

Categories, objectives and criteria for protected areas

A Final Report prepared by
Committee on Criteria and Nomenclature
Commission on National Parks and Protected Areas

August 1978

Published with the financial assistance of the Rockefeller Brothers Fund



International Union for Conservation of Nature and Natural Resources
Morges, Switzerland

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CHAPTER ONE

INTRODUCTION

The International Union for Conservation of Nature and Natural Resources is dedicated to the wise use of Earth's natural resources and to the maintenance of the Planet's natural diversity. Within the overall mandate and program of IUCN, its Commission on National Parks and Protected Areas (CNPPA) is charged with the promotion and monitoring of national parks and other areas which are dedicated to the protection of nature and natural resources, as well as the provision of guidance for the management and maintenance of such areas.

The national park is the most common method for the management of conservation areas. IUCN and CNPPA have placed major attention on the promotion and assessment of national parks around the world. This effort is typified by the publication of the United Nation's List, starting with the efforts of Fred Packard and later books by J.P. Harroy. Most recently, the IUCN Secretariat and CNPPA have produced annual U.N. Lists and the World Directory on National Parks:

During recent years, it has become apparent that many elements of the human habitat required conservation and care. Several aspects of conservation work which have not generally or traditionally been included in national park activities, have now become critical. For example, upstream river catchments require conservation management to insure downstream food production; marine resources such as mangrove forests and coral reefs require careful management to insure fisheries, etc.

The conservation of nature can be interwoven into development as conceived by the principles of ecodevelopment. Natural resources can be managed in a variety of ways to support humans and maintain the human habitat. Through the analysis of objectives for conservation, it is possible to define various categories of management for conservation areas.

The national park has been defined (New Delhi, 1969) and criteria have been set forth (J.P. Harroy, in 1972 U.N. List Preface; and ICNP, Banff 1972). Without altering these concepts, the national park can be complemented by other distinct categories, which when taken together, can provide land managers and decision-makers with a broad set of legal and managerial options for conservation land management.

In this way, several current problems can be examined and solutions prescribed:

1. The national park can be complemented by other conservation management categories, which taken together, can provide for many human and environmental needs yet amplify the amount of land maintained in a natural or semi-natural state.
2. Nations can establish conservation categories which reflect their particular resources and requirements.
3. All conservation areas, regardless of their particular category, can be given appropriate recognition based upon their functional management and their effective role in conservation and development. Thus, regardless of the nomenclature used by nations or consistent to particular languages, a conservation area can be recognized and categorized by the objectives for which it is in fact managed. This approach also provides the possibility to gradually establish systematic procedures to remove ambiguities and inconsistencies due to variations in administrative, institutional, legal, and political mechanisms among nations.
4. With the rapid pace of physical alteration of the Earth's remaining wild places, there is an urgent need to assess the status of nature conservation and prescribe action to insure adequate conservation management. IUCN, together with U.N. Organizations, is actively involved in preparing programs and plans which address strategic aspects of global conservation. For their efforts to support and be meaningful to effective conservation, a range of alternatives for area management must be proposed and promoted.

Contributions to the conceptualization of conservation land management systems have been made by W. Hart (IUCN, 1966), R. Dasmann (IUCN, 1973), R. Forster (IUCN, 1973), K. Miller (IUCN, Caracas, 1974), Thelen and Miller (FAO, 1975) and others. The ideas of these authors have been interpreted into this proposal. This proposal also intends to interpret the conservation of cultural heritage where wildlands and nature conservation are involved, the potential of nations with older cultures and/or dense human populations, and the conservation of marine resources (C. Ray, IUCN, 1975).

The preparation and recognition of a set of categories for conservation land management has several practical implications:

1. At the national level, each nation can design a system of conservation areas which corresponds to its own resources

and requirements. Such a system can assist the nation's responsibilities in the protection of finite resources while providing for human development on a sustainable basis.

2. Based upon criteria for each category, regardless of nomenclature, each conservation area can be classified according to the objectives for which it is being managed. Thus each nation can establish areas which fulfill functions valid for the nation's particular circumstances yet receive world recognition for its contribution and efforts to world conservation.
3. IUCN, and other institutions, can assemble and analyse information on national parks, as per the effective work of J.P. Harroy, and also for other categories. Thus, a more complete and realistic assessment of conservation areas could be made.
4. Through access to IUCN's new terminal to the International Reference Service, this information can be stored and recalled, updated and printed quickly and easily. This will tend to minimize demands for the time of secretariat officers to handle data on parks and reserves.
5. The scientific community would have access to information regarding natural areas under conservation management within national parks as at present, as well as those many areas not currently recognized. Information about many research and advanced educational facilities in national areas could be added.
6. The tourism industry could have access to information where a nation considered this might be beneficial on a wide range of natural and semi-natural areas suitable for recreation and tourism purposes. Expanded and diversified tourism has potential to both increase the support of natural areas, and if planned properly, reduce concentration upon national parks per se.
7. IUCN and CNPPA require means to respond and support international global programs. There is need for a consistent framework within which to provide technical advice to these programs, these would include the Man and Biosphere Program (UNESCO), the World Heritage Convention (UNESCO), the Global Environmental Monitoring System (UNEP), and others. Data concerning the various categories linked to the biogeographic regions of the world would be extremely useful in formulating the IUCN World Conservation Strategy.
8. CNPPA could relate to its sister Commissions on matters of high priority and strategic significance. The limited capacity of the commissions could focus on such items as: legal and policy structures for conservation categories; the planning of other-than-park categories; the

development of educational programs on conservation management in its several forms; the effectiveness of the various categories for species conservation; and, the design of conservation management categories for marine resources.

9. Having a set of conservation categories among which a broad spectrum of conservation issues and objectives can be supported, IUCN can work more effectively with the development banks and development institutions. Conservation can be more identifiably linked to water, protein, ecosystem productivity and diversity, pharmaceuticals, agricultural and livestock breeding, wood and wood products, science education and the human environment in general. For example, projects to develop river resources should ideally include financial and technical support to establish some type of conservation management in the upstream catchment area; where a national park may be inappropriate, one of the other categories may address the local situation quite adequately. In any case, some recognized form of conservation can be provided.
10. In the future, IUCN may choose to prepare and publish a directory in which each category is presented on its own merit. With the modern data handling procedures suggested in point 4 above, and following several years of revision and experience, the publication of such a directory could be within the capacity of IUCN to produce in response to the interest of scientists, the tourism industry, international development agencies, and other organizations and individuals.

Thus, it is the intention of this paper to amplify the scope of conservation management to be recognized by CNPPA. This is considered necessary to enable IUCN to respond positively and affirmatively to IUCN's conservation strategy and IUCN's growing mandate. In a sense, more instruments are needed to perform a more complex task. National parks remain as they are, though perhaps they will become even more sharply delineated as a result of recognizing and establishing criteria for other categories of conservation management.

It is suggested that the categories be considered as "members of the same family", free from dominance one by another. All categories are potentially important, each with a different role, and only together can they be employed to cover national and global resource management needs.

Finally, this is a discussion paper. It is being prepared based in part upon a special grant from the Rockefeller Brothers Fund to IUCN for the support of CNPPA efforts on this matter. The mandate for this work originates from the program of work for CNPPA decided at its 10th Meeting in Kinshasa in 1975. Following detailed discussion at the Commission's 12th Meeting in Portugal in February 1978, this paper has been further developed for review by a broader audience.

CHAPTER TWO

METHOD FOR THE DELINEATION OF CATEGORIES FOR CONSERVATION MANAGEMENT

The maintenance and development of the human habitat requires that some areas be retained in their wild state. The flow of streams, the maintenance of genetic materials, the protection of scenic and aesthetic areas and the opportunity to enjoy and appreciate natural heritage, can benefit from the conservation of natural areas. Indeed, some benefits can only be received through establishment and maintenance of natural reserves.

Other human needs from natural resources include wood and wood products, wild animal products and protein, grazing from natural grasslands, and water for agriculture, industry, domestic use, and for energy which can be produced on a sustained-yield basis.

Logically, some benefits can be received from natural areas or wildlands in perpetuity if management is properly designed and implemented. However, there are types of benefits which compete with one another, that is, they are incompatible. For example, it is physically and biologically difficult to remove wood products and study natural ecosystems on the same area. But, perhaps the preservation of a sample ecosystem and research and monitoring can be done together if appropriately designed and controlled.

Management categories can be designed and implemented each of which addresses a compatible set of benefits. In a particular category, the pursuit of any one benefit does not compete or rule out the possibility of receiving the other benefits of the group. Commonly known categories include the national park, wildlife sanctuary and forest reserve.

In many cases exceptions arise where even among generally compatible activities, conflicts arise during particular seasons or on specific sites such as during nesting or calving periods or at critical habitats, respectively. These types of conflicts can be treated normally through application of the management practice known as zoning.

Each benefit is related to specific objectives of management, such as, the maintenance of sample areas of major biotic formations and physiographic features in a natural state, the protection of rare or endangered species or habitats, the conservation of outstanding landscapes or natural features of aesthetic value, and the conservation of areas where renewable resources can be harvested and utilized on a sustained-yield basis. The objectives

of each category are oriented towards scientific, educational, recreational and touristic activities. Ideally all objectives and activities are related to environmental protection and to economic and social development.

Areas which have been selected and are under management to meet specified compatible conservation objectives can be considered to be conservation or protected areas. They can be described and classified according to the objectives for which they are being managed. In contrast, however, the means required to meet the objectives of conservation will depend upon each particular situation and will vary with cultural, institutional, political and economic considerations.

Conservation categories which focus upon environmental protection and economic and social development provide the basis for clearly incorporating conservation into development (eco-development). Each relates to one or several of the major goals of a nation's development plan: nutrition, education, housing, water, science and technology, defense and national identity. Viewed in this way, conservation categories become means for sustained development.

In Chapter Three, conservation objectives have been grouped into several categories which are commonly found in existence around the world. The delineation of these categories is not new, absolute nor is it meant to be final. What is significant is designed by systemic analysis. Exceptions will occur and alternative concepts will no doubt arise.

Taken together, these categories can ideally be administered as a unified national system of conservation areas. In practice, the categories are generally divided among various divisions of central government. In exceptional cases, some of the categories are administered by state, provincial or even private or corporate institutions. International categories such as the biosphere reserve and the world heritage site will often require cooperative administration among several institutions. What is relevant, however, is that the institutions responsible for the individual categories are empowered to provide for the appropriate management of the resources and are representative of the significance which the nation wishes to give to the categories.

The total number of categories necessary to manage the natural resources of any nation can be divided into three groups:

- A. Those categories in which the CNPPA takes responsibility to monitor the status of each conservation area and to provide technical advice as requested.

Considered in Group A would be:

- I Scientific Reserve
- II National Park
- III Natural Monument/National Landmark
- IV Nature Conservation Reserve
- V Protected Landscape

- B. Those categories which are of particular importance to IUCN as a whole and are generally found in most nations, but would not be considered exclusively within the scope of CNPPA. However, CNPPA may wish to monitor and provide expertise on those areas which are of particular importance to nature conservation.

Considered in Group B would be:

- VI Resource Reserve
- VII Anthropological Reserve
- VIII Multiple Use Management Area

- C. Those categories which form part of international programmes and which have specific relevance for nature conservation yet may in some cases already receive protection under a previous category. CNPPA may be called upon to monitor these categories and to provide special expertise in cooperation with other institutions to which IUCN has consultative status.

Considered in Group C would be:

- Biosphere Reserve
- World Heritage Site (Natural).

CHAPTER THREE

CATEGORIES FOR CONSERVATION AREAS

GROUP A - Areas of Particular Interest to the Commission on National Parks and protected areas

CATEGORY I

Scientific Reserve / Strict Nature Reserve

Introduction

The rapid alteration of a variety of natural environments has created a need for a category of management which will ensure areas free of human intervention and unnatural outside influences and available exclusively for scientific research and environmental monitoring. These specific natural areas are necessary to provide adequate locations for research where a complete understanding of natural processes can be attained and where full protection of ecosystems and their inherent species is maintained.

Management Objectives

The objectives of a scientific reserve are to protect nature (communities and species) and maintain natural processes in an undisturbed state in order to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring, education, and for the maintenance of genetic resources in a dynamic and evolutionary state. Research activities need to be planned and undertaken carefully to minimize disturbance.

Criteria for Selection and Management

These areas possess some outstanding ecosystems, features and/or species of flora and fauna of national scientific importance. These areas are generally closed to public access, recreation and tourism. They often contain fragile ecosystems or life forms, areas of important biological or geological diversity, or are of particular importance to the conservation of genetic resources. Size is determined by the area required to ensure the integrity of the area to accomplish the scientific management objective and provide for its protection.

Natural processes are allowed to take place in the absence of any direct human interference. These processes may include natural acts that alter the ecological system or physiographic feature at any given time such as naturally occurring fires, natural succession, insect or disease outbreaks,

storms, earthquakes and the like, but necessarily exclude man-made disturbances. The educational function of the site is to serve as a resource for studying and obtaining scientific knowledge.

Land use control and ownership should in most cases be by central government. Exceptions may be made where adequate safeguards and controls relating to long-term protection is ensured and where the central government concurs.

CATEGORY II

National Park

Introduction

Governments have for some time recognized the desirability of setting aside outstanding natural areas representative of the diversity of ecosystems of their countries so as to guarantee their protection and use for present and future generations.

Rapid exploitation of the natural resources has demonstrated that unless governments take positive and decisive action to protect the most outstanding examples of the country's natural heritage, these resources may be lost. The continued trend of urbanization has increased the need to provide opportunities for outdoor recreation and tourism in natural settings. Furthermore, the need for people to understand more fully the natural environment is of particular concern in an age of rapidly diminishing natural resources. Outstanding representative areas of a nation can serve to contribute to this understanding.

Management Objectives

The management objectives of a Category II area call for the protection of natural and scenic areas of national or international significance for scientific, educational, and recreational use. The area should perpetuate in a natural state representative samples of physiographic regions, biotic communities and genetic resources, and species in danger of extinction to provide ecological stability and diversity.

Criteria for Selection and Management

National parks are relatively large land or water areas which contain representative samples of major natural regions, features or scenery of national or international significance where plant and animal species, geomorphological sites, and habitats are of special scientific, educational, and recreational interest. They contain one or several entire ecosystems that are not materially altered by human exploitation and occupation. The highest competent authority of the country has taken steps to prevent or eliminate as soon as

possible exploitation or occupation in the area and to enforce effectively the respect of ecological, geomorphological, or aesthetic features which have led to its establishment.

The resource is managed and developed so as to sustain recreation and education activities on a controlled basis. The area is managed in a natural or near-natural state. Visitors enter under special conditions for inspirational, educational, cultural, and recreational purposes.

The protected status of the area is adequately maintained directly by the central government or through agreement with another agency.

CATEGORY III

Natural Monument / Natural Landmark

Introduction

Many countries possess natural features of particular scientific and educational interest; however, in many cases, they receive no special national recognition. These areas, however, may be susceptible to damage or adverse exploitation. The features might include outstanding examples of a country's natural heritage such as spectacular waterfalls, caves, craters, volcanoes, unique species of flora and fauna, sand dunes, etc. They would be of such scenic, scientific, educational and inspirational importance that they merit special designation and protection. There is a need to elevate their significance because of their uniqueness so as to afford these areas greater protection for both scientific and public enjoyment.

Management Objectives

Management objectives are to protect and preserve nationally significant natural features because of their special interest or unique characteristics and to the extent consistent with this, provide opportunities for interpretation, education, research, and public appreciation.

Criteria for Selection and Management

This category normally contains one or more several specific natural features of outstanding national significance such as a geological formation, a unique natural site, animal or plant species or habitat which, because of uniqueness or rarity, may be threatened and should be protected. The specific feature to be protected ideally has little or no evidence of man's activities. These features are not of the size nor do they contain a diversity of features or representative ecosystems which would justify their inclusion as a national

park. These areas have particular potential for public education and appreciation. Size is not a significant factor. The area should only be large enough to protect the integrity of the site.

Although Category III areas may have recreational and touristic value, they should be managed in such a way that they remain relatively free of human disturbance. These areas may be owned and managed by either central or other government agencies or non-profit trusts or corporations as long as there is assurance that they will be managed to protect their inherent features for the long term.

CATEGORY IV

Nature Conservation Reserve/Managed Nature Reserve/Wildlife Sanctuary

Introduction

Although most of the other categories of management play important roles in protecting and providing habitat for flora and fauna, it is essential that selected areas be set aside where manipulative management techniques can be applied to guarantee the stability or survival of certain species of plants and animals to assure their survival in the future. Due to widespread destruction of habitat, there is a need for specific areas which will protect breeding populations, feeding and breeding grounds, and critical habitat for protection of rare and endangered floral or faunal species.

Management Objectives

The purpose of these areas is to assure the natural conditions necessary to protect nationally significant species, groups of species, biotic communities, or physical features of the environment where there require specific human manipulation for their perpetuation. Scientific research, environmental monitoring, and educational use are the primary activities associated with this category.

Criteria for Selection and Management

A Category IV area is desirable when protection of specific sites or habitats is essential to the continued existence or well-being of individual biotic species, resident or migratory fauna of national or global significance. Although a variety of (protected) areas fall within this category, each would have as its primary purpose the protection of nature, and not the production of harvestable, renewable resources, although this may play a role in the management of a particular area. The size of the area or in certain instances

seasons in which special management is necessary, will be dependent upon the habitat requirement or specific characteristics of the species to be protected. These need not require vast areas but could be relatively small consisting of nesting areas, marshes, or lakes, estuaries, forest, or grassland habitats.

The area may require habitat manipulation to provide optimum conditions for the species, vegetative community, or feature according to individual circumstances. For example, a particular grassland or heath community may be protected and perpetuated through a limited amount of livestock grazing. A marsh for wintering waterfowl may require continual removal of excess reeds and supplementary planting of waterfowl food, whereas a reserve for an endangered animal may need protection against predators. These areas may be developed in limited areas for public education and appreciation of the work of wildlife management.

Ownership may be by the central government or with adequate safeguards and controls in which long-term protection is ensured, by lower levels of government, non-profit trusts or corporations or private individuals or groups.

CATEGORY V

Protected Landscape

In many areas of the world, distinctive landscape patterns are created by the integration of specific natural and cultural features that present aesthetically attractive land and water settings. These may result through traditional land use practices of a cultural group in response to their environment while in others land use practices have retained relatively large and scenic natural or semi-natural areas near urban centers.

At the same time, increasing population and leisure time and expanding urban areas are creating demand for additional recreation and tourism areas and facilities in aesthetic environments for citizens and visitors.

The management and protection of these natural and cultural areas of importance from both a recreational use stand-point, as well as from the scientific point of view because of their potential as reservoirs of genetic material and for their social customs evidenced through land use practices, which are disappearing under modern technology.

Management Objectives

The objectives of this category are to maintain nationally significant natural landscapes which are characteristic of the harmonious interaction of man and land while providing opportunities for public enjoyment through recreation and tourism within the normal life style and economic activity of these areas. These areas also provide for ecological diversity, scientific, cultural and educational purposes.

Criteria for Selection and Management

The scope or character of areas that fall within this category are necessarily broad because of the wide variety of semi-natural and cultural landscape that occur within various nations. This may be reflected in two types of areas: those whose landscapes possess special aesthetic qualities which are a result of the interaction of man and land and those that are primarily natural areas managed intensively by man for recreational and tourism uses.

In the first case, these landscapes may demonstrate certain cultural manifestations such as: customs, beliefs, social organization, or material traits as reflected in land use patterns. These landscapes are characterized by either scenically attractive or aesthetically unique patterns of human settlement. Traditional land use practices associated with agriculture, grazing, and fishing would be dominant. The size of the area would be large enough to ensure the integrity of the landscape pattern.

In the latter case, natural or scenic areas found along coastlines and lake shores or in hilly or mountainous terrain or along the shores of rivers and inland adjacent to important tourist highways or population centres offering scenic views and climatic variation are often included. Many will have the physical qualities and potential to be developed for a variety of outdoor recreational uses with national significance.

In some cases the land would be privately held and the use of either central or delegated planning control would likely be necessary to assist in the perpetuation of both the land use and life style. Means of subsidization, or other government assistance, might be required for external renovations, or construction to disguise improvements in the standard of living while recognizing the dynamics of evolution of the land and its use. Efforts would be made to maintain the quality of landscape through appropriate management practices. In other instances the areas are established and managed under public ownership in perpetuity.

GROUP B - Areas of interest to IUCN in GeneralCATEGORY VI

Resource Reserve - (Interim Conservation Unit)

Introduction

Despite the rapidly increasing utilization of the natural resources in the world, there still remain land and water areas for which the most appropriate utilization has yet to be determined. If these lands are not protected, occupation and use are likely to occur on an unplanned, single use and short-term economic exploitation basis. This, in turn, may cause problems and compromises and limit future options where remaining resources need to be rationally utilized. This utilization without sufficient knowledge may result in resource deterioration and loss of longer-term economic and social benefits.

Management Objectives

One possibility is to restrict use of these areas until adequate studies have been completed as how to best utilize these remaining resources. In such a case, the management objective is to protect the natural resources of the area for future use, and prevent or contain development activities that could affect the resource pending the establishment of more defined objectives which are based upon appropriate knowledge and planning.

Criteria for Selection and Management

Category VI areas will normally comprise an extensive and relatively isolated and uninhabited area having difficult access, or regions that are lightly populated yet may be under considerable pressure for colonization and greater utilization. In many cases, there has been little study or evaluation of these areas, and the consequence of converting these lands to agriculture, mineral or timber extraction, or the construction of roads, etc. is unclear. Similarly, use of the resources may not be appropriate because of the lack of technology, human, or financial resource restrictions or alternate national priorities. Consequently, natural, social, and economic values are not sufficiently identified to permit the area to be managed for specific objectives or to justify its conversion to other land uses. Restricted access is implied so areas will normally require control, depending upon the pressures to enter and utilize the area. Lands may be government-owned while others may be owned or administered by public corporations.

Maintenance of existing condition to allow for studies as to the potential use for the designated areas is a prerequisite. Protection, studies, and planning are envisioned as the major activities while under this short-term designation. No exploitation should occur with the exceptions of use of resources by indigenous inhabitants. There is an acceptance of ongoing ecosensitive activities.

CATEGORY VII

Natural Biotic Area / Anthropological Reserve

Introduction

In some countries there may be a need for the protection of natural areas in which man is a component and obtains his livelihood by means that do not involve extensive cultivation or other major modifications of the vegetation and animal life. These individuals or societies may require special protection to maintain their existence.

Management Objectives

The objective of management is to allow the way of life of societies living in harmony with the environment to continue undisturbed by modern technology. Research into the evolution of man and his interaction with the land would be a secondary objective.

Criteria for Selection and Management

Category VII areas are characterized by natural areas where the influence or technology of modern man has not significantly interfered with or been absorbed by the traditional ways of life of the inhabitants. These areas may be remote and isolated and their inaccessibility may be maintained for a considerable period of time. The societies are considered relatively unique and may be of particular significance to the maintenance of genetic diversity and/or for research as to the evolution of man. These are predominantly natural areas of which man is an integral component. There is a strong dependence of man upon the natural environment for food, shelter, and other basic material to sustain life. Extensive cultivation or other major modifications of the vegetation and animal life is not permitted.

Management is oriented toward the maintenance of habitat for traditional societies so as to provide for their continuance within their own cultural mores.

CATEGORY VIII

Multiple Use Management Area / Managed Resource Area

Introduction

There is a need for a category of management for areas that can both provide protection to natural resource systems and to certain natural resources and yet contribute significantly to a nation's economic, social, and material needs. The multiple function of these lands can provide for a sustained yield of a series of products and services under proper management. Watershed protection, for example, may be of particular importance in addition to the timber, forage or wildlife aspect of the area.

Management Objectives

To provide for the sustained production of water, timber, wildlife, pasture, and outdoor recreation and at the same time provide for economic, social and cultural needs over a long term. The conservation of nature is also an objective of this category primarily oriented to the support of the economic activities although specific zones may also be designated within these areas to achieve specific conservation objectives.

Criteria for Selection and Management

A large area, containing considerable territory suitable for production of wood products, water, pasture, wildlife, and outdoor recreation. Parts of the area may be settled and may have been altered by man. Generally, these forest or other wildland areas do not possess nationally unique or exceptional natural features.

Planning to ensure the area is managed on a sustained yield basis would be a prerequisite. Land ownership would be under government control. Through proper zoning, significant areas could be given specific additional protection. For instance, the establishment of wilderness-type areas is consistent with the purpose of these areas as would be setting aside the nature reserves. Multiple use, in the context of Category VIII, is considered to be the management of all renewable surface resources, utilized in some combination to best meet the needs of the country. The major premise in the management of these lands is that they will be managed to maintain the overall productivity of the land and its resources in perpetuity.

GROUP C - Internationally Recognized Affiliated Designations

Biosphere Reserve

Introduction

The UNESCO Man and the Biosphere Programmes initiated fourteen projects in 1970. The focus of project No. 8 is to conserve natural areas throughout the world through the establishment of a network of biosphere reserves.

Management Objectives

The primary objective is to conserve for present and future 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.

Biosphere reserves are to provide opportunities for ecological research, including particularly, baseline studies, both within natural and altered environments. These reserves have particular value as benchmarks or standards for measurement of long-term changes in the biosphere as a whole and are consequently important sites for environmental monitoring. Biosphere reserves are to provide facilities for education and training.

Criteria for Selection and Management

Each biosphere reserve will include one or more of the following:

(a) representative examples of natural biomes; (b) unique communities or areas with unusual natural features or exceptional interest; (c) examples of harmonious landscapes resulting from traditional patterns of land use; and (d) examples of modified or degraded ecosystems capable of being restored to more natural conditions. A biosphere reserve must have adequate long-term legal protection. Each biosphere reserve will be large enough to be an effective conservation unit, and to accommodate different uses without conflict. Each reserve must be approved by the Man and the Biosphere International Co-ordinating Council before it can receive designation as a biosphere reserve.

Each biosphere reserve will be zoned to provide direction as to its management. Four zones may be delineated as follows: (a) Natural or Core Zone; (b) Manipulative or Buffer Zone; (c) Reclamation or Restoration Zone; and (d) Stable Cultural Zone.

World Heritage Site (Natural)

Introduction

The International Convention concerning the Protection of the World Cultural and Natural Heritage (UNESCO 1972) provides for the designation of areas of "outstanding universal value" as World Heritage Sites. These exceptional areas must be recommended by the signatory nation responsible for the site for declaration by the international World Heritage Committee. The sites will undoubtedly include many previously designated protected areas.

Management Objectives

The primary objective is to protect the natural features for which the area was considered to be of world heritage quality. Also important is to provide publications of information for world-wide public enlightenment as well as to provide for research and environmental monitoring.

Criteria for Selection and Management

Areas to be considered under the Convention will be restricted to those which are truly of international significance. Natural sites must represent one or more of the following criteria:

- (i) be outstanding examples representing the major stages of the earth's evolutionary history;
- (ii) be outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment.
- (iii) contain unique, rare or superlative natural phenomena, formations or features or areas of exceptional natural beauty; and
- (iv) be habitats where populations of rare or endangered species of plants and animals still survive.

Natural Heritage Sites must also fulfill conditions relative to the integrity of the site.

Management of these sites will stress the maintenance of the heritage values, will ensure the continuation of legal protection, and will promote each site as to its significance to each country, its people and the world.

All sites will have to have strict legal protection and will be owned by government or a non-profit corporation or trust for the long term. While recreation and on-site interpretation will generally be developed, some sites may be of such significance that public use will either be strictly controlled or prohibited.

**ALTERNATIVE CATEGORIES FOR THE MANAGEMENT AND DEVELOPMENT
OF NATURAL AND CULTURAL RESOURCES
TO ACHIEVE PRIMARY CONSERVATION OBJECTIVES**

Alternative Management Categories

	GROUP I Categories of special concern CNPPA					GROUP II Categories of general concern IUCN				GROUP III Categories used by International Programmes	
	I. Scientific Reserve	II. National Park	III. Natural Monument	IV. Nature Conservation Reserve	V. Protected Landscapes	VI. Resource Reserve	VII. Anthropological Reserve	VIII. Multiple Use Management area	Biosphere Reserve	World Heritage Site (Natural)	
PRIMARY CONSERVATION OBJECTIVES											
Main sample ecosystems in natural state	1	1	1	1	2	3	1		1	1	
Maintain ecological diversity and environmental regulation	3	1	1	2	2	2	1	2	1	1	
Conserve genetic resources	1	1	1	1	2	3	1	3	1	1	
Provide education, research and environmental monitoring	1	2	1	1	2	3	2	2	1	1	
Conserve watershed production	3	3	3	3	2	3	3	3	3	3	
Control erosion, sediment and protect downstream investments	3	3	3	3	3	3	3	3	3	3	
Produce protein and animal products from wildlife; sport hunting and fishing			2		3	3	3	1	3		
Provide recreation and tourism services		1	2	3	1		3	1	3	1	
Produce timber and forage on sustained yield basis				3	2		3	1	3		
Protect sites and objects of cultural, historical, archeological heritage		1	3		1	3	1	3	2	1	
Protect scenic beauty and green areas	3	1	2	2	1			3	2	1	
Maintain open options; management flexibility; multiple use					3	1	3	1	2	3	
Stimulate rational use of marginal lands and rural development	2	1	2	2	1	3	2	1	2	2	

1. Primary objective for management of area and resources.
2. Not necessarily primary, but always included as an important objective.
3. Included as an objective where resources and other management objectives permit.

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