

Govt. Shaheed Bapurao Postgraduate College Sukma

District- Sukma [C.G.]

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Subject- Environmental Studies.

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Q.1 write an essay biodiversity?

Ans →

Biodiversity

There are ~~minerals~~ millions of types of animals and plants in nature. Many species of all type of plants and animals are also present in the environment. Thus, biodiversity refers to biological abundance. First weather Cr. Rosen (weather G. Rosen, 1986) used the term biodiversity to refers to the abundance of animals and plants.

Thus, from an ecological point of view, biodiversity is the variety and diversity of any ecosystem, habitat and plants, animals and Micro-organisms.

In other words, "Biodiversity is the abundance of different types of species that are found in a certain habitat as an Interaction Mechanism".

Due to the increasing effect of urbanization and Industrial civilization, the existence of many species present in nature has been endangered, due to which the risk of their extinction has increased.

Preservation of Biodiversity

Considering the importance of biodiversity, it is necessary to conserve it. Due to its excessive use, many species have come to the endangered status. The world population is increasing rapidly, so its need is also increasing rapidly. Due to this, along with natural resources, plants and animals are also being used arbitrarily due to which the biological species are becoming extinct. Depending on the way they are being exploited today, about one-third of the species will be extinct in the next few years. The reason for the extinction of plant species is excessive deforestation. According to a study, about 5 to 10% of forest are deforested every year. Similarly, another reason for the extinction of animal is illegal hunting. Apart from this there is another reason for the extinction of animals is illegal hunting. Due to pollution, plants and animals do not get a favorable environment for living, due to which their species becomes extinct.

The IUCN has an important role in conservation. It plays the role of a coordinator between different countries at the international level. The five sections of the IUCN that were created for conservation

were used by the World Conservation Monitoring Center and identified about 60,000 plant and 2,000 species of animals as threatened. The book in which the creatures were described is known as Red Data book. Similarly reptiles (170) Invertebrates (1355), birds (1037) and mammal (497) species are included. After this the IUCN published the IUCN plant Red Data Book in 1978 and the "IUCN" Red data List of Threatened Animals in 1998

Methods of Conservation :- Conservation efforts are being made globally, but there is a definite policy of Conservation on the basis of which bio diversity is conserved. on the basis of the way bio diversity is divided into three parts three methods of Conservation have also been developed.

- (1) Conservation of species Diversity,
- (2) Conservation of Genetic Diversity,
- (3) Conservation of Ecological Diversity.

types of variation are protected by the following.

- (1) In-situ Conservation.
- (2) Ex-situ Conservation.

1 In-situ conservation

In-situ conservation means in this word itself i.e. protection which is in the place where plants or animals are found. In other words, if they are preserved in the original habitat of the organisms (plants and animals) then it is called in-situ conservation. For example if some animals are found in a certain forest then those animals are protected in their same natural habitat, then it is called in-situ conservation. It includes national parks, sanctuaries, etc.

In-situ conservation is the preservation of plants and animals in their habitat. These protected areas are divided into different categories on the basis of their categories and different options.

- (1) National parks
- (2) sanctuaries
- (3) Biosphere Reserve
- (4) Natural Reserve
- (5) Natural Monuments
- (6) Cultural Scenery (Cultural Landscapes)

Q. Ex-situ Conservation
Ex-situ protection means protection outside the habitat. That is, conservation of different species or biodiversity of plants or animals away from their original habitat is done in a protected area, site or laboratory then, it is called Ex-situ Conservation.

Hence ex-situ Conservation can be done in natural habitat as well as in laboratory.

Conservative Region for Ex-situ Conservation

Ex-situ Conservation in natural habitats can be done by the following Methods:-

(1) By the establishment of Botanical Gardens:-
Botanical gardens are established at a certain place and suitable habits for the plant to be protected are created and grown there. In this way species of different habitats are brought together and conserved.

(2) Agricultural research Institutions:- plants related to agricultural i.e. crops are developed and protected by various agricultural research institutions.

(4) Forestry Research Institutes :- The number of protected species is increased by making plantation by forestry research institutions so that they can be conserved.

Apart from the natural habitats ex-situ conservation is also done in the laboratory methods.

(1) seed Bank :- preservation of seeds for a long period.

(2) Gene Bank :- under this, the collection of germplasm is done.

Q.2 Write an essay on environmental pollution.

Ans :- The environmental pollution explains how the earth and its natural resources are under the ever-increasing threat of pollution. All life on earth is threatened by this vicious process initiated by human intervention. The pollution released from all kinds of human activity including industrial processes have had devastating effects on the delicate balance of nature. The most common forms of environmental pollution are air pollution, water pollution, and soil pollution. Environmental pollution has to be addressed as the most pressing problem facing humanity now.

And solutions have to be implemented before it is too late. Pollution has been causing damage to natural resources in every corner of the world for decades, but it seems that we have been running away from taking any positive measures to mitigate its impact on the environment. This environmental pollution

Thus, "Environmental pollution is that undesirable change in the physical, chemical and biological characteristics of air, water and land that harms human beings and other animals, plants, industrial and other raw materials etc. in any way.

In other words, "Any kind of change in the abiotic components of the environment is called environmental pollution".

Pollutants :- The substances responsible for pollution are called pollutants. Pollutants are those substances that humans make, use and eventually throw the rest of the material into the biosphere or the environment.

The major substances that pollute the environment are as follows :-

(1) Accumulated Matter - Example - smoke, dust, grit house etc.

(2) Chemical substances :- Example - detergents, amines, hydrogen fluorides, phosgene etc.

(3) Metals :- Example - Iron, mercury, zinc, Lead.

(4) Gases :- carbon monoxide, sulfur dioxide, ammonia, Chlorine, ~~fluorine~~ fluorine etc.

(5) fertilizers :- Example - urea, potash and other fertilizers.

(6) sewage :- urban waste water

(7) pesticides :- Example - D.D.T. fungicide, Insecticide.

Types of pollution :-

(1) Thermal pollution :- due to the increase in world population and industrialization, today more and more plants are being used and lot of polluted water is released by industries in rivers, ponds and drains, due to which the temperature of the water body in which it reaches rises. goes similarly, many green house gases

Similarly, many are released in nature by Industries, due to which the temperature of the earth's atmosphere keeps on increasing, which is very harmful.

(2) Marine pollution :- This is also a part of water pollution. The polluted water released by the cities, industrial units reaches the sea through rivers and pollutes the sea water due to which many sea creatures are becoming extinct due to accidents in oil tankers and oil wells located in sea areas, excessive amounts of oil reach the sea water and cause marine pollution.

~~C/Sd~~
19/10/27