

Revision Notes Class 10

Social Science - Geography

Chapter 2 Forest and Wildlife Resources

Biodiversity is extremely diverse on earth and works interdependently. It is a system of closely knit networks that sustains the ecosystem.

India has world's largest biodiversity thriving on its land and 10 per cent of the recorded wild flora and 20 per cent of its mammals are on the threatened list.

As the list generated by International Union for Conservation of Nature and Natural Resources (IUCN), the species can be classified as following—

- 1. Normal species:** They have population levels normal for survival. Example: pine, rodents, etc.
- 2. Endangered Species:** They are in danger of extinction and would eventually decline if the present conditions continue. Example: crocodile, rhino, lion tailed macaque etc.
- 3. Vulnerable species:** These species are vulnerable to fall into the endangered category in near future. Example: Asiatic elephant, dolphin, blue sheep etc.
- 4. Rare species:** They have a small population which can move to endangered or vulnerable category in near future if the present conditions for their survival sustain itself. Example: Asiatic buffalo, hornbill etc.
- 5. Endemic species:** These species are only found in limited geographical area. Example: Andaman teal, Nicobar pigeon, Andaman wild pig, mithun in Arunachal Pradesh.
- 6. Extinct species:** These species are not found in the areas they were likely to be found. Example: Asiatic cheetah, pink head duck.

Causes of environmental degradation

- Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq. km. of forest area was converted into agricultural land all over India and substantial parts of the tribal belts, especially in the northeastern and central India were deforested to practice shifting cultivation (jhum), a type of 'slash and burn' agriculture.
- Around 5,000 sq km of forest lands have been cleared to progress river valley projects, since 1951. For example: About 40,000 hectares of forests were cleared for the Narmada Sagar Project in Madhya Pradesh.

- Mining also causes large scale deforestation.
- The Buxa Tiger Reserve in West Bengal is threatened by the ongoing dolomite mining.
- There are various factors like poaching, over-exploitation, pollution, hunting, forest fire etc. that contribute to decline in the vast biodiversity India harbours.
- Overpopulation in third world countries is a prime cause of environmental degradation.

Conservation of Forest and Wildlife in India

- Conservation is vital since it will help us to protect our environment and protect our ecosystem which in turn helps to preserve the genetic diversity that ecosystem has.
- The Indian Wildlife (Protection) Act was implemented in 1972, which made various provisions for protecting habitats.
- The central government also announced several projects for protecting specific animals, which were gravely threatened, including the tiger, the one horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles – fresh water crocodile, saltwater crocodile and the Gharial are some of the animals.
- Government has also provided partial or full legal protection to animals such as Indian elephant, black buck, snow leopard etc. to protect them from extinction.

Project Tiger

- The tiger population in 1973 declined to 1,827 from the estimated 55,000 and hence forced the authorities to take a serious action towards the same.
- Tigers face major threat and are at the verge of extinction because of shrinkage of their habitat due to growing human population, poaching, depletion of prey base species etc.
- The trade of tiger skins and the use of their bones in traditional medicines, especially in the Asian countries has left the tiger population on the verge of extinction.
- “Project Tiger” was launched in 1973 and was not only an effort to save tigers but also preserving the biotypes.
- Corbett National Park in Uttarakhand, Sunderbans National Park in West Bengal, Bandhavgarh National Park in Madhya Pradesh, Sariska Wildlife Sanctuary in Rajasthan, Manas Tiger Reserve in Assam and Periyar Tiger Reserve in Kerala are some of the tiger reserves of India.

- Wildlife Act of 1980 and 1986 added several hundred butterflies, moths, beetles, and one dragonfly to the list of protected species.

Types and Distribution of Forest and Wildlife Resources

The forests are classified as following:

- (i) **Reserved Forests:** These are the most vital for conservation of forest and wildlife and about half of the total forest land has been placed under this category.
- (ii) **Protected Forests:** Forest Department had declared one-third of the total forest area as protected forest which saves it from further depletion.
- (iii) **Unclassed Forests:** Both private individuals, government and communities own these lands. They mostly include forests and wasteland.

Community and Conservation

- In Sariska Tiger Reserve, Rajasthan, villagers have fought against mining by citing the Wildlife Protection Act.
- In five villages located in the Alwar district of Rajasthan, the inhabitants have declared 1200 hectares of forest as the Bhairodev Dakav 'Sonchuri'. They don't allow hunting in these regions and hence protect the wildlife from an outside harm.
- Sacred groves are not has religious sentiments attached but also saves a wealth of rare species. These beliefs have preserved several virgin forests in pristine form called Sacred Groves (the forests of God and Goddesses).
- Mahua is worshipped by the the Mundas and the Santhal of Chota Nagpur region while tamarind and mango is worshiped by the tribes of Odisha and Bihar during weddings. In Indian Hindu society, peepal tress is considered sacred.
- Blackbuck, peacocks and nilgai are seen as an integral part of the Bishnoi villages in Rajasthan and aren't harmed or killed.
- The Chipko moment has successful helped in saving the flora but has also brought people together to save the environment.
- Beej Bachao Andolan in Tehri and Navdanya has promoted people to stop using synthetic chemicals as sufficient crop harvest can be produced even without the use of chemical fertilizers.
- Joint forest management (JFM) programme involves local people and communities to restore forests. It was frist started in Odisha in 1988.

Frequently Asked Questions

1. What was the list of animals that were added to the protected list?

Ans: The central government also announced several projects for protecting specific animals, which were gravely threatened, including the tiger, the one horned rhinoceros, the Kashmir stag or hangul, three types of crocodiles – fresh water crocodile, saltwater crocodile and the Gharial, the Asiatic lion, and others.

Government has also provided partial or full legal protection to animals such as Indian elephant, black buck, snow leopard etc. to protect them from extinction.

Several butterflies, moths, beetles, and one dragonfly was also added to the list of protected species under the Wildlife Act of 1980 and 1986.

2. What is biodiversity?

Ans: Biodiversity is extremely diverse on earth and works interdependently. It is a system of closely knit networks that sustains the ecosystem. India has world's largest biodiversity thriving on its land and 10 per cent of the recorded wild flora and 20 per cent of its mammals are on the threatened list.

3. Brief about Project Tiger.

Ans: The tiger population in 1973 declined to 1,827 from the estimated 55,000 and hence forced the authorities to take a serious action towards same. "Project Tiger" was launched in 1973 and was not only an effort to save tigers but also preserving the biotypes.

Corbett National Park in Uttarakhand, Sunderbans National Park in West Bengal, Bandhavgarh National Park in Madhya Pradesh, Sariska Wildlife Sanctuary in Rajasthan, Manas Tiger Reserve in Assam and Periyar Tiger Reserve in Kerala are some of the tiger reserves of India.

4. What are permanent forests?

Ans: Reserved and protected forests are together called as permanent forests and are taken care of to collect timber and other natural products.

5. Why is aquatic diversity important for human communities?

Ans: Fisheries are a major source of income for many communities, especially along the coastline. A rich aquatic diversity will provide a constant income for them. Everyone depends on water for their daily activities and hence rich water resources would mean healthy community and regular food source.

6. What were the impacts of Chipko Movement?

Ans: The Chipko movement has successfully helped in saving the flora but has also brought people together to save the environment. It also gave rise to many other programs where the community came together to save the natural resources. Beej Bachao Andolan in Tehri and Navdanya has promoted people to stop using synthetic chemicals as sufficient crop harvest can be produced even without the use of chemical fertilizers. Joint forest management (JFM) programme involves local people and communities to restore forests. It was first started in Odisha in 1988.

7. What were the reasons of depletion of flora and fauna?

Ans: The following are the reasons for environmental degradation:

- Between 1951 and 1980, according to the Forest Survey of India, over 26,200 sq. km. of forest area was converted into agricultural land all over India and substantial parts of the tribal belts, especially in the northeastern and central India were deforested to practice shifting cultivation (jhum), a type of 'slash and burn' agriculture.
- Since 1951, over 5,000 sq km of forest was cleared for river valley projects. For example: About 40,000 hectares of forests were cleared for the Narmada Sagar Project in Madhya Pradesh.
- Large scale deforestation occurs due to mining.
- The ongoing dolomite mining threatens the Buxa Tiger Reserve in West Bengal.
- Overpopulation in third world countries is a prime cause of environmental degradation.

8. Explain IUCN, JFM.

Ans: IUCN: International Union for Conservation of Nature and Natural Resources

JFM: Joint Forest Management

9. What is Bhairodev Dakav 'Sonchuri'?

Ans: Bhairodev Dakav 'Sonchuri' was an initiative by the people of Alwar to protect their 1200 hectares of forest. The land was declared as the Bhairodev Dakav 'Sonchuri', and declared their own set of rules and regulations which do not allow hunting, and are protecting the wildlife against any outside encroachments.