

MEETING REPORTS

Challenges in a Crowded World

First International Symposium on Marine Conservation, held at The University of Hong Kong, during 26–27 October 1996

The Symposium was aimed specifically at informing concerned members of the general public on issues related to marine conservation which are of particular relevance to the Territory of Hong Kong (HK), but drawing on experience from elsewhere. It was a deliberately non-technical meeting, and no formal scientific presentations were made. The purpose was to initiate and provide the basis for wider public debate by asking experts from various sectors to explain the problems and the scope for change and improvement. About 140 people attended, mostly from Hong Kong, but with some coming from Indonesia and the Philippines.

The meeting was divided into three sessions over a day and a half. The first session was on the Saturday afternoon and entitled 'Perspectives'; it was designed to inform various groups of people in the community of Hong Kong about the processes and position of conservation.

Christine Loh (Legislative Council, Hong Kong) outlined the political process in 'The politics of conservation', and indicated the problems of trying to estimate the value of the environment. She pointed out that the political decisions which have to be taken now regarding Hong Kong's development must be with an eye on the future, not made from an isolated or parochial viewpoint.

In a paper entitled 'Opportunities for marine conservation in Hong Kong and southern China', Gregor Hodgson (Institute for Environmental Studies Research Centre, Hong Kong University of Science & Technology) provided a personal account of the stages through which the design and implementation of a plan for biodiversity preservation should be developed. Integrated coastal zone management must take into account the pressures from development, but it requires a properly focused assessment of the resources present over an appropriate time-scale, and a multi-disciplinary, holistic approach to management. Clearly, a regional perspective must be adopted. Gordon Maxwell (Environmental Studies, The Open Learning Institute, Hong Kong) went further; in a presentation entitled 'The sea as gold', he urged that a fundamental attitude-shift by the public was required. That is, instead of treating the sea as a source of plunder and a dump, it should instead be valued in local monetary terms, explicitly in order to communicate its importance.

The difficulties faced in the legal arena were described forcibly by Brian Baillie (Professional Legal Education, The University of Hong Kong) in his paper 'Enforcing Hong Kong's laws'. He drew a distinction between the 'Polluter Pays' principle and 'Polluter Liability', which is ironic since the HK Government cannot, even now, get agreement from industry on the implementation of the former. His final words were those of Justice Brennan, that 'Enforcement of the law is what really counts.' By contrast, David Porter (Window Magazine) made the point that journalists needed to be educated, informed and cultivated by green groups if the messages are to be published in the right way. After all, the public needs to be informed properly if it is to be motivated, and the title of his paper was, appropriately, 'Motivating the media'.

The second session, on the Sunday morning, dealt with the vexed question of 'Destructive fishing practices.' An overview of the extent and nature of 'The problem of cyanide fishing' was given by Albert Tsang, pointing out that the main impetus for the practice was the trade in live fish, centred on Hong Kong. Education of consumers seems to be the major task facing the Hong Kong Government.

The view from the Philippines was set out by Vaughan Pratt (International Marine Life Alliance, Manila, Philippines), who spoke on 'Combating the growing threat of cyanide fishing in the Asia Pacific region.' He showed that with appropriate governmental support, detection and enforcement is possible, although there is still room for improvement. Meanwhile, education and training of the fishers themselves can make a significant difference. The use of explosives for fishing is equally damaging, as was shown by David O'Brien (Royal Hong Kong Police, Hong Kong) in his report on behalf of the Hong Kong Marine Police, 'Fish bombing in Hong Kong – investigation and detection.' We were staggered by surveillance-video clips of bombing in progress, but the difficulties of apprehending the culprits are very large. Legislative problems were identified, fines being insignificant, but manpower resources clearly are the main limiting factor in controlling this practice.

Vo So Tuan and Truong Si Ky (Institute of Oceanography, Nha Trang City, Vietnam) elaborated on 'Problems with the conservation of coastal fisheries and coral reefs in Vietnam.' The great expansion of fisheries activities has resulted in much damage: 37 species of fish are listed in the national 'Red Data Book', and some have already disappeared. More effort is required to implement proposed protected areas, but many public and governmental factors are responsible for this situation. Keith Wilson (Department of Agriculture and Fisheries, Hong Kong) outlined the problems with so-called trash-fish in reporting on Hong Kong's marine fish culture industry. There are indeed 'Challenges for sustainable development', in that there is a basic conflict between the need for controlled production and the provision of feed. A call was made for 'closed seasons' and exclusion areas. The session closed with a presentation of the Hong Kong Agriculture and Fisheries Department's 'Action Plan' to tackle destructive fishing. Divided into enforcement, monitoring, education and publicity prongs, the plan is eminently reasonable. Doubt remains, however, over the existence of the political will to implement it in a timely and effective manner.

'Action' was the title of the third session, on the Sunday afternoon, which started a little late because of the number of questions and length of discussion at the end of the previous session. Cindy Clark (Scripps Institution of Oceanography, San Diego, California) considered that there would be 'Preservation through education'; teach people while they are young, sums up her main message. This point needs to be impressed on the Hong Kong Government, who deleted environmental education from the primary school curriculum some years ago. The talk by Thomas Jefferson (Ocean Park, Hong Kong) on 'The achievement of cetacean conservation in an international context', showed very clearly what can be done, yet just how much still needs attention. The imminent loss of at least

two species, namely the *bajji* (*Lipotes vexillifer*) and the *vaquita* (*Phocaena sinus*), in the context of the problem of Hong Kong's pink dolphins (*Sousa chinensis*), is a measure of these problems. Resources and political will, again, are lacking.

'The role of seahorse fishers in conservation and management' in the Philippines was explained very clearly by Marivic Pajaro (Haribon Foundation for the Conservation of Natural Resources, Manila, Philippines) to be exceptionally important. Education, and engaging the enthusiasm of local communities through a sense of ownership, achieve what mere rules cannot; he concluded that the long-term view had to be based on personal involvement in future production.

The interrelationships of 'Mangrove conservation and shrimp aquaculture' were explored by Lew Young (World Wide Fund for Nature, Hong Kong). The loss of mangrove forest to shrimp ponds was in part offset by the retention of mangrove stands in the ponds, but he showed that even these remnants had often been removed in an attempt to increase profits. However, he maintained that the effect was short-lived. Efforts are now under way to revert to the traditional form of pond, stressing long-term productivity.

Picking up the theme of education, Sherwood Maynard (University of Hawai'i, Honolulu) reported on the effectiveness of 'Conservation education through the University of Hawai'i Marine Option Program' as a means of reaching people who would have no formal links with marine science. The long-term value of this broad-based awareness and 'experiential' learning has already been demonstrated.

Each session was followed by a panel discussion, including the session's speakers. This was enthusiastically employed both to pass comment and ask questions. It seems that this aspect of the event was instrumental in encouraging a positive, but realistic, attitude in delegates on the prospects for meeting the challenges concerned.

The entire Proceedings (with discussion transcripts and references) is available from the Hong Kong Marine Conservation Society (156 pp., A4, ISBN 962 8179 03 9 paperback), for a suggested donation of HK\$ 250 (≈US\$ 30), inclusive of postage anywhere in the world. The proceeds will be applied to furthering the Society's charitable work in promoting public understanding of marine conservation. It is hoped that similar events will be held in the future.

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Agriculture, Trade and the Environment

Held at the Tune Course Centre, Greve, Denmark, during 22-24 May 1997

The purpose of this seminar, which was organized by the Nordic Association of Agricultural Scientists, was to present recent research on impacts of liberalized trade on the environment, policy options for environmental considerations in trade regimes, environmental regulations and current Nordic research on the issue.

Within the framework of GATT, the western countries have strived for liberalization and non-discrimination in international trade since World War II. Through the Uruguay Round, trade in agricultural commodities was integrated in the general framework. All other kinds of import protection were replaced by tariffs, each country committing itself to reduce its level of protection (tariffs), its export subsidies and its international agricultural support, and at the same time to give a minimum market access for imports. Finally, the World Trade Organization (WTO) was established 1 January 1995.

It is officially accepted that the international trade regimes may have important implications for the environment. Agriculture is both a provider of public goods and an important polluter at the global, regional and local level. Both the physical impacts and the evaluation of these will vary among countries. The trade regime will influence how nations can promote an environmentally-friendly development, and, finally, how ambitious they can be in the field of environment. This is expected to be a central part of the next negotiation round of the WTO, starting in 1999. The present seminar was attended by 30 participants, including lecturers from Finland, Norway, Denmark, Iceland, Estonia, France, Australia, USA and OECD.

The seminar was divided into five sessions with an opening and closing address, 11 presentations and a panel debate. David E. Ervin (The Henry A. Wallace Institute, Greenbelt, Maryland) gave an overall presentation of the issues relating to agriculture, trade and environment. In his extensive review he discussed the following questions: (1) Will expanded agricultural trade degrade or improve environmental quality? (2) Will environmental management programmes in agriculture restrict trade growth? (3) Can trade measures assist in environmental management without unduly constraining trade? In addition, some emerging policy issues were analysed.

Issues raised by other speakers included environmental regulations and costs under international competition and the Porter hypothesis; possibilities for incorporating environmental considerations in trade regime design; trade liberalization, land abandonment and possible effects on landscape and biodiversity; modelling strategies for environmental effects of trade liberalization; environmental taxation in a WTO framework; and strategic trade and environmental policy under asymmetric information.

All the presentations except one (the Estonian case study), are published in the proceedings NJF (Nordic Association of Agricultural Scientists) report, proceedings from the NJF seminar 273, which can be ordered from John Sumelius for FIM 120.00 (ECU 20.00).

The seminar also produced a detailed research plan for a Nordic research project on agricultural trade and environment. The overall aim of the proposed project is to study the links between the environment, agriculture and trade. This includes investigating the possibilities for environmental regulations under alternative trade regimes, and how trade liberalization may affect the environment. Provided that the project receives funding, it will start on 1 January 1998.

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Intellectual Property Rights III Global Genetic Resources: Access and Property Rights Workshop

Held at the Holiday Inn Capitol Hotel in Washington, DC, during 4–6 June 1997

Approximately 130 people from around the world attended this workshop, which was sponsored by the Crop Science Society of America, American Society of Agronomy, and the American Society for Horticultural Science.

The overall goal of the workshop was to review factors affecting global access to plant genetic resources and the effect of intellectual property rights on the exchange of these materials. Another goal was to prepare recommendations that might provide a positive effect on agricultural production and international trade of agricultural products. The target audiences included policy and decision makers world-wide, including experiment-station directors, government-agency administrators, officers of private seed-companies, attorneys, politicians, and scientists.

The Workshop began with a plenary session, which was open to the public and was held on 4 June 1997. Topics covered included world food security; the role of the USA in food security; state of the world report on plant genetic resources and the global plan of action; the CGIAR (Consultative Group on Agricultural Research) system; the position of the USA on CGIAR, on the international development treaties that impact genetic resources, and on the development of trade agreements; and global implications of intellectual property protection.

The plenary session was followed by meetings of a series of work groups; participation in the work groups was by invitation. The groups met on 5 and 6 June and covered the following subject areas: (1) Plant genetic resources for food and agriculture; (2) Harmonization and standardization of laws; (3) Feasibility and legality of tracking plant genetic resources; (4) Education: process, progress, and potential; and (5) Benefit sharing and farmers' rights.

Each work group was made up of approximately 20 persons, with particular individuals designated as group leaders, rapporteurs, and recorders. The focus of each group was to develop statements and recommendations addressing their specific area of the subject that, when compiled as a whole, will address the overall theme of the workshop.

The proceedings of the workshop will be published in a Crop Science Society of America Special Publication and will include the papers presented in the plenary session, background information papers, discussion summaries, and recommendations from each of the five work groups.

Intellectual Property Right Workshops were previously held in 1989 in Anaheim, California and in 1993 in Washington, DC.

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Open Science Meeting of the Human Dimensions of Global Environmental Change Research Community

Held at the International Institute for Applied Systems Analysis (IIASA), Laxenburg Austria, during 12–14 June 1997

The purpose of this Conference, sponsored by IIASA and the US Social Science Research Council (SSRC), with several other co-sponsors, was to bring together researchers to exchange information on current research and teaching, to network in this new field, and to attract those not previously involved in the field; it was a follow-up to a similar event held at Duke University in the USA in 1995. The Conference highlighted the rapidly-growing research community's interest in the human dimensions of global environmental change.

The meeting demonstrated a broadening international participation by researchers, with 280 participants from 29 countries, who collectively had expertise in a wide range of natural and social science disciplines.

Topics covered in the plenary sessions included the potential impacts of climate change and stratospheric ozone depletion on human health; research into people's attitudes to the environment in different countries; the influence of trade on the environment; the nature of governmental approaches to dealing with environmental problems; and the interactions between environmental risks and human security.

The speakers mostly gave an overview of the state-of-the-art of research in these particular fields and presented new results. Moreover, challenging research directions were mentioned, indicating that a lot of work remains to be done on the complex interactions between human activities and global environmental change.

In almost 30 small group sessions, many presentations were given on ongoing research in the field. For example, papers on Integrated assessment, Consumption as a cause of environmental degradation, Human choice and climate change, Land use, and Population and the environment, were presented and discussed. Participants noted significant methodological developments, but also a growing diversity in their approaches, as well as new applications of systems theory and analysis. They demonstrated an interest in understanding the interactions between the micro and macro scales of research, an example of which is the work on the ecological, social, and economic vulnerability of institutions and populations in Viet Nam and the Mekong River Basin.

The meeting saw a number of significant developments in the continuing emergence and strengthening of the research community since 1995. Previously-disparate research areas are now increasingly being viewed in terms of global environmental change. New approaches to interdisciplinary work in the field were discussed extensively at the meeting, and different disciplines with their own perspectives tried to understand each other and build a common language.

In the closing plenary session, Uno Svedin (International Group of Funding Agencies, Working Group on Human Dimensions Issues, Stockholm) pointed to some future directions for the research community. There should be greater involvement of actors other than academic researchers, such as the business community, non-governmental organizations, and government policy-makers. Extensive further work needed to be done on developing ideas about what constitutes policy-relevant research, so that researchers can have a significant input into environmental policy-making. Greater efforts are also needed to encourage and build research networks and

capacity in developing countries. Summing up, Svedin said: 'Next time, hopefully in two years' time, we may see a new global gathering on these issues in an Asian country, providing us with one more step in the move towards a truly international effort in addressing these global environmental concerns, so intriguingly intertwined with many other concerns of our time.'

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The Second Annual International Clean Ocean Conference
Held at the Princeville Hotel, Hanalei Bay, Hawaii, during 13–15 June 1997

This Conference was organized to celebrate Oceans Day. The goal for the conference was to get all the different parties working together as caretakers and stewards of the ocean, while keeping in mind the ultimate aim, to preserve clean oceans for future generations.

The theme of the conference was '1997 as the International Year of the Reef'. President Clinton sent a letter of support for Clean Oceans '96 and '97. He wished Save Our Seas (the sponsoring organization) '... every success in your efforts to preserve, protect, and restore the world's oceans for the benefit of future generations.' Attending the meeting were Mr Ben Cayetano (Governor of Hawaii), Mr Jeremy Harris (Mayor of Honolulu), and Mayor Kusaka (Kauai).

As the keynote speaker, Mr Robert F. Kennedy, Jr, said so eloquently in his Saturday evening address to 450 dinner guests that 'Environmentalism is about saving our communities. It is about the power of the community asserting itself on these environmental issues that will directly affect our future generations.'

Most of the attendees were from Hawaii, but others came from as far away as Samoa and New York. They included many coral reef experts, who presented lectures, and a coral reef monitoring workshop.

The workshop included talks on varied local and global topics. Dr Chuck Blay (TEOK, Inc.) gave a talk on Kauai's coral/algal reefs; Mr Don Heacock (Department of Land and Natural Resource, Department of Aquatics Research) delivered a talk titled 'A watershed stewardship approach to oceans in peril'. Other topics included community-based management of coral reefs, the Hawaii Coral Reef Initiative and the status of the world's reefs.

The first 'Reef Check' in the world was performed during the Conference. Participants from the Conference and the community went into the ocean in front of the hotel and monitored the adjacent reef. Scientists in charge were Dr Cindy Hunter (Department of Botany, University of Hawaii) and Dr Alan Friedlander (Hawaii Cooperative Fishery Research Unit, University of Hawaii). Reef Check 1997 is an exciting international event involving collaboration between recreational divers and marine scientists. The global headquarters of Reef Check is in the Institute for Environment and Sustainable Development at the Hong Kong University of Science and Technology Research Center. For more detailed information

about Reef Check, please go to the website at <http://www.ust.hk/~webrc/reef.html>.

The participants have agreed to develop a list of priorities for research, education, and hiring of new enforcement personnel, as they relate to the preservation of coral reef ecosystems in the State of Hawaii. The overall consensus of the participants seemed to be that over-fishing and over-population were posing the greatest danger to coral reefs.

Video tapes of Robert F. Kennedy, Jr's speech are available for US\$ 19.95 each. For information, contact Carl Stepath.

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Insects in African Economy and Environment

Joint Congress of the Entomological Society of Southern Africa (11th Congress) and the African Association of Insect Scientists (12th Congress), held in Stellenbosch, South Africa, during 30 June–4 July 1997

During the apartheid years, South Africa was isolated from most of the rest of Africa and contact between entomologists of the two regions was scarce. Entomologists down south joined the Entomological Society of Southern Africa, whereas those in central, east and west Africa tended to join the African Association of Insect Scientists. With the improvement in the political situation in South Africa, there has been increasing contact in the past few years between these two main entomological societies in Africa, and this culminated with this joint Congress in Stellenbosch. Thus, probably the main purpose of the Congress was to unify entomologists in their quest for solutions to the entomological issues of Africa as a whole, and it was attended by 288 delegates.

That insects have a major impact on Africa's economy and environmental is unquestionable. The productivity of many Africans is hampered by debilitating insect-transmitted diseases such as malaria, sleeping sickness and river blindness. Many people die from such diseases; for instance, over 1.5 million deaths from malaria are reported annually in Africa. Nagana, transmitted by tsetse, hampers cattle ranching in about 10 million km² of Africa. Also, insects are major pests, not only of crops, but of the stored products derived from these crops.

From a beneficial point of view, insects in Africa also play a vital role. Many crops, such as fruit, are dependent on pollination by honey-bees. Insect pests are brought into check by beneficial predatory and parasitic insects, while weeds are brought under control by beneficial herbivorous insects, often specially imported for the purpose. Insects, such as termites, play a dominant role in the recycling of nutrients in natural ecosystems. Insects are also eaten as food in many communities.

There were 138 oral presentations and 60 posters. The talks were presented in three concurrent sessions over three days and there

were also six plenary session keynote addresses. Two of the three venues had simultaneous English–French translation provided. On the last day there were workshops on mass rearing, whiteflies, insect importation, and systematics.

The Congress was opened by Mr Derek Hannekom (South African Minister of Agriculture and Land Affairs) and there followed a talk by Dr Maxwell Whitten (FAO, the Philippines) in which he made the point that food security in the developing world depends on the success of small-scale farmers and the manner in which we as scientists interact with them.

A powerful theme running through the Congress was integrated pest management (IPM), and the majority of talks were on biological control, microbial control, and the use of natural insecticides, such as extracts from the neem tree. Notable was the fact that there were very few presentations about the sole use of conventional insecticides. There is an earnest attempt in Africa to develop environmentally-sound methods of pest control as it is these methods which in the long term bear the greatest economic benefits. Many presentations also dealt with how we interact with farmers and empower them to solve problems for themselves, rather than being the victims of unscrupulous pesticide companies that market their products in a way that disempowers the farmers and eliminates alternative strategies of pest control.

Delegates were issued with a book of abstracts at registration entitled *Insects in African Economy and Environment* (ed. H.G.

Robertson), published by the Entomological Society of Southern Africa, PO Box 103, Pretoria, 0001, South Africa. Abstracts of talks and posters are arranged by subject and the address, telephone, fax and email is supplied for each author. At the back of the book is a list of entomological institutions and organizations in Africa, what they do, and how they can be contacted. The information in this book will be made available on the South African Museum and Entomological Society of Southern Africa, websites: <http://nvl.samuseum.ac.za/> and <http://www.up.ac.za/academic/entomological-society/entsoc.html>.

The next Congress of the Entomological Society of Southern Africa has been set for Potchefstroom and for the African Association of Insect Scientists in West Africa; exact venues are still to be announced. Perhaps there will be another joint Congress in the future, but this particular Congress served its purpose, and many entomologists are now becoming members of both societies and sharing with each other common problems that challenge modern-day insect research in Africa.

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