

(Man and Biosphere Programme)

Man and Biosphere Programme is an interdisciplinary Programme of research which emphasises an ecological approach to the study of inter-relationship between man and the environment. It is an UNESCO sponsored Programme, the participating countries have their own National committees. The Government of India have also constituted a National committee on Environmental Planning and co-ordination (NCEPC). The first meeting of the International co-ordinating Council for the Man and the Biosphere Programme was held at UNESCO House in Paris, from 9 to 19 November 1971.

The biosphere is a heterogeneous structure and is composed of numerous ecosystems which differ in their composition and functional attributes. Man as a master consumer uses the biotic and abiotic resources of the biosphere and at places has created ecological crisis, due to excessive use and at times misuse of the National wealth. With the hazardous activities of man in the Biosphere, the environment of our Planet is facing new and unpredictable situations. These activities have initiated UNESCO to study certain aspects of ecology.

Aims and Objective → The Indian National MAM committee was set up in 1972 to promote and fund research as a part of world-wide Man & Biosphere Programme of UNESCO. The main objective of this committee

is to suggest the ways and means for preventing the fast fragmentation of natural ecosystems. The programme also aims at predicting today's action of man on future environment. Ecological researchers are becoming more and more applied to human welfare due to such international efforts as those of IBP, MAB, U.N.S. Stockholm conference (June 1972) on 'Human Environment' and the ~~see~~ recently held 'Earth Summit' at Rio de Janeiro in June 1992 and follow up action, IUCN (International Union for conservation of Natural resources, Switzerland) etc. Publication of a few important Journals ~~as~~ as Tropical ecology, Indian journal of Ecology, International Journal of ecology and Environmental Sciences has helped in the propagation of new ecological knowledge developed in India and other tropical regions. The credit for these activities go to these Programmes.

The national MAB programme has accepted fourteen specific project areas relating to the effects of man's activities on the biosphere. The proposed international projects are as follows:

Project 1 - Ecological effects of increasing human activities on tropical and sub tropical forest ecosystem.

Project 2 - Ecological effects of different land uses and management practices of temperate and mediterranean forest landscapes.

Project 3 - Impact of human activities on the dynamics of arid and semi-arid zones ecosystems, with particular attention to the effect of irrigation.

Project 4 - Impact of human activities and land use practices on grazing lands. Savanna & grassland (from temperate to arid areas)

Project 5 - Ecological effects of human activities on the value and resources of lakes, marshes, rivers, deltas, estuaries and coastal zones.

Project 6 - Impact of human activities on mountain and Tundra ecosystems.

Project 7 - Ecology and rational use of island ecosystem.

Project 8 - Conservation of natural areas and of the genetic material they contain.

Project 9 - Ecological assessment of pest management and fertilizers used on terrestrial and aquatic ecosystems.

Project 10 - Effects on man and his environment of major engineering works.

Project 11 - Ecological aspects of Urban systems with particular emphasis on energy utilization.

Project 12 - International ^{environmental} between environmental transformations and the adaptive, demographic and genetic structure of human populations.

Project 13 - Perception of environmental quality.

Project 14 - Research on environmental pollution and its effect on the biosphere.

Under the MAB programme the Department of science and Technology (DST) has selected certain research centres and Universities for undertaking ecological studies. Banagalore university is one of the selected universities under Project 5. The title of the project is "Limnological survey and impact of human activities on river Ganges."

Keeping all these aspects in view under the Man and Biosphere Programme teams of Ecologists are working all over the world on different type of ecosystems to evaluate their productive potential for the human life.