

Viewpoint

Conservation for decision-makers: decisions for conservationists

Decision-makers live in the cruel world of realpolitik. It is a world where policy is based not on ideals but on power, and where choice is limited not by what is possible but by what is practicable.

Conservationists should remember this. Too often they address themselves only to matters of details, as if they suffered from political agoraphobia. And too often, when they venture into the wide-open spaces of policy-making, they retreat into rhetoric, taking insufficient note of the many pressures (national and international) governments have to take for granted.

When this happens, conservationists reduce their usefulness to the very countries which could benefit most from their knowledge and points of view. The under-equipped nations of the tropics have not (as yet) reached the unenviable position of most industrialized countries, now facing futures cramped by the impoverishment of their constituent cultures and environments. Instead, their development options are still fairly open, although they are rapidly being closed by commercial organizations, international agencies and governments of industrial countries, which, often (though not always) for the best of motives, see industrialization USA-style as the most desirable of developmental goals.

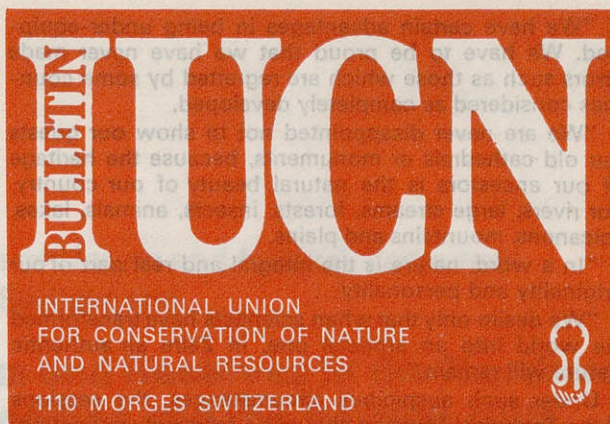
Alternative approaches are urgently needed. Many under-equipped nations would prefer to develop in ways consistent with the values of their peoples and with the rich patrimony of their landscapes and habitats. Conservationists are in an excellent position to help them. But they will not be able to do so unless they formulate their advice in ways useful to decision-makers, taking account of the pressures under which they have to work.

IUCN may fairly claim to have led the field in building the structure of just such a service. Beginning with the publication (jointly with the Conservation Foundation) of *Ecological Principles for Economic Development* by Ray Dasmann, John Milton and Peter Freeman, it has gone on to produce ecological guidelines for the development of tropical forest areas, as well as guidelines for island development. In addition, guidelines for the development of arid lands are expected from the meeting on the development of the natural resources of the Middle East and South West Asia, to be held at Persepolis, Iran, 24-30 May; and, judging by the success of the regional meeting on marine parks and reserves in the north Indian Ocean (held in Tehran, 6-10 March), guidelines for the planning and management of marine parks and reserves will be one of the major results of the International Conference on Marine Parks and Reserves, to be held in Tokyo, 12-14 May. It is also worth bearing in mind that the Central American Meeting on Management of Natural and Cultural Resources, held in San José, Costa Rica, in December of last year, was expressly designed for decision-makers from a number of different Government departments, and much of its success may be attributed to this.

The guidelines provide the decision-maker with clearly stated, well-supported procedures for ensuring that the appropriate use is allocated to any given area of, say, tropical forest, so that policies and programmes lead not to destructive exploitation but to sustainable development. As such, they are important tools of what might be called the new creative conservation, as opposed to the old-fashioned restrictive sort.

Given IUCN's pioneering role in this exciting area, it is all the more appropriate that the theme of the 12th General Assembly and 13th Technical Meeting should be "Conservation for Decision-Makers".

It is especially appropriate, too, that, with such a theme, the General Assembly should be held in Zaire. The President of Zaire, General Mobutu Sese Seko, has



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shown himself to be an avowed conservationist and an articulate exponent of ecologically-sound development. He has declared, with singular force and clarity, the Republic's pride in its outstanding natural heritage and its fierce determination to protect this heritage as a vital national goal:

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Convention on endangered species to come into force

On 2 April Uruguay deposited with the Government of Switzerland its ratification of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, thus assuring that the Convention will come into force on 1 July.

Uruguay was the third South American State in succession to ratify the Convention, and the tenth State to ratify or accede. Ecuador and Chile were the eighth and ninth States to deposit ratification instruments at Bern. Subsequently, Canada's ratification was deposited at Bern on 10 April. Canada's was the eleventh adherence. Other States adhering are Cyprus, Nigeria, Sweden, Switzerland, Tunisia, United Arab Emirates, and the USA.

The Convention in force will be a major step towards stopping the devastating drain on wild animal and plant communities. For the moment, however, only 11 countries are committed, and IUCN considers it vital that all governments adhere as soon as possible so that no dangerous loopholes are left which could be exploited to the detriment of endangered animals and plants. It is especially important that the countries of the European Economic Community act quickly.

The United Nations Environment Programme (UNEP), which is charged with responsibility for administering the Convention, has designated IUCN to undertake the secretariat functions related to the Convention.

The Convention, for which considerable ground work was prepared by IUCN, was finalized two years ago at a conference of 80 nations. Fifty-eight States have signed it, indicating their intention to adhere when domestic and other formalities have been completed.

Under the Convention a system of permits will regulate international trade in threatened wildlife. Over 370 endangered species are subject to particularly strict controls and no live or dead specimens, nor parts, are allowed to move unless both exporting and importing States have certified that the transfer will not be detrimental to the survival of the species, that the specimen was not taken in contravention of the law, and that it is not for commercial purposes. Leopard, jaguar, cheetah, most other spotted cats, tiger, gorilla, orang utan and five of the great whales are thus protected.

A second list covers vulnerable species for which a certificate is required from the exporting State.

"We have certain advantages in being under-equipped. We have to be proud that we have never made errors such as those which are regretted by some countries considered as completely developed.

"We are never disappointed not to show our guests our old cathedrals or monuments, because the heritage of our ancestors is the natural beauty of our country, our rivers, large streams, forests, insects, animals, lakes, volcanoes, mountains and plains.

"In a word, nature is the integral and real part of our originality and personality...

"We desire only that when scientists have transformed the world into an artificial one, in Zaire an authentic nature will remain."

Under such auspicious circumstances, the sessions of the Technical Meeting should be extremely rewarding. They may be grouped for convenience under two headings: critical environments, and critical issues. The former covers tropical rain forests, marine environments, and "marginal" lands; the latter, protected areas and threatened species, energy use, water supply, raw materials' supply, the implications of growth, alternatives to industrialization, and the relationship between conservation goals and politico-economic realities.

Some of the world's most knowledgeable and stimulating thinkers on these subjects are coming to Zaire to share their ideas. These and the ensuing discussions should lay the foundations for development policies that make wise, sustainable use of all kinds of environment and are sensitive to the needs of different cultures—while at the same time being of immediately practicable application by decision-makers.

It is a tall order, but one that conservationists all over the world have a duty to try and meet—and will have to if their pleas for a conservation ethic are to be translated into a new, more humane politico-economic reality than the present ones.

Perhaps it is worth briefly reviewing two of the knottier problems with which we must get to grips. A definition of sustainable development might be "development whose short-term benefits substantially outweigh any long-term costs". Of course, it is in the nature of governments to value the immediacy of a benefit so highly and to discount a future cost so heavily that they will consider *any* development to qualify as "sustainable"! This simply underlines the fact that conservationists emphasize long-term benefits, while politicians and governments—indeed, people—prefer short-term ones.

One of our primary objects, therefore, must surely be to marry the two. The need is particularly acute in the case of tropical rain forests, perhaps the most paradoxical of resources. Ecologists find themselves explaining that although their luxuriance gives the impression that tropical rain forests are rich, in fact they (or at least their soils) are generally poor. They then add that although in that sense they are poor, in another sense they are rich—in their genetic diversity, for example. If areas are conserved for this genetic diversity, they must be kept safe from logging, agriculture, pastoralism, in short most activities likely to yield an economic return. Yet even when some of that cherished genetic diversity is eventually used—as the source material of new products—it will not necessarily bring any economic return to the country concerned. For example, a medicine derived from a forest plant is likely to be manufactured in an industrial country. How are we to resolve this problem?

Conservationists recognize that the appellation "marginal" to arid and semi-arid lands, to mountainous regions, and to the more intractable of forest soils, is highly ethnocentric. They are marginal only for certain technologies and economic systems, not for others. Generally, they are regarded as marginal when they pose particular difficulties for industrial technologies and the market economy, despite the fact that many local peoples are able to utilize them most effectively, have done so for generations, and under appropriate circumstances

could continue to do so (for all practical purposes) indefinitely.

Yet, because of new pressures—the increase of populations, the influence of new technologies, the demands of urban markets, and so on—the equilibrium between man and land is threatened or is already disappearing. Under such circumstances the temptations for governments to press on with the developments that may truly render those lands marginal, particularly if encouraged to do so by development agencies, is well nigh irresistible. What alternatives—in detail—do conservationists propose, that both conserve the land and satisfy the aspirations of the people?

This is not the place to suggest answers to either of these questions. They serve rather to indicate the need for conservationists to address themselves to issues that once they might have regarded as outside their interests.

One of the principal goals of IUCN and many of its members is the conservation of endangered species and of an integrated system of representative habitats. Once, this might have been thought enough. Today, however, it is clear that it is not. To achieve this goal, we must seek yet another—the wise use of everything that constitutes our heritage. Thus are we drawn ineluctably into the sphere of development—not only at the relatively comfortable level of philosophy, but at the rough and tedious level of everyday decisions.

At the UN Food Conference in Rome, where decisions were made affecting many vulnerable habitats, the voice of conservation was weak and unable to speak the language of the agronomists, development economists and food specialists we needed to persuade. Partly this was because "speaking their language" is confused with "conveying their message". Partly it was because conservationists have not yet fully appreciated that to be effective they must be creative, and engage in the details of development and economic planning.

This is the challenge that conservationists must face, and the meetings in Zaire are a fitting occasion for doing this. There, in a country that has expressed a rare awareness of the value of conservation, we will have an unrivalled opportunity of deciding how precisely conservationists can influence and assist decision-makers—and thus of demonstrating that conservation is, indeed, invaluable.

Robert Allen

General Assembly Notes

The following information pertaining to the 12th General Assembly is being mailed to members. It is reprinted here for the convenience of those who see the Bulletin but may not receive mailed information quickly through membership channels.

12th General Assembly and 13th Technical Meeting Kinshasa, Zaire, 7-19 September 1975

Attendance

The programme arranged for the meetings in Zaire highlights the major conservation problems of today and looks forward to the future. The theme "Conservation for Decision-Makers" has been chosen to emphasize the vital role conservation will play in the progress of the developing world.

The Executive Board hopes that IUCN members will be well represented at the Zaire meetings and that this occasion will result in important decisions for the future of conservation, particularly in Africa but elsewhere throughout the world. It is hoped that a special drive will be made by member organizations to make the occasion known to their members and to invite their participation.

Meeting Venue

Zaire has made conservation a major feature of its national goals and objectives and has almost 15% of its land in national parks and reserves. President Mobutu Sese Seko has called on the nation to preserve its

International Union for Conservation of Nature and Natural Resources
1110 Morges, Switzerland

Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean including the Red Sea and the Persian Gulf

Tehran, Iran, 6-10 March 1975

In the last few years there has been growing recognition of the urgent need for the setting aside of representative and important marine ecosystems as regional and national systems of parks and reserves.

To further this important objective, a number of international conferences have been arranged to develop criteria, and to plan guidelines and objectives.

For the northern area of the Indian Ocean, the Imperial Government of Iran and IUCN convened a regional meeting at Tehran, Iran, 6-10 March 1975, with the support of the Fund of the United Nations Environment Programme and the World Wildlife Fund, and co-sponsored by UNESCO. Representatives of ten States took part, and produced the following Agreed Principles and General Recommendations.

Agreed Principles

I. VALUE OF THE MARINE AND COASTAL RESOURCES

Renewable (living) resources of coastal and marine regions are among the most valuable long-range national resources. The productivity of shallow seas is the greatest known. This justifies that the highest priority be given to their perpetuation and/or restoration.

II. IMPACTS ON THE COASTAL AND MARINE ZONE

The desire for immediate short-range gain, with insufficient attention being paid to ecological effect, has led to severe depletion of coastal and marine resources on a global scale. There is increasing evidence of the decrease in marine productivity while, at the same time, coastal development and marine pollution are rapidly and logarithmically increasing. Coasts are the most heavily populated areas on earth and receive the bulk of man's impact in terms of pollution, dredging, damming, watershed alteration, siltation, estuarine destruction, coral reef destruction, and coastal development for industry, recreation, waste disposal and tourism. Pollution in the open sea is rapidly increasing, especially through dumping and oil spillage. This poses serious threats to marine productivity, and the monitoring and mitigation of these effects is essential.

III. NATURE OF COASTAL AND MARINE SYSTEMS

The coasts constitute transition zones between land and sea and as such do not divide aquatic and terrestrial systems, but unite them. Coastal marine systems thus derive much of their character from watersheds. In addition, marine systems are extremely large, and whole living components of them are extremely mobile. Shore biogeomorphologic processes are among the most dynamic known and efforts to stabilize beaches, for instance, are largely both futile and expensive. Watershed alteration through overgrazing, damming, and deforestation can alter coastal systems through changes in water clarity, nutrient exchange and siltation.

The comprehension of such 'down-stream' effects is vital in coastal and marine management.

IV. PLANNING AND DEVELOPMENT

Coasts and near-shore waters are divisible into:

1. Critical areas which must be preserved in order to maintain the productivity of marine waters;
2. Conservation areas where development is not yet great and where it can proceed in accord with ecological guidelines or where restoration is possible;
3. Less critical areas which are either already heavily developed or which are not as important as others for productivity.

For all, the maintenance of high water quality is important. Development is not in itself deleterious, but when it precedes proper environmental evaluation severe consequences usually result. Marine parks and reserves are an integral part of regional land and marine planning and give us an essential guide for further coastal development.

V. FUNCTION OF RESERVES AND PARKS

Reserves and parks may be seen as tools which, among their many functions, serve:

1. To conserve and manage representative samples of marine habitats and ecosystems;
2. To protect endangered species and habitats;
3. To conserve and manage important breeding areas for economically important species;
4. To preserve aesthetic values for present and future generations;
5. To protect valuable archaeological, historical and cultural sites;
6. As sites for the interpretation of marine areas for the purposes of tourism, recreation and education of the public;
7. As sites for the education and training of reserve managers;
8. As sites for the interpretation of research stations in which to learn of marine ecosystem processes;
9. As sites for monitoring the environmental effects of man's development and his various perturbations.

Reserves are not in competition with man's use of nature, but are to be viewed as companions to such use, in which maximum compatibility between man and nature may be investigated and achieved.

VI. IMPORTANCE OF A RESERVE/PARK SYSTEM

Marine ecosystems are large and most often of an international nature. It is usually not possible to incorporate ecosystems within single reserves. Thus the emphasis here is

on a system of both national and regional scope. Habitats are reflective of ecosystem processes, and their diversity should be represented *in toto* within the system so as to be able to investigate and monitor man's activities and so as to preserve both habitat diversity and the reservoir of genetic materials within the entire ecosystem.

VII. KNOWLEDGE OF MARINE SYSTEMS

Increased study is essential for proper comprehension of marine ecosystems. A basic understanding of essential features of marine and coastal systems will involve long-term studies, but establishment of reserves and parks cannot await the results of such studies. From such study will emerge better understanding of food and energy resources, shore processes, coastal development, and possibilities for restoration. Attention must be drawn also to false conceptions of the 'assimilative capacity' of receiving waters for effluents, to matters of site specificity, and to proper stewardship of our coasts and seas.

General Recommendations

1. NATIONAL PARKS AND EQUIVALENT RESERVES AS AN INTEGRATED PART OF REGIONAL DEVELOPMENT OF COASTAL AND MARINE AREAS

Considering the ecological and economic values of coastal lands as transitional areas between interacting terrestrial and marine ecosystems including a wide range of highly productive renewable natural resources such as estuaries, mangrove forests, sea grass beds and coral reefs which are vital as spawning grounds and nurseries for fish and invertebrates which at adult stages are the basis for commercially important fisheries as well as being a condition of existence for many other marine animals important as a protein resource;

Realizing the unique physical characteristics of the coastal zone which make it a focal point for settlement and economic activity and that diverse activities on the often congested coastal areas tend to conflict with each other and also interact and sometimes negatively influence a highly complex and sensitive environment;

Recalling Resolution 1802 (LV) of the United Nations Economic and Social Council emphasizing the importance of an interdisciplinary approach in studying the problems of coastal area development, which implies the importance of ecological considerations;

Convinced that development activities must be undertaken in accordance with sound ecological principles if maximum short- and long-term benefits are to accrue to the peoples of the countries concerned;

Recognizing the usefulness of a network of national parks and nature reserves as samples of natural ecosystems, biomes and habitats for monitoring and comparison with areas influenced, altered or destroyed by human activities;

Recalling Project No. 8 of UNESCO Man and the Biosphere Programme concerned with promoting the conservation of natural areas and genetic resources through the establishment of a co-ordinated series of biosphere reserves;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region and agencies concerned:

1. That in all regional and national development planning of coastal and marine areas, surveys to identify characteristic ecosystems, biomes and habitats of the region should be undertaken before any forms of land and sea use are decided upon;
2. That regional and national systems of national parks and equivalent reserves be established as soon as possible as a result of preceding surveys indicating cultural, educational, environmental and scientific values, tourist potential and other features favourable to promoting the development of the region;
3. That such a regional system should be integrated in development and management programmes at regional and national levels.

2. PROCEDURES TOWARDS THE PLANNING AND MANAGEMENT OF REGIONAL AND NATIONAL SYSTEMS OF MARINE RESERVES

Considering that the legal steps towards the establishment of marine reserves must necessarily be followed by adequate follow-up actions and in particular take into account the following aspects:

- (a) Existing and proposed development plans affecting coastal areas and other marine ecosystems, in particular land and water use patterns and their likely evolution insofar as they affect the physical and chemical properties of waters reaching the sea;
- (b) Use of the best management tools in satisfying different properties and functions of marine reserves such as monitoring, productivity, tourism and recreation, and other uses;
- (c) Dependence on a number of factors that are regional in origin and scope and therefore require a regional approach for management;
- (d) Need to win the good will and co-operation of local populations in the management of marine reserves;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region:

1. That planning for marine parks and reserves should be considered as an integral part of national and regional land use planning, and that national land use planning teams should include experts in marine and wildlife affairs; the selected marine parks and reserves should be planned by appropriate experts;
2. That adequate and periodically revised management plans be designed for each selected reserve, taking into account the evaluation of new data and giving full weight to changes among interacting factors, new appraisals of uniqueness, depleted faunal and floral resources, interdependence with productivity and other relevant aspects;
3. That full use is made of such management concepts and tools as zoning, buffer zones, changes in jurisdictional status as well as various administrative devices;
4. That methods for regional co-operation be devised in those management aspects that necessarily require a regional approach;
5. That in achieving these objectives, maximum collaboration and participation be sought from local populations, in particular after such reserves have been established.

3. RESEARCH AND MONITORING

Considering that research aspects related to marine reserves have national as well as regional implications and that there is a great lack of baseline information on physico-chemical conditions, biology, productivity and pollution and other degradations of marine environments;

Taking into account that there is a particular need for continuous monitoring of environmental parameters and for environmental impact studies, which can be carried out under particularly desirable conditions if there is an adequate network of stations, including marine reserves, that are equipped for such activities;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region and concerned international organizations and institutions:

1. That marine research institutes, universities and other research institutions be involved in setting up marine reserves where research can be carried out, and be strengthened to collaborate in the collection of baseline information;
2. That continuing monitoring stations be established making full use of marine reserves;
3. That every possible attempt be made to co-ordinate and integrate such research and monitoring programmes through regional centres equipped with mechanisms for retrieval and dispersion of the information gathered for the benefit of the region.

4. TECHNICAL AND FINANCIAL ASSISTANCE

Considering that there will be a growing need to establish marine parks and reserves and to promote research, planning, development and management programmes related to them, and that some countries of the region might have to rely on assistance in carrying out such programmes that have regional and world-wide implications;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region that they take full advantage of the technical assistance already available;

Recommends to the international organizations concerned, in particular those of the UN system, as well as other assistance programmes and non-governmental institutions, that they step up their technical assistance and provide the necessary financial support; and

Recommends to the Governments of the region that they encourage programmes and activities based on mutual assistance within the region.

5. PUBLIC AWARENESS

Recognizing the impact marine national parks may have upon the social, economic and political base of a country;

Considering the need for public and institutional acceptance and understanding;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region that they consider at various stages of their planning programmes, efforts directed at interest group participation and information dispersal, particularly in connection with productivity, research, living laboratories, recreation and other uses, through adequate production of audio-visual aids and other tools in educational and interpretative programmes at all levels.

6. TRAINING OF PERSONNEL FOR THE MANAGEMENT OF MARINE RESERVES

Considering that there is a need for trained personnel to undertake planning, management, and development of marine parks and reserves;

Taking into account that in the majority of already established marine parks and reserves there is a shortage of trained personnel at all levels;

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommends to the Governments of the region:

1. That existing national training institutions (incorporating various aspects of marine parks and reserves) be strengthened and wherever necessary new institutions be established; and
2. That the fullest use be made of existing facilities and manpower of other institutions on a regional or multinational basis.

Conservation Notes

Management strengthened at Galapagos National Park

Management of the Galapagos National Park has been considerably strengthened according to reports received in Moraga. Although the Park was set aside by decree in 1938, named in 1969, enforcement of legislative protection did not start until this morning. The Park covers 831,200 ha out of a total area of 1,293 km².

Staff of the Park now includes two dozen Ecuadorian guards. Several short courses in management have been successfully offered for teachers, navy officers and other persons in leadership positions.

A Master Plan has been successfully completed by IAD and follow-up operations now under way include the assignment of two specialists.

The Charles Darwin Foundation's Research Station has as in the past played an important role in helping to set up management systems while continuing to fundamental scientific work and protecting threatened fauna, notably seven Galapagos plant breeds and special thought breeding programmes and avoidance of feral exotic animals that threaten these and other rare native species.

Abuses still occur. Visiting ships and their crews often are not aware of the National Park status and the regulations in force. Two ships, the US Navy ship, *Heard*, and the USSR oceanographic vessel, *Shadokh*, both visited the Galapagos archipelago in March 1974 under the false assumption that a permit from the Ecuadorian Navy was all that was required. Both were conducting oceanographic research in Ecuador's territorial waters, including collection of specimens.

When contacted by the acting Director of the Charles Darwin Research Station in Santa Cruz, both parties

Recommendations to the Government of the region that they consider various stages of their planning programme, efforts directed at interest group participation and information dispersal, particularly in connection with productivity, resource allocation and other issues through adequate production of audio-visual aids and other tools in educational and interpretive programmes at all levels.

RECOMMENDATIONS TO THE GOVERNMENT OF THE REGION

6. TRAINING OF PERSONNEL FOR THE MANAGEMENT OF MARINE RESERVES

Considering that there is a need for trained personnel to undertake planning, development, and management of marine parks and reserves, the following recommendations are made:

Taking into account that in the majority of already established marine parks and reserves there is a shortage of trained personnel at all levels:

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

6. Recommendations to the Government of the region:

1. That existing national training institutions (including various aspects of marine parks and reserves be strengthened, and wherever necessary, new institutions be established; and
2. That the fullest use be made of existing facilities and manpower of other institutions on a regional or multinational basis.

It is recommended that the Government of the region should consider the possibility of sending a delegation to the Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975.

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7. TECHNICAL AND FINANCIAL ASSISTANCE

Considering that there will be a growing need to establish marine parks and reserves and to provide essential planning, development and management programmes related to them, and that some countries of the region might have to rely on assistance in carrying out such programmes that have regional and world-wide implications:

The Regional Meeting on Marine Parks and Reserves in the Northern Indian Ocean, held at Tehran, Iran, 6-10 March 1975:

Recommendations to the Government of the region that they take full advantage of the technical assistance already available, particularly in such areas as:

Recommendations to the international organizations concerned, in particular those of the UN system, as well as other assistance programmes and non-governmental institutions that they step up their technical assistance and provide the necessary financial support, and:

Recommendations to the Government of the region that they encourage programmes and activities based on mutual assistance within the region, and:

8. PUBLIC AWARENESS

Recognizing the impact marine national parks may have upon the social, economic and political base of a country:

Considering the need for public and institutional cooperation and understanding:

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9. MONITORING AND EVALUATION

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remarkable natural heritage and has undertaken that Zaire will be a refuge of unspoiled nature when the environment has suffered harm everywhere else in the world.

Kinshasa is a modern city with wide tree-lined streets. Law and order are well maintained.

The meetings will take place in the Presidential Domain of N'Sele, a remarkable complex some 20 kms from the airport and connected with Kinshasa by a divided highway. It includes a modern conference center with all facilities required for the IUCN meetings. The center is regularly used for conferences in Zaire and has been the site of a number of international meetings. It includes a restaurant and cafeteria services, and has a swimming pool. The grounds front on to the Zaire River.

The month of September is dry and temperature are pleasant.

Accommodation

Accommodation available at N'Sele is of two standards: motel accommodation in twin bedded, air-conditioned rooms with all facilities (these are available for single occupancy at an extra charge), and more austere accommodation in large, air conditioned rooms, the number of beds in which can be adjusted from two to eight (these rooms share common bathroom and toilet facilities).

As the accommodation at N'Sele is limited, it is essential for those who desire to be accommodated there to register and book accommodation urgently.

Groups can be accommodated in the dormitory style rooms at special rates and if this type accommodation is required special inquiries should be made immediately.

Kinshasa has many hotels at a variety of standards and some participants may prefer the added variety of restaurants and other attractions available in the city. Special buses will transport the participants from hotels to N'Sele and back each day.

Booking

All booking is being handled by the Zaire agency AMIZA. A booking deposit (forfeited on cancellation) equivalent to the first day's rate per person room cost is required and should be sent with the form (which has been sent to all IUCN members) to AMIZA, P.O. Box 7597, Kinshasa, Republic of Zaire. It is suggested that this be done urgently.

Air Travel

Preliminary discussions with several airline companies indicate the possibility of special rates for group travel to Zaire. Further information will be sent to IUCN members on this in the near future.

Visas and other formalities

The Government of Zaire has agreed to facilitate entry to Zaire in all ways possible. Special arrangements will be made for the issue of visas to participants. IUCN will notify the authorities the names of the participants as a copy of the registration forms are received and action will then be taken to inform Zaire Embassies and Consulates to issue visas to those who have registered. It is important that registration precedes application for a visa.

Excursions

The meetings in Zaire provide an outstanding opportunity to visit the Virunga National Park. Other suggested visits are to the Rutshuru Waterfalls and Vitshumbi Fisheries, but other tours can be arranged. It is important to submit bookings for selected tours at an early date. Tour Application Form (which has been sent to all IUCN Members) should be submitted to AMIZA, P.O. Box 7597, Kinshasa, Republic of Zaire.

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Authors interested in submitting material for publication are invited to write to the Editor.

IUCN and World Bank development projects

Inadequate attention to the ecological implications of large scale development programmes has posed an increasing worldwide threat to the conservation of species and natural areas in recent years. This problem has been a matter of continuing concern to IUCN, which in addition to adopting the subject as the theme of its General Assembly at Banff, in 1972, has been co-operating with UNEP in a programme to prepare a series of ecological guidelines for development in major natural ecosystems that are particularly vulnerable to development operations.

The World Bank Group, which comprises the International Bank for Reconstruction and Development, the International Development Association and the International Finance Corporation, is the world's largest single multilateral lender for development. Evidence of the Bank's concern to reduce undesirable effects of its development activities has been demonstrated by the appointment of an Ecological Advisor to its staff in late 1970 and increasing involvement of environmental consultants on its project appraisal teams.

A further welcome development occurred in January of this year, when for the first time IUCN was approached by the World Bank to provide an ecological consultant to prepare an environmental impact statement for a forestry project that was under consideration for an IBRD loan and which involved 225,000 ha of unexploited forest in the Great Falls area of Guyana. Dr. Colin Holloway of the IUCN Secretariat was selected for this mission and spent three weeks as a member of the IBRD Appraisal Team for the project, which included opportunity for consultation with IUCN's advisors on rain forest ecology in Surinam and Puerto Rico. His report was submitted to the Bank in March. World Bank has now made a further request to IUCN to provide an ecological consultant for a tourism project in East Africa.

Conservation Notes

Management strengthened at Galapagos National Park

Management of the Galapagos National Park has been considerably strengthened according to reports received in Morges. Although the Park was set aside by decree in 1936, ratified in 1959, enforcement of legislative protection did not start until rather recently. The Park covers 691,200 ha out of a total archipelago land area of 7883 km².

Staff of the Park now includes two dozen Ecuadorian guards. Several short courses in management have been successfully offered for teachers, navy officers and other persons in leadership positions.

A Master Plan has been successfully completed by FAO and followup operations now under way include the assignment of two specialists.

The Charles Darwin Foundation's Research Station has, as in the past, played an important role in helping form sound management practices while continuing its fundamental scientific work and protecting threatened fauna, notably seven Galapagos giant tortoise subspecies, through breeding programmes and eradication of feral exotic animals that threaten these and other rare native species.

Abuses still occur. Visiting ships and their crews often are not aware of the National Park status and the regulations in force. Two ships, the US Navy ship, *Hayes*, and the USSR oceanographic vessel, *Akademic Kurchatov*, both visited the Galapagos archipelago in March 1974 under the false assumption that a permit from the Ecuadorian Navy was all that was required. Both were conducting oceanographic research in Ecuador's territorial waters, including collection of specimens.

When contacted by the acting Director of the Charles Darwin Research Station in Santa Cruz, both parties

showed complete ignorance and surprise as to the existence of such regulations.

Steps are being taken to avoid such occurrences, particularly through better information channels.

Regulations concerning visits to the Galapagos can be obtained by writing the Departamento de Parques Nacionales y Vida Silvestre, Dirección de Desarrollo Forestal, P.O. Box 2979, Quito, Ecuador. Requests made to the Charles Darwin Research Station, Casilla 58-39, Guayaquil, Ecuador, or Mr. Juan Black M., Representante de la Estación, Charles Darwin en Quito, Centro de Información de Galapagos, Casilla 3891, Quito, will be forwarded to the official authorities concerned.

Role of botanic gardens Kew conference subject

A conference having the title "The Function of Living Plant Collections in Conservation and in Conservation-Oriented Research and Public Education" will be held in England at the Royal Botanic Gardens, Kew, 2-6 September 1975.

The meeting will be primarily concerned with the part botanic gardens and other institutions maintaining living plant collections can play in the conservation of endangered and rare species. It will bring together representatives of universities, botanic gardens, research institutes and certain commercial interests to consider the functions of these collections, including techniques for maintaining them, economic aspects, and the role in conservation-oriented research and education.

The Programme Planning Committee has defined the following subject areas to be covered during the formal sessions: conservation-oriented collections; existing collections—origins and earlier objectives; techniques of cultivation; documentation; techniques of collecting; functions of conservation-oriented collections in research; adjuncts to conservation-oriented collections; functions in public education related to conservation, and international co-operation (to be held at Cambridge Botanic Garden).

In addition to the formal papers, adequate opportunities will be provided for discussion, and provision is being made for informal meetings of specialist groups outside of the Conference timetable.

The NATO Eco-Sciences Panel is sponsoring the meeting.

IUCN Bulletin now being published in Spanish

Thanks to the generosity of a prominent conservation organization in Spain, the monthly IUCN Bulletin is now being published in the Spanish language at the same time it appears in English and French.

Dr. Luis Blas Aritio, Director of the Instituto de la Caza Fotográfica y Ciencias de la Naturaleza, undertook the task—a considerable one in terms of effort and finance—at the beginning of this year. Dr. Blas Aritio's organization not only translates and prints the Bulletin, but is handling distribution as well.

This is not the first time the Bulletin has been issued in Spanish. Several years ago, when the Bulletin was published quarterly, semi-annual summaries were produced by Dr. Luis García-Reyes and Agrupación Española de Amigos de la Naturaleza. This effort, also largely donated, was reluctantly discontinued when monthly publication began.

Members who would like to receive the Spanish edition should advise the Secretariat.

Grand Canyon National Park threatened by air pollution

A news item in the February 1975 issue of *National Parks and Conservation Magazine* (USA) reports the vast Canyon one of America's most famous national park areas is showing signs of air pollution.

Monitoring devices on the rim of the canyon show a definite increase in particles during the past three years.

Although the canyon is still relatively unpolluted, its magnificent vistas are not as distinct as they once were.

Pollution is carried by wind from Los Angeles and other cities lying hundreds of miles to the west. However, greater dangers to the park are posed by pollution from electric energy development. Within a 100-mile radius of the canyon six huge coalburning power plants are either in use or under construction. Some 100,000 tons of coal soon will be burned each day by the plants to produce power for Phoenix, Los Angeles, and other cities. Just north of the canyon is the Navajo electric generating plant at Lake Powell, the world's largest power plant, which eventually will burn almost a fourth of those 100,000 tons—using coal from a strip mine in Arizona.

According to the report even a small percentage of total pollutants from these plants would spread a distressing mass of contaminants over the national park area.

Soviet Conservationists honoured for contributions

Four well-known Soviet conservationists who for years have been associated with IUCN were included in a group of experts and specialists in the field of nature conservation decorated by the Soviet Government last November.

Receiving the Order of the Red Banner of Labour: Professor A.G. Bannikov, Vice-President of IUCN; Mr. B.N. Bogdanov, former member of the Executive Board and now Vice-Chairman of the Commission on Environmental Policy, Law and Administration; and Professor V. A. Popov, Consultant to the Commission on Education.

Receiving the badge of Honour: Dr. L.K. Shaposhnikov, Chairman of the Commission on Education.

The Decree conferring the honours was announced 30 November in the Hall of Columns in connection with the 50th Anniversary of the All-Russian Society for Conservation of Nature.

Staff Notes

Robert Allen joins IUCN staff; Standish leaves

Two recent changes have occurred in the IUCN Secretariat at Morges.

Robert Allen, well-known British journalist, joined the staff in February as Science Writer.

Allen, 33, has been a freelance writer on ecology and anthropology. He was co-founder and former joint editor of the *Ecologist*. His publications include *Blueprint for Survival* (co-author); *Natural Man* (Aldus Books); *The Earth's Inheritors* (to be published this year by Penguin Books). Awarded a Winston Churchill Fellowship in 1972, he studied aspects of the ecology of Majangir people, hunter-gardeners of South-West Ethiopia. He was joint editor of the *Stockholm Conference Eco* at the UN Conference on the Human Environment in 1972, and features editor of PAN, at the UN World Food Conference in Rome 1974.

Robert I. Standish, who had been seconded to IUCN since mid-1968, at the end of April returned to the US National Park Service in Washington, D.C., where he will be managing editor of a new international publication. In Morges he served as IUCN's Information Officer, editor of the IUCN Bulletin and Yearbook, and publications supervisor.

IUCN takes this occasion to again express its great appreciation to the U.S. Government for their generosity in making the services of Mr. Standish available to the Union.

Erratum: IUCN Bulletin 6 (3) March 1975

The new Khunjerab National Park in northeastern Hunza, Pakistan, does not include the Kirthar area as previously reported; the survey was arranged by WWF Pakistan.