

INTERNATIONAL OCEAN INSTITUTE  
UNDP Project Reference GLO/91/G33

Support for Regional Oceans Training Programme

PROJECT PERFORMANCE EVALUATION REPORT  
28 January 1992 - 31 March, 1995

## Contents

	Page(s)
<b>Project Performance Evaluation Report (PPER) 28 January 1992 - 31 March 1995</b>	<b>1-25</b>
<b>Annex 1</b> - Contract with UNDP/OPS dated 27 January, 1992	26
<b>Annex 2</b> - Amended contract with UNDP/OPS dated 23 April 1993)	30
<b>Annex 3</b> - Amending letter with UNDP/OPS dated 21 June, 1993	31
<b>Annex 4</b> - Minutes of the Representatives of the Operational Centres of IOI held at the University of Malta on the 17 and 18 May, 1993	32
<b>Annex 5</b> - Contract with UNDP/OPS dated 1 September, 1993	36
<b>Annex 6</b> - Revised Workplan for IOI Senegal (1994 to 1997)	45
<b>Annex 7</b> - Revised Workplan for IOI Costa Rica (1994 to 1997)	80
<b>Annex 8</b> - CLAM/DOS Library Information System	93
<b>Annex 9</b> - Minutes of the Representatives of the Operational Centres of IOI held at the United Nations University, Tokyo on 5 September, 1993	95
<b>Annex 10</b> - Minutes of the Third Meeting of Representatives of the Operational Centres of IOI held at Barbados on 28 and 29 April, 1994	98
<b>Annex 11</b> - Minutes of the Fourth Meeting of Representatives of the Operational Centres at IOI held at Madras on 3 and 4 December, 1994	106
<b>Annex 12</b> - Minutes of the Courses Development Committee of the International Ocean Institute held at Tokyo and Takaoka on 5 and 7 September, 1993	118

Contents (contd.)

	Page(s)
<b>Annex 13</b> - Minutes of the Second Meeting of the Courses Development Committee of the International Ocean Institute held at Barbados on 29 April, 1994	121
<b>Annex 14</b> - Minutes of the Third Meeting of the Courses Development Committee of the International Ocean Institute held at Madras on 3 and 4 December, 1994	124
<b>Annex 15</b> - Workplan for IOI Costa Rica (January 1995 to December 1995)	156
<b>Annex 16</b> - Workplan for IOI India (January 1995 to December 1995)	167
<b>Annex 17</b> - Workplan for IOI Senegal (January 1995 to December 1995)	173
<b>Annex 18</b> - Workplan and Budget for IOI South Pacific (1995)	201

**PROJECT PERFORMANCE EVALUATION REPORT**  
**28 January 1992 - 31 March, 1995**

**INTRODUCTION**

The International Ocean Institute (IOI) submitted a project brief to the Global Environmental Facility providing an abbreviated description of a global project conceived in response to the need to train increasing numbers of mid-level civil servants from developing countries in marine resources management consistent with long-term sustainability. This was followed by a full blown project submitted to UNDP/OPS. The project proposed to extend and deepen the training programmes through the establishment of self-sufficient operational centres in Colombia, Fiji, India and Senegal.

The first and essential step in the development programme being to establish formal working relationships with the governments/institutions concerned, UNDP/OPS entered into a contract with IOI in the form of preparatory assistance for \$ 110,000 to secure these agreements and to refine further aspects of the project, such as region-specific training programmes (contract at Annex 1).

The obligations of IOI under the Contract included but were not limited to the following:

- Explore candidate sites for operational centres, discuss with governments, local authorities, regional and local institutions and centres for advanced learning and experts living in the region to confirm that the necessary conditions are present to establish a centre.
- Develop, negotiate, and formalize the agreements with the four host countries on the status, policy, strategy, and funding of each operational centres. These were to be a prerequisite for continuation of funding and activities.
- Develop a strategic plan for the establishment of a new operational centre for each of the planned sites.
- Develop agreements of cooperation and support with regional universities and other institutions of training and research.
- Appoint an operational centre director for each of the four operational centres. The directors to be executive and operating officers of the respective centres.
- Prepare the strategic plan for the establishment of the four new operational centres including (a) appointment of the regional advisory committee, and (b) development of a five-year plan of detailed activities for each centre.
- Finalize the project document, based on the draft dated 6 December 1991.

The outputs were expected to be:

- "agreements with governments of Fiji, India, Senegal and Colombia.
- agreements with a collaborating / cooperative scientific / educational institution in each of these countries.
- composition of centre-specific strategic and operating plans for each proposed operational centre.
- appointment of a centre director in each such operational centre in consultation with the host institution.
- appointment of the initial voluntary members of the operational centre advisory council, involving alumni in the region.
- composition of a global identity / communications strategy focused on funding sources and governments.
- a full and definitive version of the project document based on the draft dated 6 December 1991."

The contract for preparatory assistance was amended on 23 April 1993 (amended contract at Annex 2) in order to achieve a more equitable distribution of funds between the four centres and to redraft the Project document as under:

"a) Consultancy fees	
Travel	
Office and Meeting Expenses	
Miscellaneous Expenses	60,000
b) Project Formulation Mission	27,506
c) Consultative Meeting/Activities	
i) India IOI Alumni Meeting	12,000
ii) Meeting of Directors & Rectors	25,000
iii) Quarterly Newsletter	5,000
d) Policy Research - Survey of Policy Research Methods	10,000
e) Submission Research Proposal	5,000
	-----
<b>TOTAL</b>	<b>144,506"</b>

On 21 June, 1993 the contract was again amended to provide \$ 20,000 for the Sardinia workshop by deleting c(iii), d, and e above (amending letter at Annex 3).

During the preparatory period, the IOI had finalised agreements with the governments of Fiji, India and Colombia on the status, policy, strategy and funding of operational centres to be located in Suva, Madras and Bogota. An MOU had also been entered into with IDEP, an institute of UNECA, for establishing an operational centre at Dakar.

Centre directors were appointed for all the four centres and strategic plans developed for their establishment. Plans detailing multi-year activities for each of the four centres were also developed. Agreements with the collaborating institutions, viz., University of South Pacific, Indian Institute of Technology, Tadeo Lozano University and IDEP were also entered into. CVs of all professional people involved with the project were also collected for the Operational centres at Fiji, Madras and Bogota. A meeting of operational centre directors was also held at Malta from 17-18 May, 1993 along with representatives of UNOALOS and UNDP/OPS to refine the final plan (Minutes of the meeting at Annex 4).

On the basis of the above, IOI submitted a revised project document in June 1993. This was finalised after discussions with UNDP/OPS and UNDP/DGIP. A contract for the project for \$2,583,347 was entered into by UNDP/OPS with IOI with effect from 1 September, 1993. Flow of funds to the operational centres in India and the South Pacific started with the signing of the contract while funds for centres in Colombia and Senegal were dependent on approval by UNDP/OPS of their final operating plans (contract at Annex 5).

Revised workplans for IOIs Senegal (Annex 6) and Costa Rica, selected instead of Colombia (Annex 7) were submitted to UNDP in September, 1994. After discussions between UNDP and IOI the workplans were approved in December, 1994.

#### **PROJECT IMPLEMENTATION UP TO MARCH, 1995**

The main objectives of the Project Document are to:

- set up four new self-sustaining operational centres in South Pacific, Asia, Africa and Latin America;
- revise and update the existing programmes of IOI, as well as develop new ones, to bring them in line with the latest developments in instruction technologies and for entering into niche areas like courses for planners, policy makers, leaders etc.

The project has two components: Institutional Networking and Training Programmes.

#### **Networking**

Institutional Networking is dependent on regular meetings of

directors/vice chancellors, information dissemination and programme development. The directors/vice chancellors meetings are attended by representatives of UNDP and have recently been extended to include meetings of the courses development committee (which are to be held back to back with the directors/vice chancellors meeting) so as to cut down on costs.

In the field of information dissemination an alumni directory, a quarterly newsletter and PR brochures have been issued. The directors meetings have been very useful to the development of the project as well as for making the necessary mid-course corrections.

The meetings have also helped in activating both formal and informal networks linking the different centres and the headquarters in a synergistic manner. Besides, there has been division of work in the IOI network so as to build on the differing strengths of the centres and also to link the IOI system with the broader UN and non-UN systems.

For example links have been established by the University of the South Pacific with the Indian Institute of Technology, Madras and the two Universities have entered into a twinning agreement so that a combined B Tech programme would be conducted by the two Universities. This was made possible by the links that IOI South Pacific had with IOI India.

### **Library Networking**

To integrate the knowledge base of the IOI system it was decided to develop software so as to link all the libraries of the collaborating institutions through E-mail. IOI Madras was made responsible for the project and they have come up with an interim system which is being tested by the other centres. The project has linked up IOI Madras and IOI South Pacific and efforts are on to debug the system and thereafter extend it to the other Centres. Details of the system are at Annex 8.

### **Networking with other institutions**

A key element in the IOI strategy is to reinforce existing institutional capabilities through providing active networks for ocean affairs. To this end MOUs have been signed with the United Nations University, Tokyo, with IOC/UNESCO, Paris, the University of Rhode Island and the International Centre for Public Enterprises, Ljubljana. More such MOUs are expected to be signed in 1995.

In addition, the IOI Centres will be joining the TRAIN-SEACOAST network which, in addition to the four IOI Centres at San Jose, Dakar, Madras and Suva will include the Fundacao Universidade de Rio Grande in Brazil, the University of Wales, the University of Dar-es-Salaam, Tanzania the Prince of Songkla University, Bangkok, Thailand, ICLARM, Manila, Philippines and the University

of Delaware, USA.

During October 1994, IOI's China and Japan were established. This would increase IOIs outreach and also enable more funds being mobilised. Both the centres would provide the necessary staff and infrastructure.

### **Programme Development**

In the area of programme development there has been significant advance in attracting new sources of funding: from Japan, Australia, India and the South Pacific. Sasakawa Foundation has funded a programme in Madras; Australian International Development Assistance Bureau (AIDAB) is considering funding a joint programme taken up by IOI South Pacific and the Australian Maritime College, Tasmania; the Government of India has decided to fund two courses -one for policy makers and another for coastal managers - for Indian participants; in the South Pacific, WPFCC and the Government of France have given \$ 33,000 to IOI South Pacific for a workshop on customary tenure; the Gauntlett Foundation is considering funding a five-week programme on CZM for the Black Sea region.

### **Training Programmes**

Training Programmes account for the major funding in the Project Document (over 80%). The main instrumentalities to keep the programme on course are:

- the meetings of the courses development committee
- training of course developers
- the provision of adequate course materials
- training of trainers
- proper evaluation to ensure the quality of the courses.

The courses development committee, which includes UNDP representatives, has been keeping the courses on track. The Executive Director and the Honorary Chairman have also evaluated the three new courses held in Madras and China.

By March, 1995, seven trainers (2 from IOI Costa Rica, 1 from IOI South Pacific, 1 from IOI Senegal and 3 from IOI India) had gone through the training of trainers programme. Nine course developers (Honorary Chairman, Executive Director, Vice Chancellor IIT Madras, Directors of IOI India and South Pacific, Head of Training IDEP, Senegal and 3 others from Fiji) had gone through the TRAIN-X programme while nine others (3 each from IOIs Senegal and South Pacific, 2 from IOI Costa Rica and 1 from IOI India) had gone through a 2-weeks TRAIN-SEA COAST programme.



This provides a very good base for expanding the trainers network of IOI and developing more course developers.

During 1993, 1994 and up to March 1995 the following training programmes were conducted:

<b>Name of course</b>	<b>Conducted by whom and when</b>	<b>Revised/New</b>	<b>Participants</b>
Alumni Refresher	IOI Madras 4-7 March, 1993	New	23
Coastal Zone Management as a Sustainable Process	IOI Madras 11 Oct-17 Dec., 1993	Revised C	18
For Managers and Planners of the Enterprise	IOI HQ 04 Oct-05 Nov., 1993	Revised A	13
Leaders Sensitising Workshop	IOI South Pacific 17 Nov., 1993	New	18
Leaders Sensitising Seminar	IOI HQ/UNECA 18 Mar-02 April., 1994	New	49
Customary Marine Tenure Workshop	IOI South Pacific 4-8 July, 1994	New	65
Coastal Zone Management (5 weeks)	IOI Madras 27 June-29 July, 1994	New C	18
For Managers and Planners of the Enterprise	IOI Madras 29 Aug-30 Sept., 1994	Revised A	12
Alumni Refresher and Advanced CZM at Kuala Lumpur, Malaysia	IOI Madras 12-16 Sept., 1994	New	25
Management and Development of Coastal Fisheries	IOI South Pacific 24 Oct-25 Nov., 1994	New	27

Name of Course	Conducted by whom and when	Revised/New	Participants
Alumni	IOI South Pacific	New	NA
Coastal Zone Management (9 weeks)	IOI Madras 17 Oct-15 Dec., 1994	Revised C	15
Leaders course at Goa	IOI Madras 25-26 October, 1994	New	70
Policy makers course in environmental management	IOI Madras 16-22 January, 1995	New	22

### Course Development

As is clear from the number of courses held up to March, 1995 by the two IOI Centres, IOI is experimenting with courses of differing duration and content and as geared to the varied experiences/seniorities of the participants. IOI has found that by this variation and better information dissemination, demand for IOI courses is going up and the participant selectivity ratio is on the rise.

The variation in course duration has been made possible by the modular approach adopted by IOI through an adapted TRAIN-X approach. The cost of conducting courses has also been going down.

### Vice Chancellors/Directors and Courses Development Committee Meetings

It is necessary to closely monitor the project as it develops and evolves through the life of the project since changes are inevitable with the project covering areas not yet fully developed. So three meetings of the President, Executive Director, and representatives of the operational centres, and of UNDP, were held to monitor the implementation of the centre operational plans, to guide future development, to approve courses and lay down guidelines for the preparation of training modules during 1994.

The main decisions/guidelines emerging from these meetings related, inter alia, to:

- the establishment of mechanisms for proper reporting, monitoring and evaluation of the project

- the manner in which workplans and budgets are to be prepared by each centre
- the laying down of relevant physical targets
- the manner in which IOI was to be projected to donors and the general public
- the raising of non-UNDP funds both globally and locally, including through providing professional services
- the procedure for approving courses/modules.

The minutes of the meetings are at Annexes 9-11.

### Evaluation of Courses and Workshops

Evaluation of the training programmes and workshops is most essential. In any globalisation scheme the programmes have to meet two criteria: they have to have a global applicability while being capable of being adapted to the regional and sub-regional contexts. Flexibility is being introduced through the development of course modules which would enable variety through different course configurations. The courses should also, however, have applicability outside the IOI system. The Courses Development Committee consisting of representatives from the IOI as well as the non-IOI systems approves, evaluates and tests new courses. One such meeting was held in 1993 and two more in 1994. The Executive Director and Honorary President carried out spot evaluations of three new courses in 1993 and 1994. Independent evaluation will be carried out of a course in South Pacific in November, 1994.

The minutes of the Courses Development Committee meetings are at Annexes 12-14.

### LESSONS DRAWN FROM THE EXPERIENCE OF 1993 AND 1994

The PPER of the Project was prepared up to March, 1994 and was considered by the meeting of representatives of operational centres, which, included the representatives of UNDP, the Executive Director and the Honorary Chairman, at the meeting held at Barbados on 28 and 29 April (minutes of the meeting at Annex 10). The matter was further considered at a meeting of the representatives of the operational centres held at Madras on 3 and 4 December, 1994 (draft minutes at Annex 11).

The main conclusions of these meetings may be summarised as below:

- networking both within the IOI system and with outside institutions had created a lot of synergy
- the seed money provided by UNDP/GEF had helped in

- establishing the networking system which in turn had helped IOI attract non-UNDP funding.
- there was need to cut down on training scholarships and increase the amount for networking so that the Directors meetings etc. could be continued in 1996 when IOIs Senegal and Costa Rica would be implementing their programmes.
- money required for the training programmes would be raised from non-UNDP sources.
- IOI should link up with TRAIN-SEA COAST network as that would be mutually beneficial.

### WORKPLAN 1995

The conclusions and recommendations arrived at the meetings were kept in mind while formulating the workplan for 1995.

The details of the workplan for headquarters and the centres was as follows.

### HEADQUARTERS

The workplan of headquarters is intended to continue and expand on its networking and coordinating activities. During 1995 the meetings of the directors/vice chancellors and the course development committee would be continued. The library networking system would be expanded to include the Costa Rica and Senegal centres. The Honorary Chairman and the Executive Director would be paying greater attention to the centres in Senegal and Costa Rica so that the work of these centres proceeded in line with the objectives of the Project. The activities by budget line would be as below.

### Vice Chancellors/Directors/Courses Development Meetings

1.1.2.a It is proposed to have two meetings of the Honorary Chairman, the Executive Director, representatives of the operational centres and representatives of UNDP to monitor the implementation of the centre operational plans, to guide future development, to approve course outlines and lay down guidelines for the preparation of training modules during 1995. The second PPER of the Project would be considered in April 1995 along with the Directors/Vice Chancellor's meeting.

<b>Starting Date</b>	January 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Honorary Chairman/Executive Director.

**Library Networking**

1.1.2.c During the year the library networking software would be made available to the Senegal and Costa Rica centres so that their knowledge base could be integrated with that of IOI Madras and IOI South Pacific. No funds are necessary.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Directors Madras, Costa Rica and Senegal.

**Information Dissemination**

1.1.3.a & b. For implementing of IOI institutional identity programme per the strategy already developed, appropriate brochures and publicity material would be brought out in 1995. The alumni directory would be updated in 1995 and alumni newsletters issued.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Executive Director.

**Programme Development**

1.1.4.a Development of non-UNDP financial support as well as in-kind support is essential so as to diversify and widen IOI's support base and lead to eventual sustainability. The progress made in 1993/94 will be maintained and built upon.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Honorary Chairman and Executive Director.

**Evaluation of Courses and Workshops**

2.1.4. While external evaluation of IOI courses and workshops would lead to greater acceptability and credibility, there is no substitute for internal evaluation which would keep the IOI System together as an integrated whole and so lead to synergy and sustainability. Internal evaluations through participants' responses, reports of the director and faculty of the courses and evaluation by the Honorary Chairman, Executive Director and Centre Directors would be continued during 1995. This would enable the courses and workshops to meet the twin objectives of regional contextuality and global applicability.

<b>Starting Date</b>	1 January, 1995
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<b>Duration</b>	Continuous
<b>Responsible</b>	Honorary Chairman, Executive Director, Centre Directors.

### **CENTRES**

The individual workplans for 1995 of the Costa Rica, India, Senegal and South Pacific Centres are at Annexes 15, 16, 17 and 18. The workplan of the centres (along with budget lines) would be as under:

#### **Administrative Support**

1.1.2.b The operational centres in Costa Rica and the South Pacific require administrative support. IOI South Pacific has a coordinator to assist the Director in day to day work. IOI Costa Rica would be appointing a bilingual assistant to obviate communication gaps in its global networking.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Directors Costa Rica and South Pacific.

#### **PR Brochures**

1.1.3.a The operational centres have to issue brochures for providing a link with alumni, for "presenting" the centre in the region and for advertising courses.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Directors.

#### **Programme Development**

1.1.4.b Development of non-UNDP financial support for operational centres is very necessary. This would entail travel both regionally and globally to "present" the IOI so as to raise funds. A lot of progress was made in 1993 and 1994 as already described. This activity will be continued.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director/Honorary Chairman/Centre Directors.

**Output 1.2 - Institutional Links with Associated Institutions**

A key element in the IOI strategy is to reinforce existing institutional capabilities through providing active networks for ocean affairs. To this end MOUs have been signed with the United Nations University, Tokyo, with IOC, Paris, the University of Rhode Island and the International Centre for Public Enterprises, Ljubljana. More such MOUs are likely to be signed in 1995.

## **Output 2.1 - Current, Revised and New Programmes.**

### **Development of Research Programme**

2.1.1.a. Policy research is very necessary if IOI regional centres are to be relevant to the perceived needs of the region. A preliminary survey of research possibilities has been made but more work needs to be done to link them with ongoing regional research. It was decided, therefore that the operational Centres should discuss this matter with other institutions in the region and come up with detailed proposals by April 1995.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Responsible Party</b>	Honorary Chairman
<b>Executing Party</b>	Executive Director/Centre Directors.

### **Curriculum Development**

2.1.2. Current course programmes need to be adapted and translated for mid-level civil servants, private sector employees and persons from NGOs. The programmes need to take note of the new instructional technologies, especially distance learning, as well as develop instruction material in new concepts like sustainable development, and the impacts of the third industrial revolution, the growing service economy etc. IOI will develop some new courses for entering into niche areas like courses for planners, advanced courses for those with a fundamental marine knowledge base and so on.

### **Course Development**

2.1.2.a. In regional and international training programmes a major expense is the cost of bringing trainees to the course. This generally precludes short courses, especially in a regional context, since the costs of travel tend to make the course cost-ineffective. The development of self-contained modules which could be used to run the course in sub-regions, would be cost-effective. Besides the modules could also be used to configure different types of courses.

It is, proposed, therefore to develop training modules region-wise in such a manner as to have global relevance. The development of these modules would in the very process of their development also produce regional resource personnel. The selection of modules and approval of courses has been done by a Committee headed by the Honorary President. The detailed programme is be as follows:

NAME OF COURSE	COMPLETION DATE	EXECUTING PARTY
Workshop on coastal zone management (2 weeks) - French	April, 1995	IOI Senegal
Course on planning and management of coastal zones (8 weeks) - French	September, 1995	IOI Senegal
Resource Economics (5 weeks)	June, 1995	IOI South Pacific
Fisheries economics and management (5 weeks)	December, 1995	IOI South Pacific

The courses for IOI Costa Rica would be approved in May, 1995.

### Training of Trainers

2.1.2.b. The participants in IOI training programmes are generally middle level executives involved with ocean policy and organisation of ocean development programmes, environmental issues etc., ocean scientists and engineers and representatives of non-governmental organisations. Their academic background, and professional experience, is varied while the subjects covered in the training programmes are very extensive in scope.

The training of trainers scheme would be used to orient subject matter/sectoral specialists in how to lecture to a multi-cultural, multi-disciplinary group. Also for developing resource persons in the pedagogy of TRAIN-SEA COAST.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Directors

### Courses

2.1.3.a. The project provides the seed funding for testing, evaluating and revising the existing training



programmes of IOI. It also provides the seed funding for testing, evaluating and revising four new courses, of which the syllabus for two, namely, the islands course and a course for policy makers have already been developed and tested in 1994. Two other courses/workshops for decision makers (a 1-week course and 1-day workshop), a course on resource economics, another course on fisheries economics and management and two courses in french (on CZM management and planning and management of coastal zones) would be tested in 1995. Courses relevant to Africa, South Pacific and Latin America would be developed and tested in 1995.

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Directors

#### Courses for Alumni

2.1.3.b. The importance of IOI alumni needs no highlighting. Special courses would be run for them so as to update their knowledge bases and reinforce their links with IOI. 3 such courses are planned for 1995 covering the Indian Ocean and South Pacific regions.

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Directors

#### Workshops for Decision Makers

2.1.3.c. Sensitising of leaders and decision makers is a necessary pre-requisite for the success of the training efforts aimed at mid-level public servants. Workshops to this end will be organised in all the regions.

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Directors

#### Evaluation of Courses and Workshops

2.1.4. Evaluation of the training programmes and workshops is most essential to ensure that they meet two criteria: global applicability while being capable of being adapted to the regional and sub-regional contexts. The courses should also have applicability outside the IOI system. The Courses Development Committee consisting of representation from the IOI as well as the non-IOI systems would approve, evaluate and test new courses. Two such meetings will be held in 1995. The Executive Director and

Honorary Chairman would carry out spot evaluations of courses and report to the Committee.

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 December, 1995
<b>Responsible Party</b>	Honorary Chairman
<b>Executing Party</b>	Executive Director

### INPUTS

#### UNDP/GEF Inputs, 1995

#### 3.1 Personnel

During the year 1995, educational consultancies would be given by IOI Costa Rica, IOI India, IOI Senegal and IOI South Pacific to the persons whose CV's have already been included in the project/workplans to develop training material. \$ 40,000 each are for Latin America and Africa, \$ 34,000 for South Pacific and \$ 15,000 for India. The total consultant mandays and costs (at \$50 per day, \$150 per day being contribution of the cooperating institutions) are as below.

	Duration (Mandays) (1995)
Consultants for course development	2590
	\$ 129,500
3.2 The travel and related costs associated with the project	
Institutional Networking	\$ 57,100
Programme Development	\$ 28,500
Development of Research Programme	\$ 5,000
Course Evaluation	\$ 10,000
	\$ 100,600
3.3 Training in the form of scholarships	
Revised and new courses	\$ 316,000
Alumni	\$ 5,200
Leaders	\$ 35,000
	\$ 356,200
3.3.1 Training of trainers	\$ 36,000
3.4 Miscellaneous expenditures such as:	
Administrative support	\$ 33,000
PR brochures	\$ 12,000
Alumni directory/	

- quarterly newsletter \$ 11,000
- \$ 56,000
- 3.6 Provision for the IOI overheads associated with administrative of this project during 1995, calculated at 7% of the direct costs. \$ 47,500

### IOI Inputs (cash and in-kind)

The quantifiable inputs from the IOI into this project during 1995 are as outlined below:

#### 4.1 a) The personnel costs associated with current staff:

Position	Duration (MM) ----- (Over 1994) -----	Est Value
President of the Board	2	\$ 40,000
Founder	8	80,000
Chairman of the Planning Council	2	20,000
Executive Director	8	80,000
Secretarial Assistance	24	48,000
Librarian Assistance	12	24,000
		\$ 292,000

- 4.2 One-third of the normal operating costs associated with the maintenance of the Malta and Halifax offices, or approximately \$ 100,000.
- 4.3 Costs of post, telephone, and telefax from the current centres associated with this project, projected to be approximately \$2,500 per month or \$30,000 for 1995.
- 4.4 Initial investments in the development of the body of knowledge, the development of teaching materials, and leading research, which are not quantifiable.
- 4.5 The involvement of the members of the Planning Council and the Board, most of whom are knowledgeable leaders in various aspects of marine affairs, which are also not quantifiable.

#### 5. Operational Centre Inputs (cash and in-kind).

Administrative.

- 5.1 During 1995, all the four operational centres (South Pacific, India, Latin America and Africa) will provide the necessary physical and managerial infrastructure for the centres (along with the associated staff) as their contributions in-kind. The opportunity value of this to

IOI is in what it would have cost it to set up these centres from scratch. The present cost of running the Halifax and Malta centres is about \$ 300,000 a year or \$ 150,000 per centre. As calculated by the operational centres, however, the total comes to \$ 181,500 or about \$ 45,000 per centre per year (i.e. 30% of the opportunity value to IOI). The contribution (in-kind) is as estimated below:

	India	South Pacific	Latin America	Africa
Director	25,000	20,000	25,000	25,000
Secretary	6,000	7,000	6,000	6,000
Assistant Project Officer	4,000	4,000	4,000	4,000
Office rent	2,500	2,500	2,500	2,500
Electricity & water	2,500	2,000	2,000	2,000
Equipment	2,000	-----	2,000	-----
Communications	2,000	-----	2,000	-----
Accounts	3,000	10,000	2,000	2,000
Stationery	2,000	-----	-----	-----
	-----	-----	-----	-----
	49,000	45,500	45,500	41,500

#### Course Development.

- 5.2 The in-kind contributions of University of South Pacific, UNA, CRODT and IIT Madras to course development have been estimated at \$150 per manday as below:

	Mandays	Contribution
University of South Pacific	600	90,000
IIT Madras	300	45,000
UNA, Costa Rica	800	120,000
CRODT, Senegal	800	120,000

#### Courses.

- 5.3 IIT Madras provides the entire infrastructure for the running of courses including housing for the participants.

In Madras during 1995 courses having an output of 425 participant weeks would cost only \$ 100,200 as against the normal expectation of \$ 425,000. 75% of the amount saved is considered a contribution in-kind by IIT Madras or \$ 240,000.

#### Training of trainers.

- 5.4 University of South Pacific, UNA, Costa Rica, CRODT and IIT Madras are going to train course developers who would be

also available to IOI out of their own resources. The value of this to the project is estimated conservatively at \$ 100,000.

#### Cost contributions.

5.5 IOI in association with the Centres will raise \$ 80,000 from Sasakawa Foundation for a course in China, \$ 114,000 from Australian International Development Assistance Bureau (AIDAB) for a course run jointly by IOI South Pacific and the Australian Maritime College, Tasmania, \$ 10,000 from Government of India for a policy makers course, \$ 40,000 from Government of India for a CZM course, \$ 130,000 for a course in Halifax from CIDA, \$ 38,500 from Government of France for a Coralline Workshop, \$ 90,000 from Commonwealth Secretariat for a course in South Pacific or \$ 502,500 in all.

5.6 The total contribution of IOI and its centres in 1995 will be as under:

#### IOI Headquarters:

Personnel costs (in-kind)	\$ 292,000
1/3 operating costs Malta & Halifax	\$ 100,000
Costs of postage etc.	\$ 30,000

#### IOI operational centres:

Administrative (in-kind)	\$ 181,500
Course development (in-kind)	\$ 375,000
Courses (in-kind)	\$ 240,000
Training of trainers (in-kind)	\$ 100,000

#### IOI headquarters and centres:

In cash	\$ 502,500
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Total	\$ 1,821,000
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#### OUTPUTS

The output of the workplan in terms of trainee weeks is as below:

Centre	Output (trainee weeks)
IOI Costa Rica	145
IOI India	390 - 425
IOI South Pacific	155
IOI Senegal	200
<b>Total</b>	<b>890 - 925</b>

IOI Centres would also have during the year refined the training materials and adapted and translated them into French and Spanish.

Full details about the courses held in 1993 and 1994 including sources of funding as below:

**Details of IOI Courses conducted in 1993 and 1994**

The following training programmes were conducted in 1993/1994:

Name of course	Conducted by whom and when	Revised or New	Trainees/ Trainee Weeks	Funding ('000\$) & by whom
Alumni Refresher	IOI Madras 4-7 March, 1993	New	23/23	6.3-UNDP
Coastal Zone Management as a Sustainable Process	IOI Madras 11 Oct-17 Dec., 1993	Rev.C	18/180	67.4-UNDP
For Managers and Planners of the Enterprise	IOI HQ 04 Oct-05 Nov., 1993	Rev.A	13/65	90.0- Sasakawa Found- ation
Leaders Sensitising Workshop	IOI South Pac. 17 Nov., 1993	New	18/3.6	7.9-UNDP
Leaders Sensitising Seminar	IOI HQ/UNECA 28 Mar-2 Apr, 1994	New	49/49	25.3-UNDP 25.3- UNECA
Coastal Zone Management: focus on small islands	IOI Malta 18 Apr - 10 June, 1994	New	18/144	92.4- Common- wealth Secretar- iat
Coastal zone Management as a Sustainable Process	IOI Madras 27 June-29 July, 1994	New	17/85	* 40.0-UNDP

Sustainable Development and Implementation of Chapter 17 of Agenda 21 in the Exclusive Economic Zone	IOI Halifax 6 June - 12 August, 1994	Rev.B	21/210	132.2-CIDA
Course for Managers and Planners of the Enterprise	IOI Madras 29 August - 30 September, 1994	Rev.A	12/60	80.0-Sasakawa Foundation
Traditional Marine Tenure Workshop	IOI South Pacific 3 - 7 October, 1994	New	65/65	27.7-UNDP 31.2-WPFC 27.7-Govt. of France
Advanced Course for Alumni at Kuala Lumpur, Malaysia	IOI Madras 12-16 September, 1994	New	25/25	5.7-UNDP 10.0-Govt. of Malaysia
Coralline Algae Course	IOI South Pacific 4 - 8 July, 1994	New C	11/11	Self-funded 16.0-Govt. of France
Management and Development of Coastal Fisheries	IOI South Pacific 21 Oct.-26 Nov., 1994	New C	23/115	102.5-UNDP
Leaders Workshop on Business Opportunities in the Oceans	IOI Madras 25-26 Oct., 1994	New	70/35	1.0-UNDP 10.0-Govt. of India and NIO
Coastal Zone Management as a Sustainable Process	IOI Madras 17 Oct.-16 Dec., 1994	New C	15/135	* 57.0-UNDP

\* Preliminary estimates

### Evaluation of Performance

The project can be conceived as being in two phases: the preparatory phase from January, 1992 - June, 1993 and the implementation phase from September, 1993 - March, 1995.

The preparatory phase was initially programmed to be completed in a period of six months, that is, by July, 1992. In the event this proved to be based on somewhat optimistic assumptions. Also the project document as submitted in December, 1992 was found to need adjustment as between the centres and this coupled with the fact that a new Executive Director had taken over meant a further delay. This delay was, however, put to good use. During the extended preparatory phase syllabi were developed for courses on:

- coastal zone management as a sustainable process
- coastal zone management with focus on small islands

Also an alumni refresher course was held in Madras, India and this gave opportunity for generating ideas through interaction with IOI alumni, who had not only intimate knowledge of IOI courses but also their relevance to the broader outside world.

The extended preparatory phase, therefore, meant that in the implementation phase the two centres of IOI, viz. India and South Pacific were off and running leading to considerable progress being achieved by these centres in:

- conducting programmes
- training trainers in pedagogy and the methodology of lecturing to a multi-disciplinary multi-cultural group
- initiating the process of developing course modules of relevance to both the IOI and non-IOI systems.

There were delays, however, in establishing the centres in Latin America and Africa from the project funds (IOI Colombia is going to raise its own funds). This has delayed the completion of the Project till April, 1997.

#### Dependence on UNDP funds

The dependence on UNDP funds decreased from 47% in 1993 to 38% in 1994 as may be seen from the tables below.

1993

Name of course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/% as %)	Total funding ('000\$)
Alumni Refresher	IOI Madras 4-7 March, 1993	6.3	-	6.3
Coastal Zone Management as a Sustainable Process	IOI Madras 11 Oct-17 Dec., 1993	67.4	-	67.4



For Managers and Planners of the Enterprise	IOI HQ 04 Oct-05 Nov., 1993	-	90.0- Sasa- kawa Found- ation	90.0
Leaders Sensitising Workshop	IOI South Pac. 17 Nov., 1993	7.9	-	7.9
	<b>Total</b>	<b>80.6/ 47%</b>	<b>90.0/ 53%</b>	<b>170.6</b>

## 1994

Name of course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/% as %)	Total funding ('000\$)
Leaders Sensitising Seminar	IOI HQ/UNECA 28 Mar-2 Apr, 1994	25.3	25.3- UNECA	50.6
Coastal Zone Management: focus on small islands	IOI Malta 18 Apr - 10 June, 1994	-	92.4- ComSec	92.4
Coastal Zone Management as a Sustainable Process	IOI Madras 27 June-29 July, 1994	40.0*	-	40.0
Sustainable Development Implementation of Chapter 17 of Agenda 21-EEZ	IOI Halifax 6 June-12 August, 1994	-	132.2- CIDA	132.2
Course for Managers and Planners of the Enterprise	IOI Madras 29 August-30 September, 1994	-	80.0- Sasa- kawa	80.0
Traditional Marine Tenure Workshop	IOI South Pacific 3-7 October, 1994	27.7	31.2- WPFCC 27.7- Govt. of France	86.6

1994

Name of Course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/as %)	Total funding ('000\$)
Advanced Course for Alumni at Kuala Lumpur, Malaysia	IOI Madras 12-16 September, 1994	5.7	10.0- Govt. of Malay- sia	15.7
Coralline Algae Course	IOI South Pacific 4 - 8 July, 1994	-	16.0- Govt. of France	16.0
Management and Development of Coastal Fisheries	IOI South Pacific 21 Oct.-26 Nov., 1994	102.5*	-	102.5
Leaders Workshop on Business Opportunities in the Oceans	IOI Madras 25-26 Oct., 1994	1.0	10.0- Govt. of India & NIO	11.0
Coastal Zone Management as a Sustainable Process	IOI Madras 17 Oct.-16 Dec., 1994	57.0*	15/135	* 57.0-UNDP
	<b>Total</b>	<b>259.2/ 38%</b>	<b>424.8/ 62%</b>	<b>684.0</b>

#### Trainee Outputs till December, 1994

The position regarding projected training outputs and requirements of funds as in the Project Document, and actual achievements for 1994 were as below:

#### Trainee Outputs and Budgeted Funds - 1994

Project document

Actual achievement

Centre	Funds budgeted (\$)	Likely Output (t.w)	\$ per t.w.	Funds (\$)	Actual Output (t.w.)	\$ per (t.w.)
South Pacific	112,500	146	770	139,084	191	728
India	153,000	500	306	106,400	340	312

Senegal	135,000	240	562	25,300	49	516
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**Note:** t.w. = trainee weeks

It is to be noted that the cost per trainee week was either less (South Pacific and Senegal) or about the same (India) compared to what was projected in the Project Document.

### New Courses Developed

In the Project Document (page 16) it was indicated that four new courses would be developed, namely:

- a course on coastal zone management with focus on small islands
- a course for planners on EEZ and coastal management
- an advanced course for IOI alumni
- a course for decision makers in policy making
- sensitising workshop for top decision makers

In fact the following new courses have been conducted up to March, 1995.

Name of course	Conducted by whom and when
1. Alumni refresher	IOI Madras, 4-7 March 1993
2. Leaders workshop	IOI SP, 17 November 1993
3. Workshop for African policy makers	IOI HQ, 28 March-2 April 1994
4. Customary Marine Tenure Workshop	IOI SP, 4-8 July, 1994
5. Advanced course for alumni	IOI Madras, 12-16 Sept. 1994
6. Management of Coastal Fisheries	IOI SP, 24 Oct - 25 Nov. 1994
7. Leaders seminar	IOI Madras, 25-26 October 1994
8. Course in environmental policy making	IOI Madras, 16-20 Jan. 1995

During 1995 the following new courses would be developed.

NAME OF COURSE	COMPLETION DATE	EXECUTING PARTY
Workshop on coastal zone management (2 weeks) - French	April, 1995	IOI Senegal

Course on planning and management of coastal zones (8 weeks) - French	September, 1995	IOI Senegal
Resource Economics (5 weeks)	June, 1995	IOI South Pacific
Fisheries economics and management (5 weeks)	December, 1995	IOI South Pacific

Some new courses (in Spanish) would also be approved for Costa Rica in the meeting of 25-27 May, 1995.

As would be clear from the above, IOI has developed more courses than indicated in the Project Document.

### Course Materials

A lot of teaching material has been developed for the new course developed by IOI. These materials have been disseminated to IOIs Senegal and Costa Rica who are going to translate them into French and Spanish respectively.

The material for the older A, B and C type of IOI courses has also been revised and updated by the centres so as to conform to the emerging concepts like sustainable development etc. and to be contextual to the needs of the concerned regions.

### Inputs of IOI

The Project Document indicated a minimum total input (in-kind) of US\$ 1.875. As against that, the likely input in 1995 would be (page 18 of PPER) US\$ 1.3 million (in-kind) and US\$ 0.5 million in cash. In 1994 the in-kind contribution was US\$ 0.8 million and US\$ 0.4 million in cash.

With the greater amount of non-UNDP funding in 1994, the percentage of UNDP funding for the training programmes declined from 47% in 1993 to 38% in 1994 (pages 108 and 109 of PPER).

Project No. : GLO/91/G33/A/1G/31  
Project Title : Support for Regional Oceans Training  
Programme  
Contract no. : C-92017 A  
Account no. :

27 January 1992

Dear Sir,

Ref: GLO/91/G33 - Support for Regional Oceans Training  
Programmes

The United Nations Development Programme, acting through the Office for Project Services, (hereinafter referred to as "UNDP/OPS") wishes to engage the services of your organization, (hereinafter referred to as the "Contractor") in order to establish a formal working relationship with the Government and an educational/scientific institution in Colombia, Fiji, India and Senegal and to this end, UNDP/OPS proposes for your acceptance the following contract.

**1.0 Terms of Reference, General Conditions, Appendices**

1.1 The Contractor and the UNDP/OPS agree to be bound by the provisions herein set forth, in pages 1 to 4, Terms of Reference (Annex 1), Preparatory Assistance Project Document (Annex II). General Conditions for UNDP/OPS Contract Professional Services (Annex III) as well as the rules of UNCITRAL (Annex IV).

**2.0 Additional Responsibilities of Contractor**

2.1 The services to be rendered by the Contractor in the performance of this Contract shall mean all services necessary for the carrying out of the attached Terms and Conditions necessary in respect of the project referred to above, as well as all necessary technical and administrative backstopping support as required and authorized in writing by the Director, Office for Project Services.

Dr. Gerard W. Ackers  
Interim Executive Director  
International Ocean Institute  
P.O. Box 524  
Valletta, Malta

2.2 The Contractor shall deliver to UNDP/OPS progress reports every six weeks and a final report which shall set forth in detail all the services performed under the Contract. All reports shall be made in the English language. All the reports shall be transmitted by the Contractor by airmail. The report shall be forwarded to the address as indicated in paragraph 4.2.

### 3.0 Remuneration and Payments

3.1 As full compensation for the services performed under this contract by the Contractor, the UNDP/OPS shall pay the Contractor a total amount not to exceed US\$ 110,000 broken down as follows:

a)	Consultant (4 Person/Months)		\$	40,000
b)	International Travel *			
	1. Consultant			20,000**
	2. Chairman, Planning Council			15,000**
	3. President, Board			15,000**
c)	Total Meeting expenses in the four countries *	up to		10,000
d)	Miscellaneous (Telephone, Fax, Communications, Reporting Costs)*	up to		10,000
	<b>Total</b>			<b>\$ 110,000</b>

**(ONE HUNDRED AND TEN THOUSAND U.S. DOLLARS)**

3.2 The Contractor shall not do any work, provide equipment, materials or supplies, or perform any other services which may result in any charges in excess of the above mentioned amounts without the prior written agreement of the Director of UNDP/OPS. In case that the agreements with the governments and the local institutions are concluded and other outputs realized in less than six months, actual expenses incurred will be charged.

To be reimbursed at cost. Invoiced amounts for these items must be accompanied by original receipts.

Travel costs include return air fare (most direct route, economy class) between Halifax, Canada; Paris, France; Valletta, Malta and Cartagena, Colombia; Suva, Fiji; Madras, India and Dakar, Senegal.

3.3 The Contract amount referred to in Section 3.1 above shall be paid in accordance with the following schedule:

a)	Upon signature of the Contract by the Contractor	\$ 30,000
b)	Mid-Term (April 1992)	\$ 30,000
c)	Upon receipt and approval by the UNDP/OPS of the final version of the project document, the final report and expenditure statement (up to)	\$ 50,000
	<b>Total</b>	<b>\$ 110,000</b>

3.4 Invoices shall be paid within thirty (30) days of the date of their receipt and acceptance by UNDP/OPS. All payments shall be made to the Contractor's bank account No. 85 504 1243 at the Mid Med Bank Ltd, Msida Branch, 52 Msida Sea Front, Msida, Malta. The final payment shall be made after submission by the Contractor and following acceptance by UNDP/OPS of a final report and of a detailed final statement of expenditures. Such payment by UNDP/OPS shall not be deemed to relieve the Contractor of its responsibility under this contract.

#### 4.0 Special Provisions

4.1 The Contractor shall take the necessary steps to commence the services not later than the 29 January 1992 and shall complete the services not later than the 28 July 1992.

4.2 Any notice, request or approval required or permitted to be given or made under this contract shall be in writing in the English language. Such notice, request or approval shall be deemed to be duly given or made when it shall have been delivered by hand, mail, telex or cable to the party, which it is required to be given or made at such party's address specified below, or at such other address as the party shall have specified in writing to the party giving such notice, or making such request.

**For the UNDP/OPS:**

Director  
United Nations Development Programme  
Office for Project Services  
220 East 42nd Street, 14th Floor  
New York, N.Y. 10017  
United States of America

Ref: GLO/91/G33

Telex No.: 662293 OPS UNDP  
Fax No.: (212) 906-6501

**For the Contractor:**

Elisabeth Mann Borgese  
Chairman, Planning Council  
International Ocean Institute  
Pearson Institute  
1321 Edward Street  
Halifax, Nova Scotia  
Canada B3H 3H5

Tel.: (902) 494-2034  
Fax.: (902) 494-1216

- 4.3 If the above terms and conditions meet with your approval please signify your acceptance by returning one copy of this Contract and attachments, duly signed and dated.

Yours sincerely,

Dean Everts  
Assistant Administrator and Director

Agreed and Accepted:

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Title : \_\_\_\_\_

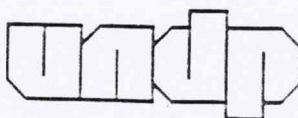
Date : \_\_\_\_\_



United Nations  
Development Programme

Office for Project Services

RECEIVED APR 26 1993



World Development

Amendment to Contract No. C-92017-A

23 April 1993

Dear Sirs,

Ref: GLO/91/G33/ - Support For Regional Oceans Training Programmes

In order to achieve a more equitable distribution of funds between the four centers (the beneficiaries of the project), and to finalize arrangements/agreements with such centers, more time will be required to effect these changes and to redraft the Project Document accordingly. Therefore, the Contract of 27 January 1992 between the International Ocean Institute (the "Consultant") and UNDP/OPS for Consulting services for the above referenced project is hereby amended as follows:

1. Section 3.1

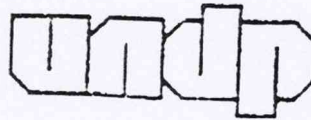
As full compensation for the services performed under this contract by the Contractor, the UNDP/OPS shall pay the Contractor a total amount not to exceed US \$144,000 broken down as follows:

a)	Consultancy fees	
	Travel	
	Office and Meeting Expenses	
	Miscellaneous Expenses	60,000
b)	Project Formulation Mission	27,506
c)	Consultative Meeting/Activities	
	i) India IOI Alumni Meeting	12,000
	ii) Meeting of Directors & Rectors	25,000
	iii) Quarterly Newsletter	5,000
d)	Policy Research - Survey of Policy Research Methods	10,000
e)	Submission Research Proposals	5,000
	<b><u>TOTAL</u></b>	<b>144,506</b>

Dr. Krishan Saigal  
Executive Director  
International Ocean Institute  
P.O. Box 524  
Valletta CMR 01, MALTA



United Nations  
Development Programme  
Office for Project Services



World Development

21 June 1993

Dear Dr. Saigal,

Subject: GLO/91/G33 - Project Budget.

Thank you for your fax of 18 June, which indicated to us that your must have misunderstood our 17 June communication. Please find below the corrected budget taking into consideration the adjustments described in our 17 June fax:

BL	Description	US \$
1600	Mission costs	50,494
2101	Prep. Assist. Subcontract (No.1)	124,506
2102	Full Subcontract (No. 2)	2,122,120*
3200	Workshop (Sardinia)	20,000
4600	Equipment	120,000
9300	OPS Support cost (6%)	146,227
9900	<b>GRAND TOTAL</b>	<b>2,583,347</b>

As mentioned earlier, we have 'reduced' the Preparatory Assistance Subcontract by US \$20,000 (three items which are either covered under the new full contract or have been deleted), and have used these funds for the Sardinia Workshop which has been administered directly by OPS. Any unspent amount of this Workshop will be added to BL 1600.

I trust this clarifies this issue.

\* Incl. IOI overheads.

Yours Sincerely,

Ingolf Schuetz-Mueller  
Chief, Division for  
Special/Interregional Programmes  
and Europe

Dr. Krishan Saigal  
Executive Director, IOI  
Presently on Mission in Sardinia



Minutes of the Representatives of the  
Operational Centres of IOI  
held at the University of Malta  
on the 17 and 18 May, 1993

Present: Dr. Kevin Aquilina  
Prof. David Attard  
Prof. Salvino Busuttil  
Mr. A. F. Hoque  
Prof. Philip K. Quarcoo  
Prof. V.S. Raju  
Dr. Krishan Saigal  
Ambassador Nicolas Salom  
Mr. I. Schuetz-Mueller  
Fr. Peter Serracino Inglott  
Prof. E. Robin South  
Prof. N.V.C. Swamy  
Dr. Stella Vallejo

Prof. Elisabeth Mann Borgese took the chair.

Item 1: Work plan of IOI - future role of IOI

The agenda note was discussed in the context of:

- defining the future of IOI so that it could still be relevant 20 years from now
- the workplan of IOI

There was a wide ranging discussion on this issue. The consensus view was that:

- IOI needed to work as a think tank and a generator of policy and implementational ideas flowing from the emerging international consensus in marine affairs e.g. UNLOS, UNCED, et. al.
- IOI should remain a lean networking organisation so as to have a cost-effective and competitive delivery system
- IOI may, subject to ratification by the Planning Council and the Board, consider providing packaged consultancy services to developing countries as a natural outgrowth of its research and training activities
- IOI may go into the hitherto neglected areas including, inter alia, small islands, ocean-air interface, sensitising top decision makers, regional and sub-regional networks, integrating the oceans into African development processes
- the Board of Editors of the Ocean Year Book to be enlarged to include representatives of operational centres

Regards the workplan of IOI for the next five years (1993-97) it was the view of the meeting that this could most appropriately be taken up after revising the UNDP document (Item 3) and along with the budget for IOI (Item 7).

Item 2. Management System of IOI

The agenda note was discussed. The broad view that emerged from the discussions was that while greatest possible autonomy should be given to the operational centres, the role of headquarters was also important for ensuring quality of outputs, ensuring maintenance of accounts in a uniform manner, and for avoiding duplication of effort thereby keeping administrative and overhead expenses to the minimum. Most fund-raising activities should also be centrally coordinated so that the same funders were not approached by different operational centres. It was the view of the meeting that within these parameters the management system of IOI should be allowed to evolve over time in a flexible and organic manner.

The meeting also approved the system of financial accounting, namely, the accounting format, the mode of releasing funds and the addition of a small (20%) surcharge on all activities so as to meet administrative expenses (13% to the centre and 7% to headquarters).

Item 3. Revision of UNDP Document.

The agenda note referred to the UNDP document which needs to be discussed and then revised in the aggregate and then revised centre-wise and year-wise.

In the discussions that ensued, it was agreed that:

- (i) more stress should be laid on modular course development
- (ii) syllabi should be produced in-house through collegial functioning and then subject to expert external scrutiny
- (iii) trainers should be trained in how to lecture to a multi-cultural, multi-speciality audience with uneven educational backgrounds
- (iv) libraries should be linked by E-mail

On the basis of the above parameters, the budgetary parameters were finalised

- in the aggregate (Annexure I)
- centre-wise (Annexure II)
- year-wise (Annexure III)

Item 4. Modular Curriculum Development.  
Item 6. Research Agenda.

The concept of a module was discussed. It was agreed that a module was not a unit but was:

- a discrete piece of information
- something that could be removed from the syllabus without affecting its structure

It was also the view of the meeting that modules and applied research were interlinked with two-way interactions between them. The two should therefore be considered together.

The applied research agenda was very thoroughly discussed. It was ultimately agreed that the centres should specialise i.e.: IIT-M (engineering and technology), USP (fisheries), Senegal (economics), Halifax (law of the sea), Malta (islands) and Colombia (spanish case studies). They should finalise their research agenda so that the matter could be discussed in September, 1993.

Regarding the course modules, it was agreed that the centres would work within their areas of specialisation and draw up a list of modules, subject them to regional peer review and then discuss them with the other centres (through fax/E-mail). The final product would be cleared by a Central Committee consisting of the Honorary President, the Executive Director, a representative of UNDP, a representative of the regional centre concerned and two outside, and recognised experts in the field.

Item 5. Training.

The meeting had before it the following papers:

(i) Advanced Course on the Integrated Management of Coastal and Ocean Areas - Stella Vallejo

(ii) Syllabi of three new courses:

- . coastal zone management as a sustainable process - IOI India
- . coastal zone management with the focus on small islands - IOI Malta
- . sustainable development and implementation of chapter 17 of agenda 21 in the exclusive economic zone - IOI Halifax

(iii) A proposal from the University of Malta of a new M.A. degree course as a joint venture between the University and IOI.

On presenting her paper Ms. Vallejo stressed on the integrated nature of the course, that it would require a regional case study and 3-4 national case-studies. It could serve as an advanced course by itself or form a module in a larger course.

In the discussions that ensued on the paper the following views emerged:

- . it may be better to first ask for national case-studies and to let the regional/subregional study flow from then
- . to use the ideas set forth in the document in three ways:
  - \* in a 2 week course for trainers and for those with some marine knowledge (alumni as well as others)
  - \* in an expanded 4 week course
  - \* in a 1 week module in every IOI course

The other syllabi were approved to be tested and evaluated. It was suggested that the islands course be modified to include the following units:

- . customary marine tenure (2 sessions)
- . economy of distance water fleets
- . women in artisanal fisheries
- . environmental impact legislation

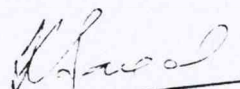
The meeting was of the view that the M.A. degree course for Malta was an idea that needed to be further explored.

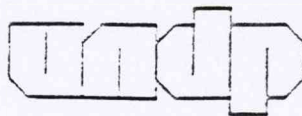
Item 7. Budget.

The meeting was of the view that the UNDP allocations having been decided, it was necessary to firm up the likely non-UNDP income before drawing up the budget. It was agreed that likely funding sources would be tapped and the budgets drawn up by the centres and submitted by 31.7.93.

A five year plan would have got ready by all centres by September, 1993.

The meeting ended with a note of thanks to the chair.

  
Dr. Krishan Saigal  
Executive Director



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UNDP (OPS) CONTRACT NO.: C-93617  
AMOUNT OF CONTRACT: US\$ 2,583,347

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UNITED NATIONS DEVELOPMENT PROGRAMME

CONTRACT FOR:

The development of an institutional infrastructure through the establishment of four operational centres for the support of regional oceans training involving implementation of training programmes to further policy research in marine affairs.

PROJECT REFERENCE:

GLO/91/G33  
Support for Regional Oceans Training Programs

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CONTRACT BETWEEN

UNITED NATIONS DEVELOPMENT PROGRAMME  
OFFICE FOR PROJECT SERVICES and  
220 East 42nd Street, 14th floor  
New York, N.Y. 10017  
United State of America

INTERNATIONAL OCEAN  
INSTITUTE (IOI) A BODY  
CORPORATE CONSTITUTED IN  
ACCORDANCE WITH THE CODE  
OF THE LAW OF THE  
NETHERLANDS 501 (C) (3) IS  
A NOT FOR PROFIT  
CORPORATION WITH  
HEADQUARTERS LOCATED IN  
GZIRA, MALTA,  
P.O. Box 3, GZIRA GZR 01,  
MALTA

The Undersigned duly authorized representatives of the parties hereby agree to the following terms and conditions and all attachments as indicated in Section 1.01.

Starting Date: 01 September 1993 Completion Date: 29 February 1996



THE DULY AUTHORIZED REPRESENTATIVES OF THE PARTIES HEREBY AGREE TO THE FOLLOWING TERMS AND CONDITIONS:

WHEREAS the United Nations Development Programme (UNDP) has accepted to provide, through its Office for Project Services (UNDP/OPS), its cooperation in the implementation of the Project entitled " Support for Regional Oceans Training Programs " (Project No. GLO/91/G33, hereinafter referred to as the "Project");

WHEREAS UNDP/OPS desires to obtain the services of the International Ocean Institute (IOI), headquartered in Malta, (hereinafter referred to as the "Contractor") to carry out the activities required for the implementation of the Project as described hereafter.

WHEREAS the Contractor represents that it is qualified, willing and able to provide such services on the terms and conditions set forth herein;

NOW THEREFORE, UNDP/OPS and the Contractor (hereinafter referred to collectively as the "Parties") hereby agree as follows:

#### 1.00 General

##### 1.01 Scope of Contract

The Parties agree to be bound by the provisions herein set forth in the Contract as well as in the General Conditions for UNDP/OPS Contracts for Professional Services (Annex I), the UNCITRAL Arbitration Rules (Annex II), the Project Document and its appendices (Annex III), and the Budget for Project Services (Annex IV and Annex IV-A), all of which are hereinafter referred to as the "Contract". In the event of any conflict or inconsistencies between the above referenced documents, they shall be interpreted and will prevail in their respective order.

##### 1.02 General Objective

The immediate objectives of this programme are first, for IOI to develop an institutional infrastructure by establishing four operational centers to be located in India, the South Pacific (Fiji), Colombia and Senegal; and second, through these centers, IOI will implement training programmes in furtherance of policy research and development in marine affairs. The centers will serve as vehicles for providing training and management of exclusive economic zones and will initiate research programmes to handle local and regional concerns.

The strategic approach of IOI is to improve the ability of developing countries to manage their own ocean resources.



## 2.00 Contrator's Services

### 2.01 Services

- a) The Contractor shall perform, in accordance with the Contract, all services necessary for the implementation of the Project as described and presented in both the Project Document and its appendices, Annex III and the Budget for Project Services, Annex IV and Annex IV-A (such services are hereinafter referred to as "Services"), and all other obligations of the Contractor hereunder.
- b) The Contractor, in performing Services, will comply in particular, with Parts C, D, E, G, H, I and J and appendices A, B and C of the Project Document, Annex III. All subsequent changes and revisions to the workplans and budgets for Project Services will be subject to the prior approval of UNDP/OPS.
- c) The Contractor shall provide personnel, materials and supplies, and the appropriate administrative and technical support necessary for the full and complete performance of Services. The Contractor shall be obligated to ensure that the prerequisites for the implementation of this Project are met which require cash and in kind contributions by host governments and associated institutions, of the physical location, facilities and support required to establish the four operational centers described in the Project Document. Such inputs are as set forth in Part E, Sections 2 and 3, of the Project Document, Annex III, in the amounts of US\$1,000,000 and US\$875,000 or more, respectively. The Contractor shall also coordinate the implementation of Project activities with participating research institutions and universities.
- d) Upon signing of the Contract, the operational centres in India and the South Pacific (Fiji) will receive funding to begin training programmes as per the Project Document, Annex III. The Contractor will keep UNDP/OPS apprised of progress in the development of realistic operating plans for centers in Colombia and Senegal the funding of which may begin upon UNDP/OPS receipt and approval of such final operating plans. Until such approval by UNDP/OPS, the Colombia and Senegal centers will receive partial funding as set forth in Annex IV-A.

### 2.02 Contractor's Personnel

- a) The Contractor shall provide, to the satisfaction of UNDP/OPS, suitably qualified and experienced expert personnel to perform Services. The list and resumes of the Contractor's key personnel proposed for assignment to the Project shall be submitted to UNDP/OPS for review and approval before

recruitment by the Contractor.

- b) All contracts and agreements to be entered into between the Contractor and third parties such as institutes, universities or other entities, for the purpose of this Project, shall be submitted to UNDP/OPS for prior approval and shall not include terms and provisions which are not in accordance with this agreement.

#### 2.03 Training and Research

The Contractor shall organize and ensure the delivery of in-house and overseas research and training programmes as described in Part D of the Project Document, Annex III entitled "Immediate Objective 2 - Training Programmes".

#### 2.04 Equipment

- a) The Contractor shall not purchase any equipment on account of the project. Any equipment required shall be directly procured by UNDP/OPS. However, it shall be the Contractor's responsibility to provide UNDP/OPS with specifications of all equipment to be used for the Project together with the estimated costs of such equipment.
- b) The Contractor shall use all equipment for the purposes intended in the Project Document and workplans, and the disposition of all equipment at the end of the Project will be decided by UNDP/OPS in accordance with the UNDP financial rules and regulations.

#### 2.05 Time Table

The Contractor shall adhere to the timetable set forth in the workplans in Appendix B of the Project Document, Annex III, or as subsequently amended and agreed upon by UNDP/OPS and the Contractor.

### 3.00 Reviews, Required Information and Reports

#### 3.01 Reviews and Required Information

- a) This Project will be subject to annual joint review by the IOI, the centers' directors and UNDP/DGIP and OPS, to assess and evaluate the progress of research, policy and training objectives, networking and achievement of Project objectives and outputs. The IOI Executive Director shall prepare and submit for each review a Project Performance Evaluation Report (PPER). Additional PPERs may be requested by UNDP/DGIP and OPS during the Project.

- b) UNDP/DGIP and OPS, will undertake an evaluation mission during the second year of the Project, independent of the joint Project reviews described above. To facilitate such evaluation, progress on the work will be reported in accordance with Section 3.01 a) above.
- c) In addition, the Contractor shall be required to submit to UNDP/OPS the following information which will assist in the implementation of the Project:
- CVs of all professional personnel financed under the Project;
  - semi-annual international travel schedules (for meetings, consultations, research collaboration and similar activities);
  - annually revised workplans accompanied by supporting budgets with appropriate budget explanations. (These should include descriptions and budgets for workshops, conferences and seminars anticipated for each year and in-kind and cash contributions to be made by the Contractor, by the operational centres and by host governments).

### 3.02 Reports

- a) The Contractor shall ensure that the Project is coordinated and reported in a manner which will allow for proper and effective review and evaluation by UNDP/DGIP and OPS.
- b) The Contractor shall submit to UNDP/OPS, within 30 days of the end of each twelve month period, an annual report in three parts, as follows:
- i) Part One shall consist of a PPER.
  - ii) Part Two shall consist of a financial report providing information on all expenditures made by the Contractor under the Contract, including a detailed statement of the cash and in-kind contributions made by the Contractor, by the operational centres and by host governments. Annually, UNDP/OPS shall require a certificate from the Contractor's external auditors certifying the propriety of such financial reports after annual audits have been performed by the Contractor's auditors. The Contractor's files shall be made accessible to UNDP/OPS or its representatives for audit at any time. Where appropriate, each financial report shall include an updated equipment inventory list.
  - iii) Part Three will provide complete information, for the upcoming 12 months, on an updated annual work plan, annual travel schedule, including information on any

workshops and conferences planned, as well as budgets with appropriate explanations.

- c) The Contractor shall submit to UNDP/OPS, not later than 30 days after the completion of Services, a Final Report (combined with the terminal report referred to in the Project Document, Annex III) in two parts. Part One, the PPER, shall describe all Services performed, discussing whether the Services have been completed in accordance with the Contract and the Contractor's conclusions and recommendations regarding the Project. Part Two shall be prepared in accordance with sub-paragraph (b) (ii) above.
- d) All PPERs and annual reports, from the Contractor as described in paragraphs a), b) and c) of this section are subject to the approval and acceptance of UNDP/OPS who shall communicate its acceptance, or otherwise, of a submission to the Contractor within 30 days of receipt. In the event that UNDP/OPS shall find any submission unsatisfactory for the purposes intended, the Contractor shall be required to correct the unsatisfactory condition or matter within 30 days of notification by UNDP/OPS.
- e) All submissions shall be made in the English language and shall be transmitted to UNDP/OPS by the Contractor by airmail, addressed to:

Director  
UNDP - Office for Project Services  
220 East 42nd Street, 14th floor  
New York, N.Y. 10017  
U.S.A.  
Ref. GLO/91/G33

#### 4.00 PAYMENT FOR CONTRACTOR'S SERVICES

##### 4.01 Contract Price

- a) As compensation for the full and complete performance of Services and all other obligations of the Contractor hereunder, UNDP/OPS shall pay to the Contractor a contract price of up to two million five hundred eighty three thousand three hundred forty-seven US dollars (US\$ 2,583,347) the breakdown of which is given in the Budget for Project Services attached hereto, Annex II and Annex II-A. In any event, payments to the Contractor shall not exceed the amount set forth in the budgets of any annual workplans submitted by the Contractor and approved by UNDP/OPS.
- b) The Contractor shall not provide any additional services, equipment, materials or supplies which may result in costs in excess of the Contract price specified in paragraph 4.01 a)

without the prior written agreement of the Director of UNDP/OPS expressed through an amendment to the Contract in accordance with Article 18 of the General Conditions, Annex III.

#### 4.02 Payments

a) The Contract price referred to in section 4.01 above shall be paid by UNDP/OPS as follows:

i) Upon signature of the Contract by both parties, UNDP/OPS shall make an advance payment of Ninety Thousand US dollars (US\$90,000) to the Contractor to cover all headquarter and operational centres expenditures for the month of September.

ii) Beginning with the first quarter, starting 1 October to 31 December 1993, and for each quarter thereafter, the Contractor shall submit to UNDP/OPS an invoice detailing:

- actual expenditures incurred during the previous quarter (by budget lines) and supported by economy class ticket stubs for all travel plus other documentary evidence, as appropriate;

- plus an estimate of expenditures (by budget line) to be incurred during the upcoming quarter and to be advanced by UNDP/OPS;

- minus the amount advanced by UNDP/OPS in the previous quarter.

Upon examination and acceptance, UNDP/OPS shall effect the appropriate payment which shall not exceed one quarter of the budget programme approved by UNDP/OPS for the relevant annual budget set forth in Annex IV, the Budget for Project Services.

b) In addition to the provisions set forth in subsection a, ii, above, UNDP/OPS shall retain 20% of the final quarter estimated expenditures, the amount thus retained will be released subject to:

i) certification by the Contractor's external auditors that all contracted services have been rendered, and that all contributions, in cash and in-kind, have been made by the Contractor, by the operational centres and by host governments, as per Part E, Sections 2 and 3 of the Project Document, Annex III; and

ii) receipt and acceptance by UNDP/OPS of the Final Report referenced in Section 3.02 c) above.

In the course of Project implementation, UNDP/OPS may engage firms or individuals to independently confirm that the Contractor has professionally and reasonably accomplished all

required Services.

- c) Such payments by UNDP/OPS shall not be deemed to relieve the Contractor of its responsibilities under this Contract. All payments by UNDP/OPS shall be made in U.S. Dollars to the following bank account of the Contractor:

Bank : Bank of Valleta International

Address : \_\_\_\_\_

Account No.: 119 185 46 014

#### 5.00 MISCELLANEOUS

- 5.01 The Contractor shall commence the Services on 1 September 1993 and shall complete Services not later than 29 February 1996.
- 5.02 Any notice, request or approval required or permitted to be given or made under this Contract shall be in writing in the English language. Such notice, request or approval shall be deemed to be duly given or made when it shall have been delivered by hand, mail, telex or cable to the party to which it is required to be given or made at such party's address specified below, or at such other address as the party shall have specified in writing to the party giving such notice, or making such request.

#### For the UNDP/OPS:

Director  
 UNDP - Office for Project Services  
 220 East 42nd Street, 14th floor  
 New York, New York 10017  
 U.S.A.  
 Ref. GLO/91/G33  
 Telex No. 662293 OPS UNDP  
 Fax: (212) 906-6903  
 Cable: UN/OPS NEW YORK

#### For the Contractor:

Director  
 International Ocean Institute  
 P.O. 3  
 Gzira GZR 01  
 Malta  
 Fax: 356 346502  
 Telex: c/o University of Malta attn: IOI  
 1407 HIEDUC MW

IN WITNESS WHEREOF, the representatives of the Parties have signed this Contract.

SIGNATURE: Ivo Pokorny

NAME : Ivo Pokorny

TITLE : Officer-in-Charge, UNDP/OPS

DATE : Sept 3, 93

Krishan Saigal

Krishan Saigal

Executive Director

Sept 3, 93

WORKPLAN FOR IOI SENEGAL  
October 1994 to April 1997



## Contents

	<b>Pages</b>
<b>Workplan</b>	<b>45-55</b>
Attachment 1 - Cash Flow Projections	56
Attachment 2 - Details of Curriculum Development Activities	57
Attachment 3 - Details of Training Programmes	58
Attachment 4 - Training Outputs	59
Attachment 5 - Physical Scheduling	60
<b><u>Appendices to Workplan</u></b>	
Appendix 1 - List of National Coordinators of COMARAF	61
Appendix 2 - Syllabus of CZM two week programme	63
Appendix 3 - Syllabus of Planning and Management of Coastal Zones programme	67

## **INTERNATIONAL OCEAN INSTITUTE**

**Senegal Operational Centre at the  
Centre de Recherches Oceanographiques de Dakar - Thiaroye,  
SENEGAL**

### **OPERATIONAL WORK PLAN AND BUDGET**

#### **Introduction**

The International Ocean Institute (IOI) has entered into an agreement for three years with the Oceanographic Research Institute of Senegal (French acronym CRODT) which has a mandate to implement research projects on marine affairs for the Senegalese Institute for Research in Agriculture (French acronym ISRA) whereby the IOI Operational Centre has been established at CRODT, Senegal.

By this agreement ISRA/CRODT have placed at the disposal of the IOI Centre the services of a director along with the associated secretarial etc. services, the infrastructure for holding seminars/courses for 20 participants, research materials, library etc. ISRA/CRODT have also agreed to establish liaison with Cheikh Anta Diop University (French acronym UCAD), the African Regional Centre for Technology (French acronym CRAT), the UN African Institute for Economic Development and Planning (French acronym IDEP) and CESAG a management institute located in Dakar so that inputs regarding marine geology, ecosystem management, marine geography, marine law from UCAD, technology and engineering from CRAT, economics and planning from IDEP and management from CESAG, could be made available to the courses to be conducted by the IOI Operational Centre.

Since the signing of the agreement in June, 1994 liaison with the above named institutions has been established and appropriate arrangements entered into.

#### **Training Capacity of IOI Senegal**

IOI Senegal consists of a network of five institutions. Two of these, namely, CRODT and the Pluridisciplinary Team for Coastal Ecosystems Study (French acronym EPEEC) in UCAD set up under the UNESCO/UNDP COMARAF Project would be the ones supplying the purely marine outputs while the other three, namely, CRAT, IDEP and SESAG would be supplying inputs related to marine technology, economics and planning and management. The capacity of each in the training field is enumerated below.

#### **CRODT**

CRODT conducts research from the socio-economic, environmental and multi-disciplinary points of view into both artisanal and industrial fisheries. It has a research vessel equipped with

the most modern scientific instruments designed for studies in oceanography and echointegration; a data-processing department and a remote sensing department (satellite image processing unit) in collaboration with the French Scientific Research Institute for Co-operative Development (French acronym ORSTOM). CRODT has 25 researchers, 15 Senegalese and 10 French, and a total staff, including technicians of 130.

CRODT is thus well placed to train participants in both on-board, computer and theoretical aspects of everything connected with oceanography, remote sensing and geographical information systems.

Also during the period 1990-1993, CRODT conducted 4 international training courses and workshops as detailed below.

In 1990 CRODT conducted a 4 week training course, sponsored by ICOD of Canada, on stock assessment. About 40 participants from various African countries attended the course which was in French. At the conclusion of the course a manual on fishery stock assessment methods was also published.

In 1992, in collaboration with ORSTOM and UNESCO, CRODT organised a 1 week international training course in French on remote sensing applied to marine sciences and management of coastal resources. Over 20 participants attended the course.

In 1993, CRODT organised two major international workshops of 1-week each. The first, on artisanal fisheries, was in French and had about 60 participants. The second, on biodiversity, was in French and English and had about 100 participants from all over the world.

#### **UCAD-EPEEC**

The Pluridisciplinary Team for Coastal Ecosystems Study (EPEEC) was established in 1984 under the aegis of COMARAF, the joint project of UNESCO and UNDP. The object of EPEEC was to make interdisciplinary studies in ecosystems related to estuaries, mangroves, lagoons etc. The President of EPEEC is Dr. Salif Diop, the Regional Coordinator of COMARAF, and who has agreed to co-ordinate the inputs from the University of the IOI Training Courses.

From the report of EPEEC for 1991-92 it is seen that EPEEC consists of 17 Researchers with 12 being from the University, 3 from CRODT, 1 from ISRA and 1 from ORSTROM. All disciplines relating to ecosystems (Geology, Geography, Sedimentology, Hydrochemistry, Marine Biology, Aquaculture, Parasitology, Biotechnology, Geomorphology, Hydrmorphology, Benthic Ecology etc.) are thus represented.

The research material produced by EPEEC will be very useful for IOI training programmes. All the persons have agreed to act as resource persons for IOI training courses.

#### **UCAD - Law Department**

Dr. Babacar Gueye, Professor of Maritime Law, whose doctoral thesis was on "Policies of Fisheries in Senegal and the law of the Sea" and Dr. Khalil Ibrahima Diallo, Professor of Maritime Law, have both agreed to be resource persons for the IOI Operational Centre.

#### **CRAT**

The Regional African Centre for Technology (CRAT) has a well equipped computer centre as well as persons trained in technology assessment. Training materials on IOI Courses will be made available to CRAT from IOI Madras and the personnel of CRAT have agreed to act as resource persons.

#### **IDEP**

The UN African Institute for Economic Development and Planning (IDEP) has been running diploma programmes in macroeconomic policy analysis, management and planning in Africa since the last 30 years. IDEP has agreed to allow DR. Quarco, the Chief of Training of IDEP, to be a resource person for IOI Senegal.

#### **Government of Senegal**

At the Ministry of Environment and Protection of Nature, contact has been established with Mr. Bakary Kante, Director of Environment who will be the main link to the Government. He is currently co-ordinating a UNDP/OMI Project, SEN/91/001, on Protection of the Coastal Zone of Senegal. He was Chairman and leader of the Senegalese delegation to PREPCOM for the Earth Summit. He is regional co-ordinator of the Adidjan Convention on Co-operation in Maritime Environment and Coastal management for the 22 West and Central African (WACAF) Countries. He is also a member of the London based Advisory Committee on Protection of the Sea (ACOPS).

#### **International Network**

At the regional level IOI Senegal has established contact with the resource persons working on the UNDP/UNESCO Regional project for Research and Training on Coastal Marine Systems in Africa

(COMARAF), RAF/87/038, based in UNESCO, Dakar, particularly with Dr. Salif Diop, Co-ordinator of the Project. The list of national co-ordinators in the 13 countries participating in the project with whom IOI Senegal will be collaborating are at Appendix 1.

International contacts would enable IOI Senegal to make its programmes contextual to the needs of Africa based on data, information and case studies received from other countries.

### Details of Workplan

#### Information Dissemination.

- 1.1.3.a For the international and national networks to remain effective it is necessary for there being regular contacts between IOI Senegal and the collaborating/networking institutes. One way of doing this would be through the issue of brochures by IOI Senegal. It is proposed to issue such brochures regularly.

Starting Date:	October 1994
Completion Date:	Continuous
Responsible Party:	Director IOI Senegal

#### Programme Development.

- 1.1.4.b It would also be necessary for Director IOI Senegal to travel within the region, contact the various governments so as to develop programmes contextual to the perceived needs of African states. A small provision has been made in this regard.

Starting Date:	January 1995
Completion Date:	June 1996
Responsible Party:	Director IOI Senegal

#### Research Programme.

- 2.1.1. Liaison with the various research institutions of the region would be necessary both to develop new lines of policy research as well as utilise the results of research under way. This would also help in keeping the training materials up to date. A small provision has been made for the travel expenses of Director IOI Senegal.

Starting Date:	January 1995
Completion Date:	June 1996
Responsible Party:	Director IOI Senegal

## Training of Trainers.

- 2.1.1.b As is clear from the above, IOI Senegal would have at its disposal a considerable number of resource persons who have experience in conducting international training programmes, especially from CRODT, IDEP and COMARAF/EPEEC. However, IOI Senegal would be lacking experience in running multi-disciplinary programmes of the type conducted by IOI over periods ranging from a few days up to 10 weeks. Also IOI Senegal would need to have expertise in curriculum development and in the methodology of preparing training materials which could be exchanged within a network of institutions. For this purpose Dr. Toure, Director IOI Senegal would be attending the course on "Coastal Zone Management as a Sustainable Process" being held at IOI Madras from 17 October, 1994 onwards; a colleague of Dr. Toure from CRODT would attend thr IOI Courseto be held in Halifax from June, 1995; while Dr. Toure and another person would be attending the TRAIN SEACOAST Workshop being conducted by UNDOALOS and UNDGIP in January 1995. This would enable the key personnel of IOI Senegal to be sensitized to both methodology of IOI as well as that of TRAIN SEACOAST being developed by UNDOALOS and UNDGIP.

Starting Date:	October 1994
Completion Date:	August 1995
Responsible Party:	Director IOI Senegal

## Curriculum Development.

- 2.1.2.a IOI Senegal would run most of its courses in French. IOI has run a couple of programmes in French in the 1980's but the material used in those courses would not be very relevant at the present time. IOI Senegal can, however, draw on the training material developed by the IOI global network which is in English and then adapt and translate it into French. IOI Senegal would also have access to the materials likely to be developed in the TRAIN SEACOAST network. The first step would be for the Director IOI Senegal to collect relevant materials from IOI Madras when he attends the CZM Course there. He should also review the materials produced by IOI South Pacific and then get the work of adaptation and translation done by the resource persons already identified in Dakar.

Starting Date:	January 1995
Completion Date:	Continuous
Responsible Party:	Director IOI Senegal

### **Training Courses and Workshops.**

2.1.3. To start with IOI Senegal will use the course outlines developed by the IOI global. Local resource persons will adapt the materials for implementing the following training workshops and courses planned for the 1995-1997 period:

- (a) Coastal Zone Management including the EEZ - 2 weeks
- (b) Planning and Management of Coastal Zones - 8 weeks
- (c) Integrated Coastal and Marine Management - 6 weeks
- (d) Alumni Course - 1 week.

**(a) Coastal Zone Management including management of the Exclusive Economic Zone (EEZ).**

The political and economic impact of the EEZ concept on the practice of States has, over time, been very considerable, especially with regard to the conservation and management of living resources, the exploitation of the non-living natural resources of the seabed and subsoil of the zone, the conduct of marine scientific research and the protection and the preservation of the marine environment.

Most of the States in Africa and elsewhere that have established EEZ claim "sovereign rights" over the natural resources of the zone and jurisdiction with respect to the establishment of artificial islands, installation and structures, marine scientific research, and the protection and preservation of the marine environment. As regards conservation and use of fish resources, many coastal States have claimed exclusive fishery zones. There are also several States including Senegal, Cape Verde, Antigua and Bermuda which provide for imprisonment as a penalty for violating fishery legislation, contrary to an article of the Convention. There would be two such courses, one in May 1995 at Dakar and the other in some other country in February, 1997.

The course module (course outline at Appendix 2) for the workshop will cover the following:

- State rights and duties: definition, delimitation, legal rights and duties, and practice in various African States;
- Information requirements: demographic, economic, geographical and natural scientific parameters;
- The social environment: legal framework for resource management and preservation, macroeconomic and political strategies and their interactions with coastal and EEZ management;
- Interlinking and interfacing of coastal area management and EEZ management: systems analytical approach to ocean management;

- Land-use competition: locational concepts including economic and social, agriculture, extractive industry, manufacturing industry, residential, touristic, historical/archaeological;
- Sea-use competition: fishing, aquaculture and mariculture, tourism and sport, shipping, offshore oil and gas, sea-mining and environmental implications including toxicity and coastal erosion;
- Monitoring and surveillance in the EEZ: foreign fishing fleets and their impacts including economic, ecological and political; access and joint venture agreements;
- Legal regimes for management of resources: environmental impact legislation, legislation to regulate activities in the coastal zone and EEZ.

Duration: 2 Weeks  
 Date: May, 1995 and February 1997  
 Language: French

#### **(b) Planning and Management of Coastal Zones**

The Coastal zone of Africa is composed of various ecosystems such as mangroves, seagrass beds, coral reefs, and various communities found in different geomorphological settings including estuaries and deltas, coastal lagoons, rocky platforms, and sandy and sea ooze bottoms. The functioning of these ecosystems and their interactions are consequences of physical, chemical, biological and geological processes and constitute, together with the input of terrestrial waters, the factors determining the productivity of marine coastal environments, thereby lying at the heart of understanding the rational management of living resources.

The course modules and training materials will be as per the IOI course outline on "Coastal Zone Management with a Focus on Africa" (course outline at Appendix 3). A synopsis of the curriculum for the 8-Week course planned is as follows:

Week 1: The International Setting  
 Week 2: Managerial Implications, Information Requirements  
 Week 3: Management of Coastal Zone Resources - Living  
 Week 4: Management of Coastal Zone Resources - Non-Living  
 Week 5: Coastal Zone Activities and Economics  
 Week 6: Policy Making and Project Formulation  
 Week 7: Management  
 Week 8: Practical Exercises.

Duration: 8 Weeks  
 Dates: First Course: October - November, 1995  
 Second Course: March - April, 1997  
 Language: French



**(c) Integrated Coastal and Marine Management**

This would be an advanced course on ocean management integrating coastal area management with exclusive economic zone management by incorporating their linkages and interfacing. The course modules and training materials will be based on findings from the research and curriculum development activities as well as materials from the IOI global network.

A tentative synopsis of the curriculum for the 6-Week course which is still to be developed, will be the following:

- Week 1: Systems Analytical Approach to Ocean Management and Information Requirements.
- Week 2: Sea-use Structure and Its Four Interacting Elements: conflicts and synergy; policy analysis.
- Week 3: Parameters of Ocean Policy and Management: trade-offs and synergy requirement; linkages and multiple objectives.
- Week 4: Environmental Risk Management Strategy: risk identification, estimation and evaluation; risk profiles and contingency plans; regional, national and local responses.
- Week 5: Integrated Ocean Policy: case studies on USA, Netherlands, India, Sri Lanka, Japan.
- Week 6: Designing an Ocean Management Programme: organizational strategy for implementing a work plan of selected participant countries and a regional programme of cooperation.

Duration: 6 Weeks  
 Date: September-October, 1996  
 Language: French

**(d) Alumni course**

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) has been signed by 159 States and, 61 States have ratified the Convention. The Convention will enter into force in November 1994. Practically all of the 61 States which have ratified the Convention are developing States with about 50 percent coming from Africa. This one-week workshop is therefore designed to sensitize IOI alumni, who are by now senior African officials and decision makers, on African perspectives regarding issues related to the coming into force of the UNCLOS. As almost all IOI alumni are English speaking, this programme will be in English.

Even though the Convention has not yet entered into force, it has had some impact on State practice as a consequence of national legislation, diplomatic protests and treaties, as well as decisions of international courts and tribunals and the work of international organizations, both global and regional. The course modules and training materials will therefore cover

progress made in the implementation of the UNCLOS focusing on:

- impact of the Convention on practice of States, particularly African States, and dealing with the major maritime zones defined by the Convention;
- questions relating to land-locked States, environmental protection and marine scientific research;
- developments related to the Convention including State practice and national policy: managerial and policy implications including extended jurisdictions, legal and surveillance implications;
- settlement of regional conflicts and disputes, main trends in regional and subregional cooperation in ocean affairs;
- marine environmental law and policy, and conservation and management and subregional cooperation in ocean affairs;

Duration: 2 Weeks  
Date: March, 1996  
Language: English

### **Budget**

The Budget of IOI Senegal is estimated at US\$ 320,000 for the period October 1994 to April, 1997. Almost US\$ 40,000 has been spent in the preparatory period on running the course for African leaders at Addis Ababa, preparing course materials for the Addis course and in visiting Dakar to finalise the workplan. The detailed budget is at Attachment 1, details of curriculum development are at Attachment 2, details of courses at Attachment 3, the expected output by participant weeks is at Attachment 4 and the physical scheduling is at Attachment 5.

### **Outputs**

As can be seen from Attachment 4, the output of IOI Senegal would be 200 trainee weeks in 1995, 180 trainee weeks in 1996 and 200 trainee weeks in 1997 or 580 trainee weeks in all. The Addis course for leaders held in March-April, 1994 accounted for 49 trainee weeks. So the total output of IOI Senegal would be 629 trainee weeks.

IOI Senegal would also have adapted and translated into French the relevant training materials and made them available to both the IOI and TRAIN-SEACOAST networks.

IOI SENEGAL OPERATIONAL CENTRE

Cash Flow Projections (UNDP funds), 1994-1997

Amounts in US \$'000

Table 1

CODE	TITLE	1994 Oct- Dec	1995	1996	1997	TOTAL
1.1.3a	Information Dissemination :-Brochures	1.0	1.0	1.0	-	3.0
1.1.4b	Programme Development (Travel): - Director	-	3.0	3.0	-	6.0
2.1.1a	Development of Research Programme	-	2.5	2.5	-	5.0
2.1.2a	Curriculum Development	-	40.0	10.0	-	50.0
2.1.2b	Training of Trainers	8.0	8.0	-	-	16.0
2.1.3a	Courses	-	70.0	60.0	70.0	200.0
2.1.3b	Alumni	-	-	10.0	-	10.0
2.1.3c	Leaders	-	10.0	-	20.0	30.0
	Total	9.0	134.5	86.5	90.0	320.0

Expenditure in April-September 1994

CODE	TITLE	EXPENDI- TURE
1.1.4b	Programme Development by Executive Director	3.9
2.1.2a	Curriculum Development (Addis course)	10.7
2.1.3a	1 week course held in Addis Ababa	25.3
	TOTAL	39.9

## IOI SENEGAL OPERATIONAL CENTRE

Details of Curriculum Development Activities  
(Budget Item: 2.1.2)\*

Amounts in US \$'000

Table 2

PROJECT	1994	1995	1996	TOTAL
Planning & Management of Coastal Zones in Africa	-	10.0	10.0	20.0
Integrated Coastal & Marine Management	-	30.0	-	30.0
TOTAL	-	40.0	10.0	50.0

\* See Project Cash Flow Chart

**Details of Scholarships for Training Courses  
(Budget Item: 2.1.3a)\***

Amounts in US \$'000

Table 3

<b>PROJECT</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>TOTAL</b>
Alumni (1 week)	-	-	10.0	-	10.0
Workshop on EEZ Management (2 weeks)	-	10.0	-	20.0	30.0
Course on plan. & Management of Coastal Zones (8 weeks)	-	70.0	-	70.0	140.0
Course on Integrated Coastal/Marine Management (6 weeks)	-	-	60.0	-	60.0
<b>TOTAL</b>	-	80.0	70.0	90.0	240.0

\* See Project Cash Flow Chart

## IOI SENEGAL OPERATIONAL CENTRE

Number of Participants and Participant Weeks  
for Courses, Workshops and Seminars  
(Budget Items: 2.1.3 a-c)\*

Table 4

PROJECT	1995		1996		1997	
	Parti- cipant s	Parti- cipant Weeks	Parti- cipants	Parti- cipant Weeks	Parti- cipants	Parti- cipant Weeks
Alumni Workshop (1 Week)	-	-	20	20	-	-
Leader- ship Workshop (2 Week)	20	40	-	-	20	40
Course on Plan. & Mgmt. of Coastal Zones (8 Weeks)	20	160	-	-	20	160
Course on Integ- rated Coastal/ Marine Mgmt. (6 Weeks)	-	-	20	120	-	-
TOTAL	40	200	60	180	40	200

\* See Project Cash Flow Chart

## IOI SENEGAL OPERATIONAL CENTRE

Schematic Work Plan

	Year Quarter	1994		1995				1996				1997	
		3	4	1	2	3	4	1	2	3	4	1	2
Ref.	Activity												
1.1.3.a	Publishing PR brochures		x			x				x			
1.1.4.b	Programme Development			x	x	x	x	x	x				
2.1.1.a	Development of Research Prog.			x	x	x	x						
2.1.2.a	Course Development			x	x	x	x	x	x				
2.1.2.b	Training of Trainers		x	x	x	x							
2.1.3.a	. Advertising Courses . Running Courses		x			x				x			
						x				x			x
2.1.3.b	Alumni Course									x			
2.1.3.c	Leaders Seminar/Work shops					x				x			x

List of National Coordinators

(a) BENIN:

Dr. C. DOSSOU  
Directeur  
Ecole Nationale Supérieure  
B.P. 583, Porto-Novo

Mr. SOGLO H. HENRI  
Docteur en Géochimie Organique  
Marine/Profes. Assistant  
Université Nationale du Bénin

(b) CAMEROON:

Prof. Dr. M. BOPELET  
Directeur Général du Centre Universitaire  
de Douala  
B.P. 2701, Douala

(c) CAP-VERT:

Mrs. Ana Cristina VEIGA  
National Institute for Research in Fisheries  
(INIP)  
Praia

(d) CONGO:

Dr. J.F. MAKAYA  
ORSTROM  
B.P. 1286, Pointe-Noire

(e) COTE D'IVOIRE:

Dr. S. G. ZAB  
Laboratoire d'Ecologie Benthique  
Centre de Recherches Oceanographiques  
B.P. V 18, Abidjan

(f) ERITERIA:

Dr. Tewolde Berhail G. Egziabher  
President  
Asmara University  
P.O. Box 1220, Asmara

(g) GUINEE:

Dr. S. KONATE  
Coordonnateur EPEEC-GUINEE  
Directeur Général, CERESCOR  
B.P. 561, Rogbane-Conakry



(h) MAURITIUS:

Mr. M. MUNBODH  
Directeur Albion Fisheries Research Centre  
c/o Ministry of Agriculture, Fisheries and  
Natural Resources  
Emmanuel Anquetil Building, 3rd Floor  
Port-Louis

(i) KENYA:

The COMARAF National Coordinator  
c/o Director, Marine and Fisheries  
Research Institute  
P.O. Box 81652  
Mombasa

(j) MADAGASCAR:

Dr. V.M. RASOLOFO  
Centre National de Recherches  
Oceanographiques  
B.P. 68, 207 NOSY-BE

(k) NIGERIA:

Dr. A.C. IBE  
Head, Physical & Chemical Oceanography  
Division  
Institute for Oceanography & Marine Research  
PMB 127, 29 Victoria Island  
Lagos

(l) TOGO:

Mr. AFFATON Pascal  
Geology  
Department Geology  
Faculte' des Sciences  
Universite' du Benin  
TOGO

(m) TANZANIA:

Dr. Magnus A.K. NGOILE  
Fishery Biologist  
Institute of Marine Sciences  
Tanzania.

WEEK 1:

<b>MONDAY</b>	
Session 1	Opening Ceremony
Session 2	Introduction: CZM, EEZ, sustainable development; the concepts, problems, opportunities and need.
Session 3	The systems approach to CZM and EEZ management: the interactions of the ecosystem, the societal system and the management and governance systems.
Session 4	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. background; main features; interests of the developing countries, including landlocked states and small island states;</li> </ul>
<b>TUESDAY</b>	
Session 1	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. developments in the Law of the Sea: 1983-94, including the outcome of the UN Secretary-General's informal consultations concerning seabed mining, 1990-94;</li> <li>. follow-up of the entry into force of the Convention on 16 November 1994: problems and prospects.</li> </ul>
Session 2	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. impact on UNCLOS: sustainable ocean management; Chapter 17 of Agenda 21, and its seven programmes of action; monitoring and review.</li> <li>. developments in, and outcome of, international conferences on fisheries (straddling fish stocks, highly migratory fish stocks), small island developing states (SIDS), coastal zone management, and marine environment protection (1993-95);</li> </ul>
Session 3	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. integration of UN system's implementation of Agenda 21 programmes;</li> <li>. regional cooperation and participative approach: role of women, youth, indigenous people, local communities, and NGOs.</li> </ul>

Session 4	The changing international system: economically, politically and technologically.
<b>WEDNESDAY</b>	
Session 1	The new industrial revolution and high technology and its impacts on management, economics and society.
Session 2	The new economics including accounting methods for integrating GNP and ecology.
Session 3 & 4	Introduction to oceanography: <ul style="list-style-type: none"> <li>. fundamental importance of scientific research for all sea uses; need to strengthen national capacity;</li> <li>. oceanography (physical, chemical, geological, biological);</li> <li>. coastal oceanography and coastal processes (erosion and sediment transportation);</li> </ul>
<b>THURSDAY</b>	
Session 1	Coastal ecosystems: structure and function.
Session 2	Ecological principles: food chains and webs, dynamic processes and linkages between ecosystems (land-sea continuum); critical ecosystems and their vulnerability.
Session 3	Coastal resources: distribution and abundance; nonliving resources - land, water, energy and mineral.
Session 4	Coastal resources: living resources - fisheries, coral, mangrove, wildlife; resource assessment.
<b>FRIDAY</b>	
Session 1	Coastal activities: tourism, fisheries, aquaculture, transport, industry, forestry, mining.
Sessions 2, 3 and 4	Group discussions and/or simulation exercises. Topics: importance of CZM and EEZM for developing countries, problems and opportunities, integration of environment and development.

**WEEK 2:**

<b>MONDAY</b>	
Session 1	Framework for decision-making for CZM and EEZM: input-output format.
Session 2	Remote sensing: aerial photo interpretation, satellite imagery, software and hardware, applications to CZM/EEZM.
Session 3	Principles of GIS: data structures, collection and standardisation, analysis and modelling, software and hardware, application to CZM/EEZM.
Session 4	Technology assessment: socio-cultural and environmental impacts, technology diffusion and economic impacts of high technology.
<b>TUESDAY</b>	
Session 1	Investment appraisal systems: private and public sector differences.
Session 2	Coastal pollution assessment: types & sources of pollution and their impact on the coastal ecosystem.
Session 3	Policies and Planning: their essential ingredients and interactions; how to arrive at the optimum policy mix.
Session 4	Legislative framework and institutional structures for integrated CZM and EEZM: national, regional global.
<b>WEDNESDAY</b>	
Session 1	Programmes and technologies: management of ports and shipping.
Session 2	Wave, solar and wind energies.
Session 3	Fisheries including aquaculture and genetic engineering.
Session 4	Robotics and mining systems. Risk management.
<b>THURSDAY</b>	
Session 1	Organisational structures for integrated CZM and EEZM: national, regional global.
Session 2	Regulatory measures: zoning and land use systems.
Session 3	Permits and regulatory systems; monitoring and control systems.

Session 4	Legislative requirements: jurisdictional and environment.
<b>FRIDAY</b>	
Session 1 and 2	Case studies to be developed by participants.
Sessions 3 and 4	Group discussions: generic model for developing countries for effective CZM and EEZM.

**Note:** All sessions are of 1 and a half hours duration each.

**PLANNING AND MANAGEMENT OF COASTAL ZONES**

Introduction to Syllabus

It is a truism to say that the world is in transition. Growing global interdependence, increased interactions between institutions and individuals, exponentially growing technology and new directions in the processes of development are some of the overriding characteristics of the last decade of this century.

In the marine sector, scientific and technological advances have triggered off political and legal change processes culminating in three major developments: (i) the adoption of the U.N. Convention of the Law of the Sea in 1982; (ii) the World Commission on Environment and Development (the Brundtland Commission) 1987; and (iii) the United Nations Conference on Environment and Development (U.N.C.E.D.) in Rio de Janeiro in 1992.

These have basically transformed the uses of the oceans and increased the salience of marine affairs on both national and international agendas. The development of oceanography as a multi-disciplinary scientific activity has greatly added to the knowledge sector while the penetration of the latest phase of the industrial revolution into the oceans has added a new dimension to national growth strategies. At the same time, the Law of the Sea Convention, signed by 159 States and now ratified by 54, may come into force next year. This Convention, if properly implemented and utilized, could constitute one of the building blocks of a new international order, including a new international economic order.

The Brundtland Commission laid stress on sustainable development and the need for bridging the technology gap between North and South. The United Nations Conference on Environment and Development (UNCED), adopted a Declaration, two important Conventions, and a detailed plan of action for sustainable development during the next century, "Agenda 21." This agenda contains an important chapter on marine and coastal activities, thus linking the UNCLOS and the UNCED processes, and sustainable development of ocean space and resources with sustainable development on land. In view of the fundamental importance of the world ocean, in its interaction with the atmosphere, for possible climate change, possibly accompanied by sea-level rise, this linkage is unbreakable.

UNCED has begun to exercise its influence on a wider process of restructuring the 50-year old United Nations system: In accordance with the decisions taken at Rio, the 47th General Assembly created a whole new sector to deal with Sustainable Development, including sustainable development in the oceans.

The large dimensions and special characteristics of the oceans has led to the emergence of new concepts: "integrated ocean and coastal zone management", economic theories synthesising growth dynamics with environmental considerations, theories of organisation articulating concepts like organic structures and matrix systems. All this requires a new type of civil servant, and a new type of manager or scientist, capable of interfacing the social sciences with the natural sciences, of law with science and technology, of economics with ecology, of managerial structures with processing systems. Only then can she/he be able to manage the ongoing high-tech revolution, the environment, and multi-cultural human resources.

It is in this context that this programme has been designed with the emphasis on the felt needs of African countries. The programme is so organised as to give participants an overview of the many and varied aspects of ocean and coastal management and to familiarize them with the broad range of issues encountered in the marine area in the sphere of diplomacy, law, science, technology, economics and management. Particular emphasis is given to the importance of regional cooperation and development in this broad context. The evolution of regional systems, such as the Regional Seas Programme, will play a crucial role in ocean governance for sustainable development.

**SYNOPSIS**

- Week 1: The International Setting.
- Week 2: Managerial Implications, Information Requirements.
- Week 3: Management of Coastal Zone Resources - Living.
- Week 4: Management of Coastal Zone Resources - Nonliving.
- Week 5: Coastal Zone Activities and Economics.
- Week 6: Policy Making and Project Formulation.
- Week 7: Management.
- Week 8: Practical Exercise.



**WEEK 1: THE INTERNATIONAL SETTING**Monday.

- Session I: Opening Ceremony
- Session II: Introduction to the course, training methodology, expected outputs, administrative arrangements.
- Session III: The changing international order: technological, economic, political.
- Session IV: New foci, perceptions and expectations of the international community. Africa in the new world order: vulnerabilities and opportunities.

Tuesday.

- Session I & II: Introduction to the law of the sea. New concepts, analysis of new provisions; spaces created by the Convention; territorial sea, contiguous zone, exclusive economic zone, archipelagic waters, the regime of islands.
- Session III & IV: Convention on the Law of the Sea: international ocean space, the high seas, marine scientific research, protection of the marine environment.

Wednesday.

- Convention on the Law of the Sea - contd.
- Session I: Technology, its development and transfer. New concepts of codevelopment of technology, technology fusion etc.
- Session II: Regional and subregional considerations: Arts. 276 and 277 - their implementation. Meditech and Technocaribe.
- Session III & IV: Workshop I: the emerging new world order; issues arising in the technological, managerial and economic domains.

Thursday.

- Session I: UNCED and its links to UNCLOS. Chapter 17 of Agenda 21 and its programmatic content.
- Session II: The Commission on Sustainable Development and supporting measures. Changes necessary in regional and national institutions.

Session III: The longterm implications of UNCED. Sustainability as a process: resources, society and culture.

Session IV: Application to Africa: measures necessary: technological, economic, instiutional.

Friday.

Session I: Economic sustainability: public goods and externalities; environmental economics.

Session II: Costs of pollution and how to internalise; sustainable human consumption

Session III & IV: Workshop I: continued.

**WEEK 2: MANAGERIAL IMPLICATIONS, INFORMATION REQUIREMENTS**

Monday.

Session I: Managerial implications of extended national zones. Needs for harmonising land use with sea use, natural sciences with the social sciences and of resolving conflicts of multiple-uses.

Session II: Information requirements for management: An overview: the intersection of demographic, economic, geographical and natural scientific parameters.

Session III: Oceanography and its importance. The impact of advancing technology - electronics, remote sensing, new materials, genetics; the changing research vessel.

Session IV: Oceanography for developing countries: the software dimension, data collection, collation and dissemination. Economics of data collection and assessment.

Tuesday.

Session I: Geophysical oceanography; plate tectonics; vulcanism and metallogenesis. Inshore oceanography: currents, waves, tides. Coastal erosion and sediment transportation.

Session II: Ocean air interface: meteorology and its importance for African countries.

Session III & IV: Chemistry of sea-water: isotope oceanography, age and rate of sedimentation.

Chemical oceanography and the chemistry of pollution. How to measure, control and reduce pollutants from the oceans. Environmental oceanography.

Wednesday.

Session I: Biodiversity: threats, causes of extinction, need to conserve. Management tools and case studies.

Session II: Cooperation with competent international organisations in marine science and technology.

Session III & IV: Workshop II: knowledge acquisition and its use; problems facing developing countries.

Thursday.

Session I: Land use competition: locational concepts: economic and social, agriculture, extractive industry, manufacturing industry, residential, touristic, historical/archeological.

Session II: Sea use competition: fishing, aquaculture, tourism/sport, shipping, offshore oil and gas, mining for placers & sands.

Session III: Coastal area management: planning and siting techniques. EEZ management: problems of multiple-uses, conflicts and surveillance.

Session IV: Interlinking and interfacing of coastal area management and EEZ management. Systems analytical approach to ocean management.

Friday.

Session I: Investment appraisal methods: the private sector. Return on investment, pay-back period, discounted cash flow, internal rate of return.

Session II: Investment appraisal methods: the public sector. Nonlinearities, multiple objectives, shadow prices.

Session III & IV: Workshop III: management of science and technology with reference to the coastal zone.

**WEEK 3: MANAGEMENT OF COASTAL ZONE RESOURCES-LIVING**Monday.

- Session I: Management and conservation of living resources: fisheries biology and population dynamics.
- Session II: Stock assessment techniques: traditional methods, computer models.
- Session III: Management strategies; restricted entrance; mesh size control; restricted areas and seasons.
- Session IV: Effectiveness and deficiencies of existing management systems; participation of fishing communities. Traditional forms of management and conservation.

Tuesday.

- Session I & II: Fisheries technology: detection; capture technology; post harvest; processing; waste recycling; marketing.
- Session III: Effect and impact of flora on the coastal ecosystem. Role of mangroves and other coastal plants.
- Session IV: Case study: management of coral reefs and/or mangroves (coral reefs on the East African Coast).

Wednesday.

- Session I: The fishing industry: employment and output of the fishing industry; management of the fish population; species composition; fisherman's cooperatives and unions; conservation.
- Session II: Fisheries economics: integration into development strategy; contribution to GNP.
- Session III & IV: Workshop IV: management of living resources: biological, technological, economic considerations.

Thursday.

- Session I: Aquaculture and mariculture: Post-World War II developments; FAO Kyoto Conference.
- Session II: Aquatic plants; fish, mollusc and crustacean farming; sea ranching; genetic engineering of aquatic plants and of fish.

Session III: Aquaculture development through remote sensing techniques and satellite imageries.

Session IV: Monitoring and surveillance in the EEZ. Foreign fishing fleets and their impacts: economic, ecological, political. Access and joint venture agreements.

Friday.

Session I & II: Workshop on Coastal Zone Resources. Presentation of three papers and discussion.

Session III & IV: Field trip to the Senegal Ocean Institute.

**WEEK 4: MANAGEMENT OF COASTAL ZONE RESOURCES- NONLIVING**

Monday.

Session I: The farming of fin fish: cage culture, sea ranching; fish behaviour conditioning; genetic engineering of fish; implications for the future.

Session II: Artisanal fisheries and the impact of technological developments. Indigenous systems environmental viability, women in traditional artisanal fisheries.

Session III & IV: Establishing legal regimes for management of resources: environmental impact legislation, legislation to regulate activities in the coastal zone and the EEZ.

Tuesday.

Session I & II: Mining: resource exploitation and sustainable development; oil and gas; gravel, sand and near shore minerals; minerals of the deepsea bed.

Session III & IV: Mining (cont): mining technology; environmental implications of sea-mining; toxicity, coastal erosion and other hazards associated with mining.

Wednesday.

Session I & II: Offshore oil and gas: prospecting methods, drilling techniques, exploitation methods.

Session III &  
IV: Workshop V: Management of marine resources: legal considerations.

Thursday.

Session I &  
II: Principles of management and planning: management strategies; integrated coastal management: the need, techniques, economics.

Session III &  
IV: Financial planning; project preparation; institutional and human resource requirements for coastal management.

Friday.

All Day: Field visits: a tourist complex, a port, an industry on the sea.

**WEEK 5: COASTAL ZONE ACTIVITIES AND ECONOMICS**

Monday.

Session I: Criteria for measuring economic development: Gross Domestic Product and Gross National Product; deficiencies of GNP; use of social indicators; vulnerability indicators.

Session II: The new economics including accounting methods for integrating GNP and ecology.

Session III: Characteristics of African economies: desertification, food shortages, protein deficiencies.

Session IV: Ocean resources in Africa; the importance of ocean resources in African development strategy.

Tuesday.

Session I &  
II: Integration of coastal zone management as an integral part of African economic development.

Session III: Shipping developments: technological developments; globalised door to door transport; containerization and multimodal transport; tanker traffic and safety regulations; free-ports, shiprepair and shipbuilding industries.

Session IV: Sea ports: main ports and feeder lines; regional cooperation; management of sea ports; port regulation; port dues and revenues; traffic control; and land-sea interface.

Wednesday.

Session I: Desalination technologies to meet fresh water demands.

Session II: Energy from the sea: OTEC, wave, tidal.

Session III & IV: Workshop VI: management of ocean resources - links with the overall economic planning.

Thursday.

Session I & II: Technological developments: the electronics and communications revolutions, remote sensing, their impacts on CZM.

Session III & IV: Coastal engineering: harbour and port design, preventing coastal erosion and flooding from the sea, ensuring unpolluted water for brackish water aquaculture, outfalls from thermal power plants, waste water discharge etc.

Friday.

Session I & II: Coastal engineering (contd.)

Session III & IV: Workshop VII: the engineering dimension in managing ocean resources - managerial, economic and technological considerations.

**WEEK 6: POLICY MAKING AND PROJECT FORMULATION**

Monday.

Session I: Policy analysis: the multivariate nature of the oceans, the need for multi-level analysis and planning, coordination at both horizontal and vertical levels, need for interagency harmonization.

Session II: Foreign and internal policy and their linkages; national, state and local policy; need of integration.

Session III &  
IV: Integrated policy-making: its parameters; problems of harmonising different policies, tools and methods of arriving at a correct policy-mix.

Tuesday.

All Day: Simulation exercise in making ocean policy for a typical African country.

Wednesday.

All Day: Simulation exercise (contd.)

Thursday.

All Day: Coastal zone management in Senegal / Mauritius / Kenya or any other country as a case study. Human impact on the ecosystem with special reference to the coastal zone; land-use competition in the coastal zone; planning and environmental management - a historical review; recent developments - integrated planning for sustainable development.

Friday.

All Day: Coastal zone management (contd.)

**WEEK 7: MANAGEMENT**

Monday.

Session I &  
II: Environmental risk management: need, types, techniques. Components of risk management strategy: risk identification, estimation, evaluation; risk profiles and contingency plans; economic considerations (cost-benefit and risk-benefit analyses). Regional, national and local responses.

Session III &  
IV: Case studies and discussion.

Tuesday.

Session I: Natural hazards: floods, tsunamis, storm surges, hurricanes, tornadoes, seismic activities, soil and shoreline erosion.

Session II: Interaction between natural and man-made hazards. Environmental Impact Assessments. Concepts and the management of such hazards.



Session III: The Intergovernmental Panel on Climate Change; Scientific findings, model predictions and uncertainties.

Session IV: Sea level rise and coastal zone management: multiple vulnerability and sensitivity profiles.

Wednesday.

Session I & II: Review of major contamination risks, including major spills and chronic pollution. Environmental impact of marine contaminants. Contingency planning and management of resources.

Session III & IV: Workshop VIII: methods of tackling and minimising risks.

Thursday.

Session I: Emerging technologies development and management: risks and uncertainties.

Session II: Methods of tackling uncertainty and risks.

Session III: Project Management: preparation and management in conditions of uncertainty and methods of minimising risk.

Session IV: Financial management and capital budgeting for risks and uncertain projects.

Friday.

All Day: Designing a Coastal Resources Management Programme for selected Participant countries  
- issue definition and analysis

**WEEK 8: PRACTICAL EXERCISE**

Monday.

Designing a Coastal Resources Management Programme for selected participant countries.

Session I & II:- issue definition and analysis

Session III: - setting objectives

Session IV: - preparing a policy paper

Tuesday.

All Day: Designing a Coastal Resources Management Programme (contd.)

- selecting resource management strategies
- designing methods of getting public input and support

Wednesday.

All Day: Designing a Coastal Resources Management Programme (contd.)

- designing an organisational strategy for implementing work plan
- preparing projects in the fields of:
  - . fisheries
  - . tourism
  - . transport etc.

Thursday.

All Day: Designing a Coastal Resources Management Programme (contd.)

- writing workplan (s)
- general seminar with faculty to critically examine workplan and policies

Friday.

Closing Ceremony.

**INTERNATIONAL OCEAN INSTITUTE**

**Costa Rica Operational Centre at the  
Universidad Nacional, Heredia, Costa Rica**

**WORK PLAN FOR IOI COSTA RICA**

**October 1994 to April 1997**

## Contents

	<b>Pages</b>
<b>Workplan</b>	<b>80-87</b>
<b>Budget Notes</b>	<b>88</b>
Attachment 1 - Cash Flow Projections	89
Attachment 2 - Details of Scholarships for Training Courses	90
Attachment 3 - Training Outputs	91
Attachment 4 - Physical Scheduling	92

Introduction

The National University of Costa Rica (UNA) has eight faculties and two regional centres. It is 20 years old and has 15,000 students. UNA has inter alia, have faculties in:

- exact and natural sciences including marine biology;
- political economy;
- international relations.

It also has an oceanographic laborotary under the faculty of exact and natural sciences dealing with:

- ocean satellite applications;
- coastal marine pollution;
- coastal risk and threat;
- coastal information system;
- macrographic and sea state service;
- regional oceanographic information system.

Since March 10th, 1993 UNA is in the process of making major changes in its functions including, inter alia,

- reorientation of teaching, research and extension towards integrated, interdisciplinary programmes focused on sustainable development. They will be grouped under themes as per Agenda 21;
- academic integration in teaching, research and extension by consolidating them under one academic vice-president and three directors;
- establishing a centre for oceanography and coastal management at Puntarenas on the Pacific Ocean. This centre will run programmes relating to ocean satellite applications, marine pollution, coastal information system, mangroves etc;
- introduction of courses on economic policy for sustainable development and on ecological economics.

UNA's functions fit in well with the activities of the Project. Since UNAs programmes and objectives are in harmony with the Project's objectives that would make for sustainability of the IOI Centre at Costa Rica. Besides UNA and six other universities from Central America are linked together to constitute the Confederation of Central American Universities (CSUCA). UNA is also linked to Toronto University, Canada; Wageningen University, Germany; Utrecht University, the Netherlands; the University for Peace, Costa Rica; the Earth Council, Costa Rica; the University of the West Indies etc. This gives to UNA the necessary global

outlook so necessary to the Project.

IOI and UNA have agreed to collaborate in setting up the IOI Regional Centre at Costa Rica. The Vice President of Research would be in overall charge of IOI and would link with both the headquarters and the President (Rectora) of UNA.

### Workplan

The details of the Work Plan of IOI Costa Rica are as below.

### Administrative Support

1.1.2.b. The operational centre in Latin America will be established in Costa Rica with the UNA providing the services of a Director, core academic staff, secretary, office etc. It is proposed to provide the Latin American Centre with a bilingual assistant to assist the Director in day to day work which would be regional and international in nature.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Director

### Information Dissemination

1.1.3.a For implementation of the IOI institutional identity program and as per regional programs developed by the Costa Rica operational centre, appropriate brochures will be brought out in 1994, 1995 and 1996.

<b>Starting Date</b>	1 October, 1994
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Director

### Programme Development

1.1.4. Development of non-UNDP financial support for operational centres is very necessary. This would entail travel both regionally and globally to "present" the IOI so as to raise funds. UNA is already receiving funds from the Governments of Germany, the Netherlands, Denmark and Norway as also the Fulbright Foundation. This needs to be extended to the IOI Centre's programmes.

During 1994 the Honorary Chairman and the Executive Director visited San Jose to develop the programme of IOI Costa Rica in consultation with UNA. During 1995 and 1996 the Centre Director would travel regionally and globally so as to present IOI's programmes and raise funds, both in

cash and in-kind.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Ongoing
<b>Responsible Party</b>	Executive Director/Honorary President/Centre Director

## **Output 2.1 - Current, Revised and New Programmes.**

### **Development of Research Programme**

2.1.1.a. Policy research is very necessary if the IOI Latin America regional centre is to be relevant to the perceived needs of the region. A survey of research possibilities has to be made and the research has to be linked with ongoing regional research. IOI Costa Rica should discuss this matter with other institutions in the region and come up with detailed proposals by April 1995.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Executing Party</b>	Centre Director

### **Curriculum Development**

2.1.2. Current course programmes need to be adapted and translated for mid-level civil servants, private sector employees and persons from NGOs. The programmes need to take note of the new instructional technologies, especially distance learning, as well as develop instruction material in new concepts like sustainable development, and the impacts of the third industrial revolution, the growing service economy etc. IOI Costa Rica will need to adapt in Spanish some of the new courses developed by IOI for entering into niche areas like courses for planners, advanced courses for those with a fundamental marine knowledge base, coastal management as a sustainable process, special focus on islands and so on. IOI Costa Rica will also need to develop course developers in line with IOI's strategy and in harmony with TRAIN-SEA COAST.

### **Course Development**

2.1.2.a. In regional and international training programmes a major expense is the cost of bringing trainees to the course. This generally precludes short courses, especially in a regional context, since the costs of travel tend to make the course cost-ineffective. The development of self-contained modules which could be used to run the course in sub-regions, would be cost-effective. Besides the modules could also be used to configure different types of courses. It is, proposed, therefore to develop training modules for Latin America in

Spanish and in such a manner as to have global relevance and to adapt IOI courses for the Caribbean in English. The development of these modules would in the very process of their development also produce regional resource personnel. The selection of modules and approval of courses would be done by a Committee headed by the Honorary President.

UNA would develop training material in Spanish in the following areas: contamination; environmental economics; coastal processes; air-sea interaction; social impact; conservation and sustainability; remote sensing; estuarine and coastal dynamics; international law, relations and diplomacy; mariculture; fisheries. It is also possible to produce local training material on land use; water management and tourism and education. Training material in Spanish will be developed by UNA, other public or private institutions or NGOs, by assigning academic charge, using the already existing agreements or through a specific contract included in the training responsibilities.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1996
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Director

### Training of Trainers

2.1.2.b. The participants in IOI training programmes are generally middle level executives involved with ocean policy and organisation of ocean development programmes, environmental issues etc., ocean scientists and engineers and representatives of non-governmental organisations. Their academic background, and professional experience, is varied while the subjects covered in the training programmes are very extensive in scope.

Lecturing in IOI training programmes, is very different from normal sectorally oriented courses and there could be a mis-match between the expertise available and the training situation.

The training of trainers scheme would be used to orient subject matter/sectoral specialists in how to lecture to a multi-cultural, multi-disciplinary group by sending them to IOI courses run elsewhere as well as to TRAIN SEA COAST training programmes.

During 1994, one trainer attended the Halifax course and another will be going to Madras. In 1995 two will attend the TRAIN-SEACOAST Workshop (one to be funded by UNDP/DGIP) and one an IOI course.

<b>Starting Date</b>	1 July, 1994
<b>Termination</b>	31 December, 1995
<b>Executing Party</b>	Centre Director



**Courses**

2.1.3.a. The project provides the seed funding for testing, evaluating and revising the existing training programmes of IOI. It also provides the seed funding for testing, evaluating and revising new courses. Courses relevant to the Caribbean and Latin America would be developed. Courses would be in Spanish while course modules in English would be provided by the IOI network and adapted by IOI Costa Rica to the regional situation. Regarding the Spanish courses, a large amount of material is available with UNA which runs courses in natural resources, environmental economics, marine biology and aquaculture, mangroves, international law and international relations, and diplomacy. UNA is somewhat lacking in coastal engineering, nonliving resources, exploitation and management. These would need to be developed in cooperation with the other members of the IOI network.

During 1995 regular courses on ocean law and policy, coastal management and satellite imagery applications in Central America and the Caribbean, and principles of ocean management will be conducted. During 1996 regular courses on sustainable use of fisheries, and fishery resources assessment and management, and in 1997 the impact of climate change in the intra-American sea will be conducted.

The details are as given below.

Name of course	Duration	No. of Parti- cipants	No. of courses to be given	When to be given
Ocean law & policy	2 weeks	30	1	1995
Satellite imagery applications	3 days	50	1	1995
Ocean management	2 weeks	20	1	1995
Sustainable use of fisheries	2 weeks	30	1	1996
Fishery resources assessment & mgmt.	3 weeks	30	1	1996
Impact of climate change	3 weeks	40	1	1997

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 March, 1997
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Director

**Workshops for Decision Makers**

2.1.3.c. Sensitising of leaders and decision makers is a necessary pre-requisite for the success of the training efforts aimed at mid-level public servants. A 2 day workshop to this end will be organised in March 1995 for decision makers based on courses already developed by the IOI network. Updated courses would also be run in November 1995 and November 1996.

<b>Starting Date</b>	1 January, 1995
<b>Completion</b>	31 December, 1996
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Director

**Contribution-in-kind**

During 1994 the Costa Rica operational centre will provide the necessary physical and managerial infrastructure for the centres (along with the associated staff) as its contributions in-kind. These would include the following:

- Director
- Co-ordinator
- Assistant
- Office, electricity & water
- Cost of communications
- Transportation
- Faculty of science auditorium
- Presentation media.

**Budget**

The Budget for IOI Costa Rica is estimated at US\$ 410,000 up to the period ending in April, 1997. The detailed budget is at Attachment 1, details of courses at Attachment 2, the expected output by participant weeks is at Attachment 3 and the physical scheduling is at Attachment 4.

**Outputs**

As can be seen from Attachment 3, the output of IOI Costa Rica would be 145 trainee weeks in 1995, 150 trainee weeks in 1996 and 120 trainee weeks in 1997 or 415 trainee weeks in all.

IOI Costa Rica would also have adapted and translated materials and made them available to both the IOI and TRAIN-SEACOAST networks.

Budget Notes

General

The column 'reference' on each table is keyed to the text of the work plan.

'Description' is a brief key to the activity itself.

'Total' is the amount of the budget line for the period of this project.

1. All amounts are in US dollars and no adjustment for currency fluctuations anticipated.
  2. Air travel calculated on the basis of full-fare economy, most direct routing.
  3. Other travel expenses estimated based on DSA at UNDP rates.
- 1.1.2.b. Cost of 1 coordinator for Latin America at \$ 13,000 for 8 months.
  - 1.1.3. Information dissemination. Costs associated with hiring relevant external expertise services and products such as printing and posting, to develop and raise profile of the IOI.
  - 1.1.4. Programme Development. Represents travel costs of the Honorary Chairman/Executive Director to finalise the workplan.
- 2.1.1. Development of Research Programme. Travel costs of regional directors and headquarters personnel.
  - 2.1.2.a. Costs of course development in the Costa Rica regional centre. It is provisional and subject to adjustment on the basis of the work plan finalised and approved by UNDP/OPS.
  - 2.1.2.b. Travel costs of trainers. Provisional for Latin America.
  - 2.1.3. Scholarships at an average of \$ 1000 per trainee week.

IOI COSTA RICA OPERATIONAL CENTRE  
Cash Flow Projections (UNDP funds), 1994-1997

Amounts in US \$'000

Table 1

CODE	TITLE	1994	1995	1996	1997	TOTAL
1.1.2b	Administ- rative Support	-	13.0	13.0	3.0	29.0
1.1.3a	Information Dissemination :-Brochures	1.0	3.0	3.0	-	7.0
1.1.4b	Programme Development (Travel): - Director	5.4	2.5	2.5	-	10.4
2.1.1a	Development of Research Programme	-	2.5	2.5	-	5.0
2.1.2a	Curriculum Development	-	40.0	30.0	-	70.0
2.1.2b	Training of Trainers	11.0	13.0	-	-	24.0
2.1.3a	Courses	-	73.0	93.0	74.6	240.6
2.1.3c	Decision makers	-	16.0	-	8.0	24.0
	Total	17.4	163.0	144.0	85.6	410.0

Details of Scholarships for Training Courses  
(Budget Item: 2.1.3a and 2.1.3c)\*

Amounts in US \$'000

Table 2

2.1.3a

PROJECT	1995	1996	1997	TOTAL
Sea law & ocean policy (2 weeks)	37.0	-	-	37.0
Satellite imagery (0.5 week)	11.0	-	-	11.0
Ocean management (2 weeks)	25.0	-	-	25.0
Fishery resources assessment & management (3 weeks)	-	56.0	-	56.0
Sustainable use of fisheries (2 weeks)	-	37.0	-	37.0
Impact of climate change (3 weeks)	-	-	74.6	74.6
TOTAL	73.0	93.0	74.6	240.6

\* See Project Cash Flow Chart

2.1.3c

PROJECT	1995	1996	1997	TOTAL
Decision makers (0.5 week)	16.0	8.0	-	24.0

IOI COSTA RICA OPERATIONAL CENTRE  
Number of Participants and Participant Weeks  
for Courses, Workshops and Seminars  
(Budget Items: 2.1.3 a-c)\*

Table 3

PROJECT	1995		1996		1997	
	Parti- cipant s	Parti- cipant Weeks	Parti- cipants	Parti- cipant Weeks	Parti- cipants	Parti- cipant Weeks
Decision makers workshop (0.5 week)	40	20	20	10	-	-
Sea law & ocean policy (2 weeks)	30	60	-	-	-	-
Satellite imagery (0.5 week)	50	25	-	-	-	-
Ocean management (2 weeks)	20	40	-	-	-	-
Fishery resources management (3 weeks)	-	-	30	90	-	-
Sustainable use of fisheries (2 weeks)	-	-	30	60	-	-
Impact of climate change (3 weeks)	-	-	-	-	40	120
TOTAL	140	145	60	150	40	120

\* See Project Cash Flow Chart

IOI COSTA RICA OPERATIONAL CENTRE

Schematic Work Plan

	Year Quarter	1994 4	1995 1 2 3 4	1996 1 2 3 4	1997 1 2
Ref.	Activity				
1.1.2b	Appointing bilingual assistant		x x x x	x x x x	x x
1.1.3.a	Publishing PR brochures	x	x x x x	x x x x	
1.1.4.b	Programme Development		x x	x	
2.1.1.a	Development of Research Prog.		x x x		
2.1.2.a	Course Development		x x x x	x x x x	
2.1.2.b	Training of Trainers	x	x x x		
2.1.3.a	. Advertising Courses . Running Courses	x	x x x x	x x x x	x
2.1.3.c	Leaders Seminar/Work shops		x x	x	

CLAM/DOS: Library Automation Package

CLAM/DOS is a comprehensive, easy-to-use Library Information Management System designed by DONLab, I.I.T, Madras to serve the needs of small to medium-sized libraries, documentation centres, etc. With minimal investment in hardware, most functions of the library can be automated. CLAM/DOS tracks circulation of books, receipt of journals, information on members and printing of Catalogue cards and various reports. A sophisticated search facility allows even computer-naive members to rapidly locate books and articles. A password mechanism is provided to control operations such as circulation and acquisition. CLAM/DOS runs under MS-DOS on a standard PC/XT or PC/AT. The hard disk is the only limitation on library size (allow 1 MB per 1000 books). Response time is adequate on a PC/XT with holdings of several thousand books. For larger collections, a PC/AT is recommended.

**Highlights:**

. **Circulation**

Issue and return of books, membership details.

. **Acquisition**

Addition, deletion or modification of book details. Generation of catalogue cards. Details include: accession number, call number, author, title, subject headings, keywords, publisher, ISBN, LCN, price (Indian and foreign), pagination, and location.

. **Journal**

Logging of journal issues on receipt, entry of details on articles contained in the journal. Printing of article cards.

. **Enquiries**

Fast, flexible search based on call number, Author, Title, Subject and Keywords. Permits AND/OR combinations, requires no expertise.

. **Reports**

Printing of catalogue cards, lists of books, journals, members, articles, etc.

. **Miscellaneous**

Menu-driven, fully integrated package with context-sensitive, on-line help. User authorization using passwords. Automatic coding of repetitive fields to minimize data entry efforts and errors.



### **Customization**

CLAM/DOS is sufficiently flexible to meet the needs of many libraries. The librarian can customize the base package by choosing among various options. Further customization such as importing of data from existing databases such as CDS/ISIS can be undertaken to the base system to meet specific requirements on request.

### **Ongoing Development**

Development of a networking version of CLAM/DOS is currently on. With this, an institution having several locations can run CLAM/DOS at each location and automatically share data through electronic mail or postal service. Changes to a database at any location are automatically sent to all other locations. Thus members at any location can access the union catalogue of the entire institution. A reliable protocol is used to handle loss of data during transfer.

### **Installations**

Current installations include I.I.T., Madras (Department of Computer Science & Eng.), International Institute of Ocean Technology, Malta (six centres worldwide), and M.S. Swaminathan Research Foundation, Madras.

Minutes of the Meeting of the Representatives  
of  
The Operational Centres of IOI  
on  
5 September 1993  
at  
United Nations University, Tokyo

**Present:**

Prof. Elisabeth Mann Borgese, IOI Halifax  
Dr. Anton Vratusa, Vice-President, IOI  
Mr. Maxwell Bruce, Vice-Chairman, Planning Council IOI  
Prof. N.V.C. Swamy, IOI India  
Prof. V.S. Raju, IOI India  
Dr. Kevin Aquilina, IOI Malta  
Dr. Jeggan Senghor, IOI Senegal  
Prof. Vijay Naidu, IOI South Pacific  
Prof. E. Robin South, IOI South Pacific  
Mr. Philip Reynolds, UNDP/DGIP  
Ms. Chinwe Dike, UNDP/OPS  
Dr. Krishan Saigal, Executive Director IOI

Prof. Elisabeth Mann Borgese presided over the meeting.

**Item 1: UNDP Project: General**

The meeting considered the documents before it. After discussions the Meeting came to the following conclusions:

- (a) the efficient execution of the UNDP Project required proper reporting, monitoring and evaluation so that mid-course corrections, if any, could be made. This would also help in timely and adequate flow of funds;
- (b) for successful implementation of the project it was necessary to:
  - carefully draw up workplans and the related budgets centre-wise (including CVs of key personnel);
  - lay down the relevant milestones and physical targets to be achieved;
  - provide details of equipment required to UNDP/OPS with latest price quotations.
- (c) a tripartite review of the project be done at the next Meeting of Representatives to be held in Malta in the last week of April, 1994. This review would be based on the first Project Progress Report due in April 1994 and which will cover all activities starting with the preparatory phase.

**Item 2: UNDP Project: Library Networking**

The Meeting noted the progress made by IOI India in this regard. Mr. Reynolds offered to make available details of UNDP's Sustainable Development Network to IOI so that the same could be used by the IOI System for global networking.

**Item 3: UNDP Project: Information Dissemination**

The matter was generally discussed. The Meeting was of the view that IOI needed to be projected as a network of operational centres collaborating with other international institutions on ocean management and other ocean matters. Salient features to be stressed could include:

- . the global reach of the IOI System
- . the wealth of expertise available in the IOI System
- . IOI's ability to provide non-profit making consultancy services.

Mr. Reynolds offered to ask UNDP/DOI to advise on or prepare a final version of a folder in which information sheets on the mandate and activities of all Centres and the Headquarters could be appropriately disseminated.

Alumni directories and newsletters needed to be published and disseminated on a regional basis so that the valuable resource represented by IOI alumni could be suitably tapped.

**Item 4: UNDP Project: Training Programmes**

The Meeting noted the courses which are organised, namely, the small islands course, the managers of the Enterprise course and the coastal zone management course in the context of sustainable development. The Meeting decided that the courses for which outline curricula had been submitted should be taken up by the Courses Development Committee.

**Item 5: Research Agenda Centre-wise**

After extensively discussing the subject the Meeting came to the following conclusions:

- (i) the research activities to be undertaken by the IOI System should be secondary policy research driven by the requirements of the different regions - as indicated by the trainees and others;
- (ii) the IOI Centres should act as foci for information dissemination on research undertaken in the region as well as globally in the domain of marine technology - a Technology Watch system on the lines of what is at present being done in IOI India.

**Item 6: Accounting System and Budget Calendar**

The Meeting approved the system as suggested as well as the budget calendar.

**Item 7: Consultancy System on a Cooperative Basis**

It was noted by the Meeting that the IOI Board was cautious about commercial consultancy services being provided by the IOI System but would consider consultancy where the IOI System and the concerned developing country could work together on a cooperative basis. The Centres were directed to give more thought to the matter and come up with concrete proposals.

**Item 8: Non-UNDP Funding**

The importance of local funds being raised was emphasised while the Meeting was also informed about the efforts of the Headquarters in this regard. All the Centres agreed to explore the possibility of getting UNDP Res Reps on their Advisory Committees to help with non-UNDP Fund Raising on the patterns of what had been done by IOI South Pacific. The Committee was informed by Mr. Philip Reynolds of the possibility of utilising Mr. Ziad Shekadeh, SIFR Executive Secretary to help in bilateral funding.

**Item 9: Private Sector, NGO's and others**

The Meeting noted the steps taken by IOI India to hold a Seminar/Workshop for leaders in the private and public sectors and the manner in which they had managed to enlist the support of private industry in its endeavours. The Centres were requested to explore modalities of involving the private sector with the IOI System.

**Item 10: Annual Workplans and Budgets 1993 and 1994**

The Centres were requested to send their workplans for the remaining part of 1993 and for 1994, along with the international travel proposed, so that the same could be submitted to UNDP/OPS.

**Dr. Krishan Saigal  
Executive Director**

Third Meeting of Representatives of the  
Operational Centres of IOI held at  
Barbados

Annex 10  
Page 98

on  
28 and 29 April, 1994

**Present:**

Prof. Elisabeth Mann Borgese, Honorary Chairman, IOI  
Amb. Bhagwat Singh, Governing Board, IOI  
Mr. Philip Reynolds, DGIP, UNDP, New York  
Prof. N.V.C. Swamy, IOI Madras  
Prof. V.S. Raju, IOI Madras  
Prof. E. Robin South, IOI South Pacific  
M.Sc Lorena San Roman, UNA Costa Rica  
M.Sc Alexandro Cuttiriez, UNA Costa Rica  
Ms. Anita Coady, Editor Across the Oceans  
Mr. Seremaia Kalokalo Tugiri, IOI South Pacific  
Dr. Krishan Saigal, Executive Director, IOI

Prof. Elisabeth Mann Borgese took the chair.

**Item 1: Adoption of Agenda**

The circulated agenda was adopted.

**Item 2: Tripartite review of the UNDP Project by IOI/UNDP  
(OPS)/UNDP (DGIP) - Project Performance Evaluation  
Report or the PPER**

The Committee had before it the Project Performance Evaluation Report (PPER) prepared by the Executive Director, IOI and covering the period 28 January, 1992 to 31 March, 1994. This covered both the Preparatory Phase (28 January, 1992- 31 August, 1993) and the Project Phase (1 September, 1993-31 March, 1994).

The Committee noted that it was required to assess and evaluate the progress of research, policy and training objectives, networking and achievement of Project objectives and outputs.

There was wideranging discussion on all the issues and a number of questions were asked by the UNDP representative especially with regard to the shortfall in courses and outputs compared to what was outlined in the Project Document.

The conclusions and recommendations of the Committee are as below:

**Preparatory Phase**

It was the view of the Committee that the Preparatory Phase had produced mixed results. While some of the expected outputs like finalising agreements with the host governments and institutions, of appointing centre directors for the four centres etc. had been achieved, the finalised multi-year plans for IOI Latin American

and IOI Africa as finalised had not been to the satisfaction of UNDP. So in the contract entered into between UNDP and IOI, flow of funds to the operational centres in India and South Pacific started from 1 September, 1993 while funds for IOI Latin American and IOI Africa were contingent on UNDP approving their revised work plans.

The Preparatory Phase, which was delayed, however resulted in syllabi being developed for two courses, namely, coastal zone management as a sustainable process and coastal zone management with focus on small islands. These have been thereafter conducted and are in the process of validation.

### Workplans for IOI Latin America and IOI Africa

The Committee went into the draft workplan of IOI Costa Rica as presented by the representatives of the Universidad Nacional (UNA) and was of the view that the workplan needed to be firmed up by the Executive Director who was visiting Costa Rica soon especially regarding:

- Spanish course development work, its elements and time scheduling;
- the specific courses proposed to be run by IOI Costa Rica with scheduling year-wise, outputs by trainee-weeks etc.

The Committee also noted that the Executive Director would be visiting Dakar to revise and firm up the Work Plan for IOI Africa so as to lead to sustainability. In case this was not possible, he would explore other candidate sites like Abidjan in the Cote d'Ivoire.

### Networking

The Committee noted that the outputs and objectives regarding networking as per the Project Document had, by and large, been achieved. There had been two meetings of directors/vice chancellors, one meeting of the courses development committee, dissemination of an alumni directory, issue of the quarterly newsletter, issue of PR brochures, and the development of software by IOI/IIT Madras by which the libraries of the IOI System can be linked by E-Mail.

The Committee further noted that there had been MOUs/networking arrangements with the University of Rhode Island, ICPE Ljubljana, IOC/UNESCO, Paris and UNU, Tokyo. There had also been twinning between IIT Madras and USP South Pacific regarding grant of B Tech degrees. These outputs are a spin-off of the activities of IOI regarding programme development and were not an expected output as per the Project Document.

### Links with UNDP/UNEP

The Committee noted that links with UNDP were both close and interactive. UNDP representatives from headquarters attended the six monthly Directors and VC's meeting while UNDP Res Reps in Fiji, India and Costa Rica were closely involved at the regional level.

The Committee noted the need to link up the Centres with UNEP's Regional Seas Programme and was of the view that steps needed to be taken in this regard.

### Non-UNDP financial support

The Committee noted that there had been significant progress in attracting new sources of funding: from Japan, Australia, India, France and some South Pacific organisations. Sasakawa Foundation had funded a programme in China in 1993 and may fund two in 1994 - in Fiji and Madras. The Government of India is funding a course for policy makers and the Government of Malaysia an advanced course for alumni and others. In the South Pacific, WPFCC, a regional organisation and the Government of France are contributing about \$ 50,000 to a customary tenure workshop, while AIDAB is considering funding a course on Ports and Shipping in collaboration with the Australian Maritime College, Tasmania.

The Committee further noted that due to the efforts of the Honorary Chairman of IOI, and UNDP/DGIP the Ocean Resources Programme of the university of South Pacific was likely to get US\$ 10 million from Japan. This would considerably aid IOI South Pacific by augmenting the infrastructure likely to be available to it.

### Programme Development

The Committee was informed that there was a growing demand for more IOI Centres. IOI Japan was likely to be in place by the end of 1994 as was the case with IOI China. Both would be locally funded. For the Arabic speaking areas IOI Qatar was in the process of being established with all costs to be met by the Government of Qatar. During the recently concluded leaders workshop in Addis Ababa, there was a demand for three centres for languages other than French, namely, Arabic, Portugese and English. The feasibility for setting up these centres would be explored by IOI in association with UNECA. The initial responses from the Government of Kenya (English centre) and Oporto University (Portugese centre) have been positive.

### TRAINING PROGRAMME

The Committee noted that the strategic approach as outlined in the Project Document was to improve the ability of developing countries to manage their ocean resources within the context of

sustainable development. This was to be done by the operational centres serving as vehicles for focusing attention on emerging issues, providing training on the management of the coastal zone and the exclusive economic zone and initiating research programmes to deal with local/regional concerns. This was to be achieved by revising and updating the existing programmes of IOI, as well as developing new ones, to bring them in line with the latest developments in instruction technologies and to developing new courses for planners, policy makers, leaders, IOI alumni and small islands.

The Committee further noted that the main instrumentalities to keep the programme on course are:

- meetings of the courses development committee;
- training of course developers;
- training of trainers;
- evaluation to ensure quality.

### **Instrumentalities**

The Committee noted with satisfaction that the meetings of the courses development committee (which included UNDP representatives) had done a good job of keeping the courses on track. 9 course developers from IOI had been sensitised to the TRAIN-X System in a one week's workshop conducted by Mr. Michel Couroux of UNCTAD and a noted expert on the TRAIN-X System. IOI was also going to be an integral link in the TRAIN SEA COAST System now under development. And during 1993, two trainers (IOI India) went through the training of trainers programme and they along with the 9 course developers would provide a good base for expanding the trainers network of IOI and for linking it with TRAIN SEA COAST.

The Committee was informed by the UNDP representative that a TRAIN-SEA COAST meeting would be held in New York in June and a two-week TRAIN-SEA COAST Workshop for trainers would be held in September. The Committee was of the view that one trainer from each centre should attend the TRAIN-SEA COAST Workshop.

The Committee further noted that the present evaluation system of IOI was composed of three elements, namely,

- feedback from participants;
- feedback from the Course Director and the faculty of the programme;
- internal evaluation by the Honorary Chairman and Executive Director.

The Committee was of the view that the evaluation needed to be supplemented by evaluations by experts external to the IOI System as that would add to the conduct and credibility of the courses. In this context the Committee welcomed the suggestion of the UNDP representative to have an independent evaluation of the Project in early 1995.



### Revision of IOI courses and new courses

The Committee noted that the following training programmes were conducted in 1993/1994:

<b>Name of course</b>	<b>Conducted by whom and when</b>	<b>Revised/New</b>	<b>Participants</b>
Alumni Refresher	IOI Madras 4-7 March, 1993	New	23
Coastal Zone Management as a Sustainable Process	IOI Madras 11 Oct-17 Dec., 1993	Revised C	18
For Managers and Planners of the Enterprise	IOI HQ 04 Oct-05 Nov., 1993	Revised A	13
Leaders Sensitising Workshop	IOI South Pac. 17 Nov., 1993	New	18
Leaders Sensitising Seminar	IOI HQ/UNECA 18 Mar-02 April., 1994	New	49

The Committee further noted that the following new courses were to be held in 1994:

- coastal zone management: focus on small islands (IOI Malta) - 18 April-10 June, 1994;
- course for policy makers (IOI Madras) - 1 week

The Committee was informed that the course for planners on EEZ and coastal management would be developed in consultation with IOI Africa and would be conducted in 1994/1995 depending on the scheduling.

### Training outputs

The Committee noted that the position regarding projected training outputs and requirements of funds, and actual achievements were as below:

Trainee Outputs and Budgeted Funds - 1993

Centre	Project document (6 mos.)		Actual achievement (4 mos.)	
	Funds budgeted (\$)	Projected Output (trainee weeks)	Funds expended (\$)	Output (trainee weeks)
South Pacific	50,000	25	24,301	13 (1)
Caribbean	50,000	100	-	-
Indian Ocean	76,000	242	71,436	203 (2)
Africa	-	-	-	-

**Notes:**

- (1) 17 trainees in a one-day seminar (3 t.w.)  
1 trainee trained in IOI Madras CZM course for 10 weeks (10 t.w)
- (2) 18 trainees in a 10-week CZM course (180 t.w.)  
23 trainees in a 1-week alumni course (23 t.w.)

The Committee noted that the shortfall in trainee output and courses was due to:

- delay of 2 months in starting the project by 2 months;
- cancellation of a leaders programme by IOI Madras due to the untimely death of Chief Minister of Gujrat, a State in India.

The Committee further noted that the funds actually expended were lower than originally budgeted. Also 65 trainee weeks were accounted by the training programme for planners and managers of the Enterprise held in China in October-November, 1993.

**Item 3: Workplans, centre-wise for 1995**

The Committee had before it the Work Plan for IOI South Pacific for 1995. After considering and reviewing the Work Plan, the Committee recommended that IOI South Pacific augment its course development activity by taking up some more courses for development. The Committee was of the view that all Work Plans for 1995 should be finalised by October 1994 and should give details, inter alia, of name of the course, number of participants, duration of course, where it would be held, percentage overhead, if any, how it made for future self sufficiency and sustainability etc.

The Committee noted that IOI Madras would be submitting its Work Plan for 1995 shortly while the Costa Rica and Africa Work Plans would also be finalised soon.

The Committee also approved the collaboration of IOI South Pacific with the Women and Fisheries Network, an NGO located in Fiji and was of the view that joint research projects with the Women and Fisheries Network could be worked out and submitted for funding to various donors.

**Item 4: Development of research programmes**

The Committee noted that though a preliminary survey of research possibilities had been made more work needed to be done to link up the IOI research proposals with ongoing regional research so as to avoid duplication. The Committee was of the view that research proposals should be got ready by October, 1994 by all the centres so that they could be considered at its next meeting.

**Item 5: Suggestions for consultancies**

There was detailed discussion on this issues. The general consensus was that:

- the term "consultancy" was inappropriate and should be replaced by the term "professional services";
- it should be made clear to the host institution that the IOI Centre was not in competition with it.

The Committee came to the following conclusions:

- the term "professional services" to be offered by IOI Centres should be confined to the strengths of IOI in the fields of policy research, policy advice, training of multi-disciplinary and heterogenous groups, sensitisation of policy makers etc.;
- the host institution/government should, as far as possible, be associated in the proposed activity;
- the "professional service" should be harmonised with the host institutes activities so as to be complementary and supplemental and not substitutive.

**Item 6: World Commission for the Oceans**

The Honorary Chairman informed the Committee of the proposal for a World Commission for the Oceans. The IOI Regional Centres would be expected to act as Secretariats for the World Commission for the Oceans for their respective regions.

The meeting ended with a vote of thanks to the Chair.

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**Dr. Krishan Saigal**  
**Executive Director**

Fourth Meeting of the Representatives  
of the Operational Centres of  
the  
International Ocean Institute  
held at Madras  
on  
3 and 4 December, 1994

Annex 11  
Page 106

**Present:**

Prof. Elisabeth Mann Borgese, Honorary Chairman, IOI  
Dr. Anton Vratusa, Vice President, IOI  
Mr. Maxwell Bruce, Acting Chairman, Planning Council, IOI  
Amb. Bhagwat Singh, Governing Board, IOI  
Mr. Philip Reynolds, DGIP, UNDP, New York  
Ms. S.M. Vallejo, UNDOALOS, New York  
Prof. N.V.C. Swamy, IOI Madras  
Prof. V.S. Raju, IOI Madras  
Dr. Hou Wenfeng, IOI China  
MSc Lorena San Roman, IOI Costa Rica  
MSc Alexandro Guttierrez, IOI Costa Rica  
Dr. Tsutomu Fuse, IOI Japan  
Dr. Diafara Toure, IOI Senegal  
Prof. Robin South, IOI South Pacific  
Dr. Krishan Saigal, Executive Director, IOI

**Also Present:**

Ms. Anita Coady, Editor Across the Oceans  
Prof. Rajagopalan, IOI Madras  
Prof. S.P. Subramanian, IOI Madras  
Prof. J.S. Mani, IOI Madras  
Ms. Margaret Wood, IOI Halifax  
Mr. Seremaia Kalokalo, IOI South Pacific

Prof. Elisabeth Mann Borgese took the chair.

**Item 1: Adoption of the Agenda**

The Agenda as circulated was adopted.

**Item 2: Workplan centre-wise for 1995**

The Committee had before it the Workplan for IOI including the workplans for Costa Rica, Madras, Senegal and South Pacific.

Presenting the Workplan for IOI, the Executive Director explained that the broad picture regarding inputs and outputs for 1995 was as below.

**WORK PLAN 1995**

(\$'000)

<b>INPUTS</b>		<b>UNDP/GEF</b>	<b>IOI</b>	
1.	Administrative Support		Non-UNDP funds	In-kind
	. Headquarters	-		292.0
	. Centres	33.0		181.5
2.	PR Brochures etc.	23.0	30.0	
3.	Travel costs			
	. Directors meeting	60.0		
	. Programme development, research funding, evaluation etc.	118.5	100.0	
		58.5		
4.	Course development	129.5		375.0
5.	Training of trainers	37.0		100.0
6.	Training scholarships	393.3		240.0
			502.5	
		-----	-----	-----
	<b>Total</b>	<b>734.3</b>	<b>632.5</b>	<b>1,188.5</b>

<b>OUTPUTS</b>	<b>UNDP/GEF</b>	<b>IOI</b>
IOI Costa Rica	145	
IOI India	350	125
IOI South Pacific	155	
IOI Senegal	200	
IOI Halifax		250
IOI Malta		120
IOI China		75
	-----	-----
<b>Total</b>	<b>700</b>	<b>570</b>

The dependence on UNDP funds decreased from 47% in 1993 to 38% in 1994 as may be seen from the tables below.

## 1993

Name of course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/as %)	Total funding ('000\$)
Alumni Refresher	IOI Madras 4-7 March, 1993	6.3	-	6.3
Coastal Zone Management as a Sustainable Process	IOI Madras 11 Oct-17 Dec., 1993	67.4	-	67.4
For Managers and Planners of the Enterprise	IOI HQ 04 Oct-05 Nov., 1993	-	90.0-Sasakawa Foundation	90.0
Leaders Sensitising Workshop	IOI South Pac. 17 Nov., 1993	7.9	-	7.9
	<b>Total</b>	<b>80.6/ 47%</b>	<b>90.0/ 53%</b>	<b>170.6</b>

## 1994

Name of course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/as %)	Total funding ('000\$)
Leaders Sensitising Seminar	IOI HQ/UNECA 28 Mar-2 Apr, 1994	25.3	25.3-UNECA	50.6
Coastal Zone Management: focus on small islands	IOI Malta 18 Apr - 10 June, 1994	-	92.4-ComSec	92.4
Coastal zone Management as a Sustainable Process	IOI Madras 27 June-29 July, 1994	40.0*	-	40.0

1994

Name of Course	Conducted by whom and when	UNDP funding ('000\$/% of total)	Non-UNDP funding ('000\$/% as %)	Total funding ('000\$)
Sustainable Development Implementation of Chapter 17 of Agenda 21-EEZ	IOI Halifax 6 June - 12 August, 1994	-	132.2- CIDA	132.2
Course for Managers and Planners of the Enterprise	IOI Madras 29 August - 30 September, 1994	-	80.0- Sasa- kawa	80.0
Traditional Marine Tenure Workshop	IOI South Pacific 3 - 7 October, 1994	27.7	31.2- WPFCC 27.7- Govt. of France	86.6
Advanced Course for Alumni at Kuala Lumpur, Malaysia	IOI Madras 12-16 September, 1994	5.7	10.0- Govt. of Malay- sia	15.7
Coralline Algae Course	IOI South Pacific 4 - 8 July, 1994	-	16.0- Govt. of France	16.0
Management and Development of Coastal Fisheries	IOI South Pacific 21 Oct.-26 Nov., 1994	102.5*	-	102.5
Leaders Workshop on Business Opportunities in the Oceans	IOI Madras 25-26 Oct., 1994	1.0	10.0- Govt. of India & NIO	11.0
Coastal Zone Management as a Sustainable Process	IOI Madras 17 Oct.-16 Dec., 1994	57.0*	15/135	* 57.0-UNDP
	<b>Total</b>	<b>259.2/ 38%</b>	<b>424.8/ 62%</b>	<b>684.0</b>

\* Provisional figures of expenditure



The Executive Director went on to say that the detailed Workplan was under the consideration of the Committee and both the Centre Directors and he would be happy to clarify any matter arising during the deliberations.

There was a very detailed discussion on the Workplan and the Committee came to the following conclusions.

### **Networking**

The Committee noted that the outputs and objectives regarding networking as per the Project Document had, by and large, been achieved. There had been three meetings of directors/vice chancellors, three meetings of the courses development committee, dissemination of an alumni directory, issue of quarterly newsletters, issue of PR brochures, and the development of software by IOI/IIT Madras by which the libraries of the IOI System can be linked by E-Mail.

The Committee further noted that there had been MOUs/networking arrangements with the University of Rhode Island, ICPE Ljubljana, IOC/UNESCO, Paris and UNU, Tokyo. There had also been twinning between IIT Madras and USP South Pacific regarding grant of B.Tech degrees. These outputs are a spin-off of the activities of IOI regarding programme development. Networking arrangements with the University of Yokohama, Japan and the State Oceanic Administration, People's Republic of China has also been recently finalised.

In view of the fact that IOI had been successful in attracting non-UNDP funding for its courses, the UNDP representative suggested that the Committee may consider reducing the outlay on training scholarships and divert the money saved thereby for funding networking activities. This would enable networking to continue during 1996 when the programmes of IOIs Costa Rica and Senegal would still be under execution.

The Committee welcomed this suggestion and requested the Executive Director to revise the Workplan accordingly.

### **Links with UNDP/UNEP**

The Committee noted that links with UNDP were both close and interactive. UNDP representatives from headquarters attended the six monthly Directors and VC's meeting while UNDP Res Reps in Fiji, India, Dakar and Costa Rica were closely involved at the regional level.

The Committee noted the need to link up the Centres with UNEP's Regional Seas Programme and was of the view that steps needed to be taken in this regard.

**Non-UNDP financial support**

The Committee noted that there had been significant progress in attracting new sources of funding: from Japan, Australia, India, France and some South Pacific organisations. Sasakawa Foundation had funded a programme in China in 1993 and one in Madras in 1994. The Government of India is funding a course for policy makers and the Government of Malaysia has funded an advanced course for alumni and others. In the South Pacific, WPFCC, a regional organisation and the Government of France contributed about \$ 50,000 to a customary tenure workshop, while AIDAB is considering funding a course on Ports and Shipping in collaboration with the Australian Maritime College, Tasmania.

The Committee further noted that due to the efforts of the Honorary Chairman of IOI, and UNDP/DGIP the Ocean Resources Programme of the university of South Pacific was likely to get US\$ 10 million from Japan. This would considerably aid IOI South Pacific by augmenting the infrastructure likely to be available to it.

**Programme Development**

The Committee was informed that there was a growing demand for more IOI Centres. IOI Japan and China were already in place. Both are locally funded. For the Arabic speaking areas IOI Qatar was in the process of being established with all costs to be met by the Government of Qatar. During the recently concluded leaders workshop in Addis Ababa, there was a demand for three centres for languages other than French, namely, Arabic, Portugese and English. The feasibility of setting up these centres would be explored by IOI in association with UNECA. The initial responses from the Government of Kenya (English centre) and Oporto University in Portugal, which would be preliminary to the Portugese speaking operational centre in Africa have been positive.

**TRAINING PROGRAMME**

The Committee noted that the strategic approach as outlined in the Project Document was to improve the ability of developing countries to manage their ocean resources within the context of sustainable development. This was to be done by the operational centres serving as vehicles for focusing attention on emerging issues, providing training on the management of the coastal zone and the exclusive economic zone and by initiating research programmes to deal with local/regional concerns. This was to be achieved by revising and updating the existing programmes of IOI, as well as developing new ones, to bring them in line with the latest developments in instruction technologies and to developing new courses for planners, policy makers, leaders, IOI alumni and small islands.

The Committee further noted that the main instrumentalities to keep the programme on course are:

- meetings of the courses development committee;
- training of course developers;
- training of trainers;
- evaluation to ensure quality.

### Instrumentalities

The Committee noted with satisfaction that the meetings of the courses development committee (which included UNDP representatives) had done a good job of keeping the courses on track. 9 course developers from IOI had been sensitised to the TRAIN-X System in a one week's workshop conducted by Mr. Michel Couroux of UNCTAD and a noted expert on the TRAIN-X System. IOI was also going to be an integral link in the TRAIN-SEA COAST System now under development. And during 1993, two trainers (IOI India) went through the training of trainers programme and they along with the 9 course developers would provide a good base for expanding the trainers network of IOI and for linking it with TRAIN-SEA COAST.

The Committee was informed by the UNDP representative that a two-week TRAIN-SEA COAST Workshop for trainers would be held in January. The Committee was of the view that two trainers from each centre (and three from IOI Senegal) should attend the TRAIN-SEA COAST Workshop. One trainer from each centre would be funded by UNDP.

The Committee further noted that the present evaluation system of IOI was composed of three elements, namely,

- feedback from participants;
- feedback from the Course Director and the faculty;
- internal evaluation by the Honorary Chairman and Executive Director.

The Committee was of the view that the evaluation system needed to be supplemented by evaluations by experts external to the IOI System as that would add to the conduct and credibility of the courses. The Committee also requested the Executive Director to submit one complete evaluation report for the consideration of the Committee at its next meeting. In this context the Committee welcomed the suggestion of the UNDP representative to have an independent evaluation of the Project in early 1995.

### Training outputs

The Committee noted that the position regarding projected training outputs and requirements of funds as in the Project Document, and actual achievements for 1994 were as below:

Trainee Outputs and Budgeted Funds - 1994

Project document

Actual achievement

Centre	Funds budgeted (\$)	Likely Output (t.w)	\$ per t.w.	Funds (\$)	Actual Output (t.w.)	\$ per (t.w.)
South Pacific	112,500	146	770	139,084	191	728
India	153,000	500	306	106,400	340	312
Senegal	135,000	240	562	25,300	49	516

**Note:** t.w. = trainee weeks

The Committee noted that the cost per trainee week was either less (South Pacific and Senegal) or about the same (India) compared to what was projected in the Project Document.

Workplans, centre-wise for 1995

The Committee had before it the Work Plans for IOI Costa Rica, Halifax, India, Senegal and South Pacific for 1995. The Committee noted that the Halifax centre was the only centre doing policy research. After considering and reviewing the Work Plans, the Committee approved all the Workplans subject to IOI Costa Rica revising its course syllabi in line with the decisions of the Courses Development Committee.

Item 3: Research agenda centre-wise

The Committee noted that though a preliminary survey of research possibilities had been made more work needed to be done to link up the IOI research proposals with ongoing regional research so as to avoid duplication. The Committee was of the view that research proposals should be got ready by March, 1995 by all the centres so that they could be considered at its next meeting.

Item 4: Suggestions for professional services

Deferred.

Item 5: Suggestions for funding from second tranche of GEF

Deferred.

Item 6: World Commission for the Oceans

The Honorary Chairman informed the Committee of the proposal for a World Commission for the Oceans. The IOI Regional Centres

would be expected to act as Secretariats for the World Commission for the Oceans for their respective regions. A draft time table was circulated.

**Item 7: TRAIN-SEA COAST**

There was a very extensive discussion on the proposed TRAIN-SEA COAST System. The Committee came to the following conclusions:

- IOI/TRAIN SEA COAST courses would have to conform to the IOI "philosophy" of multidisciplinary;
- Operational Centres should send their proposals to Headquarters for advice and consent;
- In the meantime, IOI Centres would send persons to the TRAIN SEA COAST workshop in January.

The meeting ended with a vote of thanks to the Chair.

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**Dr. Krishan Saigal**  
**Executive Director**

Minutes of the Meeting of the Representatives  
of the Operational Centres of  
the  
International Ocean Institute  
held at Madras  
on  
8 December, 1994

**Present:**

Prof. E.M. Borgese, Honorary Chairman, IOI  
Prof. N.V.C. Swamy, IOI Madras.  
Prof. V.S. Raju, IOI Madras.  
Prof. Hou Wenfeng, IOI China.  
M.Sc. Lorena San Roman, IOI Costa Rica.  
M.Sc. Alexandro Guttierrez, IOI Costa Rica.  
Prof. Tsutomu Fuse, IOI Japan.  
Dr. Diafara Toure, IOI Senegal.  
Prof. Robin South, IOI South Pacific.  
Dr. Krishan Saigal, Executive Director, IOI

**Also Present:**

Ms. Anita Coady, Editor Across The Oceans  
Ms. Margaret Wood, IOI Halifax  
Mr. Seremia Kalokalo Tuqiri, IOI South Pacific

Prof. Elisabeth Mann Borgese took the chair.

**Item 6: Independent World Commission for the Seas and the Oceans**

Initiating the discussion, the Chairman explained what the terms of reference of the World Commission were. She drew the attention of the Meeting to the suggested action calendar for the World Commission and stated that at the moment it was tentative and would be finalised at the meeting of the Executive Committee of the Commission.

The representatives of the operational centres were very keen to know as to what was expected from them. It was clarified that their task was to act as the regional secretariat of the Commission, to contact all those connected with ocean affairs in their region, to organise hearings, to summarise memoranda or comments received and to submit these to headquarters. Since this would involve extra work, staff assistance would obviously be necessary. About \$30,000 had been budgeted for IOI Costa Rica, Madras, Senegal and South Pacific, and UNDP had been approached for the requisite funds. Funds for IOI Halifax, Malta, China and Japan were being separately arranged.

It was further clarified that the operational centres would not be expected to bear the travel costs of those involved in the hearings. Funds for this purpose were being arranged separately.

The operational centres were to provide secretarial assistance to the concerned Vice-President of the Commission in organising and conducting the hearings, in keeping a record of the hearings and submitting all the material, with proposed recommendations, to headquarters.

The Meeting welcomed the establishment of the World Commission with the IOI acting as its secretariat as that would considerably enhance the public's perceptions of the IOI network.

The representatives of the operational centres promised to go into all the implications of what was involved in their acting as the regional secretariat of the World Commission and to revert to headquarters in due course.

### **Item 8: Management System of the International Ocean Institute**

Introducing the subject, the Executive Director said that he had been asked by the governing Board of IOI to suggest to the Board a Management system for IOI which would serve the twin objectives of having a decentralised networking system while at the same time retaining the objectives and "philosophy" of IOI. In his view, if IOI had been a pure information network, it could have been totally horizontal. But headquarters had the major responsibilities for raising funds and for reporting regarding their utilisation to the donors. Besides it was the Governing Board of IOI which, under the statutes, was responsible for determining policy regarding the activities, organisation and financial administration.

It was within the above parameters that the Management system of IOI had to be established. He invited the views of the representatives of the operational centres.

A wideranging discussion ensued. The main observations and comments made in the meeting have been arranged in the following clusters.

**Policy.** The policy of IOI had necessarily to be enunciated by the Governing Board after active interaction between the representatives of the Centres and the Board.

One way could be to have representatives of the Centres on the Planning Council of IOI as the Planning Council was the main advisory organ of the Board. Another method could be for the Board to consult the Centres about the feasibility of policies. This would involve the Centres in the decision-making system of IOI.

**Planning.** The strategic plan of IOI could be drawn up at the meeting of representatives of the Centres and then submitted to the Board. This plan could, inter alia, examine the interaction of IOI's plan with other areas of co-operative endeavour which the Centres might be engaging in e.g. TRAIN-SEA COAST. The strategic plan would also help to harmonise the objectives of the

co-operating institutions (IIT, UNA, USP, SOA, CRODT etc.) with those of IOI. Since the co-operating institutions were involved in other networks besides the IOI network, IOIs strategic plan would help in harmonising all of their activities.

**Information.** There was need for the Centres to collect information from their regions and circulate it within the IOI network. Quarterly action reports of all Centres should also be circulated within the network. This would not only make everyone aware of what was happening throughout the network but make for co-ordinated and synergistic functioning.

**Accounts and Reporting.** There was general agreement that the system of accounts and reporting within the network needed to be standardised so as to make for comparability. This would also enable headquarters to monitor activities thereby enabling it to fulfil its obligation to the donors and others.

The Chairman thanked the representatives for their views and also placed on record everyone's gratitude to IOI Madras for the excellent arrangements made.

The meeting ended with a vote of thanks to the Chair.

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**Dr. Krishan Saigal**  
**Executive Director**



Minutes of the Courses Development Committee  
held on  
5 & 7th September, 1993  
at  
Tokyo and Takaoka, Japan.

Present (Tokyo on 5th September):

Prof. Elisabeth Mann Borgese, IOI Halifax  
Dr. Anton Vratusa, Vice-President, IOI  
Mr. Maxwell Bruce, Vice-Chairman, Planning Council IOI  
Prof. N.V.C. Swamy, IOI India  
Prof. V.S. Raju, IOI India  
Dr. Kevin Aquilina, IOI Malta  
Dr. Jeggan Senghor, IOI Senegal  
Prof. Vijay Naidu, IOI South Pacific  
Prof. E. Robin South, IOI South Pacific  
Mr. Philip Reynolds, UNDP/DGIP  
Ms. Chinwe Dike, UNDP/OPS  
Dr. Krishan Saigal, Executive Director IOI

Present (Takaoka on 7th September):

Prof. Elisabeth Mann Borgese, IOI Halifax  
Dr. Anton Vratusa, Vice-President, IOI  
Mr. Maxwell Bruce, Vice-Chairman, Planning Council IOI  
Prof. N.V.C. Swamy, IOI India  
Prof. V.S. Raju, IOI India  
Dr. Kevin Aquilina, IOI Malta  
Dr. Jeggan Senghor, IOI Senegal  
Prof. Vijay Naidu, IOI South Pacific  
Prof. E. Robin South, IOI South Pacific  
Mr. Philip Reynolds, UNDP/DGIP  
Ms. Chinwe Dike, UNDP/OPS  
Amb. Nicolas Salom, IOI Colombia  
Dr. Garcia, IOI Colombia  
Dr. Krishan Saigal, Executive Director IOI

Prof. Elisabeth Mann Borgese presided in both the meetings.

Item 1: Laying down the procedure by which courses and modules are approved.

The Meeting considered the documents circulated, including Appendix L of the UNDP Project Document and after discussion came to the following conclusions:

- (i) while the IOI courses conducted so far had proved their worth, with the expansion of its activities the IOI System had now to shift IOI courses from:
  - . centrally prepared to regionally prepared courses;
  - . instructor dependent to material dependent

- course;
- . from ad hoc to systematically prepared courses;
- . from unique courses to exchangeable course modules;

(ii) while the systems approach to decentralise course development as exemplified by the TRAIN-X system was good, the IOI lacked the time and money to develop courses through a formal TRAIN-X Programme. The meeting came to the view that a good way would be for UNDP and IOI to organise a Workshop in Geneva from 22-26 November, 1993 where participants can be briefed on TRAIN-X and give their reactions (2 days) and receive preliminary training on accepted elements of TRAIN-X.

### Item 2: Selecting Pedagogical Experts from Each Centre

It was decided that the following will attend the Geneva Workshop:

IOI Colombia	:	Dr. Garcia
IOI India	:	Prof. Swamy Prof. Raju
IOI Senegal	:	Dr. Philip Quarco
IOI South Pacific:		Prof. Robin South + 2 to 3 others
IOI Halifax	:	Prof. Elisabeth Mann Borgese
IOI Headquarters:		Dr. Krishan Saigal
UN DOALOS	:	Ms. Stella Vallego (to be funded by IOI)
UNDP/DGIP	:	Mr. Philip Reynolds.

### Item 3: Consideration of Course Structures (Takaoka 7th September)

IOI Fiji presented 10 course proposals. Two were in collaboration with the Australian Maritime College, Tasmania and would go ahead with or without IOI. All were considered to be acceptable but priority might be set on the basis of the following criteria:

- perceived need in the IOI network and beyond;
- transferability;
- complementarity with existing IOI courses.

On this basis priority was given to the following Fiji proposals:

Course 4: Fisheries Economics and Management

5: Resource and Environmental Economics

7: Management of Coastal Fisheries

Number 5 was top priority. For numbers 4 and 7 there could be consultation with Mr. Rolf Willmann (FAO) and Chua Thia Eng (ICLARM). Mr. Philip Reynolds promised to establish contacts.

IOI Madras presented only one course (modified 10 week) for which they will use modules of 90 minutes presented through workshops, case studies, site visits and lectures.

IOI Senegal will send their training officer to Geneva in November and will develop a leadership workshop or alumni course within 6 months. In terms of organization, they will limit their core staff and will engage outside personnel for each course as is done for the Arusha, Tanzania based Eastern and Southern African Management Institute (ESAMI).

IOI Colombia has recently obtained collaboration with a well respected academic, Dr. Garcia, who will help Ambassador Salom choose and develop a course over the next 6 months.

Dr. Saigal agreed to pay special visits to the Senegal and Colombia Centres, if necessary.

Dr. Krishan Saigal  
Executive Director

**Second Meeting of the Courses Development Committee**  
**held at Barbados**

**on**  
**29 April, 1994**

**Present:**

Prof. Elisabeth Mann Borgese, Honorary Chairman, IOI  
 Amb. Bhagwat Singh, Governing Board, IOI  
 Mr. Philip Reynolds, DGIP, UNDP, New York  
 Prof. N.V.C. Swamy, IOI Madras  
 Prof. V.S. Raju, IOI Madras  
 Prof. E. Robin South, IOI South Pacific  
 M.Sc Lorena San Roman, UNA Costa Rica  
 M.Sc Alexandro Cuttiriez, UNA Costa Rica  
 Ms. Anita Coady, Editor Across the Oceans  
 Mr. Seremaia Kalokalo Tuqiri, IOI South Pacific  
 Dr. Krishan Saigal, Executive Director, IOI

Prof. Elisabeth Mann Borgese took the chair.

**Item 1: Adoption of Agenda**

The circulated agenda was adopted.

**Item 2: Consideration and approval of courses proposed to be conducted in 1994**

The Committee noted that the following courses were proposed to be conducted in 1994.

<b>Name of Course</b>	<b>Where to be held</b>	<b>Duration</b>	<b>No of participants</b>	<b>Source of funding</b>
<b>1. Coastal Zone Management as a sustainable process</b>	Madras	5 weeks	20	UNDP
<b>2. For Managers, Policy and Project Planners of the Enterprise</b>	Madras	5 weeks	15	Sasakawa Foundation

Name of course	Where to be held	Duration	No. of participants	Source of funding
3. Coastal Zone Management as a sustainable process	Madras	8-10 weeks	20	UNDP
4. Alumni Refresher	Kuala Lumpur	1 week	20-25	Government of Malaysia
5. For Policy Makers	Madras	1 week	20-25	Government of India
6. Customary Tenure Workshop	Suva	2 weeks	20	UNDP, WPFCC and SPREP
7. Coastal Fisheries	Suva	5 weeks	20	UNDP and Sasakawa
8. EEZ-Sustainable Development	Halifax	10 weeks	20	CIDA and others

The Committee noted that courses for Costa Rica and Africa were not included in the above list as their Work Plans had not yet been firmed up and accepted by UNDP.

The Committee noted that IOI Madras had both a 8-10 week and a 5-week programme on coastal zone management. The Committee looked at the 5-week programme as an experimental measure whose success would have to be judged by the extent to which it achieved its objectives. A view as expressed that if the 5-week programme was not to be too much diluted, then plenty of reading materials should be handed out to the participants so that they could complete the learning process later on in their own countries.

The Committee approved the idea of some external evaluation system for the courses.

**Item 3 & 4: Follow up on Geneva workshop and reports on course modules prepared**

The Committee had before it the course materials from IOI South Pacific and a report on how the course material for the IOI Madras 5-week course was being got ready.

Regarding the course material of IOI South Pacific, the Committee was satisfied with the material, but felt that in view of the plan to network and exchange courses with other centres, the present materials were too strongly focussed on the South Pacific. For purposes of exchange and networking, it would be better to have region-specific sections developed in a manner that are separate from the main course, so that these sections can be readily substituted for other region-specific material.

There was discussion on methodologies employed in course preparation. IOI-Madras is using a team approach and has a considerable number of lectures involved. Summaries of lectures from their Coastal Management course were provided for information. IOI South Pacific, on the other hand, has a much smaller pool to draw from. The Committee was of the view that they would like to wait for the course materials before reaching any conclusions in the matter. Also evaluation of courses should include interchange between centres, and the idea of a pedagogical evaluator to review courses should be tried out.

In discussion of the TRAIN-X system and its applicability to IOI courses, the Committee was of the view that while in general the system has a number of advantages, but disadvantages included the fact that TRAIN-X was too detailed and designed for homogeneous groups, whereas most IOI courses were offered to heterogeneous groups. In addition, it was felt that the Mastery test in its present form was unsuitable for IOI courses. The Committee noted that streamlining and simplification of the TRAIN-X system was under way, and centres were asked to provide UNDP with comments and feed-back so that these could be considered in the simplification process.

The Committee was further of the view that the Distance Learning expertise of USP needed to be transferred to the other centres.

The meeting ended with a vote of thanks to the Chair.

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**Dr. Krishan Saigal**  
**Executive Director**

**Third Meeting of the Courses Development Committee  
of the International Ocean Institute  
held at Madras**

**on**

**3 and 4 December, 1994**

**Present:**

Prof. Elisabeth Mann Borgese, Honorary Chairman, IOI  
Dr. Anton Vratosa, Vice President, IOI  
Mr. Maxwell Bruce, Acting Chairman, Planning Council, IOI  
Amb. Bhagwat Singh, Governing Board, IOI  
Mr. Philip Reynolds, DGIP, UNDP, New York  
Ms. S.M. Vallejo, UNDOALOS, New York  
Prof. N.V.C. Swamy, IOI Madras  
Prof. V.S. Raju, IOI Madras  
Dr. Hou Wenfeng, IOI China  
MSc Lorena San Roman, IOI Costa Rica  
MSc Alexandro Guttierrez, IOI Costa Rica  
Dr. Tsutomu Fuse, IOI Japan  
Dr. Diafara Toure, IOI Senegal  
Prof. Robin South, IOI South Pacific  
Dr. Krishan Saigal, Executive Director, IOI

**Also Present:**

Ms. Anita Coady, Editor Across the Oceans  
Prof. Rajagopalan, IOI Madras  
Prof. S.P. Subramanian, IOI Madras  
Prof. J.S. Mani, IOI Madras  
Ms. Margaret Wood, IOI Halifax  
Mr. Seremaia Kalokalo, IOI South Pacific

Prof. Elisabeth Mann Borgese took the chair.

**Item 1: Adoption of Agenda**

The circulated agenda was adopted.

**Item 2: Consideration of introduction of a 2-week basic reader  
for all IOI programmes of 2 weeks duration or more**

The Committee noted that there had been a quantum jump in the activities of IOI all over the world through a networking system where a lot of autonomy was being given to the regional centres. Network management is, by its very nature, dependent on information dissemination, the establishment of linkages and the laying down of a strategic policy.

It was in the above context that the Committee considered the proposal that any course with a duration of 2 weeks or more must include a basic multi-disciplinary input as per the circulated 2-week reader (Appendix 1) if it was to be certified as an IOI course.

The Committee deliberated on the proposal at great length and during discussions the following points were made:

- while in principle there was a great deal to be said about integrating the various IOI courses through inclusion of a core syllabus, in implementing the proposal, however, some difficulties may arise in the case of courses of, say three weeks or less;
- there was also the problem of how to include the multidisciplinary philosophy of IOI in courses of less than 2 weeks;
- the time given for case studies (2 sessions) was too short. In this connection it was clarified that the basic reader only laid down a minimum and the centres could give more time to any of the areas mentioned;
- it was noted that IOI Senegal was running the 2-week reader as a full course for 10 days.

After considering all the pros and cons of the issue, the Committee decided that the 2-week core should be considered the highest common denominator and included in every IOI course of 2 weeks or more. However, the time actually devoted to the core reader in a course would vary according to circumstances. Two introductory lectures might suffice, after which the basic reader should be given to the participants for self-study. This would apply, in particular, to courses of two weeks or less. It would be important to train lecturers who could give introductory, broadly interdisciplinary lectures.

**Item 3: Consideration and approval of courses proposed to be run in 1995**

IOI Madras

The Committee had before it an agenda note submitted by IOI Madras which stated that the following courses were proposed to be conducted by it in 1995.

SI.No.	Name of Course	Duration
1	Coastal Zone Management - India only	4 weeks
2	Coastal Zone Management as a Sustainable Process - regional	7 weeks
3	Coastal Zone Management as a Sustainable Process - regional	8 weeks
4	Course for policy makers - India	1 week
5	Advanced Alumni - India and regional (2 courses)	1 week



In the note IOI Madras explained that they had arrived at the syllabi of the courses proposed for 1995 on the basis of experience gained by them in 1993 and 1994 on courses of 10-, 5- and 9- weeks (really 8-weeks because 1-week was for attending PIM XXII) conducted by them. The break-up of courses input-wise was as below.

## INTERNATIONAL OCEAN INSTITUTE, OPERATIONAL CENTRE, INDIA

	Weeks of training programme in units of 1 1/2 hours each					
	10	5	9	4	7	8
<b>INPUTS BY RESOURCE PERSONS</b>						
* Lectures	110	52	76	37	66	75
* Case Studies	5	4	4	5	4	5
* Simulation	5	2	2	2	2	2
Total	120	58	82	44	72	82
<b>INPUTS BY PARTICIPANTS</b>						
* Group discussions, weekly reviews	30	14	30	12	24	28
* Country reports	9	6	7	-	8	8
* Research reports	-	8	7	6	8	8
* Feed back	1	2	2	2	2	2
Total	40	30	46	20	42	46
<b>FIELD VISITS</b>	40	12	36	6	26	32
Total	40	12	36	6	26	32
Grand total	200	100	160	80	140	160

The breakup of the courses theme-wise is as below.

INTERNATIONAL OCEAN INSTITUTE, OPERATIONAL CENTRE, INDIA  
 TRAINING COURSE ON COASTAL ZONE MANAGEMENT (CZM) AS A  
 SUSTAINABLE PROCESS

THEME AND TITLE	Weeks of training programme in units of 1 1/2 hours each				
	5	9	4	7	8
0: Introductory lectures on coastal zone management, group discussions and aspects related to spoken communication are organised in the introductory theme	6	6	3	5	5
1: Contemporary concept of development and the law of the sea convention	7	7	8	8	8
2A: The oceans: oceanography, the sea-air interface with emphasis on coastal zone	10	14	7	10	14
2B: Coastal ecology, pollution and environmental impact assessment	3	16	-	12	16
3: Managerial process, structure and strategy: application to coastal zone activities	6	9	6	9	9
4: Management of coastal zone activities - utilization of living resources	8	9	6	6	8
5: Management of coastal zone activities utilization of non-living resources	6	7	5	7	7
6: Infra-structure development of coastal zone and management of ports, harbours, transport network and tourism	7	7	5	9	9
7: Sustainable development of the coastal zone	5	7	4	6	6
<b>TOTAL</b>	<b>58</b>	<b>82</b>	<b>44</b>	<b>72</b>	<b>82</b>

For the year 1995 IOI Madras proposes to repeat a programme of 8-weeks and also to run a programme of 7-weeks which they think could be fitted into the new requirement. At the same time, IOI Madras also proposes to run a 4-week programme for personnel from the States of the Indian Union and this has been done by reducing field visits, inputs by participants and some of the lectures as compared to the 5-week programme. In the introductory lectures, the 2 units devoted in the 5-week course on teaching of English are being eliminated while 23 units are being reduced in theme 2A & 2B because of the jurisdiction of the States of the Indian Union does not cover the total coastal ecology, their jurisdiction being limited by the extent of the territorial sea. The way all the units are divided can be seen in the details of the 4-week course already given in the table above.

Syllabi for the 4, 7 and 8 week courses are at Appendices 2, 3 and 4.

Syllabi for the 1-week policy makers programme and the two 1-week alumni programmes (which will be adapted from the course conducted in Malaysia) are at Appendices 5 and 6. The policy-makers programme has been approved by the Government of India for their senior officers while the alumni courses would be adaptations of the Malaysia programme which had been a great success.

The UNDP representative informed the Committee that in the UNEP concept the coastal zone was taken to be the land area from the watershed to the coast while the sea area was to be up to the limits of national jurisdiction, i.e., up to the outer limits of the Exclusive Economic Zone. GEF came into the picture when a number of countries took up a programme as that would take the programme into the domain of international waters, which was one of the elements of GEF.

The Committee expressed its gratefulness to the representative of UNDP for the information and desired that:

- all Centres should follow the UNEP concept of coastal zone;
- IOI should get in touch with OCA/PAC of UNEP so that IOIs courses could be integrated into various regional seas programmes of UNEP and thus qualify for funding from the second tranche of GEF.

The Committee noted that IOI Madras had gone about developing its syllabi in a systematic way and suggested the programmes next year should be of 7-weeks and 6 1/2 weeks respectively instead of 7- and 8- weeks. The Committee also noted that all the elements of the core syllabus were included in the three programmes.

Subject to the above the Committee approved the proposals of IOI Madras.

IOI South Pacific

The Director IOI South Pacific made an oral presentation and requested approval for the following courses:

SI.No.	Name of course	Duration	When to be held
1	Ports and shipping	5 weeks	June-July, 1995
2	Resource & Environmental Economics	5 weeks	July-August, 1995
3	Coastal Fisheries Management and Development	5 weeks	October-November, 1995
4	Corraline Workshop	1 week	December, 1995
5	Leaders Seminar, Port Moresby, Papua New Guinea	2 days	September, 1995
6	Alumni Refresher Course	1 week	August, 1995

Of the above courses, the course on Ports & Shipping and the Coralline Workshop would not be classified as IOI Courses as they were being funded by other sources (AIDAB and the Government of France). The Committee had no objection to the above programmes being run by IOI South Pacific and raising funds for the same. The Committee requested IOI South Pacific to circulate the course syllabus to all IOI Centres as the other Centres might like to pick up some units/modules of these courses/workshops.

Director IOI South Pacific stated that he had not circulated the course syllabi for the other two courses as they had been circulated at Barbados. The Committee approved the two courses subject to the 2-week basic core reader being included in the syllabi or Director IOI South Pacific approaching the Committee for relaxation in case he felt that was necessary. The syllabi needed to be circulated to all IOI Centres for information.

IOI Senegal

The Committee had before it the syllabus of a 2-week leadership workshop and a 8-week course on planning and management of coastal zones. It was suggested to IOI Senegal by the Committee to collaborate with the UNEP Regional Seas Programme for W. Africa in running its training programmes. The Committee noted that IOI Senegal wanted to send 3 persons to the TRAIN-SEACOAST

Seminar in January 1995 and that UNDP would pay for 1 person, IOI HQ for another and IOI Senegal for the third.

After discussion, the Committee approved the 2-week leadership workshop. The Committee was of the view that the results of the 2-week workshop should be made available to it at its next meeting when it would consider the 8-week course.

#### IOI Costa Rica

The representatives of IOI Costa Rica wanted some more time to consider the impact of the decision taken by the Committee on the 2-week core reader. They wanted to hold a Seminar where they wanted the representatives of IOI HQ to be present so that a bigger matrix of resource persons could be established for conducting the multidisciplinary courses as required by IOI. In the meantime they wanted the Committee to approve the 2-day leaders workshop. The Committee noted that the 2-day leadership workshop would constitute a good beginning for IOI Costa Rica and approved it.

#### **Item 4: Report of course modules prepared - Madras and South Pacific**

#### IOI Madras

The Committee had before it the following documents:

- Activity Report of the Course Development Group
- Training Course Material, Vol. I
- Training Course Material, Vol. II
- Training Course Material, Vol. III

Introducing the documents, Director IOI Madras said that through the interactions in the Course Development Group and the preparation of lecture and module abstracts IOI Madras had been able to integrate the different lectures thereby reducing overlap. Through feedbacks from the participants and faculty they had also been able to locate deficiencies in the course structure, one such omission in earlier programmes being the management of ecosystems. The Training Course Material represented areas where IOI Madras had strengths and excluded lecture materials where there were lecturers from outside IIT as not much pressure could be put on non-IIT lecturers. For materials not within the strengths of IIT, IOI Madras would depend on other IOI Centres. IOI Madras would welcome comments on the subject matter from other IOI Centres and then would revise the training materials.

The Committee noted that:

- the Course Development Group idea was good and could be considered for adoption by other Centres;
- IOI Madras had been able to eliminate overlap and duplication;
- EEZ management was not included in IOI Madras courses and for this they could integrate material from IOI Halifax and others;
- the training materials of IOI Madras were not in TRAIN-X format.

The Committee requested all Centres to give their comments to IOI Madras, with copy to headquarters, so that the matter could be considered in the next meeting of the Committee.

#### IOI South Pacific

The Committee had before it the following documents:

- Management and Development of Coastal Fisheries in the Tropics - Module 1: Coastal Fisheries Environment of the Tropics - the Students Manual;
- Coastal Fisheries Environment of the Tropics - Instructor's Manual;
- Management and Development of Coastal Fisheries - Course Manual;

Introducing the subject, Director IOI South Pacific said that all the material was on compact discs and was prepared systematically based on the TRAIN-X methodology. It included matters relatable to fisheries, management strategies and sustainable development. Transparencies were also available.

The Committee noted that:

- the material was prepared in accordance with the TRAIN-X format.
- it included both the students manual and the instructors manual.

Since time was too short to consider the materials, the Committee requested all Centres to send their comments to IOI South Pacific, with copy to headquarters, so that it could be discussed in its next meeting.

#### **Item 5: Consideration of Course Modules Proposed to be Developed: Costa Rica and Senegal**

IOI Costa Rica

The representatives of IOI Costa Rica stated that they would put up their proposals in the next meeting.

IOI Senegal

Director IOI Senegal stated that he wanted to adapt the course materials produced by IOI Madras and IOI Senegal in French. This was approved by the Committee.

The Committee concluded its deliberations with a vote of thanks to the Chair.

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Dr. Krishan Saigal  
Executive Director

WEEK 1:

<b>MONDAY</b>	
Session 1	Opening Ceremony
Session 2	Introduction: CZM, EEZ, sustainable development; the concepts, problems, opportunities and need.
Session 3	The systems approach to CZM and EEZ management: the interactions of the ecosystem, the societal system and the management and governance systems.
Session 4	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. background; main features; interests of the developing countries, including landlocked states and small island states;</li> </ul>
<b>TUESDAY</b>	
Session 1	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. developments in the Law of the Sea: 1983-94, including the outcome of the UN Secretary-General's informal consultations concerning seabed mining, 1990-94;</li> <li>. follow-up of the entry into force of the Convention on 16 November 1994: problems and prospects.</li> </ul>
Session 2	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. impact on UNCLOS: sustainable ocean management; Chapter 17 of Agenda 21, and its seven programmes of action; monitoring and review.</li> <li>. developments in, and outcome of, international conferences on fisheries (straddling fish stocks, highly migratory fish stocks), small island developing states (SIDS), coastal zone management, and marine environment protection (1993-95);</li> </ul>
Session 3	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. integration of UN system's implementation of Agenda 21 programmes;</li> <li>. regional cooperation and participative approach: role of women, youth, indigenous people, local communities, and NGOs.</li> </ul>



Session 4	The changing international system: economically, politically and technologically.
<b>WEDNESDAY</b>	
Session 1	The new industrial revolution and high technology and its impacts on management, economics and society.
Session 2	The new economics including accounting methods for integrating GNP and ecology.
Session 3 & 4	Introduction to oceanography: <ul style="list-style-type: none"> <li>. fundamental importance of scientific research for all sea uses; need to strengthen national capacity;</li> <li>. oceanography (physical, chemical, geological, biological);</li> <li>. coastal oceanography and coastal processes (erosion and sediment transportation);</li> </ul>
<b>THURSDAY</b>	
Session 1	Coastal ecosystems: structure and function.
Session 2	Ecological principles: food chains and webs, dynamic processes and linkages between ecosystems (land-sea continuum); critical ecosystems and their vulnerability.
Session 3	Coastal resources: distribution and abundance; nonliving resources - land, water, energy and mineral.
Session 4	Coastal resources: living resources - fisheries, coral, mangrove, wildlife; resource assessment.
<b>FRIDAY</b>	
Session 1	Coastal activities: tourism, fisheries, aquaculture, transport, industry, forestry, mining.
Sessions 2, 3 and 4	Group discussions and/or simulation exercises. Topics: importance of CZM and EEZM for developing countries, problems and opportunities, integration of environment and development.

**WEEK 2:**

<b>MONDAY</b>	
Session 1	Framework for decision-making for CZM and EEZM: input-output format.
Session 2	Remote sensing: aerial photo interpretation, satellite imagery, software and hardware, applications to CZM/EEZM.
Session 3	Principles of GIS: data structures, collection and standardisation, analysis and modelling, software and hardware, application to CZM/EEZM.
Session 4	Technology assessment: socio-cultural and environmental impacts, technology diffusion and economic impacts of high technology.
<b>TUESDAY</b>	
Session 1	Investment appraisal systems: private and public sector differences.
Session 2	Coastal pollution assessment: types & sources of pollution and their impact on the coastal ecosystem.
Session 3	Policies and Planning: their essential ingredients and interactions; how to arrive at the optimum policy mix.
Session 4	Legislative framework and institutional structures for integrated CZM and EEZM: national, regional global.
<b>WEDNESDAY</b>	
Session 1	Programmes and technologies: management of ports and shipping.
Session 2	Wave, solar and wind energies.
Session 3	Fisheries including aquaculture and genetic engineering.
Session 4	Robotics and mining systems. Risk management.
<b>THURSDAY</b>	
Session 1	Organisational structures for integrated CZM and EEZM: national, regional global.
Session 2	Regulatory measures: zoning and land use systems.
Session 3	Permits and regulatory systems; monitoring and control systems.

Session 4	Legislative requirements: jurisdictional and environment.
<b>FRIDAY</b>	
Session 1 and 2	Case studies to be developed by participants.
Sessions 3 and 4	Group discussions: generic model for developing countries for effective CZM and EEZM.

**Note:** All sessions are of 1 and a half hours duration each.

**TRAINING COURSE ON COASTAL ZONE MANAGEMENT (CZM)  
AS A SUSTAINABLE PROCESS  
- for Administrators in Coastal States in India  
03rd April to 28th April 1995 - (4 WEEKS)**

**COURSE SYLLABUS**

UNIT	TITLE AND SPEAKER
<b>THEME 0: INTRODUCTION</b>	
0.1	Introduction to the course - an overview of the training programme, expected outputs.
0.2, 0.3	Group discussions on different aspects concerning Coastal Zone Management (CZM).
<b>THEME TECHNOLOGICAL CHANGE, SOCIO-ECONOMIC DEVELOPMENT, INTERNATIONAL NEGOTIATIONS AND THE LAW OF THE SEA CONVENTION</b>	
1.1	Impact of the New Industrial Revolution on organizations and management systems.
1.2	The changing concept of development.
1.3, 1.4	UNCLOS, UNCLOS III, UNCED, Rio conference, Chapter 17 of Agenda 21.
1.5, 1.6	Protection of marine environment and marine scientific research.
1.7, 1.8	Legislation for and regulation of coastal zone activities in India.
<b>THEME 2: THE LAND-SEA-AIR INTERFACE. OCEANOGRAPHY, COASTAL ZONE, and COASTAL ECOSYSTEMS</b>	
2.1	Physical Oceanography. The sea-air interface. Dynamic elements and their measurement.
2.2	Chemical Oceanography. Chemistry of sea-water and oceanic materials.
2.3	Geological Oceanography. Coastal geomorphology, sediment formation and its characteristics.

- 2.4 Introduction to coastal zone and nearshore phenomena. Erosion, accretion, storm surges and sea level rise.
- 2.5, 2.6 Coastal ecosystems and biodiversity. Species interaction and their impact on the coastal zone.
- 2.7 Coastal aquifers and impacts due to developmental activities.
- 2.8 Natural disasters and mitigation measures in the coastal zone.
- 2.9 Coastal pollution - chemistry, measurement, monitoring and control of pollutants.
- 2.10 Remote Sensing applications to CZM

### **THEME 3: MANAGERIAL PROCESS, STRUCTURE AND STRATEGY: APPLICATION TO COASTAL ZONE ACTIVITIES**

- 3.1 Managerial process. Elements of decision making.
- 3.2 Strategy formulation. Evaluation and assembly of strategy elements.
- 3.3 Financial analysis and investment decision. Techniques for project selection
- 3.4 Concepts of the systems approach - systems structure and behaviour.
- 3.5 Human resources management. Employment, development, appraisal and human relations.
- 3.6 Management of change. Resistance, barriers, and planning the change process.

### **THEME 4: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF LIVING RESOURCES**

- 4.1 An overview of living resources of the oceans.
- 4.2 Fish resources. Stock assessment methods and models, fisheries technology, management strategies, marketing and distribution.
- 4.3, 4.4 Coastal biomass resources. Mangrove swamps, coral reefs, and sea grasses. Protection, conservation and development.
- 4.5 Beneficial and harmful biological elements in the coastal zone and their management.

- 4.6 Development of mariculture & aquaculture industries.

**THEME 5: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF NON-LIVING RESOURCES**

- 5.1 An overview of non-living resources of the ocean.
- 5.2 Nearshore minerals - types, location, formation and exploration.
- 5.3 Exploration and exploitation of offshore hydrocarbons.
- 5.4, Ocean Energy: Potential sources, harnessing technologies - An overview.
- 5.5, Case study: 150 Kw wave energy pilot plant off, Thiruvananthapuram.

**THEME 6: COASTAL ZONE INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT.**

- 6.1 Planning, development and management of ports and harbours. Coastal structures. Port and harbour, intake and marine outfall structures
- 6.2 Case study of a fisheries harbour
- 6.3 Installation and operation of power plants in the coastal zone.
- 6.4 Case study of satellite harbours
- 6.5 Transport networks in the coastal zone. Highways, railways and inland waterways. Potential, development and management of coastal tourism. Impacts on the coastal zone.

**THEME 7: SUSTAINABLE DEVELOPMENT OF THE COASTAL ZONE**

- 7.1 Economics of sustainable development - concepts, standards and indicators. Industrialization and its impact on the coastal zone.
- 7.2 Land use zoning in the coastal region. Community development activities.
- 7.3 Case study of spirulina
- 7.4 Systems dynamics and computer simulation of coastal zone activities.

## TRAINING COURSE ON

### "COASTAL ZONE MANAGEMENT (CZM) AS A SUSTAINABLE PROCESS"

12th June to 28th July 1995 - (7 WEEKS)

#### COURSE SYLLABUS

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UNIT	TITLE AND SPEAKER
<b>THEME 0: INTRODUCTION</b>	
0.1	Introduction to the course - an overview of the training programme, expected outputs.
0.2, 0.3	Group discussions on different aspects concerning Coastal Zone Management (CZM).
0.4, 0.5	Spoken communication in interdisciplinary and multicultural groups.
<b>THEME 1: TECHNOLOGICAL CHANGE, SOCIO-ECONOMIC DEVELOPMENT, INTERNATIONAL NEGOTIATIONS AND THE LAW OF THE SEA CONVENTION</b>	
1.1	Impact of the New Industrial Revolution on organizations and management systems.
1.2	The changing concept of development.
1.3, 1.4 1.5, 1.6	UNCLOS, UNCLOS III, UNCED, Rio conference. Chapter 17 of Agenda 21.
1.7, 1.8	Legislation for and regulation of coastal zone. ESCAP guidelines. National policies and policy framework of India.

**THEME 2: THE OCEANS: OCEANOGRAPHY, THE SEA-AIR INTERFACE WITH EMPHASIS ON COASTAL ZONE**

- 2A.1, 2A.2 An overview of physical and dynamic elements of oceanography - impact of advancing technology on oceanographic research
- 2A.3 Behaviour of waves near coasts, wave induced currents, sediment transport and their assessment
- 2A.4 Natural phenomena of coastal erosion and accretion. Measures to counteract their effects, case studies
- 2A.5 Marine instrumentation and data collection for various oceanographic parameters
- 2A.6 The ocean-air interface. Meteorology and its importance for the countries of the Indian Ocean Region
- 2A.7 Introduction to earth science. Profile of the seafloor. Origin of ocean basin and sea water
- 2A.8 Geological Oceanography - morphological variations of coastal zone, continental margin and their correlation
- 2A.9 Marine geological processes - formation, types and occurrences of sediments
- 2A.10 Chemical oceanography, chemistry of seawater and ocean floor material

**THEME 2B: COASTAL ECOLOGY, POLLUTION AND ENVIRONMENTAL IMPACT ASSESSMENT**

- 2B.1 Coastal ecology and coastal ecosystems
- 2B.2 Species interaction with the coasts and their impact on coastal zone
- 2B.3 Coastal pollution - origin, nature and effects of pollutants, oil pollution and combating techniques
- 2B.4 Coastal pollution measurement and control of pollutants with a case study, waste water management with focus on coastal zone



- 2B.5 Environmental impact assessment with reference to coastal zone management
- 2B.6 Development of industries on the coast and their effects on coastal zone - a case study
- 2B.7 Effects of storms and cyclones on coastal zone. Disaster mitigation measures for cyclone/storm prone coastal zone
- 2B.9 Application of remote sensing techniques for coastal zone management
- 2B.10 Importance of data bases and geographic information system (GIS) in planning of coastal zone activities
- 2B.11 Coastal aquifers and the influence of developmental activities on this important resource
- 2B.12 Estuaries and creeks - their importance to coastal zone management

**THEME 3: MANAGERIAL PROCESS, STRUCTURE AND STRATEGY: APPLICATION TO COASTAL ZONE ACTIVITIES**

- 3.1 Managerial process. Elements of decision making.
- 3.2 Strategy formulation. Evaluation and assembly of strategy elements.
- 3.3 Financial analysis and investment decision. Techniques for project selection.
- 3.4 Concepts of the systems approach - systems structure and behaviour.
- 3.5, 3.6 Human resources management. Employment, development, appraisal and human relations.
- 3.7 Management of change. Resistance, barriers, and planning the change process.
- 3.8, 3.9 Integrated Coastal Zone Management (ICZM) - case studies.

**THEME 4: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF LIVING RESOURCES**

- 4.1 An overview of living resources of the oceans.
- 4.2 Fish resources. Stock assessment methods and models, fisheries technology, management strategies, marketing and distribution.
- 4.3 Coastal biomass resources. Mangrove swamps, coral reefs, and sea grasses. Protection, conservation and development.
- 4.4 Beneficial and harmful biological elements in the coastal zone and their management.
- 4.5, 4.6 Aquaculture and mariculture industries. Feasibility, planning, development, and commercialization. Social and environmental issues.

**THEME 5: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF NON-LIVING RESOURCES**

- 5.1 An overview of non-living resources of the ocean.
- 5.2 Nearshore minerals. Types, location, and formation. Exploration and mining. Impact on coastal equilibrium.
- 5.3 Exploration and exploitation of offshore hydrocarbons.
- 5.4 Ocean Energy. Potential sources, harnessing technologies - An overview.
- 5.5, 5.6 Case study: 150 Kw wave energy pilot plant off. Thiruvananthapuram.
- 5.7 Marine chemical and pharmaceutical industries.

**THEME 6: COASTAL ZONE INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT.**

- 6.1, 6.2 Planning, development and management of ports and harbours. Fisheries  
6.3, 6.4 and satellite harbours. Computer simulation of port operations.
- 6.5 Coastal structures in ports and harbours. Intake and marine outfall structures.
- 6.6 Installation and operation of power plants in the coastal zone.

- 6.7 Transport networks in the coastal zone. Highways, railways and inland waterways.
- 6.8 Potential, development and management of coastal tourism. Social, cultural and environmental impacts on the coastal zone.
- 6.9 Security considerations and operations in the coastal zone.

**THEME 7: SUSTAINABLE DEVELOPMENT OF THE COASTAL ZONE**

- 7.1, 7.2 Economics of sustainable development - concepts, standards and indicators.
- 7.3 Industrialization and its impact on the coastal zone.
- 7.4 Urbanization and hinterland development. Land use zoning in the coastal region.
- 7.5 Community development activities in the coastal zone.
- 7.6 Systems dynamics and computer simulation of coastal zone activities.

TRAINING COURSE ON

"COASTAL ZONE MANAGEMENT (CZM) AS A SUSTAINABLE PROCESS"

16th october - 8th December 1995 - (8 WEEKS)

COURSE SYLLABUS

UNIT	TITLE AND SPEAKER
<b>THEME 0:</b>	<b>INTRODUCTION</b>
0.1	Introduction to the course - an overview of the training programme. expected outputs.
0.2, 0.3	Group discussions on different aspects concerning Coastal Zone Management (CZM).
0.4, 0.5	Spoken communication in interdisciplinary and multicultural groups.
<b>THEME</b>	<b>1: TECHNOLOGICAL CHANGE, SOCIO-ECONOMIC DEVELOPMENT, INTERNATIONAL NEGOTIATIONS AND THE LAW OF THE SEA CONVENTION</b>
1.1	Impact of the New Industrial Revolution on organizations and management systems.
1.2	The changing concept of development.
1.3, 1.4	UNCLOS, UNCLOS III, UNCED, Rio conference, Chapter 17 of
1.5, 1.6	Agenda 21.
1.7, 1.8	Legislation for and regulation of coastal zone. ESCAP guidelines. National policies and policy framework of India.

**THEME 2A: THE OCEANS: OCEANOGRAPHY, THE SEA-AIR INTERFACE WITH EMPHASIS ON COASTAL ZONE**

- 2A.1, 2A.2 An overview of physical and dynamic elements of oceanography - impact of advancing technology on oceanographic research
- 2A.3 Behaviour of waves near coasts, wave induced currents, sediment transport and their assessment
- 2A.4, 2A.5 Natural phenomena of coastal erosion and accretion. Measures to counteract their effects, case studies
- 2A.6 Marine instrumentation and data collection for various oceanographic parameters
- 2A.7, 2A.8 The ocean-air interface. Meteorology and its importance for the countries of the Indian Ocean Region
- 2A.9, 2A.10 Introduction to earth science. Profile of the seafloor. Origin of ocean basin and sea water
- 2A.11, 2A.12 Geological Oceanography - morphological variations of coastal zone, continental margin and their correlation
- 2A.13 Marine geological processes - formation, types and occurrences of sediments
- 2A.14 Chemical oceanography, chemistry of seawater and ocean floor material

**THEME 2B: COASTAL ECOLOGY, POLLUTION AND ENVIRONMENTAL IMPACT ASSESSMENT**

- 2B.1 Coastal ecology and coastal ecosystems
- 2B.2 Species interaction with the coasts and their impact on coastal zone
- 2B.3 Coastal pollution - origin, nature and effects of pollutants, oil pollution and combating techniques
- 2B.4 Coastal pollution measurement and control of pollutants with a case study, waste water management with focus on coastal zone

- 2B.5 Environmental impact assessment with reference to coastal zone management
- 2B.6 Development of industries on the coast and their effects on coastal zone - a case study
- 2B.7 Effects of storms and cyclones on coastal zone. Disaster mitigation measures for cyclone/storm prone coastal zone
- 2B.9. 2B.10 Application of remote sensing techniques for coastal zone management
- 2B.11. 2B.12 Importance of data bases and geographic information system (GIS) in planning of coastal zone activities
- 2B.13. 2B.14 Coastal aquifers and the influence of developmental activities on this important resource
- 2B.15. 2B.16 Estuaries and creeks - their importance to coastal zone management

**THEME 3: MANAGERIAL PROCESS, STRUCTURE AND STRATEGY: APPLICATION TO COASTAL ZONE ACTIVITIES**

- 3.1 Managerial process. Elements of decision making.
- 3.2 Strategy formulation. Evaluation and assembly of strategy elements.
- 3.3 Financial analysis and investment decision. Techniques for project selection.
- 3.4 Concepts of the systems approach - systems structure and behaviour.
- 3.5. 3.6 Human resources management. Employment, development, appraisal and human relations.
- 3.7 Management of change. Resistance, barriers, and planning the change process.
- 3.8. 3.9 Integrated Coastal Zone Management (ICZM) - case studies.

**THEME 4: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF LIVING RESOURCES**

- 4.1 An overview of living resources of the oceans.
- 4.2, 4.3 Fish resources. Stock assessment methods and models. fisheries technology, management strategies, marketing and distribution.
- 4.4 Coastal biomass resources. Mangrove swamps, coral reefs, and sea grasses. Protection, conservation and development.
- 4.5, 4.6 Beneficial and harmful biological elements in the coastal zone and their management.
- 4.7, 4.8 Aquaculture and mariculture industries. Feasibility, planning, development, and commercialization. Social and environmental issues.

**THEME 5: MANAGEMENT OF COASTAL ZONE ACTIVITIES - UTILIZATION OF NON-LIVING RESOURCES**

- 5.1 An overview of non-living resources of the ocean.
- 5.2 Nearshore minerals. Types, location, and formation. Exploration and mining. Impact on coastal equilibrium.
- 5.3 Exploration and exploitation of offshore hydrocarbons.
- 5.4 Ocean Energy. Potential sources, harnessing technologies - An overview
- 5.5, 5.6 Case study: 150 Kw wave energy pilot plant off. Thiruvananthapuram.
- 5.7 Marine chemical and pharmaceutical industries.

**THEME 6: COASTAL ZONE INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT.**

- 6.1, 6.2 Planning, development and management of ports and harbours. Fisheries  
6.3, 6.4 and satellite harbours. Computer simulation of port operations.
- 6.5 Coastal structures in ports and harbours. Intake and marine outfall structures.
- 6.6 Installation and operation of power plants in the coastal zone.

- 6.7 Transport networks in the coastal zone. Highways, railways and inland waterways.
- 6.8 Potential, development and management of coastal tourism. Social, cultural and environmental impacts on the coastal zone.
- 6.9 Security considerations and operations in the coastal zone.

## **THEME 7: SUSTAINABLE DEVELOPMENT OF THE COASTAL ZONE**

- 7.1, 7.2 Economics of sustainable development - concepts, standards and indicators.
- 7.3 Industrialization and its impact on the coastal zone.
- 7.4 Urbanization and hinterland development. Land use zoning in the coastal region.
- 7.5 Community development activities in the coastal zone.
- 7.6 Systems dynamics and computer simulation of coastal zone activities.



# INTERNATIONAL OCEAN INSTITUTE OPERATIONAL CENTRE, INDIA

## 5-Day Course for Policy Makers on ENVIRONMENTAL POLICY AND MANAGEMENT

I I T MADRAS

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### COURSE SYLLABUS

#### DAY 1 - 16 January 1995

- 09.00 to 10.00: Inauguration and Introductions.
- 10.30 to 12.30: Global technological, economic, and political metamorphosis: The increasing international concern for and the crucial nature of environmental issues:  
Stockholm (1972), UNCLOS III (1973 - 82), Brundtland Commission (1987), UNCED (1992) - Historical developments and their linkages.
- 14.00 to 15.30: The Law of the Sea Convention; the Rio Declaration on environment and development; ecosystems perspective, global 'commons' - policy implications in the context of global environmental issues.
- 15.45 to 17.15: The systems approach: problem identification and definition; systems structure and behaviour; intent structures; influence models; cross-impact analysis.

#### DAY 2 - 17 January 1995

- 09.00 to 10.30: National environmental issues and the coastal zone: deforestation; pollution of land, water and air; biodiversity; sustainability of renewable and non-renewable resource needs: Coastal Zone Management.
- 10.45 to 12.15: National environmental issues: (contd.)
- 13.45 to 15.15: The changing concept of development: science and technology policies for development; sustainability i.e. equity, economic efficiency, ecosystems integrity; alternative development models; and values.
- 15.30 to 17.00: Down to earth issues - case study 1.

**DAY 3 - 18 January 1995**

- 09.00 to 10.30: Policy analysis: the multivariate nature of ecosystems, the need for multi-level analysis and planning, coordination in both space and time, need for interagency coordination.
- 10.45 to 12.15: Databases and information systems for policy planning: demographic, economic, geographical, and natural scientific parameters.
- 13.45 to 15.15: The increasing role of women, youth and NGOs in sustainable development: case of coastal fisheries.
- 15.30 to 17.00: Down to earth issues - case study 1 (contd.)

**DAY 4 - 19 January 1995**

- 09.00 to 10.30: Harmonising of different policies in the coastal zone: tools and methods of arriving at a correct policy-mix.
- 10.45 to 12.15: The new economics of the environment: sustainability, renewable resources, and the service economy.
- 13.45 to 15.15: Environment and the law: legislation, litigation, conflict resolution and disputes settlement (national and international aspects).
- 15.30 to 17.00: Down to earth issues - case study 2.

**DAY 5 - 20 January 1995**

- 09.00 to 10.30: Down to earth issues - case study 2 (contd.)
- 10.45 to 12.15: Drawing up an environment policy and management framework integrating the legal, scientific, technological, financial, economic, and social parameters in selected coastal zones.
- 13.45 to 15.15: Presentations of group reports and discussions.
- 15.30 to 17.00: Valedictory.

\* \* \* \* \*

ADVANCED COURSE  
ON  
COASTAL ZONE  
MANAGEMENT

*12 - 16 SEPTEMBER 1994*

**Organised By**  
Secretariat of the National Maritime Council  
National Security Council  
Malaysia

**With The Cooperation Of**  
International Ocean Institute,  
Operational Centre Madras  
**And**  
Institute of Diplomacy & Foreign Relations  
Malaysia

# PROGRAMME

12 SEPTEMBER 1994

(Monday)

- |             |   |  |
|-------------|---|--|
| 0815 - 0845 | - | Registration   |
| 0845 - 0930 | - | Welcoming Address by<br>Director General of IDFR   |
|             | - | Remarks by Director<br>International Ocean Institute<br>Operational Centre Madras              |
|             | - | Opening Remarks by<br>Secretary, National Security<br>Council, Prime Minister 's<br>Department |
| 0930 - 1000 | - | Coffee Break   |
| 1000 - 1010 | - | Group Photography  |
| 1010 - 1020 | - | Administrative Briefing  |
| 1020 - 1245 | - | Law of the Sea<br>(Dr. S.P. Jagota -<br>International Ocean<br>Institute, Halifax )            |
| 1245 - 1400 | - | Lunch  |
| 1400 - 1630 | - | Law of the Sea<br>(Discussion)   |
| 1630 - 1645 | - | Tea  |

13 SEPTEMBER 1994*(Tuesday)*

- 0815 - 1015 - Coastal Zone Management  
(Prof. V.S. Raju -  
International Ocean  
Institute, Madras)
- 1015 - 1045 - Coffee Break
- 1045 - 1245 - Coastal Zone Management  
(Discussion)
- 1245 - 1400 - Lunch
- 1400 - 1630 - Development of Mariculture  
and Aquaculture Industries  
(Prof. Dr. Mohd. Zaki bin  
Mohd. Said - Universiti  
Pertanian Malaysia)
- 1630 - 1645 - Tea

14 SEPTEMBER 1994*(Wednesday)*

- 0815 - 1015 - Coastal Zone Management  
in Malaysia  
(Ir. Dr. Hiew Kim Loi - Dept.  
of Drainage & Irrigation,  
Malaysia)
- 1015 - 1045 - Coffee Break
- 1045 - 1245 - Coastal Zone Management  
(Discussion)
- 1245 - 1400 - Lunch
- 1400 - 1630 - Coastal Pollution :  
Management and Control  
(Prof. C.A. Sastry - Universiti  
Malaya)
- 1630 - 1645 - Tea

15 SEPTEMBER 1994

(Thursday)

- 0815 - 1015 - Ocean Energy : Potential Resources & Technologies - An Overview  
(Prof. V.S. Raju)
- 1015 - 1045 - Coffee Break
- 1045 - 1245 - Ocean Energy (Discussion)
- 1245 - 1400 - Lunch
- 1400 - 1630 - Panel Discussion :  
Statement of the World Coastal Conference 1993 :  
Implementation of the Recommendations  
Panelists :  
Prof. V.S. Raju  
~~Dr. Hiew Kim Looi~~  
Prof. C.A. Sastry
- 1630 - 1645 - Tea

16 SEPTEMBER 1994

(Friday)

- 0815 - 1015 - Oceanography : Nearshore Phenomenon  
(Prof. N.V.C. Swamy - Indian Institute of Technology, Madras)
- 1015 - 1030 - Course Evaluation
- 1030 - 1100 - Coffee Break
- 1100 - 1200 - Summing-up  
Course Closing &  
Certificate Presentation
- 1200 - 1245 - Lunch

INTERNATIONAL OCEAN INSTITUTE

Costa Rica Operational Centre at the  
Universidad Nacional, Heredia, Costa Rica

WORK PLAN FOR IOI COSTA RICA

January 1995 to December 1995

Contents

	<b>Page(s)</b>
<b>Workplan</b>	<b>156-161</b>
<b>Budget Notes</b>	<b>162</b>
Attachment 1 - Cash Flow Projections	163
Attachment 2 - Details of Scholarships for Training Courses	164
Attachment 3 - Training Outputs	165
Attachment 4 - Physical Scheduling	166



Workplan

The details of the Work Plan of IOI Costa Rica are as below.

Administrative Support

1.1.2.b. The operational centre in Latin America will be established in Costa Rica with the UNA providing the services of a Director, core academic staff, secretary, office etc. It is proposed to provide the Latin American Centre with a bilingual assistant to assist the Director in day to day work which would be regional and international in nature.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Director

Information Dissemination

1.1.3.a For implementation of the IOI institutional identity program and as per regional programs developed by the Costa Rica operational centre, appropriate brochures will be brought out in 1995.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Continuous
<b>Responsible Party</b>	Centre Director

Programme Development

1.1.4. Development of non-UNDP financial support for operational centres is very necessary. This would entail travel both regionally and globally to "present" the IOI so as to raise funds. UNA is already receiving funds from the Governments of Germany, the Netherlands, Denmark and Norway as also the Fulbright Foundation. This needs to be extended to the IOI Centre's programmes.

<b>Starting Date</b>	1 January, 1995
<b>Duration</b>	Ongoing
<b>Responsible Party</b>	Centre Director

**Output 2.1 - Current, Revised and New Programmes.**

Development of Research Programme

2.1.1.a. Policy research is very necessary if the IOI Latin America regional centre is to be relevant to the perceived needs of the region. A survey of research possibilities has to be made and the research has to be linked with

ongoing regional research. IOI Costa Rica should discuss this matter with other institutions in the region and come up with detailed proposals by April 1995.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Executing Party</b>	Centre Director.

### Course Development

2.1.2.a UNA would develop training material in Spanish in the following areas: contamination; environmental economics; coastal processes; air-sea interaction; social impact; conservation and sustainability; remote sensing; estuarine and coastal dynamics; international law, relations and diplomacy; mariculture; fisheries. It is also possible to produce local training material on land use; water management and tourism and education. Training material in Spanish will be developed by UNA, other public or private institutions or NGOs, by assigning academic charge, using the already existing agreements or through a specific contract included in the training responsibilities.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Centre Director.

### Training of Trainers

2.1.2.b The training of trainers scheme would be used to orient subject matter/sectoral specialists in how to lecture to a multi-cultural, multi-disciplinary group by sending them to IOI courses run elsewhere as well as to TRAIN SEA COAST training programmes.

During 1995 two trainers will attend the TRAIN-SEACOAST Workshop (one to be funded by UNDP/DGIP) and one will attend an IOI course.

<b>Starting Date</b>	1 January, 1995
<b>Termination</b>	31 December, 1995
<b>Executing Party</b>	Centre Director.

### Courses

2.1.3.a During 1995 regular courses on ocean law and policy, coastal management and satellite imagery applications in Central America and the Caribbean, and principles of ocean management will be conducted.

The details are as given below.

Name of course	Duration	No. of Participants	No. of courses to be given
Ocean law & policy	2 weeks	30	1
Satellite imagery applications	3 days	50	1
Ocean management	2 weeks	20	1

**Starting Date** 1 January, 1995  
**Completion** 31 December, 1995  
**Responsible Party** Executive Director  
**Executing Party** Centre Director.

### Workshops for Decision Makers

2.1.3.c. Sensitising of leaders and decision makers is a necessary pre-requisite for the success of the training efforts aimed at mid-level public servants. Two 2 day workshops to this end will be organised in March and November 1995 for decision makers based on courses already developed by the IOI network.

**Starting Date** 1 January, 1995  
**Completion** 31 December, 1995  
**Responsible Party** Executive Director  
**Executing Party** Centre Director

### Contribution-in-kind

During 1995 the Costa Rica operational centre will provide the necessary physical and managerial infrastructure for the centres (along with the associated staff) as its contributions in-kind. These would include the following:

Director  
 Co-ordinator  
 Assistant  
 Office, electricity & water  
 Cost of communications  
 Transportation  
 Faculty of science auditorium  
 Presentation media.

### Budget

The Budget for IOI Costa Rica is estimated at US\$ 163,000 during 1995. The detailed budget is at Attachment 1, details of courses at Attachment 2, the expected output by

participant weeks is at Attachment 3 and the physical scheduling is at Attachment 4.

**Outputs**

As can be seen from Attachment 3, the output of IOI Costa Rica would be 145 trainee weeks in 1995.

IOI Costa Rica would also have adapted and translated some materials and made them available to both the IOI and TRAIN-SEACOAST networks.

Budget Notes

General

The column 'reference' on each table is keyed to the text of the work plan.

'Description' is a brief key to the activity itself.

'Total' is the amount of the budget line for the period of this project.

1. All amounts are in US dollars and no adjustment for currency fluctuations anticipated.
  2. Air travel calculated on the basis of full-fare economy, most direct routing.
  3. Other travel expenses estimated based on DSA at UNDP rates.
- 
- 1.1.2.b. Cost of 1 administrative assistant for Latin America at \$ 13,000.
  - 1.1.3. Information dissemination. Costs associated with hiring relevant external expertise services and products such as printing and posting, to develop and raise profile of the IOI.
  - 1.1.4. Programme Development. Represents travel costs of the Honorary Chairman/Executive Director to finalise the workplan.
- 
- 2.1.1. Development of Research Programme. Travel costs of regional directors and headquarters personnel.
  - 2.1.2.a. Costs of course development in the Costa Rica regional centre. It is provisional and subject to adjustment on the basis of the work plan finalised and approved by UNDP/OPS.
  - 2.1.2.b. Travel costs of trainers.
  - 2.1.3. Scholarships at an average of \$ 1000 per trainee week.

IOI COSTA RICA OPERATIONAL CENTRE  
Cash Flow Projections (UNDP funds), 1994-1997

Amounts in US \$'000

Table 1

CODE	TITLE	1995
1.1.2b	Administrative Support	13.0
1.1.3a	Information Dissemination:-Brochures	3.0
1.1.4b	Programme Development (Travel): - Director	2.5
2.1.1a	Development of Research Programme	2.5
2.1.2a	Curriculum Development	40.0
2.1.2b	Training of Trainers	13.0
2.1.3a	Courses	73.0
2.1.3c	Decision makers	16.0
	<b>Total</b>	<b>163.0</b>

**Details of Scholarships for Training Courses  
(Budget Item: 2.1.3a and 2.1.3c)\***

Amounts in US \$'000

Table 2

**2.1.3a**

<b>PROJECT</b>	<b>1995</b>
Sea law & ocean policy (2 weeks)	37.0
Satellite imagery (0.5 week)	11.0
Ocean management (2 weeks)	25.0
<b>TOTAL</b>	<b>73.0</b>

\* See Project Cash Flow Chart

**2.1.3c**

<b>PROJECT</b>	<b>1995</b>
Decision makers (0.5 week)	16.0

IOI COSTA RICA OPERATIONAL CENTRE

Number of Participants and Participant Weeks  
for Courses, Workshops and Seminars  
(Budget Items: 2.1.3 a-c)\*

Table 3

1995		
PROJECT	Parti- cipants	Parti- cipant Weeks
Decision makers workshop (0.5 week)	40	20
Sea law & ocean policy (2 weeks)	30	60
Satellite imagery (0.5 week)	50	25
Ocean management (2 weeks)	20	40
TOTAL	140	145

\* See Project Cash Flow Chart



IOI COSTA RICA OPERATIONAL CENTRE

Schematic Work Plan

Ref.	Year Quarter	1995			
		1	2	3	4
1.1.2.b	Appointing bilingual assistant	x	x	x	x
1.1.3.a	Publishing PR brochures	x	x	x	x
1.1.4.b	Programme Development		x	x	
2.1.1.a	Development of Research Programme		x	x	x
2.1.2.a	Course Development	x	x	x	x
2.1.2.b	Training of Trainers	x	x	x	
2.1.3.a	. Advertising Courses . Running Courses			x	
		x		x	x
2.1.3.c	Leaders Seminar / Work shops	x			x

WORKPLAN FOR IOI INDIA  
January 1995 to December 1995

Contents

	<b>Pages</b>
<b>Workplan</b>	<b>167-171</b>
Attachment 1 - Workplan and quarter-wise financial scheduling	172

## Madras Operational Centre at IIT Madras

OPERATIONAL WORKPLAN  
AND BUDGETWorkplan

The details of the Work Plan of IOI Madras are as below.

Information Dissemination

1.1.3.a It is necessary for IOI Madras to advertise its courses and to otherwise remain in touch with its national and international network through the issue of brochures. Such brochures would be issued regularly.

<b>Starting Date</b>	1 January 1995
<b>Completion Date</b>	31 December 1995
<b>Responsible Party</b>	Director IOI Madras.

Programme Development

1.1.4.b The Director IOI Madras would have to travel within the region to organise the courses for alumni in consultation with the concerned governments so that courses could be held on the Malaysian model (where the local costs were met by the Malaysian government while IOI Madras provided the faculty and the teaching materials).

<b>Starting Date</b>	1 January 1995
<b>Completion Date</b>	31 December 1995
<b>Responsible Party</b>	Director IOI Madras.

Course Development

2.1.2.a Originally \$ 75,000 had been budgeted for the development of course material. This is now being reduced to \$ 65,000 and only \$ 15,000 requested for 1995 since most of the training materials in the form of course notes, transparencies, slides and computer simulation games are in place.

<b>Starting Date</b>	1 January 1995
<b>Completion Date</b>	31 December 1995
<b>Responsible Party</b>	Executive Director
<b>Executing Party</b>	Director IOI Madras

Training of Trainers

2.1.2.b The amount requested is for deputing two persons to the TRAIN-SEACOAST Workshop to be held in New York in January, 1995 (one person to be funded by UNDP/DGIP).

**Starting Date** 1 January 1995  
**Completion Date** 31 December 1995  
**Responsible Party** Director IOI Madras

### Courses

2.1.3.a The following courses are scheduled for 1995.

Name of Course	Dates	Partic- ipants	Cost
CZM as a Sustainable Process (6 weeks)	12 June - 21 July	20	\$ 43,000
CZM as a Sustainable Process (6 1/2 weeks)	16 October- 28 November	20	\$ 45,000
CZM (4 weeks-for Indian government officials)	April-May	20	\$ 5,000

The Coastal Zone Management programmes (6 and 6 1/2 weeks) are meant to test different durations on participants. During 1994 a 5 week experimental programme was held but both faculty and participants felt it was too short. They suggested 6 or 7 weeks duration.

The idea of testing and validating different course durations is to have a course-mix which can meet varying demand-patterns.

The 4 week CZM programme has to be requested by the Government of India. They will meet travel and subsistence costs while IOI will provide the teaching materials and faculty.

**Starting Date** 1 January 1995  
**Completion Date** 31 December 1995  
**Responsible Party** Director IOI Madras

### Alumni

2.1.3.b Two advanced alumni courses would be conducted, one in India and the other in Sri Lanka, Mauritius or Malaysia.

Name of Course	Dates	Partic- ipants	Cost
Advanced alumni - India (5 days)	20-24 March	20-25	\$ 1000
Advanced alumni - abroad (5 days)	4-8 September	20-25	\$ 4200

**Starting Date** 1 January 1995  
**Completion Date** 31 December 1995  
**Responsible Party** Director IOI Madras

### Leaders

2.1.3.c A 5 day course on Environmental Policy and Management for top decision makers of Government will be held from 16-20 January, 1995 for 20-25 participants.

**Starting Date** 16 January 1995  
**Completion Date** 20 January 1995  
**Responsible Party** Director IOI Madras

### Physical Outputs

The physical outputs in trainee weeks would be as under.

<b>Name of Course</b>	<b>Participants</b>	<b>Participant Weeks</b>
1. CZM as a sustainable process (6 weeks)	20	120
2. CZM as a sustainable process (6 1/2 weeks)	20	130
3. CZM (4 weeks)	20-25	80-100
4. Advanced Alumni (1 week)	20-25	20-25
5. Advanced Alumni (1 week)	20-25	20-25
6. Environmental Policy and Management (1 week)	20-25	20-25
		<b>390-425</b>

### Budget

The detailed budget is at Attachment 1.

INTERNATIONAL OCEAN INSTITUTE  
OPERATIONAL CENTRE, INDIA

INDIAN INSTITUTE OF TECHNOLOGY, MADRAS

WORKPLAN AND QUARTER-WISE FINANCIAL SCHEDULING

(Amounts in US \$'000)

Code/Item	Jan-Mar 1995 (1)	Apr- June 1995 (2)	July- Sept 1995 (3)	Oct- Dec 1995 (4)	TOTAL (US\$)
1.1.3a P.R. Brochures	3	1	-	-	4
2.1.1b Regional Director (travel)	2	1	-	-	3
2.1.2a Course Development	5	5	5	-	15
2.1.2b Training of Trainers	5	-	-	-	5
2.1.3a Courses	25	24	34	10	93
2.1.3b Alumni	1	-	4.2	-	5.2
2.1.3c Leaders	2	-	-	-	2
<b>Total</b>	<b>43</b>	<b>31</b>	<b>43.2</b>	<b>10</b>	<b>127.2</b>

WORKPLAN FOR IOI SENEGAL  
January 1995 to December 1995



Contents

	<b>Pages</b>
<b>Workplan</b>	<b>173-178</b>
Attachment 1 - Cash Flow Projections	179
Attachment 2 - Details of Curriculum Development Activities	180
Attachment 3 - Details of Training Programmes	181
Attachment 4 - Training Outputs	182
Attachment 5 - Physical Scheduling	183
 <b><u>Appendices to Workplan</u></b>	
Appendix 1 - Syllabus of CZM two week programme	184
Appendix 2 - Syllabus of Planning and Management of Coastal Zones programme	188

**Senegal Operational Centre at the  
Centre de Recherches Oceanographiques de Dakar - Thiaroye,  
SENEGAL**

**OPERATIONAL WORK PLAN  
AND BUDGET**

**Details of Workplan**

**Information Dissemination.**

- 1.1.3.a For the international and national networks to remain effective it is necessary for there being regular contacts between IOI Senegal and the collaborating/networking institutes. One way of doing this would be through the issue of brochures by IOI Senegal. It is proposed to issue such brochures regularly.

<b>Starting Date</b>	January 1995
<b>Completion Date</b>	December 1995
<b>Responsible Party</b>	Director IOI Senegal

**Programme Development.**

- 1.1.4.b It would also be necessary for Director IOI Senegal to travel within the region, contact the various governments so as to develop programmes contextual to the perceived needs of African states. A small provision has been made in this regard.

<b>Starting Date</b>	January 1995
<b>Completion Date</b>	December 1995
<b>Responsible Party</b>	Director IOI Senegal

**Research Programme.**

- 2.1.1. Liaison with the various research institutions of the region would be necessary both to develop new lines of policy research as well as utilise the results of research under way. This would also help in keeping the training materials up to date. A small provision has been made for the travel expenses of Director IOI Senegal.

<b>Starting Date</b>	January 1995
<b>Completion Date</b>	December 1995
<b>Responsible Party</b>	Director IOI Senegal

**Training of Trainers.**

- 2.1.1.b A trainer from CRODT would attend the IOI Course to be held in Halifax from June, 1995; while Dr. Toure and another person would be attending the TRAIN SEACOAST Workshop being conducted by UNDOALOS and UNDGIP in January 1995.

<b>Starting Date</b>	January 1995
<b>Completion Date</b>	August 1995
<b>Responsible Party</b>	Director IOI Senegal

**Curriculum Development.**

- 2.1.2.a During 1995 the Director IOI Senegal to analyse relevant materials collected from IOI Madras and IOI South Pacific and then get the work of adaptation and translation done by the resource persons already identified in Dakar.

<b>Starting Date</b>	January 1995
<b>Completion Date</b>	December 1995
<b>Responsible Party</b>	Director IOI Senegal

**Training Courses and Workshops.**

- 2.1.3. To start with IOI Senegal will use the course outlines developed by the IOI global. Local resource persons will adapt the materials for implementing the following training workshops and courses planned for 1995:

- (a) Coastal Zone Management including the EEZ - 2 weeks
- (b) Planning and Management of Coastal Zones - 8 weeks.

**(a) Coastal Zone Management including management of the Exclusive Economic Zone (EEZ).**

The political and economic impact of the EEZ concept on the practice of States has, over time, been very considerable, especially with regard to the conservation and management of living resources, the exploitation of the non-living natural resources of the seabed and subsoil of the zone, the conduct of marine scientific research and the protection and the preservation of the marine environment.

Most of the States in Africa and elsewhere that have established EEZ claim "sovereign rights" over the natural resources of the zone and jurisdiction with respect to the establishment of artificial islands, installation and structures, marine scientific research, and the protection and preservation of the marine environment. As regards conservation and use of fish

resources, many coastal States have claimed exclusive fishery zones. There are also several States including Senegal, Cape Verde, Antigua and Bermuda which provide for imprisonment as a penalty for violating fishery legislation, contrary to an article of the Convention. There would be one such course in May 1995 at Dakar.

The course module (course outline at Appendix 1) for the workshop will cover the following:

- State rights and duties: definition, delimitation, legal rights and duties, and practice in various African States;
- Information requirements: demographic, economic, geographical and natural scientific parameters;
- The social environment: legal framework for resource management and preservation, macroeconomic and political strategies and their interactions with coastal and EEZ management;
- Interlinking and interfacing of coastal area management and EEZ management: systems analytical approach to ocean management;
- Land-use competition: locational concepts including economic and social, agriculture, extractive industry, manufacturing industry, residential, touristic, historical/archaeological;
- Sea-use competition: fishing, aquaculture and mariculture, tourism and sport, shipping, offshore oil and gas, sea-mining and environmental implications including toxicity and coastal erosion;
- Monitoring and surveillance in the EEZ: foreign fishing fleets and their impacts including economic, ecological and political; access and joint venture agreements;
- Legal regimes for management of resources: environmental impact legislation, legislation to regulate activities in the coastal zone and EEZ.

**Duration:** 2 Weeks  
**Date:** May, 1995  
**Language:** French

#### (b) Planning and Management of Coastal Zones

The Coastal zone of Africa is composed of various ecosystems such as mangroves, seagrass beds, coral reefs, and various communities found in different geomorphological settings including estuaries and deltas, coastal lagoons, rocky platforms, and sandy and sea ooze bottoms. The functioning of these ecosystems and their interactions are consequences of physical, chemical, biological

and geological processes and constitute, together with the input of terrestrial waters, the factors determining the productivity of marine coastal environments, thereby lying at the heart of understanding the rational management of living resources.

The course modules and training materials will be as per the syllabus at Appendix 2. A synopsis of the curriculum for the 8-Week course planned is as follows:

- Week 1: The International Setting
- Week 2: Managerial Implications, Information Requirements
- Week 3: Management of Coastal Zone Resources - Living
- Week 4: Management of Coastal Zone Resources - Non-Living
- Week 5: Coastal Zone Activities and Economics
- Week 6: Policy Making and Project Formulation
- Week 7: Management
- Week 8: Practical Exercises.

**Duration:** 8 Weeks  
**Dates:** First Course: October - November, 1995  
Second Course: March - April, 1997  
**Language:** French

### Budget

The Budget of IOI Senegal is estimated at US\$ 134,500 for 1995. The detailed budget is at Attachment 1, details of curriculum development are at Attachment 2, details of courses at Attachment 3, the expected output by participant weeks is at Attachment 4 and the physical scheduling is at Attachment 5.

### Outputs

As can be seen from Attachment 4, the output of IOI Senegal would be 200 trainee weeks in 1995.

IOI Senegal would also have adapted and translated into French the relevant training materials and made them available to both the IOI and TRAIN-SEACOAST networks.

IOI SENEGAL OPERATIONAL CENTRE  
Cash Flow Projections (UNDP funds), 1994-1997

Amounts in US \$'000

Table 1

CODE	TITLE	1995
1.1.3a	Information Dissemination:-Brochures	1.0
1.1.4b	Programme Development (Travel): - Director	3.0
2.1.1a	Development of Research Programme	2.5
2.1.2a	Curriculum Development	40.0
2.1.2b	Training of Trainers	8.0
2.1.3a	Courses	70.0
2.1.3b	Alumni	-
2.1.3c	Leaders	10.0
	<b>Total</b>	<b>134.5</b>

IOI SENEGAL OPERATIONAL CENTRE

Details of Curriculum Development Activities  
(Budget Item: 2.1.2)\*

Amounts in US \$'000

Table 2

<b>PROJECT</b>	<b>1995</b>
Planning & Management of Coastal Zones in Africa	10.0
Integrated Coastal & Marine Management	30.0
<b>TOTAL</b>	<b>40.0</b>

\* See Project Cash Flow Chart

**Details of Scholarships for Training Courses  
(Budget Item: 2.1.3a)\***

Amounts in US \$'000

Table 3

<b>PROJECT</b>	<b>1995</b>
Alumni (1 week)	-
Workshop on EEZ Management (2 weeks)	10.0
Course on plan. & Management of Coastal Zones (8 weeks)	70.0
Course on Integrated Coastal/Marine Management (6 weeks)	-
<b>TOTAL</b>	<b>80.0</b>

\* See Project Cash Flow Chart



IOI SENEGAL OPERATIONAL CENTRE

Number of Participants and Participant Weeks  
for Courses, Workshops and Seminars  
(Budget Items: 2.1.3 a-c)\*

Table 4

1995	1996	1997
<b>PROJECT</b>	<b>Parti- cipants</b>	<b>Parti- cipant Weeks</b>
Leadership Workshop (2 Week)	20	40
Course on Planning & Management of Coastal Zones (8 Weeks)	20	160
<b>TOTAL</b>	<b>40</b>	<b>200</b>

\* See Project Cash Flow Chart

IOI SENEGAL OPERATIONAL CENTRE

Schematic Work Plan

Ref.	Year Quarter	1995			
		1	2	3	4
1.1.3.a	Publishing PR brochures			x	
1.1.4.b	Programme Development	x	x	x	x
2.1.1.a	Development of Research Programme	x	x	x	x
2.1.2.a	Course Development	x	x	x	x
2.1.2.b	Training of Trainers	x	x	x	
2.1.3.a	. Advertising Courses . Running Courses			x x	
2.1.3.b	Alumni Course				
2.1.3.c	Leaders Seminar/Workshops			x	

WEEK 1:

<b>MONDAY</b>	
Session 1	Opening Ceremony
Session 2	Introduction: CZM, EEZ, sustainable development; the concepts, problems, opportunities and need.
Session 3	The systems approach to CZM and EEZ management: the interactions of the ecosystem, the societal system and the management and governance systems.
Session 4	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. background; main features; interests of the developing countries, including landlocked states and small island states;</li> </ul>
<b>TUESDAY</b>	
Session 1	The UN Convention on the Law of the Sea: <ul style="list-style-type: none"> <li>. developments in the Law of the Sea: 1983-94, including the outcome of the UN Secretary-General's informal consultations concerning seabed mining, 1990-94;</li> <li>. follow-up of the entry into force of the Convention on 16 November 1994: problems and prospects.</li> </ul>
Session 2	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. impact on UNCLOS: sustainable ocean management; Chapter 17 of Agenda 21, and its seven programmes of action; monitoring and review.</li> <li>. developments in, and outcome of, international conferences on fisheries (straddling fish stocks, highly migratory fish stocks), small island developing states (SIDS), coastal zone management, and marine environment protection (1993-95);</li> </ul>
Session 3	UNCED 1992 and follow-up: <ul style="list-style-type: none"> <li>. integration of UN system's implementation of Agenda 21 programmes;</li> <li>. regional cooperation and participative approach: role of women, youth, indigenous people, local communities, and NGOs.</li> </ul>

Session 4	The changing international system: economically, politically and technologically.
<b>WEDNESDAY</b>	
Session 1	The new industrial revolution and high technology and its impacts on management, economics and society.
Session 2	The new economics including accounting methods for integrating GNP and ecology.
Session 3 & 4	Introduction to oceanography: <ul style="list-style-type: none"> <li>. fundamental importance of scientific research for all sea uses; need to strengthen national capacity;</li> <li>. oceanography (physical, chemical, geological, biological);</li> <li>. coastal oceanography and coastal processes (erosion and sediment transportation);</li> </ul>
<b>THURSDAY</b>	
Session 1	Coastal ecosystems: structure and function.
Session 2	Ecological principles: food chains and webs, dynamic processes and linkages between ecosystems (land-sea continuum); critical ecosystems and their vulnerability.
Session 3	Coastal resources: distribution and abundance; nonliving resources - land, water, energy and mineral.
Session 4	Coastal resources: living resources - fisheries, coral, mangrove, wildlife; resource assessment.
<b>FRIDAY</b>	
Session 1	Coastal activities: tourism, fisheries, aquaculture, transport, industry, forestry, mining.
Sessions 2, 3 and 4	Group discussions and/or simulation exercises. Topics: importance of CZM and EEZM for developing countries, problems and opportunities, integration of environment and development.

**WEEK 2:**

<b>MONDAY</b>	
Session 1	Framework for decision-making for CZM and EEZM: input-output format.
Session 2	Remote sensing: aerial photo interpretation, satellite imagery, software and hardware, applications to CZM/EEZM.
Session 3	Principles of GIS: data structures, collection and standardisation, analysis and modelling, software and hardware, application to CZM/EEZM.
Session 4	Technology assessment: socio-cultural and environmental impacts, technology diffusion and economic impacts of high technology.
<b>TUESDAY</b>	
Session 1	Investment appraisal systems: private and public sector differences.
Session 2	Coastal pollution assessment: types & sources of pollution and their impact on the coastal ecosystem.
Session 3	Policies and Planning: their essential ingredients and interactions; how to arrive at the optimum policy mix.
Session 4	Legislative framework and institutional structures for integrated CZM and EEZM: national, regional global.
<b>WEDNESDAY</b>	
Session 1	Programmes and technologies: management of ports and shipping.
Session 2	Wave, solar and wind energies.
Session 3	Fisheries including aquaculture and genetic engineering.
Session 4	Robotics and mining systems. Risk management.
<b>THURSDAY</b>	
Session 1	Organisational structures for integrated CZM and EEZM: national, regional global.
Session 2	Regulatory measures: zoning and land use systems.
Session 3	Permits and regulatory systems; monitoring and control systems.

Session 4	Legislative requirements: jurisdictional and environment.
<b>FRIDAY</b> Session 1 and 2	Case studies to be developed by participants.
Sessions 3 and 4	Group discussions: generic model for developing countries for effective CZM and EEZM.

**Note:** All sessions are of 1/2 hours duration each.

DRAFT SYLLABUS

**PLANNING AND MANAGEMENT OF COASTAL ZONES**

Introduction to Syllabus

It is a truism to say that the world is in transition. Growing global interdependence, increased interactions between institutions and individuals, exponentially growing technology and new directions in the processes of development are some of the overriding characteristics of the last decade of this century.

In the marine sector, scientific and technological advances have triggered off political and legal change processes culminating in three major developments: (i) the adoption of the U.N. Convention of the Law of the Sea in 1982; (ii) the World Commission on Environment and Development (the Brundtland Commission) 1987; and (iii) the United Nations Conference on Environment and Development (U.N.C.E.D.) in Rio de Janeiro in 1992.

These have basically transformed the uses of the oceans and increased the salience of marine affairs on both national and international agendas. The development of oceanography as a multi-disciplinary scientific activity has greatly added to the knowledge sector while the penetration of the latest phase of the industrial revolution into the oceans has added a new dimension to national growth strategies. At the same time, the Law of the Sea Convention, signed by 159 States and now ratified by 54, may come into force next year. This Convention, if properly implemented and utilized, could constitute one of the building blocks of a new international order, including a new international economic order.

The Brundtland Commission laid stress on sustainable development and the need for bridging the technology gap between North and South. The United Nations Conference on Environment and Development (UNCED), adopted a Declaration, two important Conventions, and a detailed plan of action for sustainable development during the next century, "Agenda 21." This agenda contains an important chapter on marine and coastal activities, thus linking the UNCLOS and the UNCED processes, and sustainable development of ocean space and resources with sustainable development on land. In view of the fundamental importance of the world ocean, in its interaction with the atmosphere, for possible climate change, possibly accompanied by sea-level rise, this linkage is unbreakable.

UNCED has begun to exercise its influence on a wider process of restructuring the 50-year old United Nations system: In accordance with the decisions taken at Rio, the 47th General Assembly created a whole new sector to deal with Sustainable Development, including sustainable development in the oceans.

The large dimensions and special characteristics of the oceans has led to the emergence of new concepts: "integrated ocean and coastal zone management", economic theories synthesising growth dynamics with environmental considerations, theories of organisation articulating concepts like organic structures and matrix systems. All this requires a new type of civil servant, and a new type of manager or scientist, capable of interfacing the social sciences with the natural sciences, of law with science and technology, of economics with ecology, of managerial structures with processing systems. Only then can she/he be able to manage the ongoing high-tech revolution, the environment, and multi-cultural human resources.

It is in this context that this programme has been designed with the emphasis on the felt needs of African countries. The programme is so organised as to give participants an overview of the many and varied aspects of ocean and coastal management and to familiarize them with the broad range of issues encountered in the marine area in the sphere of diplomacy, law, science, technology, economics and management. Particular emphasis is given to the importance of regional cooperation and development in this broad context. The evolution of regional systems, such as the Regional Seas Programme, will play a crucial role in ocean governance for sustainable development.



**SYNOPSIS**

- Week 1:** The International Setting.
- Week 2:** Managerial Implications, Information Requirements.
- Week 3:** Management of Coastal Zone Resources - Living.
- Week 4:** Management of Coastal Zone Resources - Nonliving.
- Week 5:** Coastal Zone Activities and Economics.
- Week 6:** Policy Making and Project Formulation.
- Week 7:** Management.
- Week 8:** Practical Exercise.

**WEEK 1: THE INTERNATIONAL SETTING****Monday.**

- Session I: Opening Ceremony
- Session II: Introduction to the course, training methodology, expected outputs, administrative arrangements.
- Session III: The changing international order: technological, economic, political.
- Session IV: New foci, perceptions and expectations of the international community. Africa in the new world order: vulnerabilities and opportunities.

**Tuesday.**

- Session I & II: Introduction to the law of the sea. New concepts, analysis of new provisions; spaces created by the Convention; territorial sea, contiguous zone, exclusive economic zone, archipelagic waters, the regime of islands.

- Session III & IV: Convention on the Law of the Sea: international ocean space, the high seas, marine scientific research, protection of the marine environment.

**Wednesday.**

Convention on the Law of the Sea - contd.

- Session I: Technology, its development and transfer. New concepts of codevelopment of technology, technology fusion etc.

- Session II: Regional and subregional considerations: Arts. 276 and 277 - their implementation. Meditech and Technocaribe.

- Session III & IV: Workshop I: the emerging new world order; issues arising in the technological, managerial and economic domains.

**Thursday.**

- Session I: UNCED and its links to UNCLOS. Chapter 17 of Agenda 21 and its programmatic content.

- Session II: The Commission on Sustainable Development and supporting measures. Changes necessary in regional and national institutions.

Session III: The longterm implications of UNCED. Sustainability as a process: resources, society and culture.

Session IV: Application to Africa: measures necessary: technological, economic, instiutional.

### Friday.

Session I: Economic sustainability: public goods and externalities; environmental economics.

Session II: Costs of pollution and how to internalise; sustainable human consumption

Session III & IV: Workshop I: continued.

## WEEK 2: MANAGERIAL IMPLICATIONS, INFORMATION REQUIREMENTS

### Monday.

Session I: Managerial implications of extended national zones. Needs for harmonising land use with sea use, natural sciences with the social sciences and of resolving conflicts of multiple-uses.

Session II: Information requirements for management: An overview: the intersection of demographic, economic, geographical and natural scientific parameters.

Session III: Oceanography and its importance. The impact of advancing technology - electronics, remote sensing, new materials, genetics; the changing research vessel.

Session IV: Oceanography for developing countries: the software dimension, data collection, collation and dissemination. Economics of data collection and assessment.

### Tuesday.

Session I: Geophysical oceanography; plate tectonics; vulcanism and metallogenesis. Inshore oceanography: currents, waves, tides. Coastal erosion and sediment transportation.

Session II: Ocean air interface: meteorology and its importance for African countries.

Session III & IV: Chemistry of sea-water: isotope oceanography, age and rate of sedimentation.

Chemical oceanography and the chemistry of pollution. How to measure, control and reduce pollutants from the oceans. Environmental oceanography.

### Wednesday.

- Session I: Biodiversity: threats, causes of extinction, need to conserve. Management tools and case studies.
- Session II: Cooperation with competent international organisations in marine science and technology.
- Session III & IV: Workshop II: knowledge acquisition and its use; problems facing developing countries.

### Thursday.

- Session I: Land use competition: locational concepts: economic and social, agriculture, extractive industry, manufacturing industry, residential, touristic, historical/archeological.
- Session II: Sea use competition: fishing, aquaculture, tourism/sport, shipping, offshore oil and gas, mining for placers & sands.
- Session III: Coastal area management: planning and siting techniques. EEZ management: problems of multiple-uses, conflicts and surveillance.
- Session IV: Interlinking and interfacing of coastal area management and EEZ management. Systems analytical approach to ocean management.

### Friday.

- Session I: Investment appraisal methods: the private sector. Return on investment, pay-back period, discounted cash flow, internal rate of return.
- Session II: Investment appraisal methods: the public sector. Nonlinearities, multiple objectives, shadow prices.
- Session III & IV: Workshop III: management of science and technology with reference to the coastal zone.

**WEEK 3: MANAGEMENT OF COASTAL ZONE RESOURCES-LIVING****Monday.**

- Session I: Management and conservation of living resources: fisheries biology and population dynamics.
- Session II: Stock assessment techniques: traditional methods, computer models.
- Session III: Management strategies; restricted entrance; mesh size control; restricted areas and seasons.
- Session IV: Effectiveness and deficiencies of existing management systems; participation of fishing communities. Traditional forms of management and conservation.

**Tuesday.**

- Session I & II: Fisheries technology: detection; capture technology; post harvest; processing; waste recycling; marketing.
- Session III: Effect and impact of flora on the coastal ecosystem. Role of mangroves and other coastal plants.
- Session IV: Case study: management of coral reefs and/or mangroves (coral reefs on the East African Coast).

**Wednesday.**

- Session I: The fishing industry: employment and output of the fishing industry; management of the fish population; species composition; fisherman's cooperatives and unions; conservation.
- Session II: Fisheries economics: integration into development strategy; contribution to GNP.
- Session III & IV: Workshop IV: management of living resources: biological, technological, economic considerations.

**Thursday.**

- Session I: Aquaculture and mariculture: Post-World War II developments; FAO Kyoto Conference.
- Session II: Aquatic plants; fish, mullusc and crustacean farming; sea ranching; genetic engineering of aquatic plants and of fish.

Session III: Aquaculture development through remote sensing techniques and satellite imageries.

Session IV: Monitoring and surveillance in the EEZ. Foreign fishing fleets and their impacts: economic, ecological, political. Access and joint venture agreements.

**Friday.**

Session I & II: Workshop on Coastal Zone Resources. Presentation of three papers and discussion.

Session III & IV: Field trip to the Senegal Ocean Institute.

**WEEK 4: MANAGEMENT OF COASTAL ZONE RESOURCES- NONLIVING**

**Monday.**

Session I: The farming of fin fish: cage culture, sea ranching; fish behaviour conditioning; genetic engineering of fish; implications for the future.

Session II: Artisanal fisheries and the impact of technological developments. Indigenous systems environmental viability, women in traditional artisanal fisheries.

Session III & IV: Establishing legal regimes for management of resources: environmental impact legislation, legislation to regulate activities in the coastal zone and the EEZ.

**Tuesday.**

Session I & II: Mining: resource exploitation and sustainable development; oil and gas; gravel, sand and near shore minerals; minerals of the deepsea bed.

Session III & IV: Mining (cont): mining technology; environmental implications of sea-mining; toxicity, coastal erosion and other hazards associated with mining.

**Wednesday.**

Session I & II: Offshore oil and gas: prospecting methods, drilling techniques, exploitation methods.

Session III &  
IV: Workshop V: Management of marine resources: legal considerations.

**Thursday.**

Session I &  
II: Principles of management and planning: management strategies; integrated coastal management: the need, techniques, economics.

Session III &  
IV: Financial planning; project preparation; institutional and human resource requirements for coastal management.

**Friday.**

All Day: Field visits: a tourist complex, a port, an industry on the sea.

**WEEK 5: COASTAL ZONE ACTIVITIES AND ECONOMICS**

**Monday.**

Session I: Criteria for measuring economic development: Gross Domestic Product and Gross National Product; deficiencies of GNP; use of social indicators; vulnerability indicators.

Session II: The new economics including accounting methods for integrating GNP and ecology.

Session III: Characteristics of African economies: desertification, food shortages, protein deficiencies.

Session IV: Ocean resources in Africa; the importance of ocean resources in African development strategy.

**Tuesday.**

Session I &  
II: Integration of coastal zone management as an integral part of African economic development.

Session III: Shipping developments: technological developments; globalised door to door transport; containerization and multimodal transport; tanker traffic and safety regulations; free-ports, shiprepair and shipbuilding industries.

Session IV: Sea ports: main ports and feeder lines; regional cooperation; management of sea ports; port regulation; port dues and revenues; traffic control; and land-sea interface.

**Wednesday.**

Session I: Desalination technologies to meet fresh water demands.

Session II: Energy from the sea: OTEC, wave, tidal.

Session III & IV: Workshop VI: management of ocean resources - links with the overall economic planning.

**Thursday.**

Session I & II: Technological developments: the electronics and communications revolutions, remote sensing, their impacts on CZM.

Session III & IV: Coastal engineering: harbour and port design, preventing coastal erosion and flooding from the sea, ensuring unpolluted water for brackish water aquaculture, outfalls from thermal power plants, waste water discharge etc.

**Friday.**

Session I & II: Coastal engineering (contd.)

Session III & IV: Workshop VII: the engineering dimension in managing ocean resources - managerial, economic and technological considerations.

**WEEK 6: POLICY MAKING AND PROJECT FORMULATION**

**Monday.**

Session I: Policy analysis: the multivariate nature of the oceans, the need for multi-level analysis and planning, coordination at both horizontal and vertical levels, need for interagency harmonization.

Session II: Foreign and internal policy and their linkages; national, state and local policy; need of integration.



Session III &  
IV: Integrated policy-making: its parameters; problems of harmonising different policies, tools and methods of arriving at a correct policy-mix.

**Tuesday.**

All Day: Simulation exercise in making ocean policy for a typical African country.

**Wednesday.**

All Day: Simulation exercise (contd.)

**Thursday.**

All Day: Coastal zone management in Senegal / Mauritius / Kenya or any other country as a case study. Human impact on the ecosystem with special reference to the coastal zone; land-use competition in the coastal zone; planning and environmental management - a historical review; recent developments - integrated planning for sustainable development.

**Friday.**

All Day: Coastal zone management (contd.)

**WEEK 7: MANAGEMENT**

**Monday.**

Session I &  
II: Environmental risk management: need, types, techniques. Components of risk management strategy: risk identification, estimation, evaluation; risk profiles and contingency plans; economic considerations (cost-benefit and risk-benefit analyses). Regional, national and local responses.

Session III &  
IV: Case studies and discussion.

**Tuesday.**

Session I: Natural hazards: floods, tsunamis, storm surges, hurricanes, tornadoes, seismic activities, soil and shoreline erosion.

Session II: Interaction between natural and man-made hazards. Environmental Impact Assessments. Concepts and the management of such hazards.

Session III: The Intergovernmental Panel on Climate Change; Scientific findings, model predictions and uncertainties.

Session IV: Sea level rise and coastal zone management: multiple vulnerability and sensitivity profiles.

**Wednesday.**

Session I & II: Review of major contamination risks, including major spills and chronic pollution. Environmental impact of marine contaminants. Contingency planning and management of resources.

Session III & IV: Workshop VIII: methods of tackling and minimising risks.

**Thursday.**

Session I: Emerging technologies development and management: risks and uncertainties.

Session II: Methods of tackling uncertainty and risks.

Session III: Project Management: preparation and management in conditions of uncertainty and methods of minimising risk.

Session IV: Financial management and capital budgeting for risks and uncertain projects.

**Friday.**

All Day: Designing a Coastal Resources Management Programme for selected Participant countries  
- issue definition and analysis

**WEEK 8: PRACTICAL EXERCISE**

**Monday.**

Designing a Coastal Resources Management Programme for selected participant countries.

Session I & II:- issue definition and analysis

Session III: - setting objectives

Session IV: - preparing a policy paper

**Tuesday.**

All Day: Designing a Coastal Resources Management Programme (contd.)

- selecting resource management strategies
- designing methods of getting public input and support

**Wednesday.**

All Day: Designing a Coastal Resources Management Programme (contd.)

- designing an organisational strategy for implementing work plan
- preparing projects in the fields of:
  - . fisheries
  - . tourism
  - . transport etc.

**Thursday.**

All Day: Designing a Coastal Resources Management Programme (contd.)

- writing workplan (s)
- general seminar with faculty to critically examine workplan and policies

**Friday.**

Closing Ceremony.

INTERNATIONAL OCEAN INSTITUTE  
OPERATIONAL CENTRE  
AT  
THE UNIVERSITY OF THE SOUTH PACIFIC  
(IOI-SOUTH PACIFIC)

Workplan and Budget

1995

**Draft 1995 Budget and Workplan  
SUMMARY SHEET  
UNDP/GEF CONTRIBUTION**

UNDP/GEF Heading	Category	Orig. Budget	Revised Budget	In Kind (USP)	Other
1.1.2	Admin. Support	20,000	20,000	45,000	
1.1.3b	Newsletter	2,500	1,000	-	-
2.1.2a	Course Developmnt	18,000	34,500 <sub>1</sub>	90,000 <sub>2</sub>	
2.1.2b	Training of Trainers	12,500	10,000 <sub>3</sub>	-	-
2.1.3a	Courses	100,000	80,000	-	154,150 <sub>4</sub>
2.1.3c	Leaders	12,500	7,000	-	-
<b>TOTALS</b>		<b>165,500</b>	<b>152,500</b>	<b>135,500</b>	<b>154,150</b>

- 1 Includes balance of course development budget from 1993 - 1994; funds to be used for assistance in revision of IOI courses following first offerings in 1994 and 1995.
- 2 Includes 24 person months of USP Academic Staff, who are involved in parallel course development with IOI-South Pacific.
- 3 Balance of 1993 - 1996 budget.
- 4 Estimated funding from Government of France for Corallines Course: \$38,550; estimated funding from Australia for Ports and Shipping Courses: FJ\$170,000 = US\$115,600; total \$154,150.

**IOI-SOUTH PACIFIC 1995 Workplan  
SCHEMATIC WORKPLAN**

ACTIVITY/ MONTH	1	2	3	4	5	6	7	8	9	10	11	12
<b>COURSE DEVELOPMENT</b> (Various) <sup>5</sup>	+	+	+	+	+	+	+	+	+	+	+	+
COURSES <sup>6</sup> Resource Economics							+	+				
Fisheries <sup>7</sup> Economics & Management												
Coastal Fisheries <sup>8</sup>										+	+	
Ports & Shipping <sup>9</sup>						+	+					
Coralline Algae <sup>10</sup>												+
Alumni Refresher Course								+				
<b>NEWSLETTER</b>			+			+			+			+
<b>MEETINGS</b> Directors				+								+

5 Upgrading and revision of IOI courses offered in 1994 and 1995.

6 Course dates are tentative pending timetable considerations at USP.

7 Course to be scheduled for January-February 1996, depending on funding.

8 Offering depends on assessment of success and demand from the 1994 offering.

9 Offering jointly with the Australian Maritime College and coordinated with the assistance of the Maritime Division of the Forum Secretariat. Dependent on the securing of funds from Australia.

10 Course to be offered by Dr. D. W. Keats, University of Western Cape, South Africa. Offering dependent on funding from the Government of France.

PIM XXIII												
IOI-SP Advisory Board			+							+		
<b>RESEARCH</b> Women and Fisheries	+	+	+	+	+	+						
Regional Organis- ations	+	+	+	+	+	+						
Leaders' Seminar, PNG									+			

**IOI-SOUTH PACIFIC**  
**1995 Budget Details**  
(all currency in USD)

1. Establishment (Personnel)	Project	In Kind (USP)
1.1 Salaries		
Coordinator	20,000	
Director		20,000
Secretary		7,000
Asst. Project Officer		4,000
1.3 Travel <sup>11</sup>		
1.3.1 Directors Meeting (Malta, April)	(4,000)	
1.3.2 Director Meeting & PIM XXII	(4,000)	
<b>2. Establishment (Material)</b>		
2.1 Rent		2,500
2.2 Electricity & Water		2,500
<b>3. Publications</b>		
3.2 Publishing & Printing	2,500	
<b>5. Training Programmes</b>		
A5 Ports & Shipping (June-July 1995)		
A5.1 <u>Preparation</u>	6,120	
A5.2 <u>Participants</u> <u>Expenses</u>		
A5.2.1 Travel	62,658	
A5.2.2 Communications	1,000	
A5.2.3 Accomodations/ DSA	27,418	
A5.2.5 Miscellaneous	10,296	
A5.3 <u>Faculty Expenses</u>		
A5.3.1 Travel	1,632	
A5.3.3 Honoraria	3,696	
A5.3.4 DSA	2,380	
A5.4.6 Opening/closing Ceremonies	400	

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<sup>11</sup> See budget for Headquarters.



B5	Resource & Environmental Economics (July - August, 1995) <sup>12</sup>	
B5.1	<u>Preparation</u>	
B5.1.2	Communications	1,000
B5.1.4	Brochure	200
B5.2	<u>Participants Expenses</u>	
B5.2.1	Travel	30,000
B5.2.2	Communications	500
B5.2.3	Accomodations\ DSA	10,000
B5.2.4	Reading materials	1,000
B5.2.5	Miscellaneous	2,000
B5.3	<u>Faculty Expenses</u>	
B5.3.3	Honoraria	5,000
B5.4	<u>Other Expenses</u>	
B5.4.6	Opening/closing ceremonies	300
C5	Coastal Fisheries Management & Development (October - November, 1995) <sup>13</sup>	
C5.1	<u>Preparation</u>	
C5.1.2	Communications	1,000
C5.1.4	Brochure	200
C5.2	<u>Participants Expenses</u>	
C5.2.1	Travel	30,000
C5.2.2	Communications	500
C5.2.3	Accomodations/ DSA	10,000
C5.2.4	Reading materials	2,000
C5.2.5	Miscellaneous	1,000
C5.3	<u>Faculty Expenses</u>	
C5.3.3	Honoraria	5,000
C5.4	<u>Other Expenses</u>	
C5.4.6	Opening/closing ceremonies	300
D5	Leaders' Seminar, Port Moresby, Papua New Guinea (September 1995)	
D5.1	<u>Preparation</u>	

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<sup>12</sup> Based on \$ 40,000 from UNDP/GEF funds for 10 participants; the budget will be upgraded to accomodate additional participants to be supported by other scholarships (funds to be raised) or self-funded.

<sup>13</sup> The budget for this course is tentative and is based on fee-paying participation, allowing for 20 participants at the rate of \$800/week for 5 weeks (total budget \$80,000). \$ 40,000 is from UNDP/GEF funds for 10 participants.

D5.1.2	Communications	250	
D5.3	<u>Faculty Expenses</u>		
D5.3.1	Travel	2,750	
D5.3.3	Accomodation/ DSA	3,000	
E5	Corallines Workshop (December 1995) <sup>14</sup>		
E5.1	<u>Preparation</u>		
E5.1.2	Communications	500	
E5.1.4	Brochure	400	
E5.2	<u>Participants Expenses</u>		
E5.2.1	Travel	18,000	
E5.2.2	Communications	600	
E5.2.5	Miscellaneous	12,000	
E5.3	<u>Faculty Expenses</u>		
E5.3.1	Travel	4,500	
E5.3.4	DSA	2,150	
E5.4.6	Opening/closing ceremonies	400	
F6	Alumni Refresher Course (Projected August 1995)		
F6.1	<u>Preparation</u>		
F6.1.2	Communications	500	
F6.2	<u>Participants Expenses</u>		
F6.2.1	Travel	6,000	
F6.2.3	Accomodations/ DSA	4,500	

## 7. External Services <sup>15</sup>

A7	Course development and revision, all three of IOI-South Pacific's courses. Research on other potential IOI-South Pacific courses.		
A7.1	Consultant's Fees	31,500	90,000
B7	Office management and final project audit.		

<sup>14</sup> Workshop to be conducted by Dr. D. W. Keats, University of Western Cape, South Africa. Funding is being requested in full from the Government of France, who have expressed a strong interest in supporting this workshop for delivery as a regional workshop. During 1994 Dr. Keats offered a similar workshop, as part of his attachment to IOI-South Pacific.

<sup>15</sup> Contributions to course development by USP staff calculated at 450 person days at \$200/day.

B7.1 Consultant's fee	3,000	10,000 <sup>16</sup>
<b>TOTAL</b>	<b>327,650</b>	<b>135,500</b>
[Less projected income	154,150]	
	<u><b>173,500</b></u>	<u><b>135,500</b></u>

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<sup>16</sup> Input from the Bursar's Office, USP towards maintenance of accounts and auditing of accounts, estimated at 50 pesron days at \$200/day.

## IOI-SOUTH PACIFIC

Revised output 1993 - 1994 (UNDP Project) presented as total FDEs (Training Day Equivalents: 1 TDE = 1 person trained for seven contact hours).

PROJECT TDEs	1993 <sub>1</sub>	1994	TOTAL
Introduction to Marine Science for Pacific Islands	-	165 <sub>2</sub>	165
Management & Development of Coastal Fisheries	-	810	810
TMT Workshop	-	350	350
IOI Workshop - Coralline Algae	-	66	66
Leadership Seminar	15	-	15
<b>TOTAL</b>	<b>15</b>	<b>1,391<sub>3</sub></b>	<b>1,406</b>

<sup>1</sup> Courses not offered in 1993 because of late start-up.

<sup>2</sup> 11 Extension Students over 30 week course at 3.5 hrs contact/week.

<sup>3</sup> Projected number for 1994 PRODOC was 573: this total represents a 134% increase over projections.