



International Ocean Institute

P.O. Box 524 Valletta ~~Malta~~

Cables: Interocean

THE IOI TRAINING PROGRAMME ON THE MANAGEMENT AND CONSERVATION OF MARINE RESOURCES

A CASE STUDY

Introduction

On April 30, 1982, the Third United Nations Conference on the Law of the Sea adopted, together with the Convention, a Resolution (A/Conf. 62/L. 127) which appeals to all States, developed and developing, to all competent organizations within the United Nations system, to the Secretary General, and to the World Bank, to cooperate in enhancing the development of marine science, technology and ocean services in developing countries.

This Resolution culminates a long series of manifestations of a newly felt need for training in marine sciences as a basis for the rational management of the marine environment and its resources

A number of interrelated developments have triggered off this new need:

(1) New scientific discoveries in the geophysics of the oceans;

(2) the penetration of the industrial revolution into the oceans;

(3) the growing importance of the oceans in the economy of the world community and of each individual State, whether coastal or landlocked;

(4) the ongoing transition from a system of laissez-faire in the oceans to a system of management, comprized of two components:

(a) extended areas under national jurisdiction, adding a new dimension to national development strategies;

(b) an international Area in whose management all States may participate

-- both established by the Convention on the Law of the Sea.

Even before the Convention comes into force, States are already heavily engaged in implementing it through national legislation and the establishment of national infrastructure, to explore and exploit the potential of ocean management and optimize benefits from the new Law of the Sea.

The United Nations and those of its organizations which are basically involved with the oceans (UNESCO/IOC, FAO/COFI, IMO, UNEP) and others, more marginally concerned with the oceans, have responded to the new need by (i) making studies and monitoring developments; (ii) providing information; (iii) conducting short seminars for experts; (iv) organizing training programmes and providing scholarships. "Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole," the United Nations system has begun to create integrating mechanisms, such as ICSPRO or TEMA, to enhance these activities. These efforts to enhance the development of ocean management capacity in developing countries on a comprehensive, integrated basis, will undoubtedly continue and expand. Such efforts include the intergovernmental as well as the nongovernmental sector.

This paper presents a case study of a nongovernmental effort in the training of Third-World personnel in ocean management and conservation. It shows how this programme is being carried out in close cooperation with national Governments and the United Nations and indicates some areas in which this cooperation could be strengthened to improve the effectiveness of the Programme.

The IOI Training Programme on the Management and Conservation of Marine Resources

1. Background

The International Ocean Institute (IOI) is an independent, nongovernmental, international, nonprofit organization. It is governed by a Board of Trustees and a Planning Council (see Annex 1). A small staff conducts operations in Malta. The Institute's activities are highly decentralized and take place in all parts of the world.

The purpose of the Institute, as defined in its Statute, is "to promote research on the peaceful uses of ocean space and its resources, including the regulation of such uses," and to that end, "...convene Pacem in Maribus Convocations, courses, seminars and the like; award fellowships in ocean studies; and undertake such other regional and global activities as may be determined by the Council."

The concept of the training programme arose in the context of the Law of the Sea negotiations.

Already the early drafts of the negotiating texts made extraordinarily high demands on the qualifications of experts to be elected or appointed as members of various organs of the future Seabed Authority, such as the Governing Board and the Staff of the Enterprise, the Commissions of the Council, the Council itself, or the Seabed Chamber of the Tribunal. It was difficult to imagine that developing countries could provide such highly trained personnel in sufficient numbers to fill their quotas and participate as equals in the management and decision-making of the Authority.

The IOI presented a training project proposal at Pacem in Maribus VIII in Mexico in 1977 and Pacem in Maribus IX, in Yaounde, the following year. The proposal was extremely well received. The Summit of the Organization for African Unity, which met immediately after Pacem in Maribus IX, adopted a Resolution in favour of training programmes,

with particular reference to the IOI project. The OAU Resolution went to the Plenary of UNCLOS, which endorsed it. The Government of Sweden provided funds through the Swedish International Development Agency (SIDA) for an initial workshop to draw up a detailed syllabus for an interdisciplinary programme on ocean mining and get it started. The first course in Malta took place in the spring of 1980. Nineteen Government-appointed participants from 11 developing countries attended the 12-week course. Scholarships were made available by the Federal Republic of Germany, the Netherlands, Mexico, and the European Economic Community. The programme was far from perfect. The organizers learned at least as much as the participants. For the IOI, it was a real-time feasibility study.

Following the advice of representatives of the Canadian Government, the United Nations, and others, the IOI immediately began to enlarge the programme by planning a second annual course, Class B, devoted to all aspects of Economic Zone management. A workshop, to draw up a detailed syllabus, was funded by CIDA (Canada). The first Class B programme was held in Malta in the autumn of 1980. There were 19 participants from 16 developing countries.

Both courses have been held three times during these first three years. Over 100 participants from 41 developing countries have received diplomas. The curricula for both courses have been vastly improved during this period; the Class A programme has been strengthened by moving the technical part to the Technical University of Aachen with its splendid technological infrastructure; while the Class B programme has greatly benefitted from association with Dalhousie University and the cooperation of other educational, industrial, and governmental entities in the Maritime Provinces of Canada.

Thanks to the initiative of the Government of India, a third programme, Class C, has been

added. Class C is a regional programme. It combines the curricula of Class A and Class B, but focuses them on the needs and problems, the resources and infrastructures available in one particular region. In 1982, Class C will take place in Goa, India, in cooperation with the Ministry for External Affairs and the Department for Ocean Development of the Government of India, the National Institute of Oceanography in Goa, and UNEP. There will be 25 participants from 14 countries in South and South-East Asia. For 1983, two Class C programmes are planned: One in Algeria, for Francophone Africans; the other in the Solomon Islands, for the small island States of the South Pacific. Also for 1984, in response to special demands, 2 Class C programmes are planned: one in Mexico, the other in Thailand, while Classes A and B will continue regularly, in Malta/Aachen and at Dalhousie.

2. Purpose and scope

The purpose of the programme is to deepen the understanding of the ever increasing importance of the oceans and their resources in world politics and world economics; to assist developing countries in the formation of a core of decision-makers fully aware of the complex issues of ocean management; and to maximize the benefits to be derived from the proper integration of ocean management into national and international development strategy.

Class A focuses on the importance of ocean mining in the context of global economics, on technological and organizational developments. It should assist developing countries to optimize benefits from contract negotiations and to enable them to participate effectively in international undertakings in ocean mining so as to assure their fair share in the common heritage of mankind.

The main emphasis of the Class B programme is on the harmonization of all uses of the EEZ to maximize economic benefit and minimize ecological damage; on integrated water management; on the requisite national legislation and institutional

infrastructure and its interaction with regional and global institutions.

The Class C programme focuses on regional problems and regional cooperation, not only in the management of living resources, the marine environment, and scientific research, but even in the form of joint undertakings in oil and mineral exploration, where appropriate.

All three programmes stress the importance of the marine sciences as a basis for ocean management and offer in-depth discussion on scientific methodology, including data collection, data storage, data transfer, and the monitoring of the ocean environment. The state-of-the-art of each one of the basic marine sciences is presented by the best experts in the field, and the direct relevance of each science for resource management is explored.

All three programmes are broadly interdisciplinary, ranging from the scientific and technological to the economic, legal and political aspects of ocean management and attempting to integrate all this material in a new "ideology," as it were: an ecological worldview, stressing cooperation rather than competition, communality of interests rather than conflict and viewing cultural evolution -- including technology -- and natural evolution as continuous, not antagonistic developments. The programme attempts to convey the kind of philosophy that should underly the building of a New International Economic Order.

This is what distinguishes the programme from other programmes, most of which are more narrowly technical and specialized. The IOI programme thus should be considered as complementary, not as a duplication of other ongoing efforts such as undertaken by the U.N. institutions, singly or jointly, or by specialized technical institutions.

3. Structure of the programme

(a) Curriculum formation

The curriculum for each course is prepared by a two-day workshop. A draft curriculum, drawing on past experience, is prepared by the IOI staff and serves as a basis for discussion for the workshop.

The workshop is attended by 3-4 members of the IOI staff and governing bodies, a few experts in the various sectors to be covered, and representatives of U.N. institutions participating in the programme. There has been one such workshop each for the Class A and Class B programmes. After three years, a thorough evaluation of the programme is being undertaken. Class A will be reviewed, evaluated, and revised by a workshop in Berlin, sponsored by the Carl Duisberg Gesellschaft, next month. An evaluation session for Class B will take place in Dubrovnik, sometime next spring, sponsored by UNEP.

Each of the Class C courses is preceded, about 4-6 months prior to the beginning of the course, by a special regional workshop to assure that the programme responds to the particular needs and problems of the region.

Each programme consists of a series of lectures, numerous field trips providing opportunity for direct observation and participation in marine activities, laboratory work, and a final symposium where the participants present and discuss the results of their work. These results are published as IOI Occasional Papers and are used as background material for subsequent programmes.

(b) Teaching staff

Obviously, the choice of lecturers/discussion leaders and the drafting of the curriculum are closely interrelated. The preparatory workshop, in fact, deals with both. A list of recommended lecturers/discussion leaders is compiled by each

workshop. The course director chooses the teaching staff for each course from this list. At the end of each course, the course participants are asked to give an evaluation of the performance of each lecturer/discussion leader. With the help of the workshops and the course evaluations, the IOI has begun to build up a remarkable global network of lecturers/discussion leaders.

It should be stressed that the programme reduces differences between "participants" and "lecturers" to a minimum. The course participants are in fact competent specialists in their own fields, and their active involvement in the programme is encouraged. The lecturer's function is more that of a "resource person" in a seminar-type discussion. Participants in one course are invited to serve as "lecturer" in subsequent courses.

(c) The participants

The participants are "mid-career civil servants" from developing countries from all parts of the world. This is not meant to exclude participants from developed countries, if a Government of a developed country wishes to nominate any, and provided their scholarships are paid by that country. Obviously the IOI cannot provide scholarships for participants from developed countries.

The preferred age of participants is between 25 and 35, but there have been older as well as younger ones among them. IOI requires that they have at least one University degree (A.B. or whatever the equivalent in different countries); many of the participants hold Ph.D.s. IOI also requires that they have at least two years working experience in Government or in a scientific institution.

All participants are nominated by their Government. They come from the Departments of Agriculture and Fisheries, Energy and Mines, Shipping, Navy and Coastguards, Science and Technology, Economic Planning, Environment, or Foreign Affairs. Nominations usually are coordinated by the Ministry of Foreign Affairs. The final selection is made by the IOI.

Our scholarship scheme (see below) requires that nominations are made by Governments. This gives the programme an unusual status, somewhere between an intergovernmental and nongovernmental activity.

(d) Financing

The cost of each programme is generally around \$180,000. This includes the overseas air fare, economy class, of all participants; 10 weeks of full room and board; field trips, pocket allowance, sickness insurance and teaching materials. It also includes the travel costs of lecturers, their room and board while in residence, as well as their honoraria; it includes the salary for the course director for four months, and the printing of the material that emerges from the course.

These funds are raised in the form of scholarships which are calculated as \$7,500 plus overseas air fare as follows:

Accommodations, 10 weeks	\$1299.45
Food allowance	587.85
Living Allowance	359.00
Local transportation	133.90
Teaching materials and laboratory costs	338.00
Course Fee (including fees to lecturers, telecommunications, administrative overheads, etc.)	4781.80
	<hr/>
	7500.00
Average airfare	1500.00
Total	9000.00

The programme breaks even with twenty scholarships.

The main and most constant supporters of the IOI training programme have been CIDA (Canada), the Commonwealth Secretariat, and the OPEC Fund. Other contributions have come from the Netherlands, the Federal Republic of Germany, Mexico, Nigeria, India, the EEC, UNDP/FAO, IOC, and UNEP. UNEP, UNESCO, FAO, UNCTAD, the U.N. Secretariat, IMO, ILO,

WMO, IAEA, have contributed lecturers free of charge, which is a form both of substantial and financial contribution.

(e) Follow-up activities

Effects of programmes of this type are cumulative. To consider them as "one-time-happenings" in isolation is an enormous waste of time, energy, and funds. Continuity is of the essence. This continuity has several aspects. Courses have to be repeated at regular intervals, each one building on the experience of the past ones. Thus a unique network of teachers and funders, and a stock of teaching materials can be built up over time. Secondly, contacts with former course participants must be maintained. The award of an IOI diploma means the termination of one type of relationship and the beginning of another. Relations with former participants are maintained through (a) IOI efforts to secure additional scholarships to participants who wish to continue their studies in a particular field; (b) the publication of a Newsletter (see Annex 2) to which former participants and lecturers contribute and which is sent to all former participants; (c) the enlistment of former participants as lecturers in subsequent courses; (d) refresher seminars for former participants. This can be done most effectively in connection with regional Class C programmes: symposia are being planned, in conclusion of each one of these programmes, to which all former participants from the particular region will be invited, and which provide an occasion for keeping up to date with the latest developments. The organization of such symposia has been discussed with, and favorably considered by, the Director General of UNESCO, who has indicated his willingness to contribute financially to such symposia.

4. Problems encountered

The problems encountered in building a programme as comprehensive and, in many ways, as innovative as the IOI training programme are obviously numerous. In many ways, the programme itself is an ongoing "case study" or "feasibility study", and the organi-

zers are learning at least as much as the participants.

On the substantive side, considerable difficulties arose from the interdisciplinary nature of the programme. Conceptually, the need for "managers" or "administrators" in ocean affairs, who should be at home both in the social sciences (especially, economics, law, administration) and in the natural sciences (all marine sciences and technologies) has been stressed by many specialists in development economics. To help form this new type of manager at the practical level is quite another matter. Interdisciplinary teaching is relatively easy at the undergraduate level; at the graduate level, difficulties begin to arise; at the level of civil servants with considerable expertise in one particular field (e.g., fisheries, or law) and no experience, and no natural interest in any other field, this becomes very difficult indeed, and, especially during the early programmes, experts in various fields would find themselves lecturing before a group half of which would be responsive while the other half would be yawning. The IOI has done a considerable amount of experimenting, and has gained some experience, on the ways and means of interweaving different disciplines and different segments of the programme. The latest experiment -- very largely successful -- has been to build a two-week "crash course" in a special, technical field, into the 10-week interdisciplinary programme of the Class B course.

Other problems arose from the length of the course -- which was found too long by some, too short by others; in connection with the choice of the venue: Malta, as, undoubtedly, many other developing countries, lacks a technical infrastructure; in developed countries, like Germany, this infrastructure, and the related problems, may be so different from those arising in developing countries as to make their study irrelevant. Yet another set of problems arose in connection with food habits, climates, and life styles. These,

of course, are familiar to the organizers of any programme of this sort.

On the whole, however, it would seem that the IOI has succeeded in responding to a felt need, has created a new pattern, and is gaining a widening foothold. Thus one former participant recently wrote to the IOI:

"The Treaty and Legal Department is being charged with duty to draft Thailand national legislation for its maritime zones, taking into account all the relevant matters of various subjects specified in the new Convention. To this effect a committee was set up and vested with powers to draft such legislation. And I was appointed a member of this Committee. I would like to state here that the knowledge which I gained from the IOI course in Malta 1980 has helped me in giving the best contribution to the work of the said committee."

Another participant wrote:

"I was appointed by National Aquatic Resources Agency (NARA) to a committee to plan an offshore survey around Sri Lanka and I feel full of confidence in assisting the committee after attending the course."

Yet another participant wrote:

"The Halifax experience was a very useful one indeed and each day at work I see the fruits of that endeavour. Sometimes I wonder how I did [my job] before."

These testimonies are just a sampling from the many received by the IOI.

5. Cooperation with the U.N. Agencies

Each one of the U.N. organizations basically involved with marine activities has evolved considerable expertise in its own specialized field as

well as the capacity to advise developing coastal and landlocked States and to conduct training programmes, usually in a specialized field, and of short duration. The IOI programme is constantly being enriched by these activities of the specialized organizations. On the other hand, it can make a valid contribution to all of them by integrating, in cooperation with the organizations concerned, the several specialized sectors into one integrated whole. As already mentioned, the IOI programme, thus conceived, is complementary to TEMA, which is restricted to Marine Sciences, and ICSPRO, which focuses on pollution.

Cooperation with the Agencies has taken place on three levels:

(1) All of the Agencies have participated in one or the other of the IOI workshops preparing syllabi/curricula. This contribution has been highly useful, both to the Agencies concerned, which can assure, through its direct input, that the programme contributes to its own efforts on a given subject or in a given region, and to the IOI, which needs this kind of input;

(2) All of the Agencies have contributed teachers and teaching materials to the IOI programme. The contacts between expert staff members of the Agencies and the civil servants from developing countries who participate in the IOI programmes have been fruitful and may have spin-offs and after-effects way beyond the classroom.

(3) Putting together (1) and (2) above, the IOI is now working out curriculum schemes in which an Agency may take an entire week, integrating its own special programme into the comprehensive whole. Such an arrangement has been made with UNEP in the Goa programme and appears to constitute an ideal form of cooperation. It simplifies the technical task of IOI and enables the Agency to run a programme of its own at very little cost and no overhead.

(4) Most of the Agencies have, in the past, nominated candidates and provided scholarships

for one course or another. This has been highly beneficial to the programme and alleviated the burden of securing adequate financing.

The IOI would like to expand these forms of cooperation and, if possible, shift them, perhaps through ICSPRO and in conjunction with TEMA, from an ad hoc basis to a regular and systematic one.

6. Further development of the programme

The IOI training programme has been a fast growing programme. Starting in 1979 with the preparation, and funding, for one single programme, the IOI moved rapidly to two annual programmes in 1980 and 1981, and three programmes in 1982. Demands for regional programmes reach the IOI from many places. While three programmes had been planned for 1983 and 1984, there have been requests for fourth programmes in both these years. The request to organize a Class C programme in the South Pacific came from the Commonwealth Secretariat and the FFA in the Solomon Islands. The programme is fully funded by the Commonwealth Secretariat and CIDA. The Director of the programme will be Dr. Geoffrey Kesteven of Australia.

The request for a fourth programme in 1984 came from Thailand. If funding is made available, we shall be glad to cooperate.

Another request came from Anglophone Africa -- but our plate is presently too full to consider additional programmes at this time.

With the development of a network of funders, cooperating organizations and scientific and technical institutions, and teachers, the task of organizing these programmes is becoming easier in some ways. On the other hand, the tasks and responsibilities for follow-up activities become heavier the more participants go through the programme. Four programmes a year is probably the maximum burden the IOI can carry. Of these, Class A, devoted to ocean

mining, will remain located in Malta for the theoretical part, at the Technical University in Aachen, for the technical aspects. Class B, on EEZ management, will continue to be carried out in Halifax in cooperation with Dalhousie University and, when the time comes, with the International Centre for Ocean Development (ICOD) initiated by the Federal Government of Canada. Two Class C programmes will be conducted in different regions, in cooperation with a host country Government, with regional organizations, and, hopefully, the competent U.N. Agencies and organizations.

ANNEX VIII

SELECTIVE LIST OF PARTICIPANTS
IN PACEM IN MARIBUS CONVOCATIONS

TRAINING PROGRAMME FOR THE MANAGEMENT AND CONSERVATION OF MARINE RESOURCES

CENTRE FOR FOREIGN POLICY STUDIES
DALHOUSIE UNIVERSITY



INTERNATIONAL OCEAN INSTITUTE
MALTA

SOME PARTICIPANTS IN PACEM IN MARIBUS CONVOCATIONS

Ambassador Shirley H. Amerasinghe
President, UNCLOS III

Ambassador Paul Babela Engo
Chairman, First Committee, UNCLOS III

Ambassador Andres Aguilar
Chairman, Second Committee, UNCLOS III

Ambassador Alexander Yankov
Chairman, Third Committee, UNCLOS III

Ambassador Alan Beesley
Chairman, Drafting Committee

Ambassador Bernardo Zuleta
Under-Secretary General, U.N.

Ambassador Jens Evensen
Norway

Ambassador Elliot Richardson
U.S.A.

Mr. Lennox Ballah
Trinidad & Tobago

Dr. Jacques Piccard
Switzerland

Dr. Thor Heyerdahl
Norway

Alva Myrdal
Sweden

Dr. Aurelio Peccei
Club of Rome

Justice William O. Douglas
United States Supreme Court

Lord Caradon
U.K.

Lord Ritchie-Calder
U.K.

Mr. Joseph Warioba
Tanzania

Ambassador Jorge Castañeda
Mexico

Dr. Anil Gayan
Mauritius

Mr. Maurice Strong
Canada

Mr. Saburo Okita
Japan

Dr. Stjepan Keckeš
UNEP

Dr. Jean Carroz
FAO

Dr. Louis Sohn
USA

Dr. Arturo Tolentino
Philippines

Dr. Antonis Tritsis
Greece

Kenneth E.F. Watt
Canada

Dr. Georges Abi-Saad
Grad.Inst. Internat.Studies
Geneva

N.K. Salve, M.P.
India

Ambassador Hasjim Djalal
Indonesia

Dr. Paul Fye
USA

Dr. M.T. Lasarev
USSR

Dr. Anatoly Kolodkin
USSR

Professor Fritz Münch
FRG

Professor Wolfgang Friedmann
USA

Dr. Warren Wooster
USA

General Berislav Badurina
Yugoslavia

Mr. Victor Lessiovsky
USSR

Dr. Roger Revelle
USA

Dr. E.D. Brown
U.K.

Dr. Harlan Cleveland
USA

Dr. Takeo Iguchi
Japan

Dr. Alexander Kwamong
U.N. University

Commander Sorokin
USSR

TRAINING PROGRAMME FOR THE MANAGEMENT AND CONSERVATION OF MARINE RESOURCES

CENTRE FOR FOREIGN POLICY STUDIES
DALHOUSIE UNIVERSITY



INTERNATIONAL OCEAN INSTITUTE
MALTA

May 6, 1984

Miss Diana Rivington
CIDA
200 Promenade du Portage
Hull, P.Q.

Dear Diana:

1. Here, this time REALLY enclosed, the audited accounts.
2. There have been no changes in our governing bodies, except that poor Aurelio Peccei is no longer with us.
3. The report on B83 is being sent separately. I don't understand how we could have missed that.

I am off to Stockholm. This is going to be my craziest summer.

Shall report to you on my return.

All the best,

Love,

Elisabeth Mann Borgese

P.S. I collected the enclosed statements for ICOD. I thought they might be useful for your evaluation. We can get special statements from many Governments, if you want them (India, Sri Lanka, Sierra Leone, Yugoslavia, Tanzania, Thailand, I think, are our best countries).

BUDGET

	1984	1985	1986	1987
<u>Staff</u>				
Executive Director	30,000.00	33,000.00	36,300.00	39,930.00
Executive Secretary	12,000.00	13,200.00	14,520.00	15,972.00
Typists	12,000.00	13,200.00	14,520.00	15,972.00
Accountant	2,400.00	2,640.00	2,904.00	3,194.40
Subtotal	56,400.00	62,040.00	68,244.00	75,013.40
Fringe benefits,20%	11,280.00	12,408.00	13,648.80	15,013.68
Printing	25,000.00	27,500.00	30,250.00	33,275.00
Telecommunications	6,000.00	6,600.00	7,260.00	7,986.00
<u>Total, Malta Office</u>	<u>98,680.00</u>	<u>108,548.00</u>	<u>119,402.80</u>	<u>131,343.08</u>
<u>Board of Trustees & Planning Council</u>				
Travelling	30,000.00	33,000.00	36,300.00	39,930.00
per diem	10,000.00	11,000.00	12,100.00	13,310.00
<u>Total</u>	<u>40,000.00</u>	<u>44,000.00</u>	<u>48,400.00</u>	<u>53,240.00</u>
<u>Training Programme (A, B, C, C)</u>	<u>720,000.00</u>	<u>792,000.00</u>	<u>871,200.00</u>	<u>958,320.00</u>
<u>Seminars</u>	<u>30,000.00</u>	<u>33,000.00</u>	<u>36,300.00</u>	<u>39,930.00</u>
<u>Researach Projects</u>	<u>30,000.00</u>	<u>33,000.00</u>	<u>36,300.00</u>	<u>39,930.00</u>
<u>PACEM IN MARIBUS</u>	<u>40,000.00</u>	<u>44,000.00</u>	<u>48,400.00</u>	<u>53,240.00</u>
<u>Films and books</u>		<u>500,000.00</u>	<u>550,000.00</u>	<u>605,000.00</u>
<u>Ocean Yearbook</u>	<u>15,000.00</u>	<u>16,500.00</u>	<u>18,150.00</u>	<u>19,965.00</u>
<u>GRAND TOTAL</u>	<u>973,680.00</u>	<u>1,571,048.00</u>	<u>1,728,152.80</u>	<u>1,900,968.08</u>