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Comment

Habitat and habitats

From 31 May to 11 June, the world's governments, assembled in Vancouver, will debate the crisis of the human habitat—the rising tide of people flowing from rural hardship to urban squalor. (Please see back page for a brief guide to Habitat).

Whether the decision-makers agree to stem that tide, to contain it in the reservoirs of megalopolis, or to divert it into yet unbuilt channels of rural development, is of central concern for conservationists. We are unlikely to solve the problems of the habitats of plants and animals if there is no solution to those of the habitat of man.

People who move to cities do not relinquish their demands on the countryside. If anything, the impact of their demands intensifies, because agriculture and the exploitation of natural resources—deprived of skilled rural labour—take on more destructive forms.

Of the modes of development formulated so far, ecodevelopment (development which takes the fullest sustainable advantage of local natural resources and of local cultural adaptations to them) offers the greatest hope of reconciling the need to eliminate poverty with the need to conserve the maximum variety of species and habitats.

However, ecodevelopment cannot occur if rural populations continue to be sucked into the shantytowns and slums of the cities.

At Habitat, conservationists have an invaluable opportunity to meet decision-makers from all over the world, and to press on them the case for fostering an ecodevelopment approach to human settlement problems.

It would be a pity if they missed that opportunity, either by taking an extreme environmentalist position that delegates may dismiss as callously irrelevant, or, worse, by ignoring the conference altogether.

Robert Allen

Mediterranean lands begin Sea rescue

Mediterranean coastal states are at last coming to grips with the Sea's difficult pollution problem. On 12 February in Barcelona, Spain, a plenipotentiary conference of all but two of the 18 Mediterranean coastal states adopted a package of legal and other measures which commit them to protect the Mediterranean.

The legal instruments adopted and signed in Barcelona consist of a convention and two protocols. Under the convention governments bind themselves to take "all available measures" to reduce and prevent pollution from all major sources. The protocols specify the measures that are agreed to be appropriate for two of these sources: dumping and emergencies.

The dumping protocol is tougher than the London dumping convention which came into force on 30 August last year. Both prohibit the dumping of organohalogen compounds (such as DDT), mercury, cadmium, persistent plastics, crude oil and other petroleum hydrocarbons, and high-level radioactive wastes. But the Barcelona protocol also bans organosilicon compounds, all petroleum hydrocarbons (the London formulation is much less embracing), and both medium-level and low-level radioactive materials.

The emergencies protocol commits governments to cooperative action in the event of accidents, principally oil spills, and dangerous accumulations of oil and other pollutants. Among the procedures agreed is that states will make available to a state threatened by an emergency, equipment, expertise and other facilities to reduce or eliminate the danger.

To back up their efforts to cope with oil spills, governments have also agreed to set up a regional oil-combatting centre in Malta. This will receive and transmit reports of spills, and when necessary help coordinate remedial action.

A list of the 16 countries represented at Barcelona demonstrates how impressive an achievement is their unanimous adoption of these measures. Reading clockwise from Barcelona they are: Spain, France, Monaco, Italy, Malta, Yugoslavia, Greece, Turkey, Cyprus, Syria, Lebanon, Israel, Egypt, Libya, Tunisia and Morocco. Clearly, as Peter Thacher, Director of

UNEP's Geneva Office, which is responsible for UNEP's Mediterranean activities, commented: "The political leaders of the Mediterranean have overcome the divisive issues of today to discharge collectively their responsibility to protect their common heritage".

The success of the conference augurs well for an ambitious action plan, involving cooperative action by Mediterranean governments, UNEP and other international agencies on four related fronts: scientific, legislative, institutional, and planning.

Of particular interest to conservationists is the planning front. UNEP is establishing an integrated planning activity to help governments reconcile the demands of development with the need to protect and improve the quality of the Mediterranean environment, with a view to the optimal utilization of its resources.

A large number of present and planned activities have impacts (sometimes damaging) on the environment. These are being identified, and ways of evaluating their severity together with measures to reduce such severity are being developed. UNEP collaborates closely not only with the governments concerned but also with sources of international assistance, which finance many of these activities, like IBRD.

IUCN is one of the many international organizations contributing to the action plan. It is helping Mediterranean states to identify marine parks and wetland areas deserving greater protection, and providing guidelines on their management so that their importance for fish resources, tourism and scientific research can be sustained and, if possible, enhanced.

The medium term prospects are of an institutional machine for developing and maintaining a substantial common resource to the mutual advantage of all the nations sharing it. The Mediterranean action plan could well prove a model for many other groups of nations with a common resource like a sea or a catchment area.

IUCN Programme

The progress report on the Programme adopted by IUCN's 12th General Assembly continues below.

In this issue we report on Operation Tiger and the Tropical Rain Forest campaign.

Operation Tiger

Operation Tiger was launched as a campaign to raise \$1 million by HRH The Prince of the Netherlands, President of the World Wildlife Fund, on 27 September 1972. Fund-raising was very successful and reached a total of \$1.5 million, and projects are now under way in India, Nepal, Indonesia, Bangladesh and Thailand.

India

Projects 1000 and 1002-10, Panthera tigris tigris

A comprehensive six-year programme entitled Project Tiger was launched by the Government on 1 April 1973, with a Cabinet Minister, Dr Karan Singh, in charge, and a special Directorate, headed by Mr K. S. Sankhala, established in the Ministry of Agriculture. A sum of \$4.5 million has been allocated by the Government of India for the six years, and the World Wildlife Fund is contributing \$1 million in addition.

The first year was taken up with complex negotiations with State Governments having responsibility for forests and wildlife, and with the establishment of the administrative machinery. Nine tiger reserves have been declared—Manas (Assam), Palamau (Bihar), Simlipal (Orissa), Corbett (Uttar Pradesh), Ranthambhor (Rajasthan), Kanha (Madhya Pradesh), Melghat (Maharashtra), Bandipur (Karnataka), Sunderbans (West Bengal)—in areas which had long been wildlife sanctuaries. There are in addition 125 smaller sanctuaries where the tiger is protected.

Under the Wildlife Protection Act of 1972 there is a complete ban on tiger hunting.

WWF/IUCN Assistance

Equipment

25 vehicles; 2 jet speedboats for Sunderbans Tiger Reserve; 2 camels with saddles and harnesses for Ranthambhor Tiger Reserve; complete radio networks; cameras and slide projectors; guns; binoculars; books and periodicals.

Scientific advice

Detailed management plans were prepared by the Indian authorities and examined by IUCN ecologists Dr Duncan Poore and Dr Colin Holloway, who subsequently spent three weeks on field trips to the reserves and consultations

with Indian project staff. Schemes for ecological monitoring are being developed with the assistance of IUCN contacts.

In March 1976, a study of the project and progress so far was carried out by a leading Indian scientist in association with Professor Paul Leyhausen, Chairman, IUCN Cat Group, and Dr Holloway. They will make recommendations for future development.

In April 1976, Dr David Mech and Dr Ulysses S. Seal, American specialists in animal trapping, tranquillization and telemetry will give a course of instruction.

Progress in the field

All the nine tiger reserves had long been in existence as sanctuaries where the wildlife was protected, although little active management was carried out. Under Project Tiger each reserve has a Field Director with a staff actively engaged in management as well as protection.

The tiger population in the reserves is reported to have increased and most of them are probably near their carrying capacity. However the reserves contain only about one-third of the 1800 tigers counted in the country-wide census of 1972, and an overall assessment of success awaits the new census.

There appears to have been a decline in poaching of tigers, but there have been recent discoveries of skins in Delhi and Calcutta which indicate that contraband traffic is still going on. Japan appears to be the principal market.

The work in the reserves has included shifting of villages from Kanha National Park to alternative land outside, resulting in re-colonization of the vacated meadows by large numbers of deer, which are one of the main prey species of tiger. Fire-watching towers and guard posts have been built, and radio networks are being installed, following lengthy surveys.

Nepal

Projects 1012-14, Panthera t. tigris

Reserves for tiger have been established in the Royal Chitawan National Park in the Rapti Valley, the Royal Karnali Wildlife Reserve, and the Royal Sukla Phanta Wildlife Reserve, both in western Nepal. Chitawan is also notable for its population of some 200 great one-horned Indian rhino (*Rhinoceros unicornis*), and Sukla Phanta for some hundred swampdeer (*Cervus duvauceli*).

The projects are being run by the Nepal Government's National Parks and Wildlife Conservation Department, which has the assistance of a FAO/UNDP project which includes technical staff.

Vehicles and tractors and accessories have been provided as well as funds for capital expenditure on guard posts and fencing. A conservation education project is being supported.

Scientific work

Under Project 1051, an ecological study of the tiger using telemetry is now in its third year, under the management of the Smithsonian Institution. Some leopard as well as tiger have been fitted with radio collars, and valuable information about the movements of these big cats is being collected.

Bangladesh

Project 1011, Panthera t. tigris

Largely due to Bangladesh's internal problems the project has been slow in starting. Three small sanctuaries are proposed in the Sunderbans, the great mangrove jungle fringing the Bay of Bengal, which may still contain the largest discrete tiger population in the Indian sub-continent. Although Government-supervised forest operations are carried out, there is very little permanent human settlement in the area. The tiger has legal protection.

Indonesia

Project 1015, Panthera t. sondaica

Only about a dozen Javan tigers are believed to survive in Meru Betiri in eastern Java. Finance has been provided for guards and their equipment, and an ecological study is about to be launched.

Project 1016, Panthera t. sumatrae

A survey was carried out during 1975 indicating that about 800 Sumatran tigers may survive, but that they are being killed off at a rate of around 100 a year despite legal protection. Proposals have been made for reserves.

Project 1017, Panthera t. balica

A survey in 1974 re-inforced fears that this sub-species is extinct.

Thailand

Projects 1019-20, Panthera t. corbetti

These projects are new ones included in the 1976-77 WWF/IUCN Conservation Programme, and cover the Indo-Chinese tiger (*P.t. corbetti*) in the Khao Yai National Park, and the reserves of Kha Khaeng, Tung Yai and Salak Pra. Vehicles, radio networks and funds for capital expenses will be provided.

Turkey

Project 1021, Panthera t. virgata

A new project in the 1976 Conservation Programme, this will cover a status survey of the Caspian tiger (*P.t. virgata*) in Eastern Turkey, where individuals have been shot in recent years. The status of the rare Anatolian leopard (*P.p. tulliana*) will be made at the same time. Iran's Department of Environmental Conservation has been carrying out investigations on its side of the border, but without conclusive evidence of tiger.

Tropical Rain Forest campaign

Conservation review of tropical rain forests

Last month's summary of urgent action proposed in the conservation review of tropical rain forests in Asia and the Pacific continues here.

6. Philippines

a. In 1972, the Parks and Wildlife Office was merged into the forest department as one of seven divisions of what is now the Bureau of Forest Development. As a result, all park and wildlife affairs have been subordinated to forestry. This situation is very unsatisfactory.

b. The national parks face several serious problems. Their boundaries are not marked, so entry is unrestricted and hunting and forest-produce collecting not controlled. Shifting cultivators have moved into most parks, though sometimes only peripherally. Some Government departments appear ignorant of the nature and purpose of a national park, as townships have been formally declared within several and timber leases have been granted in others. All national parks and equivalent protected areas need to be demarcated and policed.

c. The 3,000 ha Aurora Memorial National Park in Luzon covers the crest and flanks of an east-west running range of hills, clothed in forests from 600 m down to about 100 m on both sides. The forests to the south have been damaged, but to the north are still more or less virgin as far as the horizon. On both flanks, however, timber concessions have been granted up to the Park boundary. The District Forest Officer has recently proposed selective logging to 60 m from the road which traverses the length of the Park for "stand improvement". The Park urgently needs to be extended and licences to log should be rescinded.

d. The 73,000 ha Mount Apo National Park in Mindanao is of vital importance as the flora, vegetation and fauna reserve for the important biota of Mindanao. There are several endemic animals and it is a centre of concentration of the endangered monkey-eating eagle, whose long term survival depends on the continuing existence of a large tract of rain forest. A proposal has recently been made and endorsed by the Directorate of the Bureau of Forest Development to reduce the Park to 13,000 ha and release the rest for logging and settlement. The proposal needs further investigation and then well-argued confutation.

e. A phosphate mining concession has been granted in the 900 ha Bulabog-Putian National Park in Panay. The extent of the licence needs study.

f. An extensive area of lowland dipterocarp forest (believed to be under license

though logging has not yet started) is contiguous to the 3,000 ha St Paul Underground River National Park in Palawan. The Park has outstanding potential as a tourist and conservation area and northward extension to include the forest is essential.

7. Papua New Guinea

Most of the land is under local community tenure, even where uninhabited. In this the situation differs from countries further west, in which vacant land commonly belongs to the State, and the consequences for forest use and land development are profound. There are only three National Parks, and more will be needed if the various formations are to be adequately conserved. Five new Parks covering the most important areas have been proposed.

8. Australia

a. Queensland. Tropical rain forests are found north of 21° S on the mountains along the east coast. The north Queensland rain forest is of world interest because of its high concentration of primitive, relict, taxonomically isolated species and genera. Much of the forest at low and medium elevations has been selectively logged for up to nearly a century, and only about half of the major floristic types are included in existing reserves. Most of the land is crown land and is mainly held as state forests or timber reserves.

b. Christmas Island. This island, 320 km south of the Sunda Straits, is administered by Australia. Most of the rain forest has been destroyed by mining, though pockets should remain and these are important as bird breeding grounds.

9. British Solomon Islands Protectorate

a. *Agathis macrophylla*, an important tree endemic to Vanikolo and Ndeni, the two main islands of the Santa Cruz archipelago, has been virtually logged out from Vanikolo. The Ndeni stands are now being logged. There is an urgent need to conserve a representative tract on this island.

b. On most islands the primary lowland forests have been destroyed. Kolombangara is unusual in possessing a fine sweep of primary forest from near the shore to the summit at over 1500 m. It is recommended as a matter of urgency in view of the timber exploitation taking place that a segment of natural forest from the sea to the crater summit be chosen as a biosphere reserve. The Solomon Islands have a very important avifauna. Many species have evolved different races or subspecies on adjacent islands, notably in the New Georgia Islands, which have become classic examples of speciation. Kolombangara has the richest assemblage, and conservation of a substantial block in the centre of the island plus a corridor to the coast is essential in order to retain a big enough area for all these species to continue to coexist.

c. Rennell Island is the world's largest raised coral reef. It has for its size a very

large fauna, rich in endemics. There is a proposal currently under consideration to mine bauxite and also to remove much of the forest cover for wood chips. The latter would have a serious effect on the terrestrial fauna and vegetation. The Rennell islanders are reported to live in equilibrium with the forest, which they utilize as a source of food and building materials. Urgent and careful consideration needs to be given to the long-term harm likely to be done if extensive forest clearance were permitted.

10. New Hebrides Condominium

No conservation areas exist. Conservation of an adequate sample of the populations of *Agathis obtusa* is desirable. This species, together with *A. macrophylla* of the Santa Cruz archipelago to the north, is probably the most important in the whole genus for development as a plantation tree, and *Agathis* is potentially one of the most valuable genera of tropical conifers for plantation use.

11. Fiji

Montane forests are perhaps adequately conserved in protective Forest Reserves and the two existing National Parks. Lowland and beach rain forest are probably inadequately represented, but are included in three new conservation areas proposed.

12. Thailand

The evergreen rain forest of the far south of the peninsula is a valuable timber reserve. It is desirable that a reserve be declared there soon.

13. India

Tropical rain forest formations are restricted to the Andaman Islands (and possibly the Nicobars), the Himalayan foothills in Assam and a narrow belt along the western Ghats. The conservation situation in the Andamans has been the subject of a separate survey, which will be reported in a later issue of the *Bulletin*. There is also an IUCN/WWF project to survey the western Ghats.

14. Sri Lanka

Timber extraction has recently begun in Sinharaja Forest, perhaps the only true primary tropical rain forest in the country. The status of this forest should be assessed as a matter of urgency.

15. Other

Although tropical rain forest formations occur in Burma and Bangladesh, no recommendations for urgent action have been made. There is insufficient information for an assessment of the status of tropical rain forests in Cambodia, Viet Nam and Laos.

Next month, we report on the following programmes: East Africa, West and Central Africa, Northern and western Europe, Conservation of selected animal groups, and International conventions.

News from Members

News from Members is a new section of the *Bulletin*. Its object is to provide members of IUCN with news about the activities of other members of IUCN. Its success will depend on membership participation, and we invite all members to send information which would be of interest to other members to Special Assistant for Membership, IUCN, 1110 Morges, Switzerland.

44th State Member for IUCN

IUCN has been notified that the Government of Israel adheres to the IUCN Statutes and has decided to become a State member of the Union. Israel thus becomes IUCN's 44th State member. The Environmental Protection Service will serve as the agency responsible for liaison with IUCN for all membership matters.

Bombay Natural History Society

The Bombay Natural History Society was founded in 1883 for the study of the fauna and flora of the Indian and the Oriental regions. Through publications, films, field trips and talks the Society continues to create interest in nature among amateurs and lay public, and thus helps in focusing official and public attention on the need to properly understand, conserve and develop the rich and varied wildlife of the country. The Society's Journal, started in 1886, is in its 73rd volume of unbroken publication, and forms an indispensable work of reference on the natural history of India and the Oriental Region.

The Society has throughout its history played an important role in the framing of game laws, creation of sanctuaries and national parks, and preservation of threatened species in the country. Two such examples in recent years are the creation of the Keoladeo Ghana Waterbird Sanctuary which is a breeding ground for the indigenous waterfowl, and a winter refuge for a large proportion of palaeartic migratory birds, and the saving of the Borivli National Park in Bombay from being encroached by a highway.

The expansion and maintenance of the Society's work largely depend on the interest and participation of naturalists all over the globe. Membership is international and is open to persons interested in natural history. Membership fees inclusive of the Journal are: Ordinary, £3.50 (\$8.25) annually; Life, £41.70 (\$100); Entrance fee, £1.40 (\$3.35).

Publications: Popularly written books on birds, butterflies, fish and fishing, mammals, trees, climbers and shrubs written in English, as well as booklets chiefly aimed at educating children and novices, in English and local languages. Three numbers of the Journal comprising a volume are issued in English during a calendar year.

Americans to monitor government overseas

The American Committee for International Conservation has formed a special committee to monitor US government overseas projects which may have adverse conservation effects.

Members of the Union in other nations are invited to inform the American Committee, through IUCN, if they become aware of such projects. All available information should be supplied.

The American Committee, through its affiliate organizations, will also endeavour to take action if it is informed about actions of US-based corporations which may have adverse conservation effects.

Kenya National Parks and Game Departments amalgamate

On 10 February 1976 H. E. President Jomo Kenyatta gave his assent to the Kenya Wildlife (Conservation and Management) Bill.

The Act came into operation on 13 February, when the Wildlife Conservation and Management Department came into being.

The Wildlife Department's institutional arrangements are being worked out. In the interim, the Permanent Secretary, Ministry of Tourism and Wildlife, who is responsible for the administration of the new law, has been appointed as the Acting Director of the new department.

Writes Perez Olindo, Permanent Secretary of the Ministry and Acting Director of the new department: "The new law has gone a long way to consolidate and enhance the cause of wildlife in Kenya. A firmer basis has been established for a secure future for Kenya's wildlife resources."

Tyler Ecology Award

Three prominent scientists, Dr Charles Elton, Oxford University; Dr Rene Dubos, The Rockefeller University; and Dr Abel Wolman, The John Hopkins University, will share the third annual Tyler Ecology Award.

The Tyler Ecology Award, inaugurated in 1970 by John C. Tyler, is the largest single prize of its kind in the world, surpassing the Nobel Prize. The \$150,000 tax-free award was established to recognize the "individual or team of individuals working on a common project whose accomplishment has been recognized as conferring the greatest benefit on mankind in the fields of ecology and environment".

According to Col. George C. Bales, director of the award, "a majority of the Selection Committee agreed to divide the award among the three", he said, "because each of these scientist's accomplishments are so outstanding".

Tom Harrisson

Tom Harrisson and his wife Christine were killed in a highway accident in Thailand on 16 January 1976. Tom was returning from Borneo, where he had spent much of his professional life, to attend a meeting of the Steering Committee of IUCN's Survival Service Commission.

An anthropologist, Tom made his first visit to Borneo in 1932 with the Oxford University Expedition. His book, *Borneo Jungle*, based on that first visit, showed him to be a perceptive naturalist as well.

He returned to Sarawak in 1944, a Major in the British Army, parachuting into Kelabit uplands to organize resistance against the Japanese. His exploits won him the DSO. After the war, he served as Officer Administering the Interior and then as Government Ethnologist and Curator of the Sarawak Museum. There followed numerous books, beginning with *World Within*, and papers in the *Sarawak Gazette* and *Sarawak Museum Journal*. His interests ranged from archeological research in the Sarawak River delta and the Niah Caves to zoological research on the Turtle Islands. He received his OBE in 1959. He served as Special Operations Executive in the Brunei rebellion of 1962.

Long associated with IUCN, Tom's intimate knowledge of the wildlife and people of South East Asia made him an invaluable resource. Writing in *Oryx* magazine in 1974, he severely but good-humouredly criticized the mammals volume of the *Red Data Book* partly on the grounds that it relied on western scientists to "discover" information about species long and more accurately known to the native people. With his former wife, Barbara, he founded the IUCN-sponsored Orang Utan Recovery Scheme and did much to suppress the smuggling trade in the great apes. He became a leading authority on marine turtles and contributed much to SSC's Marine Turtle Group on which he served as co-chairman with Archie Carr.

Tom had a large role in the establishment of the Brunei Museum, of which he became Curator, and the *Brunei Museum Journal*, to which he was a frequent contributor. His full-time residence in Borneo ended in 1969, but he returned annually, and the Sultan of Brunei honoured him with a Datoship in 1973.

On leaving Borneo, Tom became a lecturer in Cornell University South East Asia Programme and, subsequently, a professor at Sussex University.

He undertook numerous special missions for IUCN in various parts of the world. One, with the late Charles Lindbergh, to the Philippines was outstandingly successful in winning official support for protection for both the monkey-eating eagle and the tamaraw. At the time of his death, he was planning to return to the Philippines for the Survival Service Commission, to make preliminary arrangements for a memorial there for General Lindbergh.

Tom was 64. He and Christine were cremated at Wat Tathong, a Buddhist retreat a short distance from Bangkok.

Books

The other energy crisis: firewood

by Erik P. Eckholm

pp 22, \$1

The politics and responsibility of the North American breadbasket

by Lester R. Brown

pp 43, \$2

Women in politics: a global review

by Kathleen Newland

pp 45, \$2

Energy: the case for conservation

by Denis Hayes

pp 77, \$2

Worldwatch Papers 1, 2, 3, and 4 respectively.

These papers, the first four in a series being published by the Worldwatch Institute, examine firewood, food, women, and energy.

Erik P. Eckholm indicates that one third of mankind is directly affected by firewood scarcity. As world wood supply dwindles, demand for fossil fuels increases. "What is unfortunate", Eckholm calculates, "is that the amount of wood burned in a particular country is almost completely determined by the number of people who use it". Ninety-nine per cent of the populations of Tanzania and Gambia, and 97 per cent of that of Thailand, use wood as their major source of fuel.

When peoples reduce the productivity of their land by burning animal dung, as they are doing in some regions now, they are either going to have to import food or draw on emergency food reserves. Lester Brown, director of Worldwatch and author of the second paper on food, reports that world grain reserves have been steadily dropping, and rather sharply, during the past few years. Noting that the world is becoming overwhelmingly dependent on North America and its food supplies, Brown calls for the development of a global food policy. He candidly recognizes that the USA and Canada are probably going to be put in the "uncomfortable position of having to decide who would get the food and who would not". Brown outlines a global strategy, stressing the need to slow overconsumption and population growth.

To consume less we needn't suffer; we can actually profit. A strong energy conservation programme would save consumers billions of dollars a year. In the fourth paper, Denis Hayes contends that half the US energy budget consists of waste. If Americans were simply to improve the efficiency of existing uses and utilize waste energy, the energy budget could be cut by more than 50 per cent without changing the nation's standard of living. Sweden, for example, uses approximately a third of the waste heat from power plants for commercial purposes; "the US recaptures essentially none".

All four papers present the most current research in their problem areas and the authors draw their conclusions without bias. Kathleen Newland does not hesitate to remark on the progress of women in the USSR or China, whereas Brown assails the Soviet Union for "flagrantly violating" agreements made at the UN World Food Conference in 1974. To ignore the global politics of today is to turn one's back on tomorrow. "Deteriorating ecological systems have a logic of their own", Eckholm concludes. "The damage often builds quietly and unseen for many years, until one day the system collapses with a lethal vengeance. Ask anyone who lived in Oklahoma in 1934, or Chad in 1975".

Papers are available from the Worldwatch Institute, 1776 Massachusetts Avenue, NW, Washington, DC 20036, USA.

E. Kemf

Losing ground: environmental stress and world food prospects

by Erik P. Eckholm

Norton, pp 223, \$3.95

This book is essential reading for all conservationists working in developing countries, and indeed anyone interested in land and natural resource use, particularly in the tropics.

Losing ground was co-sponsored by the Worldwatch Institute and UNEP, and benefits from consultations with authorities on the subjects covered, as well as from a thorough reference to the literature and interviews in the field. The book is a reliable, up-to-date and enormously readable and enlightening introduction to such pressing problems as deforestation, desertification, the misuse of irrigation systems, and soil conservation.

Perhaps Eckholm's study is most valuable for its revelations of how basic—and hence almost intractable—are the environmental problems of many developing countries' rural poor. One chapter covers the same ground as the Worldwatch Paper 1 reviewed above: firewood. Conservationists should read it, if for no other reason than it shows the necessity of providing local peoples with alternative sources of firewood, or of heating and cooking, if their fast vanishing woodlands and other plant resources are to be saved.

The interdependence of mountains and lowlands, and the importance of conserving montane forests, are also ably dealt with, and the chapters on desertification and the devastation of tropical rain forests summarize much useful information. If anything, however, these chapters bring out what is perhaps the only major weakness of the book: the absence of any considered discussion of practicable solutions to these daunting environmental problems. The reader is left depressingly well-persuaded that the world's tropical and sub-tropical lands are being abused and misused; but an appraisal of ecodevelopment or any other idea for ameliorating the prospects of the rural poor is absent.

Perhaps such an appraisal is to come from the intelligent and productive pens of the Worldwatch team. In the meantime, this criticism should not be allowed to dissuade readers from buying a book which, at \$3.95, is uncommonly good value.

R.A.

Portraits in the wild: animal behaviour in East Africa

by Cynthia Moss

Hamish Hamilton, pp 363 (pp 32 of half-tone plates; pp 4 of colour plates), \$5.95

Oh no, not another popular book on East African mammals. Yes, but this is one with a difference. *Portraits in the wild* is very much science, and scientist, oriented. Cynthia Moss spent seven and a half years working first as a research assistant with Ian Douglas-Hamilton and the elephants in Lake Manyara National Park, and then with scientists on projects concerned with a number of Africa's other most interesting mammals.

The result is this book—an impressive assembly of well-written, well-researched chapters on the elephant, the giraffe, the black rhinoceros, zebras, five species of antelope, baboons, the big cats (lion, cheetah, and leopard), and the spotted hyena. A worthwhile addition to any library.

World directory of environmental organizations, 2nd edition, 1976

edited by Thaddeus C. Trzyna and Eugene V. Coan, with the assistance of Judith Ruggles

Sequoia Institute, pp 288, \$18

The expanded second edition of the *World directory of environmental organizations* was published in January, 1976. Edited by the Sierra Club, a major US conservation organization, with the cooperation of IUCN, the book lists some 3,200 organizations—governmental and non-governmental, national and international—in nearly 200 countries. A detailed user's guide identifies organizations by their interest in specific problems (e.g., air pollution, deserts, wildlife). The second edition has twice as much information as the first, issued in 1973.

Copies are available from the Sequoia Institute at Claremont, P.O. Box 30, Claremont, California 91711, USA.

New IUCN publication

The following publication has recently appeared in the IUCN Occasional Paper series:

The Distribution of Protected Areas in Relation to the Needs of Biotic Community Conservation in Eastern Africa by Hugh F. Lamprey. IUCN Occasional Paper No. 16, 85 pp, US\$ 5.00, including surface postage.

A brief guide to Habitat

Habitat is the name for the UN Conference on Human Settlements. It covers both rural and urban habitations, the infrastructure and services they require, and the political institutions they create.

Habitat will be held in Vancouver, British Columbia, Canada, from Monday 31 May to Friday 11 June, 1976.

Invitations are going to all UN member governments (currently 144) plus UN-recognized liberation movements. A total of about 2,000 official delegates are expected: more than at previous conferences. There will also be an NGO forum. More than 2,000 representatives of NGOs are expected.

What is the crisis?

Habitat will focus global concern for the human environment onto the places where nearly all people live: villages, towns, cities. It is here that the environmental crisis is at its worst. Urban settlements are growing twice as fast as total populations, and the big cities are growing twice as fast again. Forecasts suggest that the numbers of people living in urban settlements in developing countries will grow threefold — from 460 million in 1970 to 1,440 million in the year 2000. There may be an urban megalopolis of 10 million and more around such cities as Buenos Aires, Mexico City, Bombay, Calcutta and Djakarta.

Today, there are more than 175 cities of a million people or more. In developing countries at least, most of these cities are slums. More than one third of the citizens of Calcutta, Manila, Djakarta, Caracas and Lagos live in squatter settlements.

The migration from the countryside for which the shanty towns are the destination represents the largest movement of humanity on record. Since 1950, 95 million people have moved from the countryside into the world's 24 major cities. And by 1985, the figure will have swelled to over 130 million. Compare this with the total number of migrants from Europe to the Americas up to 1940 of less than 40 million.

Urbanization is an all but global phenomenon. Almost everywhere, a majority of people see in the world's patently unsatisfactory cities the only available goal for their personal ambitions. In the developing world, urban settlements often combine

24th Party to Endangered Species Convention

The Federal Republic of Germany deposited its instrument of ratification of the Convention on International Trade in Endangered Species of Wild Fauna and Flora on 23 March 1976, thus becoming the 24th Party to the Convention.

Conference of the Parties to the Trade in Endangered Species Convention: first meeting

The first meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora will be held in Bern, Switzerland, from 2 to 6 November, 1976.

Among the main items for consideration will be: amendments to Appendix I and Appendix II; the implementation of the Convention by each Party; and the adoption of recommendations for improving the effectiveness of the Convention.

Under the provisions of the Convention only the Parties will have voting rights at the meeting. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State not a Party to the Convention, may be represented at the meeting by observers, who shall have the right to participate.

Otherwise any organization technically qualified in protection, con-

servation or management of wild fauna and flora in the following categories, shall be admitted to participate unless at least one-third of the Parties present object:

a) international agencies or bodies, either governmental or non-governmental, and national governmental agencies and bodies;

b) national non-governmental agencies or bodies which have been approved for this purpose by the State in which they are located;

Organizations interested in participating in the first meeting of the Conference of the Parties should inform the Secretariat, at IUCN, CH-1110 Morges, Switzerland, of their interest as soon as possible. The Secretariat will send to interested organizations the registration and reservation form and is at their disposal for further information.

the 19th century pollution of slums, inadequate sanitation and industrial smog with the 20th century distortion of sprawl, long-distance commuting and automobile emissions. Many of the poor world's supercities have a quarter of their population out of work.

As this century draws to a close, mankind is creating the worst environments ever endured by man.

Are there any solutions?

If there are solutions then governments and the experts that advise them are divided over them. The sharpest split appears to be between urbanists and ruralists. The urbanists accept the growth of the developing world's cities as inevitable, and consider that Habitat's task is to provide the urban infrastructure which will make these settlements less intolerable. The ruralists believe that conditions in rural areas can be made sufficiently attractive to stem the migration to the cities. At the second meeting of the Habitat Preparatory Committee (held in New York, 12-23 January, 1976), Latin America and the USA came down on the urbanist side, and Africa, Scandinavia and the Netherlands came down on the ruralist side. Judging by its public statements, the UN Habitat secretariat is in the urbanist camp.

Today's settlement patterns in most developed countries occurred as unthinking responses to industrialization and technological change. The megalopolis in particular is characterized by collapsing centres and land-devouring, time-wasting commuter suburbs. The effect is to remove the resources of the well-to-do and to leave the poor in run-down slums.

Many developed countries are now trying to achieve a better balance. Habitat will provide an opportunity for them to

exchange their various experiences.

The experience of urbanized societies, varied though it has been, still suggests that developing countries should avoid the drift to megalopolis, reverse it if they can, and adopt instead active settlement planning. Exactly how this could be done will vary according to political structures. The alternatives to megalopolis are also not clear. However, at least two are being widely advocated. First, regional market centres with small-scale industry are critical for the agricultural sector of developing countries, and without a healthy rural economy the cities will continue to explode. Second, the small-scale, informal, "bazaar" economy must be actively encouraged in both old and new human settlements.

Further information on Habitat may be obtained from:

United Nations Habitat Secretariat, 485 Lexington Avenue, New York NY 10017, USA. (The Habitat secretariat will not move to Vancouver until shortly before the Conference.)

NGO Committee for Habitat, PO Box 48360, Bentall Centre, Vancouver, British Columbia, Canada.

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