

Class 8 Science Chapter 5 Important Questions

What do you mean by “Conservation of plants and animals”?

The term “conservation” means the process of keeping and protecting something from “damage”. So, the conservation of plants and animals means that plants and animals which occur in the forest should be kept in a way that they remain protected in the environment in which they are found or live.

Define “Biosphere” and “Biodiversity”.

Biosphere is that part of the earth in which living organisms exist or which supports life. Biosphere includes land surface of the earth, atmosphere of the earth as well as water bodies on the earth (like rivers, lakes, ponds and oceans). This is because living organisms are found on land, in the atmosphere as well as in water bodies.

The term “bio” refers “life” and the term “diversity” means “a variety”. And “biodiversity” means “biological variety”. Biodiversity refers to the variety of organisms (plants, animals and microorganisms etc.) found in a particular area or habitat. In other words, the presence of a large number of species in a particular area or habitat, is called its biodiversity. Biodiversity denotes the richness of species in a particular area or habitat.

What do you mean by “drought” and “desertification”?

Plants need carbon dioxide for photosynthesis. Fewer trees would mean that less carbon dioxide will be used up resulting in its increased amount in the atmosphere. This will lead to global warming as carbon dioxide traps the heat rays reflected by the earth. The increase in temperature on the earth disturbs the water cycle and may reduce rainfall. This could cause droughts.

Deforestation is a major cause which leads to the change in soil properties. Physical properties of the soil get affected by plantation and vegetation. Fewer trees result in more soil erosion. Removal of the top layer of the soil exposes the lower, hard and rocky layers. This soil has less humus and is less fertile. Gradually the fertile land gets converted into deserts. It is called desertification.

Write down any four names and locations of the Biosphere Reserve of India.

Large areas of protected land for conservation of wild life, plant and animal resources and traditional life of the tribals living in the area is called Biosphere Reserve. The four names and locations of the Biosphere Reserve of India are as:

1. Kaziranga Biosphere Reserve (Assam)
2. Sunderbans Biosphere Reserve (West Bengal)
3. Kanha Biosphere Reserve (Madhya Pradesh)
4. Pachmari Biosphere Reserve (Madhya Pradesh)

What is “deforestation”? Write down its causes.

A great variety of plants and animals exists on earth. They are essential for the well-being and survival of mankind. Today, a major threat to survival of these organisms is deforestation. Deforestation means clearing of forests and using that land for other purposes. Trees in the forest are cut for some of the purposes mentioned below:

- i) The forest trees are cut down to obtain wood for using as fuel.
- ii) The forest trees are cut down to obtain wood for making doors, windows and furniture.
- iii) The forest trees are cut down to obtain wood for making paper.
- iv) The forest trees are cut down to obtain more agricultural land for cultivation of crops for the increasing population.
- v) The forest trees are cut down to get land for building houses, factories, roads and dams, etc.

Some natural causes of deforestation are forest fires and severe droughts.

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“Deforestation affect the water cycle leading to decrease in rainfall”. Discuss.

The forest trees put a lot of ground water, sucked through their root, into the atmosphere as water vapor by the process of transpiration. This water vapor helps in bringing rain in that area. When the forest trees are cut down, then the lesser number of trees put less water vapor into atmosphere through transpiration. Since, less water vapor is put into the atmosphere, there is less rainfall in that area.

When there is less rainfall in an area, then less water percolates into the ground. Due to this, the groundwater level also gets lowered. The shortage of surface water (as ponds, lakes etc.) and groundwater due to persistent low rainfall in an area can lead to droughts.

According to you, which type of measure can be taken on the for the conservation of forest and wildlife?

We should conserve forest and wildlife to preserve biodiversity or variety of species, to prevent endangered species from becoming extinct, and to maintain ecological balance in nature. Some of the measures which can be taken for the conservation of forest and wildlife are:

- i) A total ban should be imposed on the poaching or killing or capturing of any wild animals or bird.
- ii) The unauthorized cutting of forest trees for timber trade and fire-wood should be stopped immediately. This is because depletion of forest destroys the natural habitats of wild animals and birds, and exposes them to the cruelty of man as well as nature.
- iii) In case of Government authorized cutting of forest trees, for every actor of forest cut down, an equal area of land should be planted with saplings of trees to make up for the loss in the long run.
- iv) The natural habitat of wild animals should be preserved by establishing conservation areas such as Biosphere Reserve, Wildlife Sanctuaries and National Parks where the wild animals can flourish in natural surroundings protected from the outside world.

Write short notes on Pachmarhi Biosphere Reserve.

Pachmarhi Biosphere Reserve is in Madhya Pradesh state of our country. The biodiversity found in Pachmarhi Biosphere Reserve is unique. The plants and animals found in Pachmarhi Biosphere Reserve are similar to those of the upper Himalayan Peaks and to those belonging to lower Western Ghats. Conserving and preserving areas of such biological importance make them a part of our National heritage. The Pachmarhi Biosphere Reserve contains other protected areas in it.

In fact, Pachmarhi Biosphere Reserve contains two Wildlife Sanctuaries and one National Parks. The two Wildlife Sanctuaries contained in Pachmarhi Biosphere Reserve are Bori Sanctuary and Pachmarhi Sanctuary. The National Park contained in Pachmarhi Biosphere Reserve is called Satpura National Park. There is also a reservoir called “Tawa Reservoir” in the Pachmarhi Biosphere Reserve.

What is the role of Biosphere Reserve?

- i) Biosphere Reserve help to maintain the biodiversity of the area.
- ii) Biosphere Reserve prevent the commercial exploitation of the area.
- iii) Biosphere Reserve preserve the natural ecological conditions in the area.
- iv) Biosphere Reserve help in the conservation of wildlife of the area.
- v) Biosphere Reserve help to maintain the lifestyle of the tribal people living in the area.
- vi) Biosphere Reserve provide opportunities for scientific research, environmental education and tourism.

What are the three different zones which are found in Biosphere Reserve?

A Biosphere Reserve is a large, protected area of land meant for the conservation of wildlife, biodiversity and the traditional lifestyle of the tribal people living in the area. A Biosphere Reserve is a very large conservation area which is divided into three zones: core zone, buffer zone, and transition zone.

1. The innermost zone of a Biosphere Reserve is known as “core zone”. The core zone of a biosphere reserve is devoted to strict protection of wildlife. No human activity is allowed in the core zone of a Biosphere Reserve.
2. The middle zone of a Biosphere Reserve is called buffer zone. Buffer zone surrounds the core zone. In the buffer zone only limited human activity (compatible with conservation) is allowed. For example, research, environmental education and the tourism are allowed in the buffer zone of a Biosphere Reserve.
3. The outermost zone of a Biosphere Reserve is called transition zone. In the transition zone, several non-destructive human activities such as settlements of tribals and cultivation of crops etc., are allowed which are necessary to sustain the life of tribals.

Class 8 Science Chapter 5 Important Questions Set – 3

What do you mean by “flora” and “fauna”?

Some plants and animals typically belong to a particular area. They are not found naturally in other areas. The plants that grow naturally in a particular area are called “flora” of that area. And the animals, which live naturally in the particular area are called “fauna” of that area. The plants and animals of a particular area are called flora and fauna of that area.

Write down some of the “flora and fauna” of the Pachmarhi Biosphere Reserve.

Sal, teak, mango, jamun, silver ferns, arjun, etc., are the flora and chinkara, blue-bull, barking deer, cheetal, leopard, wild dog, wolf, etc. are examples of the fauna of the Pachmarhi Biosphere Reserve.

What do you mean by “species” and “endemic species”?

“Species” is a group of populations which are capable of interbreeding. This means that the members of a species can reproduce fertile offspring only with the members of their own species and not with members of other species. Members of a species have common characteristics.

“Endemic species” are those species of plants and animals which are found exclusively in a particular area. They are not naturally found anywhere else. A particular type of animal or plant may be endemic to a zone, a state or a country.

What is the differences between a Biosphere Reserve and a Wildlife Sanctuary?

- i) A “Biosphere Reserve” is for the conservation of biodiversity of the area as well as the economic development of the area whereas a “Wildlife Sanctuary” is mainly for the protection of wild animals of the area in their natural habitat.
- ii) A “Biosphere Reserve” consist of local people of tribals as an integral part whereas “Wildlife Sanctuary” do not consist of local people as an integral part.
- iii) The human activities such as cultivation of land and building of settlements are allowed in the outermost zone of a Biosphere Reserve whereas the human activities such as cultivation of land and building of settlements are not allowed in a “Wildlife Sanctuary”.

Why is it important to conserve forest?

It is important to conserve forest because forests:

- i) Maintain the level of CO₂ in atmosphere.
- ii) Bind the top layer of soil that increases its fertility.
- iii) Help in absorbing rainwater and thus, preventing floods.
- iv) Maintain the water cycle.
- v) Serves as natural habitat of various species.

Class 8 Science Chapter 5 Important Questions Set – 4

Write down some of the threatened wild animals which are protected and preserved in our wild life sanctuaries.

Some of the threatened wild animals like black buck, white eyed buck, elephant, golden cat, pink headed duck, gharial, marsh crocodile, python, rhinoceros, etc. are protected and preserved in our wild life sanctuaries. Indian sanctuaries have unique landscapes—broad level forests, mountain forests and bush lands in deltas of big rivers.

“Rock shelters are also found inside the Satpura National Park” – Comment.

Generally, rock shelters are also found inside the Satpura National Park. These are the prehistoric evidences of human life in these jungles. They give us an idea of the life of the primitive people. Rock paintings are found in these shelters. A total of 55 rock shelters

have been identified in Pachmarhi Biosphere Reserve. Figures of animals and men fighting, hunting, dancing, and playing musical instruments are depicted in these paintings. Many tribals still live in the area.

Name the first reserve forest of India.

Satpura National Park located in Madhya Pradesh is the first reserve forest of India.

What is poaching? How does poaching affect environment and humans?

When an animal is killed illegally, it is called poaching. It usually occurs when an animal processes something that is considered valuable.

Effect of poaching on environment: The whole ecosystem is affected due to harm caused on animal population. Everything from the animals to the plants and even the people in a specific place is negatively affected. We need various species of flora and fauna in our environmental ecosystem so that it is balanced and healthy. Our own survival depends on it.

Effect of poaching on humans: Two serious problems are faced by humans, first is spread of foodborne illness (e.g., Ebola and Anthrax) and second major affect is depletion of natural resources.

Can a forest regenerate naturally in a short period of time?

Reforestation (i.e., regeneration of a forest) can take place naturally by leaving the deforested area undisturbed for some time.

During this period, the area re-establishes itself without the interference of human beings by the natural growth of trees. This process, however takes a long time in terms of years.

Class 8 Science Chapter 5 Important Questions Set – 5

Write short notes on “Project Tiger” which was launched by the Government of India in 1972.

Tiger is one of the many wildlife species which are slowly disappearing from our forest. There is a “Satpura Tiger Reserve” in the Satpura National Park which is part of Project Tiger.

Project Tiger is a wildlife conservation project which was launched by the Government of India in 1972 to protect the tigers in the country. The objective of this project was to ensure the survival and maintenance of the tiger population in specially constituted “Tiger Reserves” throughout India.

There are 50 tiger reserves in India which are governed by Project Tiger which is administrated by the National Tiger Conservation Authority (NTCA).

What do you mean by “Extinct species” and “Endangered species”?

The species which no longer exist anywhere on the earth are called extinct species. Extinct species are those which have died out completely. In other words, a type of animal which no longer exist on earth is called an extinct animal. As an example, the “dinosaurs” which lived on this earth in ancient times have become extinct a long time ago.

The species which are facing the risk of extinction are called endangered species. Endangered species are animals and plants which are on the verge of vanishing from the earth. They are the animals and plants that exist in small numbers on the earth, and if we do not take quick action to save them, they may be lost forever. For examples, Tiger, Snow leopard, Great Indian rhinoceros, Asiatic lion, Desert cat, Lion-tailed macaque, Namdapha flying squirrel.

Are only big animals facing the danger of extinction?

No, the small animals are much more in danger than the bigger animals. At times, we kill snakes, frogs, lizards, bats and owls ruthlessly without realizing their importance in the ecosystem. By killing them we are harming ourselves. They might be small in size but their role in the ecosystem cannot be ignored. They form part of food webs.

What do you mean by protected area? Explain with examples.

Protected area is the area where our flora and fauna and their habitats are protected. They are called sanctuaries, national parks and biosphere reserves. Plantation, cultivation, grazing, cutting trees, hunting and poaching are prohibited there.

Sanctuary: Areas where animals are protected from any disturbance to them and their habitat.

National Park: Areas reserved for wild life where they can freely use the habitats and natural resources.

Biosphere Reserve: Large areas of protected land for conservation of wild life, plant and animal resources and traditional life of the tribals living in the area.