

FOREST AND WILDLIFE RESOURCES

❖ Biodiversity and Its Importance



- The Earth is home to **millions of living organisms**, including microorganisms, plants, animals, and humans.
- All living beings together form a **complex ecological system**.
- Humans depend on this system for **air, water, food, and survival**.
- **Biodiversity** means the variety of plants, animals, and microorganisms found in a region.
- Forests play an important role as **primary producers** in the ecosystem.

Importance of Biodiversity

- Maintains **ecological balance**
- Provides **food, medicine, and raw materials**
- Maintains **air, water, and soil quality**
- Supports **agriculture and fisheries**



❖ Flora and Fauna in India

- ❖ **Flora** means plant life and **Fauna** means animal life.
- India is one of the **richest countries in biodiversity**.
- It has a huge variety of **plants, animals, and forest resources**.
- Many species are **unique to specific regions** of India.
- However, biodiversity is now under **serious threat due to human activities and environmental damage**.

❖ Need for Conservation of Forests and Wildlife

Why Conservation is Important

- To **protect ecological diversity**
- To maintain **life support systems** such as air, water, and soil

- To preserve **genetic diversity of plants and animals**
- To ensure **sustainable agriculture and fisheries**

Example:

- Farmers still depend on **traditional crop varieties**.
- Fisheries depend on **healthy aquatic biodiversity**.

❖ **Wildlife Protection Efforts in India**

Major Steps Taken by the Government

1. Wildlife Protection Act (1972)

- Implemented to protect wildlife and habitats.
- Hunting of endangered species was **banned**.
- Trade in wildlife products was **restricted**.

2. Creation of Protected Areas

- **National Parks**
- **Wildlife Sanctuaries**
- **Biosphere Reserves**

3. Special Animal Protection Projects

- Project Tiger
- Protection of **One-horned Rhinoceros**
- Conservation of **Asiatic Lion**
- Protection of **Kashmir Stag (Hangul)**
- Conservation of **Crocodiles and Gharial**
- Protection of **Indian Elephant and Snow Leopard**



❖ **New Conservation Efforts**

- Conservation now focuses on **entire biodiversity**, not just a few animals.
- Many **insects such as butterflies, moths, beetles, and dragonflies** have been added to the protected list.
- In **1991**, plants were also included in the protected species list.

❖ **Project Tiger**



Project Tiger is one of the most famous wildlife conservation programmes in the world.

Key Points

- **Launched in:** 1973 by the Government of India.
- Objective: **To protect and increase the tiger population in India.**

Reasons for Decline of Tigers

- **Poaching and illegal hunting**
- **Trade of tiger skins**

- Use of **tiger bones in traditional medicines**

- **Loss of forest habitat**
- **Decline in prey animals**
- **Increasing human population**

Tiger Population Crisis

- At the beginning of the **20th century**, there were about **55,000 tigers** in India.
- By **1973**, the number dropped to about **1,827**, bringing tigers close to extinction.

Importance of Project Tiger

- Protects **endangered tigers**
- Conserves **forest ecosystems**
- Maintains **biodiversity and ecological balance**

Major Tiger Reserves in India

- **Jim Corbett National Park** (Uttarakhand)
- **Sundarbans National Park** (West Bengal)
- **Bandhavgarh National Park** (Madhya Pradesh)
- **Sariska Wildlife Sanctuary** (Rajasthan)
- **Manas Tiger Reserve** (Assam)
- **Periyar Tiger Reserve** (Kerala)

❖ Types of Forests in India

In India, forests are **owned and managed mainly by the government** through the Forest Department.

1. Reserved Forests

- **Most valuable forests for conservation**
- Strictly protected by the government
- **More than 50% of total forest area**
- Used for conservation and forest resources

2. Protected Forests

- **About one-third of forest area**
- Protected from further destruction
- Some human activities may be allowed with permission

3. Unclassed Forests

- Forests and wastelands owned by **government, private individuals, or communities**
- Mostly found in **North-Eastern states and parts of Gujarat**

Important Fact

Reserved and protected forests together are called **Permanent Forest Estates** because they are maintained for:

- **Timber production**
- **Forest products**
- **Environmental protection**

State with Largest Permanent Forest Area

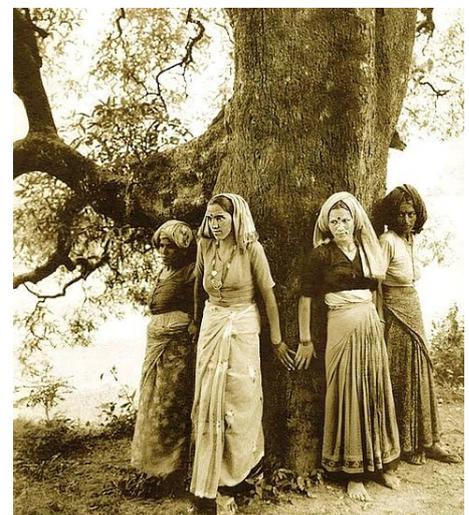
- **Madhya Pradesh** has the **largest area of permanent forests** in India.

❖ Community and Conservation

- ☐ Forests in India are not only natural resources but also **homes for many traditional communities**.
- ☐ Local communities often help in **protecting forests and wildlife**.
- ☐ Conservation strategies in India are **very old and based on traditional beliefs**.
- ☐ Many communities protect forests to ensure their **long-term livelihood and ecological balance**.

Example of Community Conservation

- In **Sariska Tiger Reserve (Rajasthan)**, villagers protested against **mining activities** by using the **Wildlife Protection Act**.



- In **Alwar district of Rajasthan**, villagers declared **1,200 hectares of forest as Bhairodev Dakav 'Sonchuri'**.
- They created their **own rules**:
 - Hunting is banned.
 - Wildlife is protected from outsiders.

❖ **Chipko Movement :**

- The **Chipko Movement** started in the **Himalayan region**.
- Villagers (especially women) **hugged trees to stop them from being cut down**.
- It successfully **prevented deforestation** in several areas.
- It also encouraged **community afforestation using local species**.

❖ **Environmental Movements and Farming Initiatives**

- Several farmers and citizen groups promote **eco-friendly agriculture**.

Important Movements

- **Beej Bachao Andolan** (Save the Seeds Movement) in **Tehri, Uttarakhand**
- **Navdanya movement**

Their Objectives

- Protect **traditional crop varieties**
- Promote **organic farming**
- Reduce the use of **synthetic chemicals**

These movements show that **diversified crop production without chemicals is possible and economically beneficial**.

❖ **Joint Forest Management (JFM)**

- **Joint Forest Management (JFM)** involves **local communities in forest conservation**.
- The programme started formally in **1988 in Odisha**.

How JFM Works

- Local village communities help **protect and manage forests**.
- In return, they receive benefits such as:
 - **Non-timber forest products**
 - **A share in timber harvest**

This system helps in **restoring degraded forests** and improving community livelihoods.

❖ **Sacred Groves**

- **Sacred groves** are forest areas protected because of **religious beliefs**.
- Local people believe these forests belong to **gods and goddesses**.
- Cutting trees or harming wildlife in these areas is **strictly prohibited**.

Examples of Sacred Beliefs

- **Mundas and Santhals** worship **Mahua and Kadamba trees**.
- Tribals in **Odisha and Bihar** worship **Tamarind and Mango trees**.
- **Peepal and Banyan trees** are considered sacred in many parts of India.

Example of Community Protection

- In **Bishnoi villages of Rajasthan**, animals like:
 - **Blackbuck**
 - **Chinkara**
 - **Nilgai**
 - **Peacocks**

are protected and treated as part of the community.

(i) What is biodiversity? Why is biodiversity important for human lives?

Answer:

Biodiversity refers to the **variety of plants, animals, and microorganisms** found on Earth. It is

important because it maintains **ecological balance** and provides essential resources like **food, medicine, air, water, and soil fertility**.

(ii) How have human activities affected the depletion of flora and fauna?

Answer:

Human activities such as **deforestation, urbanisation, mining, industrialisation, overgrazing, and hunting** have destroyed natural habitats and reduced wildlife populations, leading to the **depletion of flora and fauna**.

4. Answer in About 120 Words

(i) Describe how communities have conserved and protected forests and wildlife in India.

Answer:

Local communities in India have played an important role in conserving forests and wildlife. The **Chipko Movement** in the Himalayan region is a famous example where villagers, especially women, hugged trees to prevent them from being cut down. In Rajasthan, the **Bishnoi community** protects animals such as blackbuck, chinkara, and peacocks as part of their religious beliefs. Many communities also protect **sacred groves**, which are forest patches dedicated to local deities where cutting trees and hunting are strictly prohibited. In Alwar district of Rajasthan, villagers declared 1,200 hectares of forest as **Bhairodev Dakav Sonchuri** and banned hunting. These efforts show that community participation plays a vital role in protecting natural resources.

(ii) Write a note on good practices towards conserving forest and wildlife.

Answer:

Several good practices help in conserving forests and wildlife. The government has created **national parks, wildlife sanctuaries, and biosphere reserves** to protect endangered species. Programmes such as **Project Tiger** aim to save wildlife and maintain ecological balance. **Joint Forest Management (JFM)** encourages local communities to participate in protecting and managing forests. Many farmers are also promoting **organic farming and traditional crop varieties**, which reduce environmental damage. Protecting **sacred groves**, planting trees, reducing deforestation, and spreading awareness about environmental protection are also important conservation practices. These steps help maintain biodiversity and ensure sustainable use of natural resources for future generations.

Top 50 MCQs – Forest and Wildlife Resources

Biodiversity

1. Biodiversity means:

- A. Variety of forests
- B. Variety of plants and animals only
- C. Variety of plants, animals, and microorganisms
- D. Variety of landforms

Answer: C

2. India is one of the world's _____ countries in terms of biodiversity.

- A. poorest
- B. richest
- C. smallest
- D. driest

Answer: B

3. Forests play an important role in:

- A. ecological balance
- B. soil formation
- C. maintaining biodiversity
- D. All of these

Answer: D

4. Which of the following is a primary producer in the ecosystem?

- A. Animals
- B. Plants

C. Humans

D. Birds

Answer: B

Wildlife Protection

5. The Wildlife Protection Act was implemented in:

A. 1960

B. 1972

C. 1988

D. 1995

Answer: B

6. The main aim of the Wildlife Protection Act is to:

A. promote tourism

B. protect wildlife and habitats

C. increase industries

D. build cities

Answer: B

7. Hunting of endangered species was:

A. encouraged

B. banned

C. ignored

D. taxed

Answer: B

8. National parks and wildlife sanctuaries are created to:

A. increase population

B. protect wildlife

C. build industries

D. promote mining

Answer: B

Causes of Depletion

9. One major cause of depletion of forests is:

A. afforestation

B. conservation

C. deforestation

D. protection

Answer: C

10. Which activity harms wildlife the most?

A. Poaching

B. Tree planting

C. Conservation

D. Protection

Answer: A

11. Expansion of agriculture leads to:

A. forest protection

B. forest destruction

C. wildlife growth

D. biodiversity increase

Answer: B

12. Urbanisation leads to:

A. conservation

B. habitat loss

C. wildlife protection

D. biodiversity growth

Answer: B

Project Tiger

13. Project Tiger was launched in:

- A. 1965
- B. 1970
- C. 1973
- D. 1985

Answer: C

14. The aim of Project Tiger is:

- A. increase tourism
- B. protect tiger population
- C. promote industries
- D. build forests

Answer: B

15. Tiger population dropped drastically due to:

- A. conservation
- B. hunting and habitat loss
- C. rainfall
- D. farming

Answer: B

16. One famous tiger reserve is:

- A. Corbett National Park
- B. Kaziranga Park
- C. Sundarbans Park
- D. All of these

Answer: D

Types of Forests

17. Reserved forests are:

- A. most protected forests
- B. least protected forests
- C. private forests
- D. wastelands

Answer: A

18. Protected forests are:

- A. forests protected from further depletion
- B. forests used for industries
- C. private forests
- D. unused forests

Answer: A

19. Unclassed forests belong to:

- A. government only
- B. private individuals only
- C. government and communities
- D. foreign countries

Answer: C

20. The largest area under permanent forests is in:

- A. Rajasthan
- B. Madhya Pradesh
- C. Punjab
- D. Haryana

Answer: B

Conservation Movements

21. The Chipko Movement started in:

- A. Rajasthan
- B. Himalayas

C. Gujarat

D. Punjab

Answer: B

22. Chipko Movement was started to:

A. protect rivers

B. stop cutting of trees

C. protect animals

D. protect soil

Answer: B

23. Women played a major role in:

A. Chipko Movement

B. Project Tiger

C. Wildlife Act

D. Forest Survey

Answer: A

Community Conservation

24. Joint Forest Management began in:

A. 1972

B. 1980

C. 1988

D. 1995

Answer: C

25. The first state to start JFM was:

A. Odisha

B. Kerala

C. Gujarat

D. Punjab

Answer: A

26. JFM involves:

A. government only

B. villagers and government

C. industries

D. army

Answer: B

Sacred Groves

27. Sacred groves are forests protected due to:

A. economic reasons

B. religious beliefs

C. tourism

D. industries

Answer: B

28. Cutting trees in sacred groves is:

A. allowed

B. restricted

C. encouraged

D. ignored

Answer: B

29. Peepal and Banyan trees are considered:

A. useless

B. sacred

C. harmful

D. foreign

Answer: B

Environmental Movements

30. Beej Bachao Andolan is related to:

- A. wildlife protection
- B. saving seeds
- C. saving forests
- D. saving rivers

Answer: B

31. Navdanya movement promotes:

- A. organic farming
- B. mining
- C. urbanisation
- D. industries

Answer: A

Wildlife Examples

32. The one-horned rhinoceros is mainly found in:

- A. Assam
- B. Rajasthan
- C. Punjab
- D. Gujarat

Answer: A

33. Asiatic lions are found in:

- A. Gir Forest
- B. Sundarbans
- C. Himalayas
- D. Western Ghats

Answer: A

34. Snow leopards live in:

- A. deserts
- B. mountains
- C. forests
- D. oceans

Answer: B

Conservation Benefits

35. Conservation helps maintain:

- A. ecological balance
- B. pollution
- C. desertification
- D. population growth

Answer: A

36. Forests help in:

- A. soil conservation
- B. rainfall
- C. climate balance
- D. All of these

Answer: D

General Knowledge

37. Flora means:

- A. animals
- B. plants
- C. insects
- D. birds

Answer: B

38. Fauna means:

- A. animals
- B. plants
- C. mountains
- D. rivers

Answer: A

39. Biodiversity maintains:

- A. ecological stability
- B. pollution
- C. deforestation
- D. desertification

Answer: A

Miscellaneous

40. Poaching means:

- A. protecting animals
- B. illegal hunting
- C. feeding animals
- D. breeding animals

Answer: B

41. Wildlife sanctuaries are created to:

- A. protect animals
- B. build cities
- C. build roads
- D. build factories

Answer: A

42. Deforestation means:

- A. planting trees
- B. cutting trees
- C. watering trees
- D. protecting forests

Answer: B

Quick Revision MCQs

43. Which species was added to protected species list in 1991?

- A. Plants
- B. Fish
- C. Birds
- D. Insects

Answer: A

44. The tiger is a:

- A. herbivore
- B. carnivore
- C. omnivore
- D. scavenger

Answer: B

45. Conservation protects:

- A. biodiversity
- B. wildlife
- C. forests
- D. All of these

Answer: D

Final Questions

46. Forests provide:

- A. timber

- B. oxygen
- C. food
- D. All of these

Answer: D

47. Overgrazing causes:

- A. soil erosion
- B. forest growth
- C. wildlife increase
- D. rainfall

Answer: A

48. Industrialisation leads to:

- A. habitat destruction
- B. conservation
- C. protection
- D. growth of forests

Answer: A

49. Afforestation means:

- A. cutting trees
- B. planting trees
- C. burning forests
- D. mining forests

Answer: B

50. The main goal of conservation is:

- A. destroy forests
- B. protect natural resources
- C. increase pollution
- D. expand industries

Answer: B

Learning Horizon