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Food Conservation in India's Biodiversity

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Abstract: *Biodiversity is the variety of life on earth. It includes the variability of species in terrestrial, aerial and aquatic habitats, the diversity of ecosystems and the diversity of genes present in them. It is an essential component of nature and ensures the survival of the human species by providing food, fuel, shelter, medicines and other resources to mankind. Indirectly, biodiversity serves humans by providing basic life support systems such as clean air, water and fertile soil. The Convention on Biodiversity has defined it more precisely as the variability among living organisms from all sources, including, among other things, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part and the analytical study of seafood. This includes diversity within species, between species and across ecosystems and food systems.*

For centuries, mankind has used plants and animals as symbols and food processing to establish cultural identity. The aesthetic value of biodiversity is poorly understood and cannot be ideally valued with current economic valuation models. Recently, biodiversity has been given greater importance for its incredible potential to provide novel genes for various applications in biotechnology and pharmacology. The Convention on Biological Diversity, to which India is a signatory, advocates that every country has the responsibility to conserve, restore and sustainably use biological diversity within its jurisdiction. Moreover, the human species has an ethical responsibility to ensure the survival of other organisms in the biosphere and to preserve them for the benefit of future generations. In fact, the principles of conservation are embedded in the cultural, spiritual and religious background of India, although not fully followed at present.

India has rich biodiversity with a variety of unique ecosystems, such as forest ecosystems, wetland ecosystems, mangrove ecosystems, marine ecosystems, etc.

India's coastal waters are extremely rich fisheries areas. The total commercial marine catch in India has remained stable between 1.4 and 1.6 million tonnes over the last ten years, with fishes of the clupeoid group (such as sardines Sardinella species, Indian shad Hilsa species and whitebait Stolephorus species) accounting for about 30% of the total catch. In 1981 it was estimated that about 180,000 non-mechanised boats (about 90% of India's fisheries fleet) were carrying out small-scale, subsistence fishing activities in these waters. At the same time, about 20,000 mechanised boats and 75 deep-sea fishing vessels were operating mainly from ports in the states of

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Maharashtra, Kerala, Gujarat, Tamil Nadu and Karnataka. Coral reefs are found in only a few parts of the mainland, mainly in the Gulf of Kutch, off the southern mainland coast and around several islands opposite Sri Lanka. This general absence is mainly due to the presence of major river systems and sedimentary settlement on the continental shelf. Elsewhere, corals also occur in the Andaman, Nicobar and Lakshadweep Islands, although their diversity is reported to be less than in south-east India (UNEP/IUCN, 1988).

Other notable marine areas are seagrass meadows, which are not directly exploited yet are valuable as habitats for commercially farmed species, especially prawns, and mangroves. In the Gulf of Mannar the green tiger prawn Penaeus semisulcatus is exploited extensively for the export market. Seagrass meadows are also important feeding areas for the dugong dugong dugon and several species of sea turtles.

Biodiversity hotspots - Biodiversity is not evenly distributed on Earth. Some regions, especially the tropics, are rich in species. Many species in these regions are threatened with extinction. However, conservation funding is limited and so it is important to determine priority areas of conservation. In 1988, British ecologist Norman Myers introduced a concept called hotspot, which identified the most prominent criteria for declaring an area a hotspot: (i) abundance of endemic species, and (ii) impact of human activities. Endemic species are those that are restricted to certain local areas of the Earth. Evolutionary history has endowed species with ecological characteristics that are adapted to their habitat. However, most species are rare and limited because their ecological requirements are met only in a small area and because they are not able to disperse long distances to other suitable habitats.

For example, the Nilgiri Wildlife Sanctuary in Tamil Nadu has no human habitation, small abandoned plantation areas and no harvesting of produce, while the Parambikulam Wildlife Sanctuary in Kerala consists of a large area of commercial plantations and privately owned estates where resources are heavily exploited.

International Programmes and Conventions - India participates in a number of international agreements and programmes related to nature conservation and sustainable development. These include legal instruments such as the Convention on Biological Diversity, which places obligations on contracting countries, and also scientific programmes such as the UNESCO Man and the Biosphere Programme, a global programme of international scientific cooperation. Examples of agreements and programmes with which India is collaborating include:

World Heritage Convention - India ratified the World Heritage Convention in

1977 and has since inscribed five natural sites as areas of 'outstanding universal value'. These sites are:

Convention on Biological Diversity - India signed the Convention on Biological Diversity on 5 June 1992, ratified it on 18 February 1994 and entered into force on 19 May 1994. This convention will provide a framework for sustainable management and conservation of India's natural resources.

Ramsar (Wetland) Convention - India has been a contracting party to the Ramsar Convention since 1 February 1982. India now has six sites, covering about 192,973 hectares of important wetlands. A different form of biodiversity is visible at these places. A diversity of fish and other aquatic organisms is reared, on which the food system is based. This also affects the market economy. At present, the trend of seafood in the market is increasing. In this, the following lakes such as - Chilika Lake, Keoladeo National Park, Wular Lake, Harike Lake, Loktak Lake, Sambhar Lake have contributed.

Conservation- Biotechnology involves the use of all types of organisms for human welfare. Therefore, extinction of wild and marine species and destruction of ecosystems has been a major concern for both policy makers and biotechnologists. Surveying and preserving the biodiversity of the country has been a major effort to save wild plants and marine and wild animals from extinction. National parks and sanctuaries have been established in many countries to fulfill this purpose. Even under the aegis of the United Nations, funds are being established and other efforts are being made for the conservation of germplasm at the global level. Thus, biodiversity studies involve the following:

(i) Systematic examination of the entire range of organisms on this planet.

(ii) Study of methods by which diversity can be maintained and used for the benefit of mankind.

Conclusion- Discussion on biodiversity in a book on biotechnology is relevant, as biodiversity is being used to obtain genes from wild species for biotechnological practices. In recent years, discussions on biodiversity have also become important.

Similarly, the concept of Plant Breeders Rights (PBR) was recognised in the north, ignoring the rights of farmers for compensation to be paid to poor farmers in developing countries, to the detriment of developing poor countries. However, most countries agree on the need to conserve biodiversity.

REFERENCES

1. Botanical Survey of India (1983). Flora and Vegetation of India – An Outline. Botanical Survey of India, Howrah. 24 pages.
2. Bustard, H. R. (1982). Crocodile Breeding Project. In Sahariya, V. B. (ed.), Wildlife in India. Natraj Publishers, Dehradun. Pages 147-163.

3. Champion, H. G. (1936). A Preliminary Survey of Forest Types of India and Burma. Indian Forest Records (New Series) 1: 1-286.
4. Champion, H. G. and Seth, S. K. (1968). A Revised Survey of Forest Types of India. Government of India Printing Press, Delhi. 404 pages.
5. Collins, N. M., Sayer, J. and Whitmore, T. C. (Editors) (1991). Conservation Atlas of Tropical Forests: Asia and the Pacific. IUCN, Gland, Switzerland and Cambridge, UK. 256 pages.
6. FAO/UNEP (1981). Tropical Forest Resources Assessment Project. Technical Report No. 3. FAO, Rome.
7. Gadgil, Madhav (2000). Indian Heritage: Conservation Ethics. In: Allchin, B., Allchin, F. R. and Thapar, B. K. (Editors), Conservation of Indian Heritage. Cosmo Publishers, New Delhi. Pages 13-21.
8. Government of India (1985). Research and Reference Division, Ministry of Information and Broadcasting.
9. Groombridge, B. (2010). Notes on the rain forests of south-west India and their reptile fauna. Paper prepared for the Centenary Symposium of the Bombay Natural History Society, 6-10 December, 1983. 18 pages. Revised, January 1984.
10. Groombridge, B. (editor). 1993. The IUCN Red List of Threatened Animals 1994. IUCN, Gland, Switzerland and Cambridge, UK. Ivi + 286 pages.