

Viewpoint

Ecosystem people

The growing concern for the future of those people who still practice traditional ways of life and for the cultural values that they preserve was reflected in a gathering of anthropologists and ecologists in England in December 1974. They discussed the Future of Traditional 'Primitive' Societies. This was one of a series of meetings sponsored by the British Social Science Research Council and organized by the Society for Indigenous Peoples (formerly the Aborigines Protection Society).

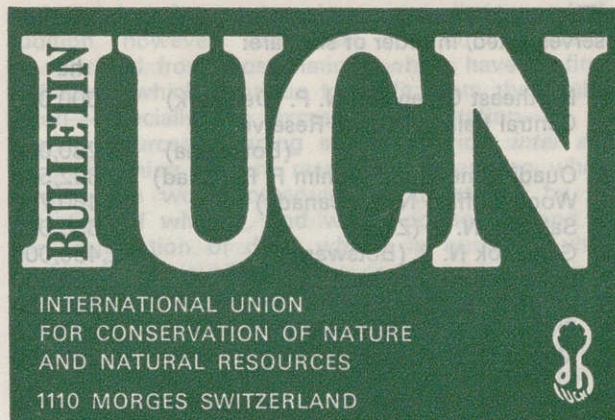
It is not my intention to summarize the meeting nor to discuss its conclusions. This will be done by the organizers. It is worthwhile, however, to consider where IUCN should stand in relation to 'threatened peoples' and 'endangered cultures', since plans for world conservation necessarily impinge upon the future of all who live in those areas of the world that are not yet greatly modified by global technological societies. Certain conclusions that I drew from the Cambridge meeting, and discussed at the South Pacific Conference on National Parks and Reserves in February 1975, may be relevant.

The so-called 'traditional primitive societies' of the world—pastoral nomads, shifting agriculturalists, hunter-gatherers and various combinations of these—have little in common except that they continue to survive for the most part in those areas that have been, thus far, bypassed by industrialized societies. Most such surviving societies are no longer 'traditional' and certainly not 'primitive', having already been modified and changed by contacts with the outside world. Most of those peoples who still practise traditional ways of life are lacking in political power, generally ignored by adherents of the dominant cultures of their countries, and form part of a Fourth World which is scarcely recognized by the other three.

Some appear to have the capacity to adjust and adapt to the prevailing ways of the nation states which claim sovereignty over them—most pastoral nomads and some shifting cultivators are in this category. Others who are scarcely aware of the existence of nation states are exceedingly vulnerable to any contact with outside societies, likely to be physically decimated by disease, and to lose most of their cultural and social integrity. These are the endangered peoples of the earth, and often occupy those wilder lands of interest to conservationists. I have called them 'ecosystem people' because they form a part of, and are totally dependent upon, the continued functioning of a local ecosystem. This contrasts with the 'biosphere people' who dominate the globe, can draw on the resources of many ecosystems, and in turn can, and do, shatter the internal stability of most ecosystems which they exploit.

The economy of ecosystem peoples is in balance with the dynamic functioning of natural ecosystems. The economy of biosphere peoples tends to be destructive of such ecosystems, and special measures must be taken if even samples of them are to be preserved. Biosphere peoples set aside national parks. Ecosystem peoples have always lived in the equivalent of national parks.

In an earlier issue of this *Bulletin* (April 1975), the importance of protecting cultural diversity was stressed. One way to accomplish this is protection of those peoples who still live in a spiritual continuum with the natural world. For many of the hunter-gatherers and shifting cultivators who form part of this continuum, survival depends on recognition of their rights to the land they have traditionally occupied. It involves also recognition of their right to maintain a separate existence, apart from the dominant society, and protection of



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this right against those who seek to change their beliefs, modify their customs, or exploit their resources.

The problem of endangered peoples is like that of endangered species. With continued neglect it will solve itself, the people will die, or the species will become extinct. But the loss to humanity will be incalculable. If you believe, as some of us do, that the future depends on our ability to restore, at a higher technological level, the old man/nature continuum, the loss of those who can guide us would be tragic.

R. F. Dasmann

National Park statistics

The 1975 United Nations List of National Parks and Equivalent Reserves, which will be published this month by IUCN, brings evidence of a marked increase in the number of protected areas meeting UN List standards since 1974. The respective figures are:

	1974	1975
National nature reserves	82	117
National parks or equivalent	909	991
Provincial parks	129	244
Total	1120	1352

The increase represents a much improved level of reporting and an upgrading of existing protected areas, particularly in Australia, Canada, Japan and the United States, rather than an increase in the protected areas, system. Actually 1974 was a poor year for increases in numbers of national parks and related reserves. The figures for new areas established which meet UN List requirements for the past 3 years are:

	1972	1973	1974
	46	17	16

More areas were deleted from the UN List in 1975 for failure to meet standards of protection than were established during 1974. The 29 areas deleted were in Brazil (2), Guatemala (1), Philippines (9), Sweden (5), USA (11) and Canada (1).

The ten leading countries in number of protected areas listed are:

1. United States	269
2. Australia	239
3. USSR	95
4. Canada	70
5. Japan	37
6. South Africa	32
7. Chile	27
8. Sweden	26
9. Indonesia	24
10. Brazil	22

The world's ten largest national parks or equivalent reserves listed, in order of size, are:

	ha
1. Northeast Greenland N. P. (Denmark)	70,000,000
2. Central Kalahari Game Reserve (Botswana)	5,280,000
3. Ouadi Rimé-Ouadi Achim F. R. (Chad)	4,892,500
4. Wood Buffalo N. P. (Canada)	4,480,700
5. Salonga N. P. (Zaire)	3,656,000
6. Gemsbok N. P. (Botswana)	2,480,000
7. Polar Bear P. P. (Ontario)	2,380,800
8. Kafue N. P. (Zambia)	2,240,000
9. Etosha N. P. (S.W. Africa)	2,227,000
10. Kluane N. P. (Canada)	2,201,500

Programme Activities

IUCN policy statement on whaling 1975

The IUCN, consequent on resolutions by its General Assembly and Executive Board, has supported the recommendation of the UN Conference on the Human Environment, subsequently endorsed by the Executive Council of UNEP, for a ten-year moratorium on all commercial whaling. The Executive Board considered that it was time, in the light of actions taken by the International Whaling Commission at its meeting in June 1974, to reconsider this matter with a view to advising the forthcoming General Assembly (Zaire, September 1975) whether to modify or to maintain this policy. Having done so, and taken note of views expressed by the Survival Service Commission and by some members of the Whale Specialist Group, the Executive Board has decided that the policy favouring a moratorium should be continued for the time being. Every possible effort should be made to ensure the implementation of that policy, along with a global 10-year research programme on cetaceans.

The reasons for reaching this conclusion are given below.

1. Whaling is still not under unitary control which leaves a significant gap in management by catch quotas. Nearly 10% of world whaling is carried out by states which are not members of the IWC. (Two of these are members of another international organization having responsibility for regulation of whaling by its members, but there is no effective co-ordination between the two bodies.) This situation allows certain member states of IWC to continue to permit their nationals (individually, and through companies) to engage in whaling operations under the protection of other flags, including participation in joint-ventures in other countries.

2. The IWC is permitting intensive exploitation of stocks of whales which had, until now, because of their lesser size and value, not been of much interest to pelagic whaling expeditions. Until 3 years ago the minke was the last species of baleen whale remaining in large numbers and there is insufficient information to estimate the sustainable yields that might be taken from the Antarctic stock of it. On the basis mainly of analogy with other species the IWC Scientific Committee suggested in 1973 a certain quota level; the quota for 1974-75 was set by the Commission at a substantially higher level than that, essentially to maintain the profitability of whaling in the current season. Minke whale hunting is not even subject to a minimum size limit, and for the third year in succession has been caught in the Antarctic in large numbers, the weight of the catch being as much as that of the larger unprotected species.

3. IUCN is not yet convinced that the decision by IWC at its 1974 meeting that all stocks should be

classified in accordance with how near each is to the level at which it can give its maximum sustained yield¹ will be interpreted in the spirit prevailing at that time, considering that the Australian amendment to the US moratorium proposal was described as a 'modified moratorium'.

The IWC Scientific Committee was charged to advise the Commission on the criteria to be applied and on the classifications of stocks. This was a difficult task because of the complex—even intangible—quality of the MSY concept and the inadequacy of data and methods for its estimation. The inclusion of the term 'near to' (MSY level) in the definitions is crucial to the classification of the important stocks of fin whales and sperm whales, yet this qualification is not susceptible to scientific interpretation.

Notwithstanding a number of positive suggestions that have been made by members of the Scientific Committee (notably that the allowable catch from a stock thought to be at MSY level should be somewhat less than the calculated MSY), it remains to be seen whether the 1974 decision will be applied in such a way as to give reasonable assurance that whales will be conserved, with due allowance for errors in assessment. The IUCN understands that proposals under consideration by the Scientific Committee may be retrogressive in several respects:

a) They would permit whaling (albeit at a reduced level) to continue on a stock which was definitely judged to be below the 'best estimate' of its MSY level, down to some arbitrary limit.

b) They provide that where there is some competition among whale species, it may be permissible to exploit some of them to below their MSY levels. There is no convincing evidence to support such a proposition at this time. (If there *were* such evidence it could equally be stated that some stocks or species should be maintained *above* their MSY levels.)

c) They would require that each stock be ultimately brought to the level giving MSY. If this means, literally, that no stock should, under any circumstances, be 'wasted' by being left other than 'fully utilized', the proposal must be challenged. There could be many circumstances in which it is desirable for a resource to be 'held in reserve', or only lightly exploited—even so that it is kept up to an economically worthwhile level.

d) They would continue to focus on numbers rather than weights of whales notwithstanding the facts that available data permit estimation of MSY by weight or by numbers with about equal accuracy; regulation to bring the stock near to that required for MSY by weight is more 'conservative' than by number, giving equal or slightly higher yields from significantly larger 'optimum' stocks, as well as a greater quantity of useful products per unit effort of whaling; the difference between the MSY for weight and for numbers is, in the case of sperm whales, substantial.

The validity of 'MSY' as a central objective of fish and wildlife management is currently a subject of profound criticism among biologists. *At best* it gives guidance as to a level below which the stock should not in any circumstances be depressed. Other factors must also be taken into account, particularly the continued productive rôle of the stocks in question in the ecosystem of which they are significant parts, and the great uncertainties in the estimation of stock levels. Neither can the need to take account of the biological relations among the stocks, with other competitors and with organisms constituting their diets, be met by the mere manipulation of MSY 'estimates'.

4. Other reasons previously given by IUCN for support of a ten-year moratorium remain valid. Data and scientific analyses are still not contributed adequately by all the important whaling countries (including IWC members); many existing data are as yet incompletely analyzed with respect to, for example, the

2 further ratifications, 1 accession for endangered species convention

As the Convention on International Trade in Endangered Species of Wild Fauna and Flora came into effect, notification was received from the Government of the Swiss Confederation of the deposition of instruments of ratification by Peru on 27 June and Costa Rica on 30 June, and of accession to the Convention by Nepal on 20 June.

This brings the total number of parties to the Convention to 15.

changing efficiency of whaling effort and the changes in growth, mortality and reproductive rate of whales; clear evidence of the recovery of most protected species and stocks has yet to be assembled.

IUCN observes also that the IWC decision that not only species, but separate stocks of each should be managed on an individual basis insofar as they can be distinguished, while correct in principle can be applied detrimentally. This is because scientific knowledge is inevitably better in the case of species which have been intensively exploited for many years, such as the fin whale, than for those exploited more recently, such as the minke whale. Thus under the IWC policy, the fin whale may only become partially protected because one or more of the stocks of that species are less reduced from an initial level than the others, even if its stocks as a whole were far below a 'combined MSY level' and the rates of mortality, growth and recruitment in the individual stocks were not known. On the other hand, the minke whale, for which there is insufficient evidence of stock divisions, must be classified as a single IMS, although it is possible that if the status of its individual stocks were known, one or more of them would be classed differently.

In such a situation, it would be reasonable to subdivide an overall catch quota by area. But, in addition, ignorance of stock divisions (as well as of stock dynamics) and the consequent danger of inadvertent depletion of some stocks, calls for relatively more conservative catch limits. The same may be said with respect to the sei and Bryde whales, which, although they are two distinct species, are still regulated by a single quota and minimum size limit.

5. The IWC Scientific Committee has reported that at least for some whale stocks food supply is a limiting factor, so plans to exploit the animals on which whales depend for food pose a threat to the eventual recovery of depleted stocks. This is a further reason for favouring the most rapid possible recovery of whale stocks—which a moratorium would ensure. Not only is active development starting in the Antarctic with respect to euphausiids (krill), but we may expect the capelin—an important food fish of fin, sei and minke whales, as well as of seals and larger fishes, in the North Atlantic—soon to be exploited more intensively for fish meal and oil production. Even the sperm whale may be affected by the growth of offshore fisheries for squids. Thus, a level of whaling which might have been tolerable in the past will not be sustainable when the food supply is also being exploited directly and intensively by man, as seems likely to happen in the next decade.

It is emphasized that the cetacean research programme is an integral part of the moratorium policy. It is not sufficient merely for such a programme to be formulated (as the IWC Scientific Committee and the ACMRR of FAO as well as the IUCN Whale Specialist Group have begun to do); it must be funded. International funding should be sought, because the whole world community has a stake in the future of the cetaceans, and of the marine environment they inhabit (especially the Antarctic Ocean, which may soon be

exploited in other, and again uncontrolled, ways). In addition, however, substantial contributions should be expected from those nations which have profited, and those which continue to profit, from the exploitation—especially the excessive exploitation—of the whale resources. Funding should provide, *inter alia*, for maintaining present research programmes whose continuation would otherwise be threatened by the cessation of whaling, and which do not depend on the examination of dead whales in numbers which could only be available from commercial catches or by making large catches especially for research purposes. In addition, although capture of whales for research purposes would probably be necessary during a period of moratorium, this should be permitted only under an internationally supervised licensing system and with great restraint. A higher priority should be given to the study and evaluation of existing data and biological materials than to the acquisition of more samples.

The General Assembly of IUCN (Zaire, September 1975) will decide on future IUCN policy with the above observations in mind and in the light of decisions to be taken by the IWC in June 1975, as well as any subsequent objections by IWC member states under the 90-day rule. Meanwhile, the IUCN Secretariat is communicating these observations to other interested organizations, including especially those others having global scope and continuing concern, such as UNEP and FAO.

¹ *Protection stocks (PS)*—now below MSY level, and fully protected

Sustained management stocks (SMS)—at or near MSY level, and from which MSY can be taken

Initial management stocks (IMS)—above MSY level and which may be reduced in a controlled manner

International Whaling Commission Meeting 1975

The 27th meeting of the International Whaling Commission took place in London from 23-27 June.

The proposed ten-year moratorium was not included in the agenda. In 1974, the Commission accepted what was described as an alternative proposal designed to manage whale stocks individually and to eliminate exploitation of depleted populations. Under this scheme, all whale stocks are classified into one of three categories: (i) *initial management stocks*, which may be reduced in a controlled manner to achieve maximum sustained yield (MSY) levels and then optimum levels as these are determined, (ii) *sustained management stocks*, which are to be maintained at or near MSY levels and then at optimum levels as these are determined, and (iii) *protection stocks*, which are below the level of sustained management stocks and which should be fully protected.

Much discussion in the 1975 meeting was concerned with the definition, in practical terms, of what constituted a sustained management stock. It was finally agreed that it should be defined as one that is not more than 10% (of the MSY level) below the MSY level and not more than 20% above that level. Stocks between MSY level and 10% below that level can be exploited, but quotas are to be calculated from a formula that will ensure restoration of the stock to MSY level within a few years. The permitted catch for stocks at or above the MSY level is not to exceed 90% of MSY. The only exception to this ruling involves sustained management stocks of sei whales in the Southern Hemisphere, which will be exploited according to a different formula that will allow for a higher catch in the 1975/76 season. The situation is to be reviewed.

Most of the world's great whale stocks on which data are available were classified in one of the three

main categories, and these classifications are to be entered into the IWC schedule.

Application of the new management procedure will result in fairly substantial reductions of catch quotas for some species for the coming seasons compared with those for last year. In the Southern Hemisphere, which is now divided into six areas, each with its own quota, the total quota for fin whales in 1975/76 is reduced by 780 to 220, for sei whales by 1770 to 2230, for minke whales by 190 to 6810. Male sperm whales are reduced by 2130 to 5870, and female sperm whales are reduced by 130 to 4870. In the North Pacific the total quota for fin whales in 1976 is reduced by 300 to nil; sei and Bryde's whales are reduced by 637 to 1363 (quotas for these species are now separated, the sei whale quota is nil and the 1976 quota refers to Bryde's whale only), male sperm whales are reduced by 800 to 5200 and female sperm whales by 900 to 3100. Catches (of fin and minke whales) in the North Atlantic are to be held at present levels and, from now onwards, are to be included in the IWC schedule. Minke whale catches in the North Pacific are also to be held at present levels, and data on these catches have been requested to permit adequate calculation of stock sizes and quotas in the future.

It was stated during the meeting that the Soviet pelagic whaling fleets are to be reduced from three to two; the Japanese delegation hinted that their four pelagic fleets may also be reduced in the foreseeable future.

A series of suggested amendments to the IWC Convention and its schedule are to be delayed until certain decisions relating to whaling have been resolved at the Law of the Sea Conference. In the meantime, the amendments are to be circulated to member governments for examination and comment.

There are no proposals at present to include specific reference to small cetaceans in the revised convention. As an initial move towards greater involvement in this field, however, the Commission has agreed to take account of small cetaceans subjected to deliberate fisheries, and statistics on these fisheries, multi-species fisheries and incidental catches in tuna fishing are to be collected. The Small Cetacean Sub-Committee is to be retained as a permanent advisory body.

A resolution was approved calling for fresh initiatives and expanded support from member nations for the International Decade of Cetacean Research and reiterating the importance of assistance from the United Nations Environment Programme. The IWC Scientific Committee's proposed programme of research has now been received by UNEP, and additional proposals from FAO/ACMRR are expected before the end of the year.

In regard to long-term conservation, it should be noted that the majority of the items raised in the IUCN Statement remain unresolved. The Commission continues to move with painful slowness over the very necessary promotion of study and management of small cetaceans. On the other hand, the acceptance of the new management procedure has effected a substantial proportional reduction in catch quotas (the coming seasons' quotas are some 8600 whales less than last year), it has firmly established management by individual stocks, at least in the Southern Hemisphere, and, most important, it has virtually eliminated the exploitation of seriously depleted whale populations by IWC member nations.

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Project Tiger, India reports progress

The Indian Cabinet Minister who is Chairman of the Wildlife Board and of 'Project Tiger', Dr. Karan Singh, visited Morges in May to discuss the progress of 'Project Tiger', the Indian Government's six-year plan which was launched on 1 April 1973. The World Wildlife Fund has pledged \$1 million from its international campaign, 'Operation Tiger', and the Indian Government has made an allocation of \$4.5 million.

Project Tiger is now in full swing, with nine special reserves representative of various typical habitats established and staffed with field directors and assistants totalling over 500 persons. The operation comes under the control of a directorate in the Ministry of Agriculture.

The World Wildlife Fund has supplied equipment for each reserve and for headquarters. Detailed management plans were examined by IUCN ecologists, Drs. Duncan Poore and Colin Holloway, when they visited India last December.

Construction of roads, waterholes, buildings for protection staff, fire protection and anti-poaching measures are in progress. More effective protection is reflected in increasing numbers of ungulates and tigers, especially in the reserves of Bandipur, Ranthambour, Kanha and Melghat.

Sariska and Periyar sanctuaries are now proposed for inclusion in 'Project Tiger'. The WWF International Children's Safari saw tigers at Sariska in March, and the sanctuary's inclusion was suggested as a commemoration of the children's visit. Sariska is 200 km southwest of Delhi and Periyar lies on the Western ghats in the southern state of Kerala.

Conservation Notes

Tamaraw picture brightens in Philippine reserves

From more than 10,000 animals around the turn of the century, the tamaraw had been reduced to three small populations estimated at 100 in total. Two large sanctuary areas, Mt. Iglit and Mt. Calavite, had been established on Mindoro, the fifth largest island in the Philippines and home of the tamaraw, but none of the protective legislation was being observed.

Through the efforts of the late Charles A. Lindbergh, Professor Tom Harrisson and a few concerned local officials, and with the energetic backing of the President of the Philippines plus financial help from WWF and the Fauna Preservation Society, action was taken to enforce existing legislation and to set up further safeguards for the tamaraw.

Recent information from the Mt. Iglit refuge indicates that the tamaraw is doing well. The population has increased to about 80 animals, and calves born since protection was extended are now reaching reproductive age, so the most critical period has passed. It should reach a secure level within a few years, but then lack of habitat will limit the herd. Large areas of the 75,000 ha of the refuge are too rugged for tamaraw, and much of the remainder is being ranched.

This Iglit tamaraw population may be the only one with a future. The species' security requires the establishment of other populations including captive herds. Breeding is being encouraged and if the two cows and a bull tamaraw in the Manila Zoo do not reproduce, some tamaraw could be removed from Iglit in the future.

The foregoing information came from David Kuehn, who worked at the Iglit reserve, in a recent letter to Professor Harrisson.