

IUCN Viewpoint

Decision-making in Conservation Issues

Ours is a time of major stress when symptoms of overload in biosphere restoration mechanisms are clearly evident. Present handling of the resources of the biosphere can, if continued unchecked into the near future, result in disastrous shortcomings with irreversible damage to plant and animal life. The transformations we are observing are taking place within very short periods of time and they are having impacts greater than those which have occurred over the whole of mankind's history.

The rate of disappearance of tropical rain forests, for example, is such that it is easy to visualize their almost complete obliteration in relatively few years. The same is true for many other groups of natural areas, particularly for those very fragile environments – areas of very high rainfall, subdesert regions, subpolar regions – which have hitherto been considered marginal for human settlements or exploitation. The interesting and often complex ecosystems in these environments will suffer major and irreversible changes and, unavoidably, species of plants and animals that have evolved over millenia will become extinct. With this in mind, the World Wildlife Fund has launched a campaign to "bridge the gap" of comprehension of problems of a global nature affecting the preservation of our natural heritage. It aims to make people understand that it is necessary to do something now. It implies the hope that within the near future there will be universal understanding that the only viable path for man is one which takes into account adequate preservation of natural areas.

The themes that conservation, if properly based on scientific facts, is a powerful tool for development, and that natural areas, if rationally used by mankind, can contribute greatly towards achieving a higher quality of life in practically every culture, were the main topics for the IUCN General Assembly and Technical Meeting held in Banff, Canada, in September 1972. Quantity increases must give way to quality considerations, and as one of the Technical Meeting papers, Dr. Theodore Monod's "A la recherche d'une moralité nouvelle", clearly pointed out, a new philosophy is needed.

But these wide sweeping changes cannot depend only on philosophers, scientists and conservationists, however effectively they may state and recommend them. They must be promoted by people who have influence and who take decisions.

The task of activating decision-makers in this area is now crucial. It has emerged as a major thrust at international gatherings, notably, of course, at the United Nations Conference on the Human Environment (Stockholm, June 1972). It was displayed prominently in the papers and discussions of the IUCN General Assembly at Banff, and the suggestion has been made that the theme of the next IUCN General Assembly at Zaire in 1975 should be on "conservation and decision-makers". The International Workshop on Environmental Studies in Higher Education and Teacher Training held by IUCN at London, Ontario, a few days before the Banff General Assembly characterized the central theme that emerged from its papers and discussions as the "necessary education of decision-makers in environmental issues".

This process is well advanced in some of the highly industrialized countries, particularly in the United States where conservation issues have attracted grass-roots support and where environmental concern is legally required but not always honoured throughout the agencies of Government. These conditions do not apply, however, in other countries with other patterns of authority and political structures.

In developing countries, immediate problems – virtually of survival – necessarily occupy decision-makers, and conservation often has a low priority. In the past there



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often has been and still is a conflict between short-term and long-term implications. Far too often, it has been expedient to favour short-term solutions, and many political systems have actually adjusted to, or perhaps resulted from, this situation.

Real awareness of the importance of ecological factors in the process of decision-making has arrived only recently, largely as the result of the unforeseen consequences of decisions taken in the light only of economic, political or social factors. Such factors are essentially man-linked, as distinct from the "natural" ecological factors which must be taken as axiomatic.

Ecological factors must be thoroughly understood and taken into account *before* the decision is taken and hence integrated into the process from the start, and not, as in the past, only used to account for failures after they have occurred.

Men are beginning to perceive the basic truth that development must be adjusted to conservation needs. At a time when the validity of promoting material growth as an end in itself is being questioned, conservationists are successfully able to oppose and reduce the damage that can arise from "development" projects that are detrimental to the long-term welfare of the peoples who will be affected. They are able now to suggest alternatives, or at least demand that alternatives be tabled, studied and evaluated before decisions involving environmental changes are taken. They are able to promote diversity and maintenance of choice of options with better arguments than ever before. But these opportunities must be seized, conservationists must take action, must be fully armed with facts, figures and able to make positive contributions if they are to succeed.

The next few years will show how far conservationists are able to influence decision-makers in many vital environmental issues. In their campaigns they must proceed with care so as not to lose creditability, but with speed and with means chosen to achieve the desired impact.

The appearance of science as an important, possibly overwhelming, factor in decision-making will often be resisted, particularly by traditional decision-makers who have always held the reins of power. But such conflicts should not deter conservationists from the action necessary to build up awareness of ecological imperatives amongst decision-makers.

There may be many possible approaches but there is only one objective.

Diversity in approach but unity in objective might be adopted by conservationists as the means of uniting their efforts over their large and often disorganized front. Campaigns to influence decision-makers will have many pit-falls, and careful understanding of local conditions will always be necessary for success – but the most difficult task will always be to use most effectively the thinly-spread energies and slender financial resources of the worldwide conservation movement to promote the right cause and influence the right people.

World Heritage Convention

A Convention concerning the Protection of the World Cultural and Natural Heritage was adopted by the UNESCO General Conference in Paris on 16 November 1972.

It is now open to ratification by State members of UNESCO. The Convention shall enter into force soon after 20 States have ratified it.

Both cultural heritage and natural heritage are to be safeguarded under the Convention. Natural heritage is defined as:

- natural features consisting of physical and biological formations, or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding value from the point of view of science or conservation;
- natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

Action is to be taken at the national level for the protection, conservation and presentation of the World Heritage, and States pledge cooperation and assistance in protecting the World Heritage.

An intergovernmental committee called the World Heritage Committee, consisting of 15 States (provision is made for later increase in size to 21), is to take policy decisions under the Convention. The Committee will include, as non-voting members, representatives of IUCN (concerned with the natural heritage) and of International Council of Monuments and Sites (ICOMOS) and the International Centre for the Study of the Preservation and Restoration of Cultural Property (both concerned with the cultural heritage). UNESCO, collaborating with these three bodies, will provide the Secretariat for the International Committee.

On the basis of inventories submitted by States, the World Heritage Committee is to prepare and publish a World Heritage List covering items it considers to be of outstanding universal value. It is also to prepare a List of World Heritage in Danger, setting out items which require major conservation action.

Requests for assistance in securing the protection, conservation, presentation or rehabilitation of the World Heritage will be examined and decided on by the Committee. A World Heritage Fund will be established comprising compulsory and voluntary contributions (the compulsory element will not exceed 1% of the contribution by the State concerned to the regular budget of UNESCO), other gifts or donations, and funds raised by special appeals. These monies will be used to provide help in protecting the World Heritage.

The proposal for a World Heritage Convention was strongly endorsed by the UN Conference on the Human Environment (Stockholm, June 1972), the IUCN Eleventh General Assembly (Banff, September 1972), and the Second World Conference on National Parks (Grand Teton, September 1972). IUCN hopes that its members will take all appropriate action to ensure early ratification of the Convention by as many States as possible.

USA gets new parks director

Post-election changes among US government officials included the retirement of George B. Hartzog Jr, Director of the National Park Service for the last eight years. Ronald H. Walker was named as the new Director. He has been a special assistant to President Nixon, and at one time served as an assistant to the former Secretary of the Interior, Walter Hickel.

Programme Activities

Jaguar and ocelot survey

Since January last year, studies have been progressing on the status and distribution of spotted cats, in particular the jaguar and ocelot, in tropical America. The IUCN/WWF project, funded by the International Fur Trade Federation, the Frankfurt Zoological Society, the Fauna Preservation Society and the World Wildlife Fund, is being carried out by Dr Carl Koford, Research Associate at the Museum of Vertebrate Zoology in the University of California at Berkeley. An abridged version of his report for 1972 follows.

The demand for Latin American spotted cat skins increased greatly in the mid 1960's and exports rose to perhaps a quarter million in later years. Together with accelerating habitat changes, this trend caused alarm. The principal species taken were jaguar *Felis onca*, ocelot *F. pardalis*, margay *F. wiedii*, tiger cat *F. tigrina*, and Geoffrey's cat *F. geoffroyi*. In 1972 seven months were spent investigating the status of these cats in ten countries. The principal methods were interviews with officials, biologists, ranchers, hunters, traders, and rural residents, search of market places, and inspection of habitats from air and ground.

Jaguars are nocturnal and solitary, males apparently having exclusive territories. They occur chiefly near water in low tropical humid and arid forest regions from Mexico to Argentina. The highest known densities occurred on the Venezuelan llanos and Brazilian pantanal areas now occupied by cattle ranches. Although some jaguars attack cattle, their main diet is smaller prey such as brockets, peccaries, turtles, and fish. Because they endanger men, bear valuable pelts, and advertise their presence by tracks and roars, jaguars are among the first mammals to be hunted out of primitive areas. Many are taken by men waiting near bait at night, others trailed by dogs until bayed. Over the last 25 years jaguars have disappeared from entire provinces and continuous blocks of considerable geographic range now have only spotty occurrences. Today there may be fewer than 1000 jaguars in Mexico, under 100 in Argentina.

Ocelots, nocturnal and secretive, provide the majority of pelts except in the far south, where they are outnumbered by Geoffrey's cat. Most ocelots are taken by lone hunters, largely with wooden traps although use of steel traps is increasing. These cats live in jaguar habitats but also thrive in some arid spiny shrublands and coastal mangrove swamps. Even near large towns they may hold out in dense cover.

The margay is more nocturnal and arboreal than the ocelot, more restricted in range. The tiger cat ranges up into montane forest but centers in the highlands of eastern Brazil. Both species are considered uncommon to rare, yet in 1971 Dr J. Carvalho counted some 56,000 margay and 28,000 tiger cat skins in Brazilian warehouses. Geoffrey's cat, more terrestrial, is common locally from the grasslands of central Argentina and Uruguay to the thornscrub of northern Paraguay. Perhaps 20,000 of their skins are tanned annually in Buenos Aires, mostly for local manufacture and sale. This cat has essentially no legal protection.

The main block of jaguar-ocelot habitat is the Amazon rain forest, which was originally about five million sq km. But huge areas of this habitat are being opened by Transamazon highway construction, and by the associated 200 km wide belt of agricultural plots, strip mining, oil exploration, and subsidized clearing for cattle grazing. The future of this region is controversial. Final elimination of the humid forest habitat is imminent in northeastern Argentina and southern Mexico. Many native forests have been replaced by conifer or eucalyptus plantations, and others flooded by vast hydroelectric projects. Prime ocelot habitats have been eliminated by cultivation of coastal lowlands, largely for cotton, cane, and

bananas, notably in Middle America, Colombia, and Venezuela. Coffee groves and subsequent wastelands have replaced much tiger cat habitat, especially in Brazil. Savannas have given way to crops near population centers and depleted of essential woods by annual burning in dry zones.

There should be populations of spotted cats in the huge nature reserves (5000 to 15,000 sq km) established in humid forest regions of Colombia, Venezuela, Bolivia, and Peru, although none of these areas is adequately protected from human use. A few well-patrolled smallish parks (e.g. Iguazu, 500 sq km) and ranches maintain jaguars at the level of about one adult per 100 sq km. Savanna reserves are few, largely because of the high value of the lands for established grazing. The best present reserves for jaguars and associated wildlife are a few large ranches with cooperative owners (e.g. Miranda Estancia, Mato Grosso, 2500 sq km).

In general, known exports of spotted cats dropped after 1969, perhaps partly because accessible populations had been depleted, but also because of new conservation restrictions. Argentina, Peru and Venezuela prohibited taking of jaguars. Brazil banned all wildlife trade. Ecuador prohibited taking of tiger cats and ocelots and projected a moratorium on all wildlife export. Colombia stopped export of untanned wildlife skins. And the USA listed jaguars, ocelots, margays, and tiger cats as endangered species, excluding them from import. As side effects, these measures have doubtless increased illicit trade and unavoidably curtailed producer data on the skin trade.

The following are interim suggestions for additional conservation action. The adoption of uniform wildlife regulations or cooperative enforcement agreements between adjacent countries would reduce illegal trade in Leticia, Buenos Aires, and other market centers. Information on distribution and taxonomy should be collected urgently since present knowledge is fragmentary. In addition, local investigations of the dynamics, movements, and food habits of select populations of all spotted cats should be encouraged. To insure future opportunities to study ecosystems including jaguars and associates, more savanna preserves of maximal size should be established. Ranch owners should be encouraged to protect cats on their lands and to join in forming patrolled "zonas de vigilancia". Through correspondence, publications, and other means, national agricultural ministries should be made aware of the values of conservation as opposed to immediate uncontrolled utilization of fur bearers and their habitats. Such action is urgently needed in Colombia, Mexico, and Argentina. Demonstration of the financial benefits of wildlife is especially called for since lack of funds seriously hampers law enforcement and conservation education throughout Latin America.

International requirements for seal resources conservation

A Working meeting of the Survival Service Commission's Seal Group took place at the University of Guelph, Ontario, on 18-19 August 1972, to consider the present status of threatened and depleted seals and to recommend measures to improve their conservation. The Chairman of the Group, Mr Karl Kenyon, and four Group members were present, together with ten invited participants. IUCN staff was represented by Dr C. W. Holloway, and the meeting was chaired by Professor Keith Ronald, University of Guelph.

The following five Resolutions were adopted.

Resolution 1 – Effect of Intensive Fisheries on Seal Populations

The SSC/IUCN Seal Group:

Considering the rapid development of intensive fisheries in many parts of the world;

Realizing the dependence of many seal species on the same species of fish that are utilized by man;

Noting, with concern, the possible effects:

of high level catches of Alaska pollack *Theragra chalcogramma* and other fish in the Bering Sea on the fur seal *Callorhinus ursinus*,

of rapidly growing fisheries for capelin *Mallotus villosus* and polar cod *Boreogadus saida* in the north Atlantic ocean on the harp seal *Pagophilus groenlandicus*,

of intensive fisheries for *Notothenia rossi* around sub-Antarctic islands on the elephant seal *Mirounga leonina*;

Recommends to IUCN that the attention of major fishing nations and international fishery agencies be drawn to the urgent need for research into the effects of commercial fishing operations on seal populations, and the desirability, when setting maximum quotas for fish species, of allowing margins sufficient for maintenance of reasonable population levels of predator seals, whether or not these seals are currently exploited by man.

Resolution 2 – Surveillance of Seal Populations Subjected to Control Measures

The SSC/IUCN Seal Group:

Recognizing that the predatory and other habits of seals may be inimical to fishing interests and that, for this reason, seal populations may be maintained at levels below their natural size;

Recommends to IUCN that it urge all nations concerned to monitor carefully such reduced populations, in order to avoid the risk of local extirpation.

Resolution 3 – Pollution and Development of the North Sea and Baltic Sea

The SSC/IUCN Seal Group:

Believing that the harbour seal *Phoca vitulina* around the North Sea and Baltic Sea coasts is under some degree of threat from pollution and the use of estuaries for water storage;

Noting that seals may have value as indicators of the health of estuaries and coastal regions;

Recommends to IUCN that it urge all European Governments on the North and Baltic Sea coasts, or that have rivers which drain into these seas, to take all possible measures to curb pollution and to assess the effects of water storage schemes and other forms of development that might impair the quality of the coastal environment, with a view to reducing such impairment.

Resolution 4 – Human Interference and Seal Populations

The SSC/IUCN Seal Group:

Recognizing that human activity on seal hauling-out grounds, particularly disturbance of nursing mothers and their young, can cause significant mortality among seal populations;

Realizing that this problem will become more acute as a result of increasing tourist and other human use of presently remote beaches;

Noting that visitor education programmes, provision of viewing facilities, and better planning of beach utilization can alleviate this problem;

Recommends to IUCN that the attention of all nations concerned be drawn to this problem and to the SSC/IUCN Seal Group's proposal to offer an advisory service to nations that are already involved in, or are contemplating, tourist or other development of seal beaches.

Resolution 5 – National Programmes for Seal Research

The SSC/IUCN Seal Group:

Recognizing that there are still numerous gaps in current knowledge of the geographical and taxonomic range, population dynamics and general biology of many stocks of seal species;

Noting that certain countries have seal populations

within their jurisdictional boundaries but have no seal research programmes;

Recommends to IUCN that it requests all nations concerned to encourage or initiate scientific research on their seal populations.

IUCN activities in marine conservation

As a part of the programme to monitor the conservation status of marine habitats and to stimulate the establishment of marine parks and reserves, IUCN is collecting information on existing and projected marine parks and reserves for a world list of protected marine habitats. The Secretariat has already collected considerable information on protected marine areas including islands. Data will be presented as sheets in the forthcoming World Directory of National Parks and Other Protected Areas.

IUCN is at present involved in preparing guidelines for establishment of marine national parks and, as reported in the January Bulletin, it is working to prepare ecological guidelines for development in both coastal and estuarine areas and in island areas.

Data is being gathered on the status of marine conservation, including the effects of human activities on the marine environment and its resources. Immediately, IUCN is especially concerned with the conservation status of the Mediterranean coast to provide a basis for assigning priorities and guiding conservation action throughout that region.

IUCN is continuing its traditional concern with the promotion of national and international measures for the protection of rare species, species groups and communities in the marine environment which are threatened with extinction.

As a joint concern of IUCN/WWF, a code relating to tourist and recreational uses of marine areas is being developed.

Environmental teacher training course to be held in July

An international training course in environmental education designed for teachers will be held again this year, 5 to 15 July. The course will be given in Belgium, near the Dutch border. Sponsors are the Biologisch Werkkamp voor het Onderwijs (KNNV), the Northwest Europe Committee of the IUCN Commission on Education, the School and Children's Garden Service of the Hague, and the Center for Nature Conservation Education in Belgium. It will be conducted in English.

Field studies will include hydrobiology, the interrelation between plants and insects, studies of vegetation in a marine area, bird watching, investigations of plant communities, nature trails, and projects in which a number of disciplines are involved.

An important part of the course will be the use of field studies in school teaching, and the importance of field studies in relation to environmental education.

Fourteen course leaders will conduct the studies. Housing and camping facilities will be available at a cost of about 125 Dutch guilders.

Applications should be made before May 1st to the chairman of the course:

Mr. H. Wals
Director of the School and Children's Garden Service
Raaltestraat 4
The Hague, Netherlands

Volunteers for conservation

IUCN is cooperating with governments in utilizing the services of qualified volunteers in carrying out conservation programmes.

This activity is being conducted in the closest association with the International Secretariat for Volunteer

Services which links with volunteer sponsoring organizations in many countries, including the US Peace Corps. IUCN is pleased to assist governments to define requirements for conservation volunteers including the provision of funds for supporting operations.

The growth of US interest in providing volunteers for conservation over the past few years has been observed with considerable enthusiasm. Peace Corps Volunteers with specialized environmental skills are being assigned at the request of the developing countries to undertake individual scientific and conservation projects. To date approximately forty countries have requested Volunteers to work in the areas of ecological research, wildlife conservation, management of national parks, forestry, fisheries, and environmental pollution.

In order to recruit Volunteers for specialized assignments, the Peace Corps operates a combined programme with the Smithsonian Institution specifically intended for applicants who have completed candidate status for a Master's or Doctor's degree, or hold such a degree. The Smithsonian participates in the development of assignments overseas and in the selection and placement of qualified applicants.

Staff Notes

Moira Warland to leave Survival Service post

Miss Moira Warland, Executive Officer of the Survival Service Commission for almost three years, has resigned as from the end of February. She will return to London and intends to continue her interest in conservation.

Miss Warland first joined the Secretariat in January 1968, assisting Noel Simon with the Red Data Book *Mammalia* and the Bulletin, and serving as Scientific Information Officer. She was named as Executive Officer of the SSC in June, 1970, when Dr. Colin Holloway moved to the Research and Planning Group.

Her successor in the post, who will be announced soon, will report to Morges in July 1973. In the interim, Mr. Joseph Lucas and Miss Mona Björklund will look after the affairs of the Commission.

Conservation Notes

Liège offers training in tropical wildlife management

A programme in wildlife management with special emphasis on tropical Africa is offered by the University of Liège (Belgium). A number of fellowships for candidates from tropical countries are available from the Belgian Government. Courses are in French, and are at the graduate and post-graduate level.

During the training period, students will spend a period at the Kagera National Park in Rwanda, where the University is involved in various research projects related to the local fauna.

For further information write to Professor Jean-Claude Ruwet, Institut de Zoologie, Université de Liège, Quai van Beneden, 4000 Liège, Belgium.

National Park Study Center opened in Great Britain

A National Park Study Center, the first in Great Britain, has been established by the Peak Park Planning Board with support of the Countryside Commission at Losehill Hall, Castleton, Sheffield S30 2WB.

Winter courses began in late October and will continue through April 1973. General and specific subjects on conservation, environmental and national park topics are offered, usually in three course durations: weekends from Friday evening to Sunday afternoon, weekdays Monday to Friday, or long weeks, Friday to Friday. Accommodation is available for 60 people, in single and double rooms. School groups are welcome.

Further information can be obtained from Mr. L. Morgan, Director of Studies.