

# CHAPTER-II

## FOREST AND WILDLIFE RESOURCES

### 2 MARK QUESTIONS

#### **1.What is biodiversity?**

**ANSWER:**

It is the sum total of all the varieties of species of plants, animals and microorganisms living on the earth.

#### **2.What is flora?**

**ANSWER:**

Plants of particular region or period are referred to as flora.

#### **3. What are vulnerable species?**

**ANSWER:**

The species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate.

#### **4.Categorise the following as endangered or vulnerable species- Asiatic elephant, Indian Rhino.**

**ANSWER:**

- (i) Asiatic elephant – Vulnerable species.
- (ii) Indian Rhino – Endangered species.

**5. Mention a social impact of deforestation.**

**ANSWER:**

In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic subsistence needs. As these resources are depleted, the drudgery of women increases and sometimes they have to walk for more than 10 km to collect these resources.

## **4 MARK QUESTIONS**

**1. What is biodiversity? Why is biodiversity important for human lives?**

**ANSWER:**

Biodiversity refers to the variety of life forms found on earth. It is a measure of variation at the ecosystem, species and genetic level. Biodiversity is abundant in tropical areas. Tropical areas cover 10 per cent of the earth surface, but they host 90% of the world's species.

Contribution of biodiversity in human lives

1. Agriculture – A variety of plant species meet our needs for food.
2. Its contribution to business and industry
3. Leisurely activities
4. Ecological processes

**2. How have human activities affected the depletion of flora and fauna? Explain**

**ANSWER:**

1. Various river valley projects have affected the flora and fauna.
2. Many illegal mining projects have depleted the flora and fauna.
3. Too many development projects for leisure activities in the forests have negatively affected them.
4. Too many human activities in the forest area due to rising population and lack of space has created human-animal conflict.

**3. Why is it necessary to increase the area of forest in India?****ANSWER:**

- (i) Forests play a key role in the ecological system as these are the primary producers on which all other living beings depend.
- (ii) Many forest dependent communities directly depend on them for food, drink, medicine, culture, spirituality etc.
- (iii) Forest provide us timber.
- (iv) Forests also provide bamboo, wood for fuel, grass, charcoal, fruits, flowers, etc.

**4. "The diverse flora and fauna of India is under threat". Justify by giving reasons.****ANSWER:**

- (i) At least 10% of India's recorded wild flora and 20% of its mammals are on the threatened list.
- (ii) The cheetah, pink-headed duck, mountain quail, forest spotted owlet, and plants like madhuca insignis (a wild variety of mahua) and hubbardia heptaneuron (a species of grass) have already been categorised as critical, i.e. they are on the verge of extinction.
- (iii) Many smaller animals like insects and plants have become extinct.

**5. What are Normal species? How are these different from endangered species. Give four examples.****ANSWER:**

Normal species are the species whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents, etc. Whereas the endangered species are the species which are in danger of extinction. The survival of such species is difficult if the negative factors that have led to a decline in their population continue to operate. Black buck, crocodile, Indian wild ass, Indian rhino, lion tailed macaque, etc., are examples of endangered species

**6. In what ways the conservation project has changed in the recent years?****ANSWER:**

The conservation projects are now focusing on biodiversity rather than on a few of its components. There is now a more intensive search for different conservation measures. Increasingly, even insects are beginning to find a place in conservation planning. In the notification under Wildlife Act of 1980 and 1986, several hundred butterflies, moths, beetles and one dragonfly have been added to the list of protected species. In 1991, for the first time plants were also added to the list, starting with six species. The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management.

## **7 MARK QUESTIONS**

**1. Describe how communities have conserved and protected forests and wildlife in India.**

**ANSWER:**

Chipko Movement:

The famous Chipko movement in the Himalayas has not only successfully resisted deforestation in several areas, but has also shown that community afforestation with indigenous species can be enormously successful.

Certain societies revere a particular tree which they have preserved from time immemorial. The Mundas and the Santhals of Chota Nagpur region worship mahua (*Bassia latifolia*) and kadamba (*Anthocaphalus cadamba*) trees. The tribals of Odisha and Bihar worship the tamarind (*Tamarindus indica*) and mango (*Mangifera indica*) trees during weddings. Many people also consider peepal and banyan trees sacred.

In Sariska Tiger Reserve, Rajasthan, villagers have fought against mining by citing the Wildlife Protection Act. In many areas, villagers themselves are protecting habitats and are explicitly rejecting government involvement. The inhabitants of five villages in the Alwar district of Rajasthan have declared 1,200 hectares of forest as the Bhairodev Dakav 'Sonchuri', declaring their own set of rules and regulations which do not allow hunting and are protecting the wildlife against any outside encroachments.

**2. Write a note on good practices towards conserving forest and wildlife.****ANSWER:**

In India, joint forest management (JFM) programme is a good example for the involvement of local communities in the management and restoration of degraded forests. The programme has been in formal existence since 1988 when the state of Odisha passed the first resolution for joint forest management. JFM depends on the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the forest department. In return, the members of these communities are entitled to intermediary benefits like non-timber forest produces and a share in the timber harvested by 'successful protection'. The clear lesson from the dynamics of both environmental destruction and reconstruction in India is that local communities everywhere have to be involved in some kind of natural resource management. But there is still a long way to go before local communities are at the centre stage in decision-making. Accept only those economic or developmental activities that are people-centric, environment-friendly and economically rewarding.

**3.Explain any five different categories of existing plants and animal species based on the International Union for Conservation of Nature and Natural Resources with examples.**

**ANSWER:**

(i) Normal species : These include those whose population levels are considered to be normal for their survival, such as cattle, sal, pine, rodents etc.

(ii) Endangered species : These include those species which are in danger of extinction. The several of such species is difficult if the negative factors that have led to a decline in their population continue to operate. For example, black buck, crocodile, Indian wild ass, etc.

(iii) Vulnerable species : These include the species whose population has declined to levels from where it is likely to move into the endangered category in the near future if the negative factors continue to operate. For example, blue sheep, gangetic dolphin etc.

(iv) Rare species : They may move into the endangered or vulnerable category for example, blue bear, wild Asiatic buffalo.

(v) Endemic species : These are found in some particular areas usually isolated by natural or geographical barriers. For example, Andaman teal, Nicobar prigo.

**4.Explain any three measures taken by the Indian Government to protect wildlife.**

**ANSWER:**

(i) National parks, biosphere and wildlife sanctuaries : To protect the biodiversity, the Indian government has established 100 national parks, 515 sanctuaries and 17 biosphere reserves.

(ii) The Indian Wildlife Protection Act :

The Indian Wildlife Protection Act was implemented in 1972, with various provisions for protecting habitats. An all India list of protected species was



also published. The thrust of the programme was towards protecting the remaining population of certain endangered species by banning hunting, giving legal protection to their habitats and restricting trade in wildlife.

(iii) Projects for protecting specific animals : The central government has also announced several projects for protecting specific animals which were greatly threatened, including the tiger, the one-horned rhinoceros, the Kashmir stag or hangul, the three types of crocodiles – the freshwater crocodile, the saltwater crocodile and the Gharial, the Asiatic lion and others.

(iv) Forest Policy : India is one of the few countries which has a forest policy since 1894. It was revised in 1952 and again in 1988. The main plank of the forest policy is protection, conservation and development of forests.

(v) Forest Research Institutes : Indian government has created many forest Research Institutes for the research, protection and development of the forests. IFS Dehradun is the oldest research institution of the country.

**5. “Maintenance of ecological system is of utmost importance.” How can you contribute to conserve it and what values are developed through this activity?**

**ANSWER:**

(i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms re-create the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive. Forests play a key role in the ecological system as these are also the primary producers on which all other living beings depend.

(ii) We should save our environment by switching to green technology and by contributing less to the emission of carbon dioxide.

(iii) We should plant more and more trees, say no to plastic bags, travel by public transport, etc.

(iv) It will improve the quality of our lives as well as our children and will save our money to switch to alternate sources for power.

**6. Give three reasons why we need to save the biodiversity of our planet. How can you contribute in the given cause?**

**ANSWER:**

(i) We humans along with all living organisms form a complex web of ecological system in which we are only a part and very much dependent on this system for our own existence. For example, the plants, animals and micro-organisms recreate the quality of the air we breathe, the water we drink and the soil that produces our food without which we cannot survive.

(ii) The destruction of forests and wildlife is not just a biological issue. The biological loss is strongly correlated with the loss of cultural diversity.

(iii) It also preserves the genetic diversity of plants and animals for better growth of species and breeding.

Our contribution :

(i) Minimising wastage of resources.

(ii) Use Jute bags.

(iii) Planting more trees.

**7. Mention any four major threats to the population of tiger? Explain the efforts made by the government to protect them.**

**ANSWER:**

(i) Poaching for trade

(ii) Shrinking habitat

(iii) Depletion of prey base species

(iv) Growing human population

(v) The trade of tiger skins and the use of their bones in transitional medicines, especially in the Asian countries left the tiger population on the verge of extinction.

Efforts made by the government to protect them are as under :

(i) Project Tiger, one of the well-publicised wildlife campaigns in the world,

was launched in 1973.

(ii) There are 42 tiger reserves in India covering an area of 37,761 sq km.

(iii) Tiger conservation had been viewed not only as an effort to save an endangered species, but with equal importance as a means of preserving bio types of sizeable magnitude.

(iv) Some of the tiger reserves of India are Corbett National Park in Uttarakhand, Sunderbans National Park in West Bengal etc.

## **8. Explain the social impacts of loss of forests.**

### **ANSWER:**

(i) Loss of cultural diversity : The loss of forest and wildlife is not just a biological issue but it is also correlated with cultural diversity. There are many forests-dependent communities, which directly depend on various components of the forests and wildlife for food, drinks, medicines, etc. Many of tribal communities like Muria Gonds, Dhurwas, Bhatras, etc., have lost their habitat because of the destruction of forests.

(ii) Impact on women : Even among the poor, women are affected more than men. In many societies, women bear the major responsibility of collection of fuel, fodder, water and other basic needs. As these resources are depleted, the drudgery of women increases. Most of the time they have to walk for more than 10 km to collect the basic necessities. This causes serious health problems for women in the negligence of home and children because of the increased hours of work, which often has serious social implications.

(iii) Poverty : Deforestation is also responsible for poverty. It is considered as a direct outcome of environmental destruction. Most of the poor people or tribal people depend on forests for their basic needs. Now if the forests are destroyed, these poor people will be deprived of the basic necessities.

## **MULTIPLE CHOICE QUESTIONS**

***Hubbardia Heptaneuron* is a species of**

- a) Tree
- b) Plant
- c) Grass
- d) Flower

**Answer: Option (c)**

**2) *Madhuca Insignis* (a wild variety of Mahua) is a \_\_\_\_.**

- a) Plant
- b) Tree
- c) Insect
- d) Birds

**Answer: Option (a)**

**3) The forest and tree cover in India is estimated to be \_\_\_\_\_ of its total geographical area.**

- a) Around 30%
- b) Around 24%
- c) Around 35%
- d) Around 40%.

**Answer: Option (b)**

**4) The open forests in India are \_\_\_\_\_ of its total geographical area.**

- a) Around 9%
- b) Around 20%
- c) Around 15%
- d) Around 1%

**Answer: Option (a)**

**5) Blue sheep, Asiatic elephants, and Gangetic dolphins are examples of \_\_\_\_\_.**

- a) Vulnerable species
- b) Rare species
- c) Endemic Species
- d) Extinct species

**Answer: Option (a)**

**6) Asiatic cheetah and pink head duck are examples of \_\_\_\_\_,**

- a) Endemic Species
- b) Extinct species
- c) Rare species
- d) Vulnerable species

**Answer: Option (b)**

**7) \_\_\_\_\_ is an example of Endemic Species.**

- a) Pink head duck
- b) Asiatic cheetah
- c) Asiatic buffalo
- d) Nicobar pigeon

**Answer: option (d)**

**8) \_\_\_\_\_ was declared extinct in India long back in 1952.**

- a) Andaman wild pig
- b) Andaman teal
- c) Asiatic cheetah
- d) Desert fox

**Answer: Option (c)**

## FILL IN THE BLANKS

1. India ranks 133 in the world in terms of water availability per person per annum.
2. Less than 30% water is stored in the form of Groundwater
3. *Hubbardia Heptaneuron* is a species of Grass
4. Teak monoculture has damaged the natural forest in South India.
5. The Buxa Tiger Reserve in West Bengal is seriously threatened by the ongoing Dolomite mining

## SUMMARY

Forests serve as a natural habitat for large populations of wildlife, as well as the growth of trees, shrubs, and a wide variety of plants, all of which are on the decline. As a result, forest conservation is a responsibility that all of us must assume.