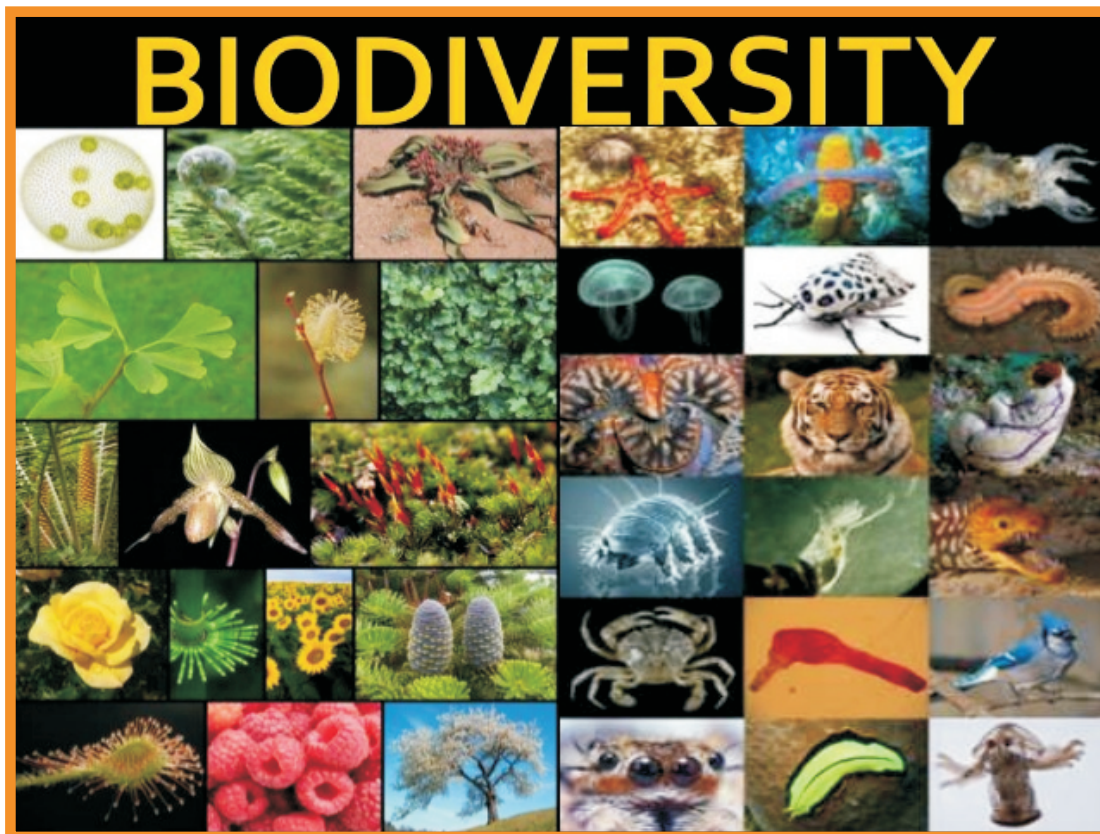


REVIEW OF RESEARCH

BIODIVERSITY: A PRESENT SCENARIO



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Abstract :

If we look back to our ancient heritage, we will find that ever since the period of Ramayana and Mahabharat or the time of great Indian physician Dhanvantri, they were quite about the natural wealth of India in terms of biodiversity. For curing Lakshman, Hanumanji; from extreme south went up to north for picking up a particular plant. There is also a myth about Dhanvantri that every plant used to speak before him revealing its utility for human beings. According to Hindu philosophy which believes in rebirth every soul has to pass 84 millions animal types before birth as a human being. This itself shows the importance of different animal life or importance of biodiversity.

Keywords: Biodiversity, ancient heritage, Ramayana and Mahabharat, Indian physician Dhanvantri, Hindu philosophy.

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INTRODUCTION

If we look back to our ancient heritage, we will find that ever since the period of Ramayana and Mahabharat or the time of great Indian physician Dhanvantri, they were quite about the natural wealth of India in terms of biodiversity. For curing Lakshman, Hanumanji; from extreme south went up to north for picking up a particular plant. There is also a myth about Dhanvantri that every plant used to speak before him revealing its utility for human beings. According to Hindu philosophy which believes in rebirth every soul has to pass 84 millions animal types before birth as a human being. This itself shows the importance of different animal life or importance of biodiversity.

India was probably the first nation on earth to practice land conservation and wildlife management. The late E.P.Gee, one of the India's few noted conservationist found that in the year 300 B.C. government decreed to set aside certain areas where the extraction of timber, burning of charcoal, collection of grass, fuel and leave the cutting of cane and bamboo, trapping fur skins and tooth and bone were totally prohibited. Since that time sense of regulations has been forgotten and large part of India have been lost to both men and nature through indiscriminate lumbering and overgrazing leading in turn to desiccation of remaining vegetation. -

In present stage of the world when there is general agreement on the conservation of the global atmosphere which should be free from chloro fluoro compound which is vastly reducing ozone layer, or smog from automobiles and fine carbon particles or hazardous chemicals from factory outlets or poisonous pesticides from fields into our aquatic reservoir. This has drawn the attention of our Scientists towards earth's natural heritage-'biodiversity'.

To study the biodiversity means to study the sum of total life forms at all levels of organization. According to Denny (1997) "Biodiversity includes assemblages of plants and microorganisms their genetic variability expressed and populations, their habits ecosystem and natural areas, the mosaic of which constitutes the landscapes which gives the richness to the natural environment.

Loss of plant and animal variety or their extinction was earlier due to the natural evolution process in that the rate of loss was not much more but now a days time human activities is the main cause for this fast depletion of biodiversity. Increasing human populations and their multifarious need or 'greed' is the main cause of biodepletion.

It is evident that human race of the 20th century will be known as biggest destroyer of the natural environment and biodiversity. Man with his strong desire and sharp tools, hazardous chemicals has allowed only species of plants and animals which is directly beneficial to him in terms of many food or medicines. Thus he has destroyed much other variety of animals and plants, which were indirectly useful.

For our planet and its healthy atmosphere biodiversity or the totality of life in forms of animals and plants is of great importance. It is essential for the welfare of all the living beings in various aspects. Its different aspects may be summarized as:

ECOLOGICAL ASPECTS

Biodiversity provides interactive dynamics of the ecosystem of the plant it regulates the gaseous mixture of the atmosphere

Biodiversity: A Present Scenario controlling soils in fertilized state, control pests and maintains bio geo chemical cycles. It maintains proper flourishing atmosphere in the aquatic ecosystem for plants and animals.

FOOD AND NUTRITIONAL ASPECTS

Biodiversity provides a peaceful coexistence among plants and animals. This enables us to get different variety of food with nutrition value thus serving the human society since thousands of years. It covers from mushrooms to sea algae and variety of aquatic animals amphibians, fishes, reptiles, birds and mammals.

ECONOMIC ASPECTS

If we think about the most important contribution of biodiversity on earth then definitely it is food. To feed the global population there is a wide range of plants and animals from lower animals to fishes and from amphibians to mammals.

MEDICINAL ASPECTS

Man since his knowledge of medical science has never conquered upon the diseases; what ever the remedial approaches and the drugs have been invented by him is either based on medicinal plants or from animals. In the process of human civilization man has discovered many plants and animals directly or indirectly useful for mankind.

AESTHETIC ASPECTS

After getting food, medicine, shelter and clothes man has always been fascinated by natural beauty, which is also contributed by our natural biodiversity.

In fresh water aquatic environment there flourishes many microorganisms-phytoplankton and Zooplankton along with different types of plants like *Hydrilla verticillata*, *Cerato phylum*, *Demersum cyperus*, *Marsika minuta*,

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Vallisneria spiralis, *Eichhornia crassipes* and *Polygonum glabrum* among animals are protozoan's, porifers, coelentrates, arthropods, molluscans are the main phyla. These plants and animals constitute natural food chain, thus maintaining ecosystem of biodiversitic discipline.

Today man with his vested interest and heavy tools exploiting animals and plants, polluting our aquatic bodies with hazardous chemical and factory outlets and pesticides runoff from fields causing gradual depletion of plants and animal varieties. This is the sole cause of the present awakening from rescue operation and maintaining our natural wealth.

Fresh water fishes are specialty of the specific area whether they are from tropical or temperate region or the arctic zone. In fishes there are always possibility of natural hybridization hence they need special taxonomic attendance. At present there are 19000 known species of fishes out of which 10 per cent are still unknown. India due to it's diversified geographical position we have a big range of fishes.

In a survey 1974 there was 85 lacs hectare water bodies including 30 lacs hectare ponds, lakes and reservoirs 39 lacs hectares rivers and canals 12 lacs hectares estuarine and 14 lacs hectares of mixed area of wetland. In 1975 in India there were total 2479270 water resources for fish cultivation out of which 51940 in U.P., 32470 in Himachal Pradesh, 272500 in Bihar and 252000 in Maharastra. Due to increasing civilization there is a gradual reduction in their number and area.

The aquatic biodiversities of fresh water fisheries in Maharastra and it's adjacent provinces, there are mainly 24 families of 60 genus and approximately 115 species of fish varieties. Some important genera and species of fish varieties are as follows:

Catla catla, *Labeo rohita*, *Lcalbasu*, *Lfimriatus*, *Cirrhinus mrigale*, *Tor tor*, *Mystus seenghala*, *M. cavasins*, *M. vittatus*, *Wallago attu*, *Ompok bimaculatus*, *Clarius mangur*, *C. batrachus*, *Heteroprieustes fossilis*, *Notopterus chitala*, *N. notapterus*, *Mastacambelus armatus*, *Cirrhinus reba*, *Labeo bata*, *Oxygaster bucaila*, *Ophiocephalus punctatus*, *Chanda nama*, *C. ranga*, *Nandus nandus*, *Anabas testudineus*, *Rasbora daniconius*, *Rita rita*, *Badis badis*, *Xenodon cancila*, *Puntius ticto*, *P.sama*, *Amphinons cuchiaandMugilcarsula*.

Among exotic iishes-Ctenopharyngodon idellus, Tilapia mossambica and Cyprinus carpio.

At present it is very important to maintain the fishes of pure strain and there is a worldwide organization to identify each country to maintain and conserve certain fishes. The worldwide awakening and joint approach is the only remedy to conserve our aquatic biodiversity.

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