

I. A. Raspopov, U.S.S.R., D. F. Westlake, U.K., S. Henjy, Czechoslovakia; A. H. Pieterse, The Netherlands; A. Szczepanski, Poland; and I was named Chairman. The Committee expects to present a slate of officers to the membership early in 1976.

The assembled scientists also approved the Association's first formal resolution, as proposed by Dr Westlake: That the Nominating Committee and Executive Council offer the services of the IAAVPB to the Threatened Plants Committee of IUCN towards the preservation of threatened aquatic vascular plant species.

During those years in which the organization gathered force, first Dr Wetzel and then I edited a *Newsletter* as a means of bringing together biologists interested in this field and informing them of pertinent publications and events. The mailing list for the *Newsletter* has grown from 40 to nearly 700—a strong indication of the need for this Association. The IAAVPB will continue to publish the *Newsletter* periodically for informal communication among the membership. Although no direct relationship exists with the Association, the new Elsevier journal *Aquatic Botany* will serve for the IAAVPB for publication of formal scientific communications and business announcements.

Membership application forms and the latest *Newsletter* can be obtained from the undersigned.

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SYMPOSIUM ON DEVELOPMENT PATTERNS OF HUMAN SETTLEMENTS IN DEVELOPING COUNTRIES FOR THE YEAR 2000, HELD IN JAKARTA, INDONESIA, 29–31 JULY 1975

This Symposium was sponsored by the Indonesian Committee for Environment and the United Nations Development Programme (UNDP) in cooperation with the United Nations Environment Programme (UNEP). It was attended mainly by Indonesian participants, but representatives from the United States, Philippines, India, UNEP, and WHO, were also present.

The objectives of the Symposium were to secure a basic conceptual framework for the formulation of a national policy for the development of human settlements, and also to provide a forum for a broad exchange of ideas between government institutes, research institutes, universities, the private sector of society, and professional associations. It was also intended to benefit as fully as possible from the presence of experts having broad international experience in various fields related to the development of human settlements, the expectation being that the Symposium would provide widened perspectives to the Indonesian contribution to the United Nations 'HABITAT' Conference of 1976.

Twenty working papers and background items, dealing with the social, economic, technological, and cultural, aspects, were presented and discussed. A keynote address on 'Indonesia Towards the Year 2000' was delivered by the Minister of Research. The presentation and discussion emphasized the desirable development patterns of human settlements in the future in developing countries—particularly Indonesia—and the importance of the development of satisfactory standards for human settlements and their implementation through government policy and future activities.

The Symposium agreed that, for the comprehensive and integrated development of human settlements, a set of standards is necessary to measure the attainment of goals in the development process and meanwhile to serve as guidelines in development; they should also provide a dynamic measure of changes with time, of socio-cultural and socio-economic needs, and of environmental and geographic conditions. Such standards must take into account all aspects of life and needs of the Indonesian people, and should involve integration of all sectoral standards.

In view of the facts that (1) the largest proportion of the population is still living at subsistence level, (2) there is great cultural diversity, (3) Indonesia is an island nation, hence there are many problems of communication, (4) there is severe limitation of such resources as enlightened organization, skilled manpower, funding, etc., (5) there is wide social, economic, and technological, diversity in the country, and (6) there are various governmental agencies dealing with similar aspects of human settlements, so the minimum standards should be differential, realistic, and attainable by the majority of people and by the Government. Therefore, the formulation and implementation of the standards in developing settlements should be exercised with caution, so as not to have negative effects on the communities.

A multidimensional framework to formulate the standards of human settlements is necessary, and as its establishment is a complicated task, it will require continuous research. The Symposium recognized also the urgency to establish an effective national forum to deal with the integrated problem of inventory, formulation, monitoring, and evaluation, of the implementation of standards for human settlements.

KUSWATA KARTAWINATA  
Herbarium Bogoriense  
Lembaga Biologi Nasional (National Biological Institute)  
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Bogor, Indonesia.

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IUCN 12TH GENERAL ASSEMBLY AND 13TH TECHNICAL MEETING, HELD IN KINSHASA, ZAIRE, 7–19 SEPTEMBER 1975

Grave concern for the future of Man and the natural environment dominated the discussions of environmental scientists and other specialists at the above, when the President of Zaire, General Mobutu Sese Seko, set the tone with an opening address advocating a 'summit' meeting on conservation of Nature, which, he stressed, concerned the very survival of mankind. 'The problem of Nature is above all political,' President Mobutu emphasized: 'Scientists, technicians, charitable organizations, and people of goodwill, cannot resolve the problem. It is only those in political power who can take the necessary radical decisions.' The President further insisted that the problem must be raised at the highest level—that of heads of state and government: 'and if there ever were a summit conference that is justified, it is one on protection of Nature', he declared.

Nearly 300 delegates representing governments, government conservation departments, and private conservation organizations, from 67 countries, and many 'Friends of IUCN', attended the Assembly and the technical sessions, which ranged over problems of development and conservation of tropical forests, arid lands, marine environments, genetic resources, and energy.

A series of resolutions at the end of the Assembly reflected the participants' grave concern. The mounting destruction of the great belt of tropical rain-forests which practically girdles the Earth through south-east Asia, Africa, and trop-

ical America—it has been calculated that more than 14 acres (5.67 ha) of this last great 'untouched' major terrestrial ecosystem is being torn down each minute—led to an urgent call to all the governments concerned to give full consideration to ecological principles in 'developing' these areas or otherwise managing them wisely. The Assembly drew pointed attention to the dangers—for human societies, soil, water, plant and animal resources, and even climate—of modification or removal of these forests, and strongly recommended that all governments and governmental agencies, international and national aid organizations, and firms and others involved, should be *obliged* to prepare and publish statements assessing the real environmental consequences of their actions and demonstrating that these conformed to a national and supra-national development plan that was ecologically sound.

Pointing especially to the catastrophic drought in the Sahelian region on the southern fringe of the Sahara, in which millions of people and livestock have died, the Assembly warned of similar tragedies to come unless ecologically sound development were undertaken. It urged governments and international organizations to carry out the necessary investigations with due attention to the traditional knowledge of the people who have for long inhabited these regions. The role of the wild fauna, especially large species such as the Addax (*Addax nesomaculatus*) and Oryx (*Oryx* spp.) antelopes, which are well adapted to semi-arid environments but have been decimated by poaching and livestock competition, was stressed—as a source of food and other products of economic value, as well as an aid to restoring the productivity of these environments.

The third of the world's major ecosystems which was given special attention by the Assembly was that of the marine environment, including coastal regions. A resolution emphasized that these areas are not at all easily protected, and that 'irreparable damage' was being done to critical habitats—including very productive ones of major importance to human welfare such as estuaries, coral reefs, salt marshes, lagoons, and mangrove forests—through pollution, dredging, mining, land reclamation, dumping, nuclear explosions, dynamiting, and deleterious methods of fishing and collecting. Many animal and plant species are being threatened. The Assembly called on governments to establish marine parks and reserves of sufficient area to protect vulnerable features, as well as to control damaging activities: research and monitoring programmes are required to establish guidelines for good management of these important areas.

When the Assembly tackled the paramount problem of the effects of the world demand for energy on natural environments on which the future of Man depends, the Soviet delegation abstained on the grounds that the matter was too complicated for the meeting. A resolution was passed, however, recommending that governments explore all means to conserve energy resources and reduce demand, and to pay particular attention to mitigating the losses from unwise extraction and wasteful use of energy resources. There was a call for restraint in further development of nuclear fission energy, and for concentration of research instead towards development of less conventional technologies involving renewable or inexhaustible sources of energy which have minimal environmental risks: these include solar, geothermal, tidal, and wind, energy.

Delegates were also concerned about the situation confronting many indigenous peoples living in harmony with their environments, such as the Indians of the Amazonian rain-forests. They urged that governments should protect

such cultures, and that they should be permitted to continue their traditional ways of life in national parks and reserves.

Pointing to the importance of wild animals, including whales, as a protein source for the increasing human population, the Assembly declared that past mismanagement had led to depletion of the resources instead of ensuring sustained or increased yields. The delegates recommended a series of management principles based on ecological relationships.

After passing a specific resolution aimed at saving the lion marmosets (*Leontocabus* spp.) of Brazil and pointing out that the special biological reserve authorized by the President of Brazil for their protection had still not been established, the Assembly considered endangered species generally and welcomed the coming into force on 1 July 1975 of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, which has now been accepted by 17 countries. A resolution urged all governments to adhere to and ensure full enforcement of the Convention, which provides for bans or controls on trade in species listed in special appendixes—including the spotted cats, whales, great apes, and many plants. Zoos and botanical gardens were asked to eliminate demands on wild stocks for their collections and instead to draw from propagated stocks.

The membership of IUCN, established in 1948, now consists of 40 states, 110 state agencies, 226 national organizations, 20 international organizations, 25 affiliates, and numerous individual 'friends' throughout the world. Altogether, 97 countries were represented at the General Assembly in Zaire,\* with no distinctions as to politics or ideologies other than a deep concern for the biosphere.

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\* An important outcome of this occasion was the approval of the encouraging 'IUCN Programme for the Triennium 1976-78', published on pp. 305-9 of our last issue.—Ed.

#### TENTH EUROPEAN SYMPOSIUM ON MARINE BIOLOGY, HELD IN OSTEND, BELGIUM, 17-23 SEPTEMBER 1975

This tenth anniversary occasion was attended by some 400 participants from 40 countries who considered, particularly, ways and means of producing more food from the oceans: by analysing the dynamics of marine populations in relationship to ecological conditions, and by compiling the first results of sea-farming experiments.

As a sideline to the Symposium, several specialists discussed the possibility of forming a European mariculture society which would represent European research workers in the World Mariculture Society. The Belgian Marine Research Institute, Prinses Elisabethlaan 69, 8401 Bredene, Belgium, was given the task of contacting all those who are likely to be interested in this project.

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#### CONFERENCE ON MAN AND HIS ENVIRONMENT, HELD AT THE UNIVERSITY OF BIRMINGHAM, ENGLAND, 18-23 SEPTEMBER 1975

This Conference was convened as part of the centenary celebrations of the University of Birmingham. After an