loss (in kilo Hectares)
2011	15.70	2018	31.50
2012	18.20	2019	15.80
2013	13.50	2020	24.10
2014	22.00	2021	23.90
2015	20.60	2022	19.50
2016	29.30	2023	21.00
2017	26.10		

**Use this data to answer the following questions;**

1. Based on the provided data, which year had the highest recorded forest loss, and which year showed a notable reduction in forest loss? Discuss possible factors that contributed to these changes.
2. What are some of the effects of forest loss on local wildlife populations?
3. Why are urban green spaces and parks essential in cities?

**Skills Covered:** Creativity, critical and logical thinking, brainstorming, research, problem-solving

**Celebrating Earth Day****Art**

Earth Day promotes environmental awareness and sustainable practices through activities like tree planting, clean-ups, and education. Create a poster with a strong slogan and develop a campaign on eco-friendly actions like reducing plastic, recycling, and conserving water.

**Skills Covered:** Creativity, critical and logical thinking, brainstorming, research, problem-solving

## Natural Habitat Exploration

### Group Activity

Plan a class visit to a nearby nature reserve or wildlife sanctuary to observe animals in their natural habitat. Pay close attention to the conditions these animals live in and how they interact with their surroundings. Think about the following questions: How do animals thrive in their natural environment? What adaptations do they show for survival? In what ways might these conditions differ from those in artificial settings like zoos?

Divide the class into groups of three. Each group will create a presentation using MS PowerPoint or Libre Office Impress to share their observations, answer the questions, and include photographs taken during the visit.

**Skills Covered:** Observation, brainstorming, communication, teamwork, collaboration

## Eco-Friendly Packaging Solution

### Case to Investigate

One of the largest contributors to environmental pollution is plastic waste from packaging. Traditionally, plastic packaging is discarded after use, ending up in landfills or oceans, where it can take hundreds of years to decompose and harms wildlife. To address this issue, we can explore eco-friendly packaging alternatives, such as biodegradable or recyclable materials.

Research the benefits of eco-friendly packaging and create a visually engaging presentation. Include images and videos to show examples of sustainable packaging practices. Additionally, suggest practical ways to reduce plastic use in daily life and present these recommendations to the class.

**Skills Covered:** Critical and logical thinking, brainstorming, research, problem-solving, responsibility

## Identifying Environmental Issues and Proposing Solutions

### Aligning with SDGs

Discuss the ways by which agroforestry practices, such as intercropping, tree planting, and the integration of livestock, can enhance biodiversity, reduce soil erosion, and improve water retention. Prepare a report and present it to your class, highlighting how these practices contribute to sustainable land management and environmental conservation.

Aligned with: SDG 2 - Zero Hunger, Target 2.4; SDG 6 - Clean Water and Sanitation, Target 6.3; SDG 15 - Life on Land, Target 15.3

**Skills Covered:** Research, Brainstorming, Problem-solving, Presentation skills

## Exploring Wildlife Reserves

### Integrated Learning

Create a list of major wildlife reserves in your country, indicating their primary protected species and geographical locations in a tabular format. Use a map to mark the locations of these reserves and identify the type of ecosystems they protect.

**Integrated Learning:** Social Science

**Skills Covered:** Creativity, analytical thinking, critical and logical thinking, brainstorming, application