

**ACTIVITIES OF THE INTERNATIONAL OCEAN INSTITUTE  
AN NGO  
IN IMPLEMENTING AGENDA 21  
OCEANS AND ALL KINDS OF SEAS (CHAPTER 17)  
1995-96**

Activities of the International Ocean Institute,  
1995-96 - oceans and all kinds of seas

Introduction

The International Ocean Institute (IOI) is one of a handful of international NGOs devoting itself exclusively to the oceans. Through its research, training, publications and conferences it has impacted on decision-making structures, protection of the oceans, environmentally safe technology transfer and capacity building.

A background note on the work of IOI during 1967-92, and from which its present activities flow, is at Annex 1.

By 1992 and post-UNCED the need was felt to extend IOI's outreach both geographically and through languages other than English since the world had become much more complex and new concepts like sustainable development, global governance, coastal zone management, biodiversity, climate change, depletion of the ozone layer etc. were emerging, and they all had very critical linkages with the oceans.

Also although IOI's structure had stood the test of time for 25 years, changes were necessary if it was to meet the requirements of the 1990s and beyond.

So in 1992 IOI moved the Global Environment Facility (UNDP/GEF) for US\$ 2.6 million to enable it to consolidate its far-flung operations and to enable it to develop into a networking "system" rather than an "institute". IOI was convinced that this was a necessary response to the needs and challenges of the 1990s: a far-flung system held together by a common philosophy, a common aspiration and a common approach.

The project was sanctioned and thereafter six regional centres - in Costa Rica, China, Fiji, Japan, India and Senegal - were established in addition to the existing ones in Canada and Malta.

The result has been that the training programmes are now evolving close to where the needs are, region-specific research is being carried out and a dialogue with decision makers in the region is being initiated on a continuous basis.

Also, the **existing training programmes** of IOI have been **updated** and **new ones developed** especially for **ecosystem management, environmental economics, small islands, planners, project managers, decision makers, alumni, and trainers**. The courses have also been brought in line with the latest developments in instruction technologies and made replicable and transferable through stressing quality of material and linkages with Agenda 21. Besides **courses in French and Spanish** are being conducted by the Senegal and Costa Rica centres thus making the delivery of courses multi-lingual.



A key element in IOIs strategy post-UNCED was to reinforce existing institutional capabilities through providing **active networks for ocean affairs**. To this end **MOUs** were signed with the **United Nations University**, Tokyo, with **IOC/UNESCO**, Paris, the **University of Rhode Island** and the **International Centre for Public Enterprises**, Ljubljana. MOUs were signed with two NGOs, the **MS Swaminathan Foundation** and the **Muruguppa Chettiar Research Centre** for collaboration in coastal biodiversity and the development of projects for eradication of poverty in the coastal zone.

The IOI Centres also joined the **Train-Seacoast network** of UNDOALOS which, in addition to the IOI Centres in Costa Rica, Senegal, India and Fiji include the Fundacao Universidade de Rio Grande in Brazil, the University of Wales, the Prince of Songkla University, Thailand, ICLARM, Philippines and University of Delaware, USA.

**Contacts** were also established with **UNECA**, **UNESCAP**, the **East Asian Seas Programme**, **SPREP**, **South Pacific Forum**, **West African Regional Seas Programme**, **MAP**, **UNEP OCA/PAC** and others with the intention of integrating IOIs research and training with their programmes.

#### **Activities of IOI in 1995-96**

During 1995-96, the thrust areas IOI continued to be:

- sustainable development of marine resources
- integrated decision making for coastal zone management and the exclusive economic zone
- capacity building
- transfer of environmentally safe technology.

#### **Training Courses**

12 courses were conducted in 1995-96 including 2 in Spanish and 1 in French for over 220 participants. A course of 6 weeks for personnel of Small Island Developing States was conducted in Fiji for 15 participants.

Sixteen trainers were trained in UNDP and UNDOALOS Train-Seacoast methodology. Besides about 20 professionals/trainers have been trained by IOI in its trans-disciplinary decision making methodology.

The sensitisation of decision makers through the IOI courses on integrated coastal management led to the governments of Malaysia and India funding three courses.

Because of the various courses the number of IOI alumni crossed

the 1100 mark and is expected to exceed 1400 by the end of 1996.

Due to the adoption of the Train-Seacoast methodology a large number of replicable training modules relatable to Agenda 21 issues e.g. environmental economics, problems of small islands, integrated coastal zone management, science and technology, case studies and simulation exercises illustrating cost-ineffectiveness of present multiple decision-making systems etc. were prepared.

### Research

IOI convened a 2-day workshop on Marine Technology Cooperation in the Indian Ocean Region in association with the Government of India and UNDP/TCDC. The Workshop's recommendation that one of the regional centres be established in Madras is under the active consideration of the Government of India and a favourable decision is expected soon.

IOI also did work on the required revision of the Barcelona Convention in the context of UNCED. This was almost entirely endorsed by the Government of Malta and introduced at the level of States Parties. Most of the changes suggested by IOI were accepted and incorporated in the revised Barcelona Convention, 1995.

### Conferences and Seminars

A Conference, Pacem in Maribus XXII, was held in Madras, India. Its theme was Sustainable Development and Regional Cooperation. The subject was chosen with the specific purpose of focusing on some of the policy issues arising from the critical uncertainties of **climate change**, especially in the **ocean-air interface**, **biodiversity** in the marine sector, the **carrying capacity of the ocean** and polar regions as heat and waste sinks, and the various implications of the **intrusion of high-tech** into the marine sector. The Conference also looked at the issues involved in a coherent restructuring based on the impact of post-Rio developments on the evolving United Nations system.

During the Conference the speakers and the participants gave special consideration to the regions and subregions of the Indian Ocean. The Conference also explored the possible creation of linkages between local communities and non-governmental organisations, private and public sectors, universities, research institutions, industry and national governments in the spheres of science and technology. Many useful recommendations and suggestions regarding capacity building and institutional structures resulted from the discussions.

### Networking and other activities

IOI joined SEA WEB, a network of Universities for Academic



Strategies in Ocean Affairs.

IOI also took the initiative towards the establishment of an Independent **World Commission on the Oceans (WCO)** with the intention, inter alia, of:

- focussing world attention on sustainable ocean development
- analysing the difficulties faced by developing states and measures of overcoming them
- institutional development necessary at national, regional and international levels.

The IOI Centres are to act as regional secretariats of the WCO.

**IOI China** has held regional hearings of the WCO. It is also engaged in preparation of:

- the Chinese Agenda 21;
- national law and regulations for the oceans around China;
- administrative and other measures necessary to sustainably develop the oceans.

**IOI South Pacific** held regional hearings of WCO. It also:

- assisted Government of Fiji establish a Marine Affairs Coordinating Committee;
- assisted University of South Pacific raise \$ 10 million from JICA;
- established a coordinating centre to collect and disseminate information on indigenous knowledge and the natural resource management system;
- participated in the regional GEF scoping workshop for the South Pacific region.

**IOI India** geared itself for regional hearings of WCO by:

- preparing a comprehensive mailing list of Friends of the Ocean (FOTO) in the Indian Ocean Region;
- establishing contacts with UNEP's SACEP and East Asian Seas programmes, University of Singapore and the Governments of India and Malaysia.

IOI India also conducted programmes on sustainable ocean development for local and national decision makers.

**IOI Halifax** raised funds from CIDA for hearings of WCO in Canada

and North America.

**IOI Japan** raised funds and conducted regional hearings in Yokohama as well as the first plenary of the WCO.

**IOI Senegal** established links with the Governments of Guinea and Mauretania.

**IOI Costa Rica** will hold Pacem in Maribus XXIII on the subject of Ocean Governance, Law of the Sea and the UN Secretary Generals "Agenda for Peace" in December, 1995.

### Publications

IOI published its quarterly newsletter **Across the Oceans**, and books on:

- **Science and Technology Cooperation in the Indian Ocean Region**
- **Ocean Governance and UN Restructuring.**

### Lessons learnt

The main lessons learnt by IOI during 1995-96 are:

- international NGOs need to act through local institutions, and in cooperation with regional systems e.g. the Regional Seas Programme, in a decentralised manner;
- the production of high quality and transferable training modules leads to rising demand and has a multiplier effect especially if the modules are relatable to Agenda 21;
- the sensitisation of decision makers regarding the interlinkages of oceans with climate, the productivity and biodiversity of fragile oceanic ecosystems, the importance of the oceans for sequestering carbon dioxide, and their availability as a resource for food, energy, minerals and fibre leads to rising demands for training programmes regarding capacity building including institutional change, science and technology, environmental economics;
- international and regional training programmes are important for linking global issues with national policies and programmes;
- also such programmes:
  - . create a framework for national training programmes;



- . assist in the formulation of national policies, programmes and projects;
- . help regional cooperative endeavours through the development of region-wide networks of professionals and decision makers;
- . increase outreach if conducted in more languages;
- ground-level coordination between regional and national agencies, NGOs and institutions is poor; however coordination can be improved by networking and through training programmes which stress the enormous value added through integrating sectors, disciplines, departments and national programmes;
- a decentralised networking system is the best way of having regional coordination and cooperation as it overcomes inhibiting national considerations;
- in high tech (including environmentally safe technologies) South-South cooperation is needed to supplement North-South cooperation;
- "technology transfer" has to be increasingly replaced by human resources development and institutional restructuring due to the changing nature of "technology" which is knowledge- and information-based besides being soft-ware oriented.

### **Recommendations**

The above case study of IOI gives some idea as to how an NGO can effectively contribute to the implementation of Agenda 21 with regard to Chapters 8, 17, 34, 37, 38, 39, 40.

The potential is very great. The constraints are partly institutional; IOI had to go through a rather radical process of restructuring to maximise this potential; and partly they are financial, requiring a considerable amount of risk-taking and entrepreneurial initiative. Given the rigid, sectorally organised structure of governmental and intergovernmental institutions, it would have been far more difficult for them to develop the interdisciplinary and trans-sectoral programmes and projects pioneered by NGOs like IOI.

NGOs, acting through national delegations, can make important, even decisive impacts on policy making as may be seen from IOI's impact on the revision of the Barcelona Convention, advancing it from a sectoral ("pollution control and abatement") to an integrated ("environment and development") approach, "from Stockholm to post-Rio."

Some specific recommendations would be the need to:

- sensitise decision makers, demystify high tech and make explicit the links between environment and development;
- widely disseminate training material developed by the Train-Seacoast network in all major languages;
- disseminate information regarding available international funds and funding mechanisms;
- conduct training in appropriate project formulation techniques so that available funds can be drawn upon;
- conduct training in high tech management, forecasting and assessment;
- assist NGOs to augment their outreach as was done for IOI by the UNDP/GEF financing;
- establish networks of international, regional, national and local institutions as that makes initiatives ground level and country driven in the context of global and regional needs and requirements.



## Activities of IOI 1967-92

### Background up to 1992

The International Ocean Institute (IOI), in preparation and active since 1967, is one of a handful of international NGOs devoting itself exclusively to the oceans. Its almost three decades of work in the oceanic field could serve as a useful case-study and provide some implementation lessons in the fields of capacity building including human skills development, decision making for sustainable development, acquisition, development and transfer of technology, and the promotion of new institutional structures at national, regional and international levels.

The work of the IOI is organised in four major, mutually interdependent, components: training programmes, research, conferences and seminars and publications.

### Training

In the period up to 1992 over 40 training programmes were conducted by IOI and about 700 persons from over 100 developing countries trained. Many of the persons trained by IOI were from universities and other training institutions in the developing world thus having a multiplier effect.

The purpose of the training programme was to deepen the understanding of the ever-increasing importance of the oceans and their resources in world politics and sustainable development.

### Research

The IOI conducted a long series of research projects, starting with a project on the pollution of the Mediterranean (1971), on Environment and Development in the Mediterranean (1972), and continuing with a variety of policy subjects ranging from the question of the reservation of the oceans for peaceful purposes to the possibilities of establishing an ocean development tax; from the potential of ocean mining to the institutional implications of sustainable development in the marine sector.

IOI has been also seminal in advancing the establishment of regional centres for R&D in marine industrial technology, a concept that has been endorsed by UNIDO and UNEP. In this connection IOI in association with UNIDO prepared a study on the setting up of Regional Research Institutes for marine industrial technology for the Mediterranean and Caribbean regions in 1988 and 1990.

### Conferences and seminars

IOI's Annual Conference is called **Pacem in Maribus**, which means "Peace in the Oceans." It is a paraphrase of Pope John XXIII's famous Encyclical **Pacem in Terris**, "Peace on Earth." Peace in



the oceans, peaceful settlement of disputes, and the advancement of the peaceful uses of the oceans, indeed constitute the primary mission of the IOI, since without peace there can be neither economic development nor conservation of the environment.

The Pacem in Maribus Conferences have been conducted in all parts of the world -- North, South, East and West. They have explored many global and regional issues as they arose, e.g., EEZ management; Technology Development and Transfer, Monitoring and Surveillance; Ports and Harbours as Nodal Points in a Global System; the Economic Potential of the Oceans; Naval Disarmament. The 19th Conference, which was held in Lisbon in 1991, provided much of the material which went into the UNCED process, in particular into Chapter 17 of Agenda 21, which deals with the seas and oceans.

IOI also conducted a number of seminars during UNCLOS III to sensitise decision makers in the issues involved.

### Publications

IOI's major publication is the **Ocean Yearbook**, published by the University of Chicago Press. Eleven volumes of 600 pages each have appeared to date. Proceedings of various conferences have been published by the University of Malta Press, Pergamon Press, and the United Nations University Press. These include **The Common Heritage** by Arvid Pardo, edited by Elisabeth Mann Borgese (1974, about to be re-issued) and **The Law of the Sea and the New International Economic Order (1976)**, by Arvid Pardo and Elisabeth Mann Borgese, on a research grant by the Ministry for Development Cooperation of the Netherlands. A series of 5 monographs was published by IOI and UNEP, starting with a booklet **The Oceans, The Convention and You**, followed by 4 booklets analysing the impact of the Law of the Sea Convention on regional development in the Mediterranean, the Caribbean, the South Pacific, and the Indian Ocean. A quarterly newsletter **Across the Oceans** is also being circulated to IOI alumni and others. The proceedings of **Pacem in Maribus** conferences have also been published.

### Linkages with U.N.

IOI had observer status at UNCED 1992, at UNCLOS III, and now has observer status at the International Sea-bed Authority, and has contributed a number of working papers to these bodies. IOI also has consultative status with UNESCO, an MOU with UNESCO's Intergovernmental Oceanographic Commission (IOC), consultative status with the International Maritime Organisation (IMO), and an MOU with the United Nations University.

### Impacts of IOIs activities

The impact of IOIs activities can be felt in the areas of capacity building, technology transfer and management, human



skills development, more informed decision making and in promoting North-South and South-South cooperation.

Capacity-building encompasses human, scientific, technological, organisational, institutional and resource capabilities. A fundamental goal of capacity-building is the enhancement of the ability to evaluate and address the crucial choices and modes of implementation among development options. IOI's training programme, addressed as it was to mid-level civil servants and professionals, created by 1992 over 700 persons occupying fairly high positions who were aware of the interlinked nature of oceanic ecosystems and the necessary managerial mechanisms. The global network of individuals spread over 100 developing countries facilitated regional cooperation.

Nearly 200 of IOI's alumni came from island developing states thus greatly adding to their capacity. The marine affairs programme of the University of South Pacific was a direct outcome of IOI's programmes held in the region in 1983 and 1985.

The Pacem in Maribus Conferences, which included experts from North, South, East and West helped in creating resonance between the attitudes of the developed and the developing countries thereby contributing ideas to international negotiations in many crucial areas including technology issues, naval disarmament, the UNCED process and biodiversity.

Besides manpower development, IOI's training programme impacted on integrated management processes, enhanced the capacity of decision makers to use scientific information, led to some universities and training institutions accepting cross-disciplinary studies as a necessary part of their academic curricula, and had a multiplier effect through its training of trainers element. This made for more informed decision making at national, regional and global levels.

The IOI was one of the first to promote the idea of joint technology development as a way of overcoming the North-South divide. This led, in association with UNIDO, to the development of the idea of Regional Centres for Marine Industrial Technology.

### **Lessons of the 1967-92 period**

During these 25 years IOI functioned from 2 centres, one in Halifax, Canada and the other in Malta and the courses were largely conducted in English. During that period the demand for IOI's programmes was rising.

There was, thus, need to extend IOI's outreach both geographically and through languages other than English.

By 1992 the world had become much more complex, new concepts like sustainable development and problems of global governance, coastal zone management, biodiversity, climate change, depletion of the ozone layer etc. were emerging. All of them had very

critical linkages with the oceans.

The experience of IOI showed that creating a critical mass at middle levels of the hierarchy though necessary was not sufficient to impact on policies. Top decision makers unaware of the long-term implications and linkages involved in the recurring crises, had to be made aware of the need for an interdisciplinary approach, both in Government and in training and education, and to the importance of the oceans, ocean management and the new, emerging oceanic order. They had to be sensitised to all the above if policies and programmes were to be geared to the emerging realities.

There was also need to pursue the ideal of joint technology development as a way of bridging the North-South gap in high technology as well as to lead to increased security since most high technology had military implications.

Although IOI's structure had stood the test of time for 25 years, changes were necessary if it was to meet the requirements of the 1990s and beyond.



**ACTIVITIES OF THE INTERNATIONAL OCEAN INSTITUTE  
AN NGO  
IN IMPLEMENTING AGENDA 21  
TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY (CHAPTER 34)  
1995-96**

**Activities of the International Ocean Institute**  
**1995-96 - transfer of environmentally sound**  
**technology**

**Introduction**

The International Ocean Institute (IOI) is one of a handful of international NGOs devoting itself exclusively to technology matters connected with the Oceans. It has been active in promoting institutional and other mechanisms regarding environmentally sound ocean technology for almost a decade.

IOI was one of the first to promote the idea of joint technology development as a way of overcoming the North-South divide. This led, in association with UNIDO, to the development of the idea of Regional Centres for Marine Industrial Technology for the Mediterranean and the Caribbean in the 1980s.

IOI recognised that the latest phase of the industrial revolution, the so-called third or fourth industrial revolution, required the stressing of different parameters if technology was to be absorbed by recipient countries. This meant that emphasis had to shift from mere transfer of technology to human resources, the development of technology assessment and forecasting methodologies in the recipient countries, and a system of technology watch to enable the recipient countries to make informed choices. To this end, IOI included in its training programmes modules on high technology, including environmentally sound technologies, and the links of technology to management strategies and economic growth.

**Activities of IOI in 1995-96**

During the period 1995-96 the IOI:

- conducted a 5-week programme on methods of managing, acquiring and developing technologies for deep sea mining, a high tech venture;
- conducted 12 training programmes in each of which there was a module on high and environmentally safe technology. Over 220 persons from developing countries were thus sensitised to modes of acquiring and managing marine technology for sustainable development;
- advocated the establishment of a network of regional centres for marine industries in the Indian Ocean region. The functions of the members of the network would be to:
  - \* adopt through consultations, standards of acceptable social and environmental sustainability;
  - \* establish areas of priority regarding development of marine industrial technology based on the



needs of the recipient countries;

- \* collect, collate and disseminate information on present and state-of-the-art technologies in the context of social and environmental sustainability so that informed and appropriate decision-making could result;
- \* develop capacity for identifying technologies suitable for small islands;
- \* identify potential private sector partners;
- \* conduct seminars, symposia and training programmes;
- \* act as Certifying Centres for environmentally safe technologies.

The Government of India is actively considering declaring its National Institute of Ocean Technology as one of the Regional Centres to assist those countries of the Indian Ocean that request its help.

- published a Report on Science and Technology Cooperation in the Indian Ocean Region and widely disseminated it both in the Indian Ocean Region as well as elsewhere;
- developed a project on Spirulina (a blue green algae high in Vitamin A) for the Government of Ethiopia. The project provides for transfer of this environmentally safe and renewable technology, including the financing thereof, from Japan and/or India;
- presented a paper on how to encourage the use of environmentally safe technologies for sustainable coastal area development in the Mediterranean/Adriatic at an International Expert Meeting held in Ljubljana, Slovenia.

### **Lessons learnt**

The main lessons learnt by IOI during 1995-96 were:

- \* Most developing country decision makers regard high tech as an esoteric area of little use to their countries.
- \* General lack of technological "literacy" in developing countries.

**Recommendations derived from lessons learnt**

According to IOI the main recommendations would be:

- \* Sensitisation of developing country decision-makers to the economic and other benefits of environmentally safe technologies. This requires, inter alia, the demystifying of high tech and use of easily understandable jargon-free terminology.
- \* The establishment of decentralised Regional Centres and Networks for technology as a way of:
  - . optimising scarce manpower resources;
  - . increased information dissemination;
  - . national institutional development and capacity-building;
  - . building long-range partnerships between the private and public sectors.
- \* Conduct training in appropriate project formulation techniques so that available funds can be drawn upon.
- \* Conduct training in high tech management, forecasting and assessment.



**ACTIVITIES OF THE INTERNATIONAL OCEAN INSTITUTE  
AN NGO  
IN IMPLEMENTING AGENDA 21  
CAPACITY BUILDING (CHAPTER 37)  
1992-96**

Activities of the International Ocean Institute,  
1992-96 - capacity building

Introduction

The International Ocean Institute (IOI) has been engaged in human resources development and institutional restructuring for more than two decades through its training, research, conferences and publications.

Its almost three decades of work offers a good case study in the fields of:

- capacity building including human resources development;
- institutional development at international, regional and national levels.

Till 1992 IOI functioned from 2 centres, one in Canada and the other in Malta. Its training, multi-sectoral, trans-disciplinary and for mid-level personnel, was mainly conducted in English. The demand for IOI's programmes was rising all the time, also in non-English languages.

The need was thus felt to extend IOI's outreach both geographically and through languages other than English.

Also by 1992 the world had become more complex. New concepts like sustainable development, global governance, integrated coastal zone management, biodiversity, climate change, depletion of the ozone layer etc. were emerging. All these had very critical linkages with the oceans.

The experience of IOI had also shown that creating a critical mass at middle levels of the hierarchy, though necessary, was not sufficient to impact on policies. Top decision makers were, by and large, unaware of the long-term implications and linkages involved in the recurring environmental and developmental crises. They had, therefore, to be made aware of the need for an interdisciplinary approach, the importance of the oceans, ocean management and the emerging new oceanic legal order. They had to be sensitised to all the above if policies and programmes were to be geared to the emerging realities.

The impacts of IOI's activities were to be felt in the areas of capacity building, technology management strategies, human skills development and more informed decision making.

Capacity-building encompasses human, scientific, technological, organisational, institutional and resource capabilities. A fundamental goal of capacity-building is the enhancement of the ability to evaluate and address the crucial choices and modes of implementation among development options.

IOI's training programme, addressed as it was to mid-level civil servants and professionals, created by the end of the 1980's over 700 persons occupying fairly high positions and who were aware of the interlinked nature of oceanic and coastal ecosystems and



the necessary managerial mechanisms. The global network of individuals spread over 100 developing countries also facilitated regional cooperation.

Nearly 200 of IOIs alumni came from island developing countries thus greatly adding to the capacity of such states. The marine affairs programme of the University of South Pacific, and catering to 12 South Pacific island countries, was also a direct outcome of IOIs programmes held in the region in 1983 and 1985.

Besides manpower development, IOIs training programme impacted on integrated management processes, enhanced the capacity of decision makers to use scientific information, led to some universities and training institutions accepting cross-disciplinary studies as a necessary part of their academic curricula, and had a multiplier effect through its training of trainers element.

### **Activities 1992-96**

In 1992 IOI moved the Global Environment Facility (UNDP/GEF) for US\$ 2.6 million to enable it to consolidate its far-flung operations and to enable it to develop into a networking "system" rather than an "institute". IOI was convinced that this was a necessary response to the needs and challenges of the 1990s: a far-flung system held together by a common philosophy, a common aspiration and a common approach.

UNDP/GEF sanctioned the project in September 1993. Under the project IOI set up four operational centres in Costa Rica, Fiji, India and Senegal - in addition to the ones in Malta and Canada - to cover the Caribbean, Oceania, Indian Ocean, South Atlantic in addition to the Mediterranean, North Atlantic and the North Pacific. This greatly added to the capacities of these regions.

The result is that training programmes are now evolving close to where the needs are and region-specific research is being carried out. Since these centres were established in close cooperation with local governments and institutions, and the four directors are committed and motivated individuals, the level of local involvement is very high.

In addition, the **existing training programmes** of IOI have been **updated** and **new ones developed** especially for **ecosystem management, environmental economics, small islands, planners, project managers, decision makers, alumni, and trainers**. The courses have also been brought in line with the latest developments in instruction technologies and made replicable and transferable through stressing quality of material and linkages with Agenda 21. Besides **courses in French and Spanish** are being conducted by the Senegal and Costa Rica centres thus making the delivery of courses multi-lingual.

The higher visibility of IOI globally has led to two more centres being established in China and Japan in association with the



State Oceanic Administration, Peoples Republic of China and Yokohama City University, Yokohama. These centres are financially self sustaining.

There are demands for more centres in South Africa, Qatar, Portugese Africa, Caribbean etc.

### **Training courses**

Over 25 courses and workshops in English have been conducted with UNDP funding.

A leaders seminar for decision makers from Central America and a 2-week programme in Sea Law and Ocean Policy has been held in Senegal in French.

A 2-week programme on coastal zone management has been held in Senegal in French in September and an 8-week programme in French for planners is due to be held in November-December, 1995.

Sixteen trainers have been trained in UNDP and UNDOALOS Train-Seacoast methodology. Besides about 20 professionals/trainers have been trained by IOI in its trans-disciplinary methodology.

The sensitisation of decision makers through the IOI courses on integrated coastal management has led to governments funding courses on a national basis: the governments of Malaysia and India have funded three courses of 1 week, 1 week and 3 weeks duration respectively. Three courses have also been funded for the future managers and planners of the Enterprise (an organ under the International Seabed Authority) as also a 5 weeks course on Resource and Environmental Economics by Sasakawa Foundation from Japan. Two courses for Small Island States of 8 weeks and 6 weeks respectively have been funded by the Commonwealth Secretariat. CIDA has funded three 10-week courses on EEZ management.

The result of the various courses from both UNDP and other sources has meant that the number of IOI alumni has crossed the 1100 mark and is expected to exceed 1400 by the end of 1996.

A result of the adoption of the Train-Seacoast methodology has been the development of a large number of replicable training modules relatable to Agenda 21 issues e.g. environmental economics, problems of small islands, integrated coastal zone management, science and technology, case studies and simulation exercises in negotiation techniques, cost-ineffectiveness of present multiple decision-making systems etc.

### **Research**

A one-week Customary Marine Tenure Workshop was held in South Pacific in July, 1994 in which the various kinds of marine tenure systems in the Asian-Pacific region were analysed in the context



of their applicability to sustainable development.

A 4-day Workshop on Marine Industrial Technology for the Development of Marine Non-living Resources was held in September, 1993 in Madras in association with UNIDO and the Government of India. The Workshop recommended the establishment of international and national networks to facilitate information exchange, technology promotion, co-development of new technologies and environmental protection. The workshop stressed the need for both North-South and South-South cooperation.

As a follow-up of this workshop, IOI convened a 2-day workshop on Marine Technology Cooperation in the Indian Ocean Region in association with the Government of India and UNDP/TCDC in December, 1994. The Workshop's recommendation that one of the regional centres be established in Madras is under the active consideration of the Government of India and a favourable decision is expected soon.

IOI also did work on the revision of the Barcelona Convention in 1994. This was almost entirely endorsed by the Government of Malta and introduced at the level of States Parties. Most of the changes suggested by IOI were accepted and incorporated in the revised Barcelona Convention, 1995.

### Conferences and Seminars

Three Pacem in Maribus Conferences have been held since 1992. Pacem in Maribus XX (Malta, 1992) examined possible lessons from IOIs 25-year ocean experience for the governance of other global issues, such as outer space, the atmosphere, for food, energy, and science and technology.

Pacem in Maribus XXI (Japan, 1993) explored the issues of reorienting the regional seas programmes from a sectoral approach focusing on the environment to an approach that would integrate environment and development concerns.

The theme of Pacem in Maribus XXII (India, 1994) was Sustainable Development and Regional Cooperation. The subject was chosen with the specific purpose of focusing on some of the policy issues arising from the critical uncertainties of **climate change**, especially in the **ocean-air interface**, **biodiversity** in the marine sector, the carrying capacity of the ocean and polar regions as heat and waste sinks, and the various implications of the intrusion of high-tech into the marine sector.

Pacem in Maribus XXIII (Costa Rica, 1995) is exploring the links of Ocean Governance with the UN Secretary Generals Agenda for Peace.



### Lessons of the 1992-96 period

The main lessons to be drawn are:

- an NGO is most effective in capacity building when it acts through local institutions in a decentralised manner and in harmony, with the policies and programmes of the concerned states;
- networking of local, national, regional and international institutions leads to ground level and country driven programmes and initiatives;
- NGO's acting through national delegations can assist in the development of innovative changes to existing regional intergovernmental programmes e.g. the case of the Barcelona Convention, 1995, mentioned earlier;
- international and regional training programmes are important for linking global issues with national policies and programmes. Such programmes help build capacity by creating a framework for national training programmes and assisting in the formulation of policies, programmes and projects;
- the following of a sound pedagogical approach to the development of training modules, and the ensuring of high quality, has global spillover impacts;
- developing countries, in general, are unaware of the extent and amount of international funding available and also of the mechanisms for availing themselves of such assistance. The result is, especially in the least developed countries and isolated island states, of non-preparation of project proposals which could enable them to avail of such assistance. Information dissemination about available funds and training programmes in project formulation would greatly help in mobilising funds;
- institution building is very necessary for mobilising resources. IOIs experience suggests that the provisions for human resources development and institution building have multiplier effects in generating resources;
- the assistance of about \$ 1.8 million from UNDP/GEF (up to 1995 end) has generated additional amounts of nearly \$ 4.0 million for training and over \$ 10.0 million for infrastructure thereby underlining the multiplier impacts of capacity building programmes.

### Recommendations

The case study of the IOI may give some idea as to how an NGO can



effectively contribute to the implementation of Agenda 21 with regard to Chapter 37 (national mechanisms and international cooperation for capacity-building).

The potential indeed is very great. The constraints are partly institutional; IOI had to go through a rather radical process of restructuring to maximise this potential; and partly they are financial, requiring a considerable amount of risk-taking and entrepreneurial initiative. Given the rigid, sectorally organised structure of governmental and intergovernmental institutions, it would have been far more difficult for them to develop the interdisciplinary and trans-sectoral programmes and projects pioneered by NGOs like IOI.

Some specific recommendations would be:

- to carry out research in institution building especially at the regional level;
- to establish decentralised networks of institutions at local, national, regional and international levels;
- to encourage NGOs to work in association with national/local institutions;
- have programmes/workshops for sensitising decision makers to the advantages of integrated management system;
- assist NGOs to augment their outreach as was done for IOI by UNDP/GEF financing.

**ACTIVITIES OF THE INTERNATIONAL OCEAN INSTITUTE  
AN NGO  
IN IMPLEMENTING AGENDA 21  
CLUSTER ON DECISION MAKING STRUCTURES (CHAPTERS 8,38,39,40)  
1992-96**



## Activities of the International Ocean Institute 1992-96 - cluster on decision making structures

### Introduction

The International Ocean Institute (IOI) is one of a handful of international NGOs devoting itself exclusively to the oceans. Its almost three decades of work offers a good case study in the fields of:

- capacity building including human resources development;
- decision making in cross-sectoral and multi-disciplinary matters;
- institutional development at international, regional and national levels.

Till 1992 IOI functioned from 2 centres, one in Canada and the other in Malta and conducted many trans-sectoral and multi-disciplinary training programmes. The courses were mainly conducted in English. The demand for IOI's programmes was rising all the time, also in non-English languages.

The need was thus felt to extend IOI's outreach both geographically and through languages other than English.

Also by 1992 the world had become complex. New concepts like sustainable development, global governance, integrated coastal zone management, biodiversity, climate change, depletion of the ozone layer etc. were emerging. All these had very critical linkages with the oceans.

The experience of IOI had shown that top decision makers were unaware of the long-term implications and linkages involved in managing the oceans. They had to be made aware of the need for an interdisciplinary approach if policies and programmes were to be geared to the emerging realities.

### Activities 1992-96

In 1992 IOI moved the Global Environment Facility (UNDP/GEF) for US\$ 2.6 million to enable it to consolidate its far-flung operations and to enable it to develop into a networking "system" rather than an "institute". IOI was convinced that this was a necessary response to the needs and challenges of the 1990s: a far-flung system held together by a common philosophy, a common aspiration and a common approach.

UNDP/GEF sanctioned the project in September 1993. Thereafter six operational centres in China, Costa Rica, Fiji, India, Japan and Senegal - in addition to those in Malta and Canada - were established.

The result has been that the training programmes are now evolving close to where the needs are, region-specific research is being carried out, and a dialogue with decision makers in the region



has been initiated on a continuous basis. Since these centres were established in close cooperation with local governments and institutions, and the four directors are committed and motivated individuals, the level of involvement is very high.

In addition, the **existing training programmes** of IOI have been **updated** and **new ones developed** especially for **ecosystem management, environmental economics, small islands, planners, project managers, decision makers, alumni, and trainers.**

### Training courses

Over 25 courses and workshops in English have been conducted with UNDP funding.

A leaders seminar for decision makers from Central America and a 2-week programme in Sea Law and Ocean Policy have been held in Costa Rica in Spanish.

A 2-week programme on coastal zone management and an 8-week programme in French for planners have been held in Senegal in French.

Sixteen trainers have been trained in UNDP and UNDOALOS Train-Seacoast methodology. Besides about 20 professionals/trainers have been trained by IOI in its trans-disciplinary methodology.

The sensitisation of decision makers through the IOI courses on integrated coastal management has led to governments funding courses on a national basis: the governments of Malaysia and India have funded three courses of 1 week, 1 week and 3 weeks duration respectively. Three courses have also been funded for the future managers and planners of the Enterprise (an organ under the International Seabed Authority) as also a 5 weeks course on Resource and Environmental Economics by Sasakawa Foundation from Japan. Two courses for Small Island States of 8 weeks and 6 weeks respectively have been funded by the Commonwealth Secretariat. CIDA has funded three 10-week courses on EEZ management.

The result of the various courses from both UNDP and other sources has meant that the number of IOI alumni has crossed the 1100 mark and is expected to exceed 1400 by the end of 1996.

A result of the adoption of the Train-Seacoast methodology has been the development of a large number of replicable training modules relatable to Agenda 21 issues e.g. environmental economics, problems of small islands, integrated coastal zone management, science and technology, case studies and simulation exercises in negotiation techniques, cost-ineffectiveness of present multiple decision-making systems etc.



## Research

A one-week Customary Marine Tenure Workshop was held in South Pacific in July, 1994 in which the various kinds of marine tenure systems in the Asian-Pacific region were analysed in the context of their applicability to sustainable development.

A 4-day Workshop on Marine Industrial Technology for the Development of Marine Non-living Resources was held in September, 1993 in Madras in association with UNIDO and the Government of India. The Workshop recommended the establishment of international and national networks to facilitate information exchange, technology promotion, co-development of new technologies and environmental protection. The workshop stressed the need for both North-South and South-South cooperation.

As a follow-up of this workshop, IOI convened a 2-day workshop on Marine Technology Cooperation in the Indian Ocean Region in association with the Government of India and UNDP/TCDC in December, 1994. The Workshop's recommendation that one of the regional centres be established in Madras is under the active consideration of the Government of India and a favourable decision is expected soon.

IOI also did work on the revision of the Barcelona Convention in 1994. This was almost entirely endorsed by the Government of Malta and introduced at the level of States Parties. Most of the changes suggested by IOI were accepted and incorporated in the revised Barcelona Convention, 1995.

## Conferences and Seminars

Three Pacem in Maribus Conferences have been held since 1992. Pacem in Maribus XX (Malta, 1992) examined possible lessons from IOIs 25-year ocean experience for the governance of other global issues, such as outer space, the atmosphere, for food, energy, and science and technology.

Pacem in Maribus XXI (Japan, 1993) explored the issues of reorienting the regional seas programmes from a sectoral approach focusing on the environment to an approach that would integrate environment and development concerns.

The theme of Pacem in Maribus XXII (India, 1994) was Sustainable Development and Regional Cooperation. The subject was chosen with the specific purpose of focusing on some of the policy issues arising from the critical uncertainties of **climate change**, especially in the **ocean-air interface**, **biodiversity** in the marine sector, the carrying capacity of the ocean and polar regions as heat and waste sinks, and the various implications of the intrusion of high-tech into the marine sector.

The theme of Pacem in Maribus XXIII (Costa Rica, 1995) is the link that Ocean Governance has with the UN Secretary Generals Agenda for Peace.

### **Networking and other activities**

IOI joined SEA WEB, a network of Universities for Academic Strategies in Ocean Affairs.

IOI also took the initiative towards the establishment of an Independent **World Commission on the Oceans (WCO)** with the intention, inter alia, of:

- focussing world attention on sustainable ocean development
- analysing the difficulties faced by developing states and measures of overcoming them
- institutional development necessary at national, regional and international levels.

The IOI Centres are to act as regional secretariats of the WCO.

**IOI China** has held regional hearings of the WCO. It is also engaged in preparation of:

- the Chinese Agenda 21;
- national law and regulations for the oceans around China;
- administrative and other measures necessary to sustainably develop the oceans.

**IOI South Pacific** held regional hearings of WCO. It also:

- assisted Government of Fiji establish a Marine Affairs Coordinating Committee;
- assisted University of South Pacific raise \$ 10 million from JICA;
- established a coordinating centre to collect and disseminate information on indigenous knowledge and the natural resource management system;
- participated in the regional GEF scoping workshop for the South Pacific region.

**IOI India** geared itself for regional hearings of WCO by:

- preparing a comprehensive mailing list of Friends of the Ocean (FOTO) in the Indian Ocean Region;
- establishing contacts with UNEP's SACEP and East Asian Seas programmes, University of Singapore and the Governments of India and Malaysia.



IOI India also conducted programmes on sustainable ocean development for local and national decision makers.

**IOI Halifax** raised funds from CIDA for hearings of WCO in Canada and North America.

**IOI Japan** raised funds and conducted regional hearings in Yokohama as well as the first plenary of the WCO.

**IOI Senegal** established links with the Governments of Guinea and Mauretania.

**IOI Costa Rica** will hold Pacem in Maribus XXIII on the subject of Ocean Governance, Law of the Sea and the UN Secretary Generals "Agenda for Peace" in December, 1995.

### **Publications**

IOI published its quarterly newsletter **Across the Oceans**, and books on:

- **Science and Technology Cooperation in the Indian Ocean Region**
- **Ocean Governance and UN Restructuring.**

### **Lessons of the 1992-96 period**

The main lessons to be drawn are:

- international NGOs need to act through local institutions, and in cooperation with regional systems e.g. the Regional Seas Programme, in a decentralised manner as that leads to creativeness and the involvement of local and national decision makers;
- the sensitisation of decision makers regarding the interlinkages of oceans with climate, the productivity and biodiversity of fragile oceanic ecosystems, the importance of the oceans for sequestering carbon dioxide, and their availability as a resource for food, energy, minerals and fibre leads to rising demands for training programmes regarding institutional change, science and technology, environmental economics;
- international and regional training programmes assist in linking global issues (Law of the Sea, Agenda 21, Conventions on Biodiversity and Climate Change) with national policies and programmes;
- also such programmes need to be in all major languages as that:

- . creates a framework for national training programmes;
  - . assists in the formulation of national policies, programmes and projects;
  - . helps regional cooperative endeavours through the development of region-wide networks of professionals and decision makers;
- ground-level coordination between regional and national agencies, NGOs and institutions, with multiplier impacts on decision making, can be brought about by training programmes which stress the enormous value added through integrating sectors, disciplines, departments and national programmes;
  - a decentralised (regional) networking system is the best way of having regional coordination and cooperation as it is an effective way of overcoming inhibiting national considerations;
  - information dissemination of available funding sources and training programmes in project formulation would greatly help developing countries avail themselves of available funds;
  - in high technology acquisition strategies South-South cooperation needs to supplement North-South cooperation;
  - "technology transfer" has to be increasingly replaced by human resources development due to the changing nature of "technology" which is increasingly knowledge- and information-based besides being software oriented;
  - regional training in high technology management, forecasting and assessment is necessary especially for personnel from developing countries.

### **Recommendations**

The above case study of IOI gives some idea as to how an NGO can effectively contribute to the implementation of Agenda 21 with regard to Chapters 8, 38, 39, 40.

The potential is very great. The constraints are partly institutional; IOI had to go through a rather radical process of restructuring to maximise this potential; and partly they are financial, requiring a considerable amount of risk-taking and entrepreneurial initiative. Given the rigid, sectorally organised structure of governmental and intergovernmental institutions, it would have been far more difficult for them to



develop the interdisciplinary and trans-sectoral programmes and projects pioneered by NGOs like IOI.

NGOs, acting through national delegations, can make important, even decisive impacts on policy making as may be seen from IOI's impact on the revision of the Barcelona Convention, advancing it from a sectoral ("pollution control and abatement") to an integrated ("environment and development") approach, "from Stockholm to post-Rio."

Some specific recommendations would be the need to:

- to carry out research in institution building especially at the regional level;
- to establish decentralised networks of institutions at local, national, regional and international levels;
- to encourage NGOs to work in association with national/local institutions;
- sensitise decision makers, demystify high tech and make explicit the links between environment and development;
- widely disseminate training material developed by the Train-Seacoast network in all major languages;
- disseminate information regarding available international funds and funding mechanisms;
- conduct training in appropriate project formulation techniques so that available funds can be drawn upon;
- conduct training in high tech management, forecasting and assessment.

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