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PROGRAMME ON MAN AND THE BIOSPHERE

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REPORT OF THE TASK FORCE ON CRITERIA AND GUIDELINES FOR THE
CHOICE AND ESTABLISHMENT OF BIOSPHERE RESERVES

1. Background

In November 1971, the International Co-ordinating Council for the Man and the Biosphere (MAB) Programme defined the various projects proposed under the programme. The Council recognized that the establishment of reserves, protected and managed in various ways, is of importance to mankind through the role they can play in meeting scientific, economic, educational, cultural and recreational needs. Such areas were regarded as essential for studies of ecosystems of various kinds and of fundamental importance to the MAB Programme since they represent baselines or standards against which change can be measured and the performance of other ecosystems judged. They also represent a means of maintaining the gene pools of species of plants, animals and micro-organisms. In order to achieve a co-ordinated world-wide network of protected areas the Council proposed, in co-operation with the intergovernmental and non-governmental organizations concerned, to assist governments to select, to set aside and to manage the areas needed for such an international network. It was suggested that international concern for the long-term conservation of such areas might be achieved through their designation as "Biosphere Reserves", together with promotion of appropriate standards for their conservation.

Subsequently, the expert panel on MAB Project 8 (see MAB/ICC-3/8) outlined general criteria and guidelines for conservation of natural areas and their genetic diversity, and it recommended that a special task force be convened to prepare criteria and guidelines for the selection and establishment of biosphere reserves, embodying ecological and genetic principles of nature conservation.

This task force met in Unesco House in Paris from 20 to 24 May 1974. It was convened with the support and financial assistance of UNEP, and in collaboration with IUCN and FAO. The final report of the task force (MAB Report Series No. 22) will be available prior to the third session of the Council.

2. Summary of the main contents of the report

2.1 General considerations

The task force suggested that the objectives of the network of biosphere reserves be defined as follows:

- 1) To conserve for present and future human use the diversity and integrity of biotic communities of plants and animals within natural ecosystems, and to safeguard the genetic diversity of species on which their continuing evolution depends.
- 2) To provide areas for ecological and environmental research including, particularly, baseline studies, both within and adjacent to such reserves, such research to be consistent with the first objective above.
- 3) To provide facilities for education.

The procedure for selection of biosphere reserves will differ depending on the nature and purpose of a reserve. There are three main categories: 1) natural areas representative of biomes, their main subdivisions and transition zones; 2) unique areas or areas with particular natural features of exceptional interest; and 3) man-modified landscapes. Criteria for each of these categories are outlined to provide objective guidelines towards agreed standards for the network as a whole.

Close attention must be given to the planning of biosphere reserves. All reserves should have "core" areas and "buffer zones". Use would be confined, in most cases, to the buffer areas, with each type of use planned and controlled according to the nature of the area.

Biosphere reserves are not meant to be substitutes for national parks and equivalent reserves. Biosphere reserves may coincide with or incorporate national parks or equivalent reserves but they could also include areas which do not conform to the IUCN definition of National Parks. They may also include buffer zone areas where manipulative research may take place. The most significant and distinct characteristic of biosphere reserves, however, will be their links by international understanding on purposes, standards and exchange of information and personnel.

Since biosphere reserves are to include representative and unique areas of the world's biomes and their subdivisions, it is essential that their establishment be based on a knowledge of the nature and extent of the important biotic communities of the biosphere. This involves international and national support for development of mutually acceptable classifications of the world's biomes and for the required surveys and inventories of biotic communities to determine their nature and extent.

It is suggested that the IUCN system for classification of natural regions be improved by experts on various natural regions, and this system be used along with more detailed national classification schemes for selecting representative ecosystems for conservation. It is emphasized that many nations will require international assistance in carrying out surveys and inventories in order to determine suitable sites for the location of biosphere reserves.

It is recognized that the success of the programme will depend upon public information, education and training of personnel within all countries concerned. Full use should be made of the educational resources of existing sites, especially the national parks and reserves, and model programmes should be developed within these sites in co-operation with local educational systems.

2.2 Recommendations to the International Co-ordinating Council

The task force made the following recommendations for consideration by the International Co-ordinating Council:

- 1) That National Committees be invited:
 - to initiate or expedite surveys and inventories to identify areas for conservation and, at the earliest possible time, designate areas to be established as biosphere reserves. This would include the development of a suitable legal framework, if it does not already exist, for the necessary protection of the reserves.
 - to take full advantage, in the course of selecting sites for biosphere reserves, of information gathered during the IBP/CT Check Sheet Survey for the recognition of sites of high conservation importance and their establishment as reserves; in particular IBP/CT Reserves should be considered for their suitability as core areas for biosphere reserves.
 - to develop co-operative bilateral agreements where necessary for the establishment and protection of biosphere reserves; these could include arrangements for exchange of personnel in research, management, and training programmes.
 - to implement programmes of environmental education to enable people to understand and appreciate the need for conservation and research programmes at a national, regional and global level. Biosphere reserves and their research activities should be associated with such educational programmes wherever possible.
- 2) That a formal agreement be reached between Unesco, FAO and IUCN to secure collaborative planning and execution of a world-wide network of biosphere reserves, that an inter-agency group be established to develop a long-range plan which would be presented to the ICC at the earliest possible time and that the advice, co-operation and assistance of UNEP be sought in the implementation of the programme of work on biosphere reserves.
- 3) That the questionnaire on educational and training needs, now being prepared by the MAB Secretariat for distribution to National Committees, should solicit information on countries' training needs and resources in respect to participation in the biosphere reserve programme.
- 4) That the IUCN coastal and marine surveys, regional surveys and inventory systems, the FAO World Forest Inventory Programme and the Tropical Forest Cover Monitoring Programme should be used in the assessment of representative ecosystems for the development of a world-network of biosphere reserves. The International Co-ordinating Council should carefully consider the possible continuation of activities undertaken within the International Biological Programme which have a direct bearing on the recognition and documentation of sites of high biological interest, including the Check Sheet Survey and the recommendations for further development deriving from it.

- 5) That MAB Project 8 and the need for the establishment of biosphere reserves should be emphasized in scheduled regional meetings of other MAB projects. A roving mission to countries to encourage the establishment of biosphere reserves should be considered.
- 6) That emphasis on biosphere reserves should be included in the integrated MAB training courses, and that specialized courses in biosphere reserve planning, development, management and **research** should be considered as the programme is implemented.

3. Action by the Council

The Council is invited to review carefully the suggestions and recommendations made by the task force. The Council is invited to accept the substance of the report of the task force, subject to the considerations made particularly under item 9.3 of the Provisional Agenda and to elaborate frameworks and mechanisms within which countries could most readily work together in establishing the proposed network of biosphere reserves. The Council is also asked to bear in mind the crucial role that these reserves could play in the successful implementation of "core" programme activities (items 7 and 8 of the Provisional Agenda).