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Viewpoint

Should ecology conform to politics?

The question in the title of this viewpoint is prompted by views widely expressed at two recent international UN gatherings: the Caracas Law of the Sea conference and the Bucharest World Population conference. In both meetings the overwhelming feeling from many countries was clearly that social injustice, economic maldistribution, and political shortsightedness are the main issues confronting the world today. For many of the participants these issues were clearly linked with the subject matter of the two conferences. No-one will disagree with the importance of these or with the concern that they rouse. But it was a fact that these views and their strong implications were brought forward in such a way in discussions that they obviously detracted from what the organizers of the conferences had hoped to be the main substance of the proceedings.

Such an attitude is of course not new. It echoes the bitterness reflected at the Stockholm Conference of 1972, particularly when "growth" and its possible limitations were at issue. At Stockholm the representatives of almost all countries, whether developed or developing, tended to look at defence of the interests of their own countries first, usually on a narrow and short-term basis, instead of looking at the whole of planet Earth—Only One Earth, as the motto of the conference expressed it.

At Stockholm, in one of the many peripheral gatherings, one of the most eloquent and applauded interventions came from a young Chilean who pointed out that if all the fish meal presently exported from his country to feed the cats and dogs of the rich people in Europe or North America could be consumed locally in Chile, where there is a chronic deficiency in protein, there would be no real food problem in that country. This, and not population increase, was clearly the important issue. Variations on the same theme, all pointing to "the poor distribution of wealth and other inequalities", have been equally dominant in many recent international intergovernmental conferences.

When I asked the Chilean orator how he would handle such "trivial" things as alternative ways of securing foreign currency brought into his country through the export of fish meal, he gave an evasive answer. Clearly the important thing to him was to illustrate the fact that poorer people needed the proteins presently sold to rich people to feed their cats and dogs. But my second question was more embarrassing: we both knew Chile's population would double in about 40 years and could the fish meal production also double in that period? As a marine biologist he knew that Chile, as well as Peru, were very close if not already past the point

where anchoveta fishing, the source of fish meal, was at its maximum capacity. Even if the protein problem could be solved today by redistributing the fish meal among the Chilean people—hoping that any problems of local food habits and replacement of a source of hard currency could be met—it was clear that there could not be a doubling of anchoveta fishing in 40 years, nor a quadrupling in 80 years and so on. His answer to this question was that when the time of a new crisis came, we would have to look into this aspect and... "find a solution".

This recurring practice of politicians, and sometimes those who advise them, to avoid looking at issues which go beyond a few years is possibly the mark of our time and one of the most serious problems facing those who wish to influence political decisions. It is vigorously displayed not only in international conferences but is, in fact, an important basis for decisions taken to solve national and international crises.

There is no question that serious global inequities exist in the distribution of food, resources and economic wealth. Even within many countries there are also severe social injustices, and a great distance between the affluence of the select few and the poverty of the many. Political, economic, or social changes will be required to remedy these problems. But ecological realities must also be faced at the same time, and action to correct the grave imbalances between human populations, resources and environment must go hand in hand with struggles against the injustices of social and economic systems. These long-term considerations must not be swamped by the demand to correct immediate political problems.

In a recent meeting held in Morges for UNESCO's MAB Project 8 on "Conservation of natural areas and of the genetic material they contain", Sir Otto Frankel produced the following amusing yet disconcerting table of concern viewed "with an historical perspective."

The time scale of concern. Evolution over 8000+ years:

	Period	Operator	Objective	Time scale
Wildlife	to 8000 BC	hunter-gatherer	next meal	1 day
Domesticated plants	to 1850 AD	"primitive" or "traditional" peasant farmer	the next crop	1 year
	from 1850	plant breeder	the next variety	10 years
	from 1900	crop evolutionist	to broaden the genetic base	100 years
Wildlife	today	genetical conservationist politician	dynamic wildlife conservation current public interest	10,000 years next election

The gap between the politician and the genetical conservationist cannot be presented more eloquently. And yet those who know the facts desperately need to communicate with politicians and to establish better lines of contact with decision-makers—as well as with the public in general—however frustrating the attempt may be.

During the 1972 Stockholm Conference a writer for a British newspaper covering the conference referred to "the new fear amongst politicians that their decision-making powers were being threatened by the scientists". His article went on to say, "In the Middle Ages, politicians had to pay heed to the Church. With the rise of the nation-State, all decisions became questions of power and national sovereignty. Now the scientists are saying that man will survive only if decisions are made in the light of certain scientific facts."

"The conflict, he said, was the key to the conference. Maurice Strong, the Secretary-General, had rightly combed the world's scientists for information and views, and based the recommendations on them. Now the politicians—being concerned only with questions of national interest—were grinding up against the recommendations of the scientists."

"The politicians are developing a certain hate for the scientists. But the scientists are more and more coming out of their ivory towers, full of guilt about the technological juggernaut they have created, and will not readily be pushed back."

A similar pattern has occurred in many conferences since Stockholm, and is likely to be repeated. How then can the gap be bridged between those who are concerned with the long-term future and those who determine that future through decisions based on short-term considerations?

One of the greatest advances recently has been the hard-fought decision by some countries to request environmental impact statements, or at least appraisals, whenever a large manipulation of the environment is envisaged. IUCN has been attempting to deal with this subject by producing the book, *Ecological Principles for Economic Development*, and following it up by conferences attended by planners, senior administrators, scientists and managers of natural resources, and designed to lead to the formulation of practical guidelines. To this date, two of these meetings have dealt with the tropical rain forest biome in Latin America and South East Asia. These conferences in turn are to be followed by specific projects and action programmes. *The message is clearly that a knowledge of ecological factors must precede political decisions and not the contrary.*

Obviously the era of isolation can no longer be justified and there is a growing consciousness of the scientific community's role in influencing decision-makers. In fact scientists have already been influencing decisions on such important issues as space explorations, strategic weapons, nuclear policy, fuel policy and agriculture. Usually these issues were linked with spectacular successes—or at least very high expectations. Moreover, it is obvious that there has been a tendency for decision-makers to listen to those scientists who can promise immediate returns and not to those whose concern has been with the more distant future. It is the task of ecologists to correct this imbalance both within the scientific community itself and in the message of science to those who make decisions. Political decisions must be based on sound ecological knowledge which, in this connection, must include consideration of social and cultural factors. What is more, a basic principle of decision-making should be to choose that decision which still leaves the widest choice of options for the future, making it possible to successfully reassess priorities with changing values. If we, as scientists, do not succeed in this endeavour, we may be resigned to condoning political decisions after the event with hastily contrived ecological justifications. Indeed, in some areas of the world this is the present status of many scientists.

Ultimately, of course, environmental improvement should merge with social improvement. The two should not be separated or one of them abandoned in favour of the other. As early as 1844, Marx wrote, "Natural science will one day incorporate the science of man, just as the science of man will incorporate natural science; there will be a single science." Still, there must be a logical order in understanding the proper sequence of natural and man-made laws.

Perhaps the answer lies in another quote from a foremost socialist, Engels, who wrote in 1881: "Each conquest of nature takes its revenge on us. Unforeseen consequences of our actions sometimes cancel out the consequences we expect. Thus we are part of it and exist in its midst. Our mastery consists only in the fact that we have advantages over other creatures in that we can know and correctly apply nature's laws." Are we masters today?

Gerardo Budowski

IUCN's telegraphic address is "Unicorn Morges" which substitutes for our long formal name. Users are cautioned to always use the two words, "Unicorn Morges."

Programme Activities

Ecological guidelines for arid region target of May conference

An international meeting to formulate ecological guidelines relating to the management and conservation of natural resources of the Middle East and South West Asia is being convened by IUCN at Gorgan, Iran. The Imperial Government of Iran will be host to the meeting, which will take place from 24 to 30 May.

Throughout the drier regions of the world wildlife and natural ecosystems are being rapidly degraded or destroyed, and valuable natural resources are being wasted. Land-use patterns are often questionable, and some pastoral practices contribute both to growing human suffering and dissatisfaction, as well as to destruction of natural resources. In a few areas things have gone beyond the point of repair.

There is an urgent need to formulate ecological principles that are relevant to the development process in the dry regions and to evolve guidelines for development based on such principles. The May meeting has been convened for this purpose.

As with two previous meetings to develop ecological guidelines for other regions, this conference will bring together ecologists and planners along with specialists from appropriate disciplines and officers from government agencies of the regions to discuss the problems and to prepare draft guidelines for economic development taking into account conservation objectives. Some 60 persons are expected to participate.

Invitations to participate are being extended to the Governments of the following countries and their scientific institutions concerned with wildlife and conservation matters: Afghanistan, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syria, Turkey, USSR (Armenian, Azerbaidzhan, Georgian, Tadzhik, Turkmen and Uzbek SSRs), United Arab Emirates, Yemen Arab Republic, and Yemen People's Democratic Republic.

The meeting is sponsored by IUCN, UNEP, and the Iran Department of Environmental Conservation. It is supported financially by UNEP, WWF, and SIDA, the Swedish International Development Authority.

IUCN Environmental Law Information System expands

Generous support from the Government of the Federal Republic of Germany will enable IUCN to build its Environmental Law Information System (ELIS) to the fully operational level.

The IUCN/ELIS system has been developed at IUCN's Environmental Law Centre at Bonn over a period of several years with grants and help from a number of foundations and agencies.

The system is computer-based. It involves analysis and codification of legal documents and indexing according to a flexible thesaurus of concept terms. It depends on the extensive collection of environmental law documentation available at the Bonn Centre. Currently ELIS covers the environmental law of nine jurisdictions. To be fully effective its coverage must be much more broadly based and continuously up-dated. This can be accomplished only with the cooperation of governments.

UNEP has decided that ELIS will be an integral part of the operations of the International Referral System for Sources of Environmental Information (IRS). It has asked the UN regional Economic Commissions to cooperate in approaching governments to include their environmental law documents in the ELIS index.

It is hoped that governments will make available relevant legal texts, including court decisions, effectiveness surveys, criticisms and other commentaries, in addition to the legislation itself, and continue to keep such documents up-to-date.

At the same time assistance is required to analyze and code such material in accordance with ELIS procedures. It has been found that this can best be done by a lawyer from the country concerned working as part of the team at Bonn for a period of three to six months. This is an extremely educative process and already many young lawyers have in this way acquired a unique background in environmental legislation, both national and international.

The support from the Government of the Federal Republic of Germany in the form of a subvention of DM 200,000 each year for three years will provide the needed expansion of the ELIS basic team. The data system will be expanded to meet the needs of the German Information Service for Environmental Planning.

UNEP is also cooperating in making the services of ELIS available to developing countries.

March meeting on marine parks scheduled for Iran

Bandar Abbas, Iran, will be the locus of a regional meeting on marine parks and reserves in the northern Indian Ocean, the Red Sea and the Persian Gulf. Facilities will be provided by the Department of Environmental Conservation, Imperial Government of Iran, which has joined with UNEP and IUCN to sponsor the Conference. Dates will be 6 to 10 March, 1975.

The Conference will review progress being made in the establishment of marine parks and reserves throughout the region. It will prepare proposals for systematic action to conserve representative marine ecosystems and for the effective planning and management of marine parks and reserves.

Participation will be by invitation; it is expected that about 50 people will take part. UNEP and WWF are providing financial support for the meeting.

Action to conserve marine ecosystems has been strongly urged at international meetings, including the First and Second World Conferences on National Parks. A number of governments have already taken steps to set aside marine parks and reserves, and the number of such protected areas is growing steadily.

IUCN has long been vitally concerned with this area of activity. It will join the Marine Parks Center of Japan, the Environment Agency of Japan, and the National Parks Association of Japan in sponsoring another international conference on marine parks and reserves to be held in Tokyo, Japan, 12 to 14 May. Results of the meeting in Iran will be made available to the Tokyo Conference.

Western Samoa considering system of national parks

In recent years pressure on undeveloped land in the island state of Western Samoa has increased considerably as a result of its growing population, and development to provide for higher living standards. The Government of Western Samoa has been concerned that efforts to satisfy material needs and aspirations of the Samoan people should not be permitted to destroy the country's natural and cultural heritage. Earlier this year, the Government requested advice on the establishment of a national parks system to conserve significant examples of natural and cultural sites in perpetuity for the benefit of the Samoan people.

The United Nations Development Advisory Team for the South Pacific (UNDAT) and IUCN cooperated in the work. The survey was completed last month by Dr. C. W. Holloway, Ecologist in the IUCN Secretariat, and C. H. Floyd, Physical Planning Advisor, UNDAT. The report covering proposals for a parks system will be submitted to the Government within the next few weeks.

Western Samoa comprises an archipelago of two large islands and several small islets in the Pacific, between lat. 13° to 15° S. and long. 171° to 173° W. Its total land surface area is 2,940 sq. km.

Western Samoa joined IUCN as a State member in late 1973. The Government's interest in the implementation of conservation measures while the country still possesses a considerable wealth of natural and cultural resources is to be highly commended. If a comprehensive national parks system were established in Western Samoa, it would serve both as a pilot scheme and as an example of good conservation that might be copied within other Pacific island territories.

Conservation Notes

Ghana establishes its fourth National Park

Ghana has established its fourth National Park, Bia, an area of 118 square miles (30,208 ha) located on the western border approximately 100 miles inland from the coast. The Park is totally protected under Legislative Instrument No. 881, 14 May 1974.

One of the outstanding features of the area is the vegetation. It is relatively untouched and is perhaps the only area in Ghana with virgin rain forest. Ghana Park authorities note that a dry season concentration of animals occurs in the centre of the Reserve. This is rare in tropical rain forest areas. The climate is tropical humid with a distinct dry season between December and March. Rainfall peaks are in June and October with an estimated total of 59 inches.

Faunal resources are rich, with a number of endangered species occurring in the park. These include the chimpanzee, the black colobus monkey, olive colobus, red colobus and Diana monkey.

Wolf eradication in Spain follows death of 2 children

Two children were killed and another badly mauled during the past summer in the province of Orñese, north-west Spain, in attacks that were blamed on the Spanish wolf (*Canis lupus signatus*). This species is considered endangered by IUCN's Wolf Group.

While there is no proof that these attacks were by wolves, an intense campaign seeking eradication of the wolf has been staged throughout Spain. Wide publicity built up emotional and political pressures, leading the local Government to carry out strong actions against wolves. The Institute for the Conservation of Nature (ICONA), an official Government agency of Spain, was led to undertake an eradication campaign through strychnine poisoning. Both wolves and wild dogs have been killed.

Meanwhile, Spain's Asociación para la Defensa de la Naturaleza (ADENA) defended wolves, and as a result of high feeling in Spain, came under attack for its protection campaign. On 7 October in Madrid, ADENA held a meeting to inform the public on this subject by gathering together Spanish and foreign experts on wolves. ADENA carefully prepared a statement concerning maintenance of the wolf as a viable species in Spain. The principal points of the statement are summarized below:

- ADENA will continue to do its best to guarantee the survival of *Canis lupus signatus* while at the same time contributing towards the control of wolf populations in areas where abnormal ecological circumstances have altered its behaviour; normally *Canis lupus signatus* is not considered dangerous to man.
- There is not sufficient proof available to ascertain the exact nature of the accidents in the province of Orñese.
- ADENA believes that due to ecological changes in the whole region, the predator behaviour of wolves has been profoundly altered when compared to its behaviour in a normal situation, and therefore

- advises the eradication of the wolf population in that specific area.
- Eradication should be carried out under strict scientific control regarding the area affected and method used; under no circumstances should poisoning be permitted.
- In other areas of Spain the wolf should continue to be strictly protected.
- The relationship between wolf and wild dogs should be better ascertained.
- In those regions where wolves cause damage to domestic stock, compensation policies should be established.
- An education campaign to explain the useful role of wolves and to halt the spread of false rumours should be strongly encouraged.

WWF Honours and Awards

American ecologist Dr. Anne LaBastille has been awarded the World Wildlife Fund Gold Medal for 1974 for her contribution to conservation in Central America. Dr. LaBastille was honoured especially for her successful efforts to save the giant pied-billed grebe on Lake Atitlan in Guatemala, and her work for the survival of the quetzal, one of the most beautiful Central American birds, which figured prominently in Mayan, Toltec and Aztec art and religion. She has promoted the establishment of special forest reserves for the quetzal in Guatemala and Panama.

Other action to honour conservationists taken at the meeting of WWF Trustees on 1 November included appointment of Dr. Ira A. Gabrielson (USA), Lord Hurcomb (Great Britain), and Dr. Yoshimaro Yamashina (Japan) as Members of Honour for their contributions to nature conservation.

Honorary Consultants named included Dr. H. Calaby, Australia; Dr. Finnur Gudmundsson, Iceland; Dr. Paulo Nogueira-Neto, Brazil; M. K. Ranjitsinh, India, and Dr. George B. Schaller, USA.

Nominated to the International Conservation Roll of Honour were five men who died earlier this year: Dr. F. Carlos Lehmann, Colombia; Charles A. Lindbergh, USA; Robert Cushman Murphy, USA; Desmond Vesey-Fitzgerald, UK, and Professor Renzo Videsott, Italy.

Interesting facts from the UN List

The 1974 edition of the United Nations List of National Parks and Equivalent Reserves lists 1,111 areas in 99 countries totaling more than 1,607,000 sq km of protected land. This is 1.1% of the earth's land area. One third (374) of the listed areas have been established since 1960.

Included in this edition are 52 new areas that did not appear in previous editions of the List. These were either newly created or recently brought to IUCN's attention. They include 22 national parks and equivalent reserves, 25 nature reserves and 5 provincial parks.

Thirty-one areas greater than one million hectares qualified for inclusion in the list. More than half of these are in Africa. Listed in order of size in hectares they are:

1. Central Kalahari Game Reserve (Botswana) 5,280,000
2. Ouadi Rimé-Ouadi Achim Faunal Reserve (Chad) 4,892,500
3. Wood Buffalo National Park (Canada) 4,480,700
4. Salonga National Park (Zaire) 3,600,000
5. Arctic National Wildlife Range (USA) 3,460,000
6. Katmai National Monument (USA) 2,792,138
7. Gemsbok National Park (Botswana) 2,480,000
8. Kafue National Park (Zambia) 2,240,000
9. Etosha National Park (Southwest Africa) 2,227,000
10. Kluane National Park (Canada) 2,201,500
11. Baffin Island National Park (Canada) 2,147,110
12. Unnamed Conservation Park (Australia) 2,130,000

13. Tsavo National Park (Kenya) 2,080,000
14. Southern National Park (Sudan) 1,996,800
15. Kruger National Park (South Africa) 1,948,528
16. Bernardo O'Higgins National Park (Chile) 1,761,000
17. Iona National Park (Angola) 1,600,000
18. Northeast Svalbard Reserve (Norway) 1,555,000
19. Wankie National Park (Rhodesia) 1,443,200
20. Namib Desert Park (Southwest Africa) 1,409,500
21. Manu National Park (Peru) 1,400,000
22. Laguna San Rafael National Park (Chile) 1,350,123
23. Serengeti National Park (Tanzania) 1,295,000
24. Fiordland National Park (New Zealand) 1,223,645
25. Comoé National Park (Ivory Coast) 1,150,000
26. Ruaha National Park (Tanzania) 1,150,000
27. Jasper National Park (Canada) 1,087,800
28. Chobe National Park (Botswana) 1,036,000
29. Bamingui-Bangoran National Park (Central African Republic) 1,000,000
30. Canaima National Park (Venezuela) 1,000,000
31. Maiko National Park (Zaire) 1,000,000

The largest area listed for each of the continents is:

Africa	Central Kalahari Game Reserve (Botswana)	5,280,000
Asia	Gunung Leuser Reserve (Indonesia)	636,500
Australia	Unnamed Conservation Park (Australia)	2,130,000
Europe	Northeast Svalbard Nature Reserve (Norway)	1,555,000
North America	Wood Buffalo National Park (Canada)	4,480,700
South America	Bernardo O'Higgins National Park (Chile)	1,761,000

Should the newly created Northeast Greenland National Park (Greenland's first national park) meet IUCN criteria for inclusion in the UN List, more than 2,300,000 sq km of protected natural lands will be mentioned in the 1975 UN List, which will equal 1.6% of the earth's land surface. Greenland's enormous national park (700,000 sq km) is undoubtedly the world's largest.

Finally, according to the UN List, the oldest parks and reserves—those set aside by the earliest legislative action—for each continent are:

Africa	Umfoloji Game Reserve	South Africa	1897
	St. Lucia Game Reserve	South Africa	1897
	Hluhluwe Game Reserve	South Africa	1897
Asia	Kaziranga National Park	India	1908
Australia	Royal National Park	New South Wales	1886
Europe	Sarek National Park	Sweden	1909
	Abisko National Park	Sweden	1909
	Sonfjället National Park	Sweden	1909
North America	Yellowstone National Park	USA	1872
South America	Iguazu National Park	Argentina	1909

Since the introduction of DDT for the control of disease vectors 30 years ago, resistance to that chemical and other insecticide groups has developed in populations of no less than 108 vector species of public health importance, and some of them, in limited areas, have become resistant to almost all insecticides available at present. — WHO.

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