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Viewpoint

Energy and Conservation

It is long past the time when those concerned with the conservation of nature could afford to remain ignorant or indifferent to the social and economic forces that shape human societies. To attempt today to set aside national parks or to protect wildlife without consideration of the technological changes taking place throughout the world is to risk a total waste of conservation effort. Today one of the most important technological changes is taking shape in the development and use of energy resources. The future of conservation will be drastically affected by the form of this development and use.

Because of the growing shortage and high cost of petroleum and natural gas, a transition is now inevitable toward the use of new sources of energy. The next 25 years will be critical, since during this period replacements must be found for these fuels and humanity must be weaned from its dependence upon them.

Energy development will affect conservation in two ways, through the extraction of energy resources from the environment and from the application of that energy to human purposes. Conservationists have long been concerned with the extraction process, particularly with the surface mining of coal, as a major source of environmental disruption, and with the outpouring of polluting effluents from powerplants. However, the ways in which energy is applied, whether they are conservative or wasteful, must be a matter of equal concern. A continued growth in the demand for energy can have serious consequences for the quality of human life and the health of the biosphere.

If it is assumed that energy demand will grow at 5 per cent per year, and this is a common assumption among energy planners, it is impossible to foresee ways to avoid the massive development of remaining fossil fuel resources, including coal, oil shale, and tar sands, over the next several decades. Even if one assumes that nuclear fission plants could be developed at a rate that is completely unrealistic, nuclear power would not greatly alleviate the demand for fossil fuel during the next quarter century. Since both nuclear fission development and accelerated fossil-fuel use will have serious environmental implications, the question of growth in energy demand must concern conservationists.

It has been noted, however, that energy conservation measures alone, through the elimination of wasteful practices, could reduce world demand for energy at a significant percentage each year, without a reduction in standards of living. This would alleviate the need for a rapid and dangerous development of nuclear fission, as well as for the environmentally disruptive effort to speed up the exploitation of coal and oil shale. If energy conservation

measures are accompanied by the development of alternative energy resources — solar power, wind power, geothermal power, and the use of organic wastes — the foreseeable needs of mankind could be met without the dangers associated with the use of radioactive fuels or the disruption and pollution that accompany a growing use of fossil fuels.

Unfortunately most nations are tied to a fossil-fuel based economy, and many are rushing to develop a nuclear alternative. The industrial powers in particular must make a difficult transition if their economies are to be based on renewable, or virtually inexhaustible energy resources, and if they are to avoid excessive destruction of nature and risk to human life. However, the non-industrialized world also has become in recent years far too dependent on the use of fossil fuel. In particular the trend toward highly mechanized agriculture, with the massive use of inorganic fertilizers, has involved the use of petroleum and natural gas to produce the increased supplies of food that these people require. The shift to agricultural practices that make use of locally available, rather than imported energy, will take time, but in the long run will prove to be essential.

If nations are to avoid serious social and environmental disruption, a smooth transition must take place from the fossil fuel economies of today to an energy economy that can be permanently sustained and that does not involve a high risk to mankind and nature. Such a transition must not include "crash programmes" to extract more fossil fuels from diminishing reserves, or to build more nuclear plants without regard to the hazards involved. Rather, serious investigations and development of non-hazardous alternative energy resources must be vigorously pursued. Much more attention should be given to the decentralized production and use of renewable energy resources. An all-out effort is required to develop a high-yielding agriculture that is independent of fossil-fuel subsidies.

IUCN can scarcely avoid an involvement with energy policies if it is to remain effective in nature conservation. At the same time it is not to be expected that IUCN should develop an expertise in the technical or engineering aspects of energy development, since this would involve a diversion of manpower and resources from the central task of nature conservation. Instead the role for IUCN would appear to lie in the evaluation of the social and environmental consequences of energy policies, and active intervention in those areas in which the long-term well being of nature and humanity appear likely to suffer. This role is seen as one of maintaining an overview on energy development, taking advantage of whatever expertise can be made available, with the aim of providing criteria by which local energy problems may be evaluated, where these affect conservation.

IUCN Executive Board meets in Morges for 54th session

IUCN's Executive Board held its three-day annual meeting in Morges, 8–10 May 1974.

Following lengthy discussion of the work, structure and functions of IUCN's six Commissions, the Board agreed to appoint a special task force to study the matter in depth. The President was empowered to name this task force, which will complete its work and report prior to the 12th General Assembly next year. Their report will be considered by the Executive Board and

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New Zealand joins IUCN

New Zealand has informed IUCN that the State adheres to the Statutes of the Union. It thus became the 37th State member and the 3rd to join this year.

any changes that may be recommended will be brought before the 12th General Assembly next year.

The scope of IUCN activities and the question of priorities within the IUCN programme were also examined. The Board concluded that IUCN should continue to regard conservation of nature and natural resources as its central aim. It agreed, however, that too narrow a view should not be taken and that to keep IUCN activities in perspective it must take cognizance of wider issues; this does not imply a major shift in emphasis to becoming an organization working on all aspects of the environment.

The decision was taken to appoint a task force to elaborate an IUCN policy on energy, with particular reference to environmental impacts of various energy sources and to conservation of energy.

Approval was given to cooperation with SCOPE in a project to identify and analyze international environmental policy issues and to develop and examine the implication of alternate decision strategies to deal with these issues.

The Board reaffirmed the position IUCN took at the 1973 meeting of the International Whaling Commission (IWC) concerning the 10-year moratorium on whale hunting and increased research efforts (see IUCN Bulletin Vol. 4, No. 8, August 1973). It approved a statement to the IWC which "strongly deplores the action of two IWC members in repudiating, under the 90-day rule, the three main conservation agreements made at the meeting, thus flouting the recommendations of the IWC's scientific advisory committee as well as the majority decision of the IWC itself...", considering that this action calls into question the effectiveness of the IWC.

The Board reviewed arrangements for the 12th General Assembly to be held at Zaïre 7-19 September 1975, and the tentative programme for the 13th Technical Meeting which will have as its theme "Conservation for Decision Makers". Seven general topics are included in the programme outline: (1) National Parks and Threatened Species, (2) Tropical Rainforests, (3) Marine Resources, (4) Energy Sources, (5) Food and Water, (6) Alternative Life Styles, and (7) Development Decisions. These items will be examined in relation to their bearing on conservation.

Information on arrangements for participants and details of the programme for the General Assembly and Technical Meeting will be announced soon and published in forthcoming issues of the Bulletin.

The Board also reviewed some of the more important IUCN/WWF projects. Many of these have been discussed in recent issues of the Bulletin; supplementary notes appear elsewhere in this issue.

Applications for membership were approved as noted elsewhere in this Bulletin.

Cooperation with many organizations was examined and reports were heard from representatives of UNESCO, FAO, UNEP, the Council of Europe, ICBP, ICSU (including IBP, IGU and SCOPE), the International Secretariat for Volunteer Services (ISVS) and the World Wildlife Fund. The status of the planned joint headquarters with WWF at Geneva, which has been delayed because of Swiss restrictions on non-housing construction, the annual accounts, and fund-raising were also discussed.

Prior to the meeting, on 6 May, an ad hoc meeting concerning energy questions was held at Le Manoir in Saint-Prex. The report of these experts formed the basis for the Executive Board discussion of the matter and its subsequent decision that the Secretariat should appoint a special task force to prepare the policy statement already noted. This Group has not yet been named.

Concurrent with the Board meeting, the SSC/Whale Specialist Group met in and this was immediately followed by an FAO meeting on whales, also in Morges. Recommendations of the Whale Group are reported elsewhere in this issue.

Membership applications approved

Applications for membership approved by the Executive Board in May were as follows:

Non-governmental national:

The World Wildlife Fund of Japan, Japan.
Tall Timbers Research Station, Florida, USA.
Zoological Society of Buffalo, New York, USA.

Non-governmental international:

World Underwater Federation, Paris, France.

Governmental Agencies:

Department of Economic Development, Government of the Northwest Territories, Canada.
Environmental Protection Service, Israel.
National Office for Nature Conservation, Hungary.

Affiliate membership:

Tasmanian Environment Service, Hobart, Tasmania.
The Department of Geography and Earth Sciences, Chancellor College, University of Malawi, Zomba, Malawi.
Bibliothèque des Conservatoire et Jardin Botaniques, Geneva, Switzerland.

Programme Activities

Tropical rain forests get high priority

WWF has decided to make a major fund-raising drive in 1975 to support projects in humid tropical forest areas. IUCN/WWF are now assembling an integrated programme for consideration by the WWF Conservation Committee at its October 1974 meeting.

Projects will include the setting aside of new national parks and reserves and the improvement of existing areas, as well as specific conservation action for important groups such as primates which find their habitat in tropical forests. Those wishing to submit projects for consideration should do so immediately.

National parks and rural development in Central America

In response to Recommendation No. 7 of the Second World Conference on National Parks, which recommended the setting up of a regional system of national parks and other protected areas by the countries of the Central American isthmus, a project has been established with the support and collaboration of UNEP, FAO, UNESCO, Rockefeller Brothers Fund and WWF to examine the national park systems within the Central American isthmus, which aims to develop a mechanism for regional cooperation, and to use the unique cultural and natural scenic attractions of the isthmus as the basis for rural development.

Under contract from IUCN, the Tropical Science Center in Costa Rica has taken responsibility for conducting the survey of parks and reserves and organizing a meeting of the agencies concerned from the cooperating countries, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. This is scheduled for 2 to 9 December 1974.

FAO, with assistance from UNDP, will cooperate in the project. UNESCO will also cooperate in relation to cultural monuments and related resources.

Grant from Rockefeller Brothers Fund

IUCN has received a grant of \$50,000 from Rockefeller Brothers Fund to enable the scope of the project to be expanded. Howard Prowse, an American ecologist and park planner, has been appointed as a consultant under this grant.

He will contribute to the survey of national parks and to the preparation of the December meeting. He will also prepare plans for a longer term programme for building up the necessary infrastructure for tourism and rural development linked with the national park systems.

The several groups cooperating in the project see a high potential for the development of local employment opportunities centred on the natural and cultural heritage of the region.

Whale Group recommends priorities for research

Priorities for research in connection with the conservation of whales were examined and seven projects were selected for funding consideration at a meeting of the IUCN/SSC Whale Specialist Group in Morges 6-7 May.

An invitation had been extended to a number of biologists throughout the world actively engaged in research on whales to submit projects for consideration by the Group.

The projects included two studies of the freshwater dolphin of the Indus river, which is believed to be at risk from changes in its environment and a study of the Franciscana dolphin in Uruguayan coastal waters, which is taken in nets set for sharks and may be in danger from this fishery. Studies of the stocks of large whales already protected under the regulations of the International Whaling Commission were also selected, one on southern right whales off the west Australian coast and one on humpback whales in the same region, which are both to be surveyed by aircraft, and another on the blue whales in the waters around Svalbard, to be surveyed by ship. These species have been the subject of a moratorium for a number of years, and therefore inaccessible for study. It is important to know if they are increasing their numbers under protection and this can most easily be done by aerial or ship surveys.

The seventh project concerns development of a highly visible external tag for marking large whales.

The Group considered projects concerned with preparation of a field guide on whales and cetaceans in captivity as important but of a lower priority.

Present were 11 members of the Group from 8 countries, together with observers from UFAW, ISPA, UNEP, FAO, WWF, and the Hirnanatomisches Institut, Bern. Professor M. Nishiwaki, Ocean Research Institute, University of Tokyo, chaired the meeting.

Committee on Threatened Plants

The Survival Service Commission at its meeting in Morges, 7-8 May 1974, approved the formation of a Committee on Threatened Plants to deal with the growing threats to plant communities and species.

The Committee will be under the chairmanship of Professor J. Heslop-Harrison, Director of the Royal Botanic Gardens at Kew. It will establish regional groups, based in as far as is feasible on floristic zones, and specialist groups, to deal with taxonomic areas of particular interest or in special peril.

Tasks of the Committee will include the identification and definition of threats to the survival of individual species, of special groups, and of whole floras throughout the world, and the preparation of documentation on such threats with proposals for conservation action. The Committee will also advise on the plant volume of the Red Data Book.

Renzo Videsott

Professor Renzo Videsott, a member of IUCN's first and second Executive Boards and for many years Director of the Gran Paradiso National Park, died on 4 January 1974.

One of Italy's outstanding conservation leaders, his active career in this field began in 1944 when as a professor of veterinary medicine at the University of Turin he undertook to protect the alpine ibex during a particularly difficult period. He is credited with saving the ibex, and after the war, with reorganization of the Gran Paradiso and making it world famous.

In 1972 the World Wildlife Fund of Italy (Associazione Italiana per il World Wildlife Fund - Fondo Mondiale per la Natura), dedicated a book to him under the title "Una vita per la Natura".

Professor Videsott will long be remembered for his many services in the field of wildlife protection.

IUCN publishes 1974 edition of UN List of National Parks

The 1974 edition of the *UN List of National Parks and Equivalent Reserves* was published in May 1974, and distribution to members is being made. The work continues the simplified format established last year. Selection of areas for inclusion was carried out by a panel consisting of J. I. Nicol (Canada), Chairman of ICNP; Kai Curry-Lindahl (UNEP), Dr. Raymond F. Dasmann (IUCN Secretariat), Professor Jean-Paul Harroy (Belgium), P. H. C. Lucas (New Zealand), and Dr. Kenton R. Miller (FAO).

A new publication now in preparation, *The World Directory of National Parks and Other Protected Areas*, will provide information in detail on the parks included in the UN List, and many more protected areas.

Critical marine habitats

An IUCN/WWF project concerned with identification of critical marine habitats is being carried out under the direction of Dr. G. Carleton Ray of The John Hopkins University. This is a first step towards a drive to conserve representative samples of marine ecosystems.

The project will provide a basis for more effective conservation of coastal and marine environments critical to the survival of species and biotic communities.

The first phase involves the development of a classification system of biomes, biotic provinces and habitats, and a draft is expected to be circulated for comment in July/August 1974.

At the same time, tentative guidelines for the protection, public use and management of marine protected areas are being formulated.

The project will bring together information on marine habitats now available in many different agencies and places, and use this information in devising proposals for conservation action.

Emphasis is being given equally to habitats which are representative of coastal and marine biomes and those which are either rare, threatened or fragile. Particular attention will be devoted to marine air-breathing vertebrates such as turtles, crocodilians, and marine mammals with a view to locating habitats critical to their survival. From this preliminary survey, certain areas of high priority will be selected for detailed study, leading to the implementation of conservation action.

Iriomote cat

Professor Dr. Paul Leyhausen, Chairman of the Cat Specialist Group of SSC has just completed a further survey on the Iriomote cat, funded jointly by WWF International, WWF National Appeal - Japan, the Japanese Government, the National Geographic Society and the Fauna Preservation Society. The survey has shown that the Iriomote cat has a larger range and is more solitary than previously supposed, in consequence of which the population estimate has been revised to 150 adult animals. Nevertheless, although highly vulnerable, this population is considered viable.

Green Book of Outstanding Landscapes

The international selection panel for the Green Book of Outstanding Landscapes (see Bulletin Vol. 4, No. 7, p. 26), met at Le Manoir, Saint-Prex, near Morges, on 21 May 1974. Thirty landscapes have been approved and a further twenty have been selected tentatively.

The resulting sheets should be ready for publication at the end of the year.

European landscapes were given attention first as a pilot exercise in developing selection criteria and methodology. The aim is to extend coverage worldwide; the inventory will form the basis for local conservation action.

World Park Conference Proceedings published

Proceedings of the Second World Conference on National Parks have now been published in English and may be ordered from the Secretariat at Morges. Price for the 504-page book, in hard covers, is \$10. The same book is being issued in French and Spanish languages.

Conservation Notes

Australia becomes party to Wetlands Convention

Australia has signed the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar 1971), without reservation as to ratification. It thus became the sixth nation to sign the Convention and the first to become a party to it.

At the time of signing, Australia designated the Cobourg Peninsula Wildlife Sanctuary and Flora and Fauna Reserve to be included in the List of Wetlands of International Importance established under the terms of the Convention.

The Convention will enter into force four months after seven states have become parties by signature without reservation as to ratification, by ratification, or accession.

European wolves

Investigations into the behaviour and status of wolves in the Abruzzi National Park, Italy, have been in progress for some three years by Drs. Luigi Boitari (Italy) and Erik Zunien (Sweden). In April, these studies were extended by a successful operation involving the capture of three wolves and the attachment to them of VHF locating transmitters. This was done with the assistance of Dr. Don Mech using techniques and apparatus he had developed in the course of his wolf studies in Canada. Reports to date indicate that the equipment on all three wolves is working better than expected and the observers have no difficulty in keeping track of their movements. Valuable information on the range of movement and composition of contacts made by these animals is being obtained, and two members of the staff of the Park are being trained in the use of the apparatus. The success of wolf conservation work in Italy is reinforced by a recent Government order extending the present ban on wolf hunting for another three years.

Venezuela bans sport hunting; examines Amazonian land policy

All sport hunting in Venezuela has been banned since April 1974 for two years, according to a recent decree signed by the new Minister of Agriculture.

The reasons for the ban are "alarming diminution of wildlife" and the "desire to increase scientific research to achieve better conservation management and wise use practices concerning wild animals".

In another development, a new Commission has been appointed by the new Government to provide guidance for the activities of CODESUR, an important semi-autonomous body which for years has been entrusted with the development of a large area south of the Orinoco River. This area is largely covered with rain forests on very poor soils and is sparsely populated, largely by forest Indians. It is endowed with some spectacular landscapes.

Symposium on Chihuahuan Desert

An international Symposium on the Biological Resources of the Chihuahuan Desert Region, United States and Mexico, will be held at Sul Ross State University, Alpine, Texas, 16-18 October 1974. Sul Ross State University will host the Symposium, which is sponsored by the Southwest Region of the US National Park Service and the Texas Parks and Wildlife Department.

For additional information please address inquiries to David H. Riskind, Head, Resource Management Section, Texas Parks and Wildlife Department, John H. Reagan Building, Austin, Texas 78701, USA.

Third Interparliamentary Conference on the Environment

Parliamentarians from 48 parliaments met at the Kenya Conference Centre, Nairobi, 8-10 April 1974 to review decisions of a number of international meetings on environmental issues and to monitor action taken to implement these decisions. Title of the meeting was 'International Action: Achievements and Problems.'

The documentation for the meeting will provide a valuable guide to many groups concerned with action that governments have been asked to take in handling environmental problems.

The meeting in its turn passed resolutions asking governments to move urgently on matters of special concern and called on parliamentarians to press for their implementation.

Proceedings, including the documentation, will be published by E. Schmidt Verlag, Berlin.

Norway establishes national parks, reserves and sanctuaries in Svalbard

Three National Parks, two Nature Reserves and fifteen Bird Sanctuaries have been established in Svalbard by Royal Decree, effective 1 July 1973. The total area protected under the Decree is about 27,000 sq. km.

The parks are South Spitsbergen National Park, comprised of Wedel Jarlsberg's Land, Torell Land and Sørkapp Land with adjacent territorial waters; Forlandet National Park, including Prins Karls Forland and adjacent waters, and the Northwest Spitsbergen National Park, which includes Moffen, Reinsdyrflya, Albert I Land, and Haakon VII Land.

All of the areas are under a very high level of protection. Construction (with minor exceptions), oil drilling and oilwell operation, mining, quarrying and other activities which interfere with the terrain or disturb the natural environment are specifically excluded.

Conservation Coin Collection

An unprecedented series of legal tender coins to be issued by 24 countries has been sponsored by IUCN/WWF. This was announced by H.R.H. The Duke of Edinburgh and H.R.H. The Prince of the Netherlands at a press conference in London on 10 June 1974.

Each country is issuing one gold and two silver coins, the designs featuring endangered and other local animals. This is the first time in numismatic history that a number of governments have issued legal tender coins to the same theme and to uniform dimensions and specifications.

In addition to the coins circulated, limited numbers of coins will be sold to numismatists, and the proceeds of the sales will finance conservation programmes carried out by the issuing states and by IUCN/WWF.

All of the coins will be struck by the Royal Mint, London. The participating states and IUCN/WWF have engaged Spink and Son, Limited, the world's leading numismatists, as advisors and distributors.

IUCN/WWF will use their portion of the proceeds to set up an endowment fund, the income from which will finance future conservation operations.

Further information about the coins and how they can be ordered can be obtained by writing to Spink and Son, Limited, 5, 6, 7, King Street, St. James's, London SW1. Orders will be taken starting in October 1974 for the first six countries issuing coins in the Collection: Costa Rica, Indonesia, Mauritius, Nepal, Tanzania and Thailand. There will be an annual announcement of six further countries.

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