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HANDOUT	Topic: CONSERVATION OF PLANTS AND ANIMALS	Note: A4 FILE FORMAT
SECTION:	NAME OF THE STUDENT:	ROLL NO.

Conservation – Conservation means the process of keeping and protecting something from damage.

Biosphere – 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.

Wildlife – The term wildlife means all the plants and animals which are found naturally in the forest and other natural habitats.

Biodiversity – Biological diversity or biodiversity, is the huge variety of organisms existing on the earth, their interrelationships and their relationship with the environment.

Ecosystem – A system which includes all the living organisms (plants, animals and microorganisms along with non-living components such as climate, soil, river, deltas, etc., and their interactions among themselves and with each other.

Flora and Fauna – are the plants and animals found in a particular area.

A great variety of plants and animals exist 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 – large scale cutting of trees over a wide area for various purposes. It is the biggest threat to the existence and survival of wild animals and birds. This is done for:

- Procuring land for agricultural use.
- Building industries and houses.
- Making furniture or using wood as fuel.

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

Consequences of deforestation :

- It has adverse effect on food chains. Animals particularly found in forests become rare or migrate to other regions.
- Deforestation increases the temperature and pollution level on the earth.
- Ground water level also gets lowered.
- Deforestation disturbs the balance in nature.
- The level of carbon dioxide goes up which results in the increase in temperature and consequently leads to global warming. The increase in temperature on the earth disturbs the water cycle and may reduce rainfall. This could cause droughts.
- Changes properties of soil like nutrient content and texture. Also, decreases water holding capacity of soil. The movement of water from the soil surface into the ground (infiltration rate) is reduced. So, there are floods.
- 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**.
- Depletion of forest products like wood, food, medicines.

Other threat to biodiversity is – natural calamity and climatic changes.

Having become aware of the effects of deforestation, let us find out how forests and wildlife can be saved. To protect our flora and fauna and their habitats, protected areas called wildlife sanctuaries, national parks and biosphere reserves have been earmarked. Plantation, cultivation, grazing, felling trees, hunting and poaching are prohibited there.

Wildlife Sanctuary – It is an area where only wild animals are protected from any disturbance to them and their habitat. Here capturing and killing of animals is prohibited. Human activities like harvesting of timber, collecting minor forest products are allowed as long as they do not interfere with life of wild animals. E.g. Bharatpur bird sanctuary(Rajasthan), Periyar sanctuary(Kerala)

National parks – These are relatively large area of scenic beauty protected and maintained by the government to preserve flora and fauna, landscape, historic objects of the area and places of scientific interest. In addition to protection, wild animals are kept for recreation, enjoyment and educative interests of the public in these areas foresting, grazing, cultivation and free entry of people is prohibited.

e.g.- Jim Corbett National Park(Uttarakhand), Kaziranga National Park(Assam)
Gir National Park, Gujarat.

Biosphere reserve – A huge area that offers protection to plants, animals and tribal community that may exist in the forest area. The main aim is to conserve biodiversity and maintain culture of that area. A biosphere reserve may contain National parks and Sanctuaries. E.g. Pachmarhi Biosphere Reserve(Madhya Pradesh) includes Satpura National Park, Bori Sanctuary and Pachmarhi Wildlife Sanctuary.



Zoo – are the places where animals are protected in artificial habitats for public view.

Species – A group of population which are capable of interbreeding. The members of a species can reproduce fertile offspring only with the members of their own species and not with the members of other species. Members of a species have common characteristics.

Endemic species- Species of plants and animals that are exclusively found in a particular area. E.g. sal and wild mango are two examples of endemic flora of Pachmarhi biosphere reserve; Bison, Indian giant squirrel are examples of endemic fauna of this area.

The destruction of habitat or introduction of new species may affect the natural habitat of endemic species. Based on their endangerment they are classified as follows:

- **Extinct species**- Some species of plants and animals which do not exist anywhere on the earth. E.g. Dinosaur, dodo.
- **Endangered species** – Some species that are at high risk of becoming extinct due to hunting or destruction of their habitats. E.g. Tiger, blue whale
- **Vulnerable species** - The species of plants and animals which have

high chances of becoming endangered unless the circumstances threatening its survival and reproduction improve. E.g. Giant panda.

Project Tiger – It was launched by the government of India in 1973, to save tigers from extinction due to poaching. The objective of this project was to ensure the survival and maintenance of the tiger population in the country. Various tiger reserves were created in the country. This project has helped in strengthening the habitat and thus the increase in tiger population.

Red Data Book – It is the source book which keeps a record of all the endangered animals and plants. This book is mainly created to identify and protect those species which are on the verge of extinction. It is published by the International Union for Conservation of Nature and Natural resources.

Migration – Migration is the phenomenon of seasonal mass movement of a species from its own habitat to some other habitat for a particular time period every year for a specific purpose like breeding or to escape from extreme cold, or to find food. E.g. Artic tern, Siberian Crane.

Recycling Papers – To process the waste paper (to make new paper) so that it can be used again. A large number of trees are cut down to make paper from the wood pulp. This is a way of conserving trees and forests which helps in conserving biodiversity.

Reforestation – The planting of new trees where forests have been destroyed. The planted trees should generally be of the same species as found in that forest. Natural reforestation can take place if the deforested area is left undisturbed for some time .

In India we have the Forest Conservation Act. This act is aimed at preservation and conservation of natural forests and meeting the basic needs of the people living in or near the forests.

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