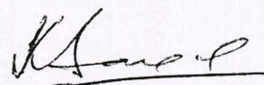


**Sixth Meeting of the Courses Development Committee
of the International Ocean Institute
on
13 and 14 November, 1996
at
Tianjin, Peoples Republic of China**

Adoption of Agenda

The agenda reproduced below may be adopted by the Committee with such amendments as may be considered necessary:

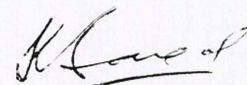
- Item 1 - Adoption of Agenda
- Item 2 - Train-Seacoast: issues arising therefrom
- Item 3 - Approval of courses proposed to be run in 1997
- Item 4 - Approval of course syllabi not approved earlier
- Item 5 - Any other matter with the permission of the Chair.



Dr. Krishan Saigal
Executive Director

Train-Seacoast: issues arising therefrom

1. IOI Madras will validate its 2 week TSC Course in October 1996, Director IOI Madras will report to the Meeting. The modules of the course are at Annex I.
2. IOI Senegal will validate its TSC Course early in 1997.
3. IOI Costa Rica proposes to raise money and validate in 1997.
4. IOI South Pacific has moved the European Union for US\$ 550,000 to prepare and validate 3 TSC Courses.
5. The Directors concerned may like to raise relevant issues in the Meeting.



Dr. Krishan Saigal
Executive Director

**INTERNATIONAL OCEAN INSTITUTE
OPERATIONAL CENTRE (INDIA)**

**TRAINING MODULES
FOR TRAIN-SEA-COAST**

Introduction

The following modules have been developed by IOI India to conform to the UN TRAIN-SEA-COAST Training Development Guidelines (TDG). IOI India has a rich experience of running a number of courses for heterogeneous groups and the material developed for these courses has now been adapted and upgraded in line with Section 11 of the TDG.

Suitable population data from the previous courses was available with IOI India and this has been subjected to a statistical analysis. In accordance with the TDG, a goal analysis was conducted in place of job analysis.

Modules and Courses

A total of 12 modules have been prepared and by using different combination of these modules the following Standard Training Packages (STPs) can be put together:

1. A 2-week STP

Goal:

2. A 3-week STP on the Engineering Aspects of Exploration and Exploitation of Near-shore and Off-shore Non-living Resources (Module Nos. 1-4,6,7,10,12)

Goal: *On completing the course, the participant will be able to understand the Engineering Aspects of Exploration and Exploitation of Near-shore and Off-shore Non-living Resources and the relationships between these and other ocean and coastal activities.*

3. A 5-week STP on Coastal Zone Management as a Sustainable Process (Module Nos. 1 to 11)

Goal: *On completing the course the participant will be able to produce a set of policies for the sustainable development of a coastal region.*

Test Construction

The target group is heterogeneous, consisting of mid-career professionals from diverse disciplines like geology, fisheries, law, environment, etc. Since elementary objective-type

Tests are not suitable for such groups, other types like simulation, short answer and essay have been designed in accordance with Section 5 (Design of Curriculum) of the TDG.

Modules including Tests

Module 1: Systems Perspective

On completing the module the participant will be able to:

Define the coastal ecosystem in a systems-analytic perspective.

- 1.1 Concepts of the systems approach
- 1.2 Systems structure and behaviour
- 1.3 The coastal zone and EEZ in a systems-analytic framework
- 1.4 Coastal ecology and coastal ecosystems : Disciplines involved in the coastal ecosystem
- 1.5 Test : Group exercise on defining the various elements in the coastal ecosystem and their interactions in a systems framework

Module 2: International and Regional Systems

On completing the module the participant will be able to:

Recall the international law and agreements concerning the oceans and the environment and appreciate their impact

- 2.1 UN Convention on the Law of the Sea: Introduction
- 2.2 UN Convention on the Law of the Sea : innovation and change
- 2.3 Post-UNCLOS developments: the Prepcom and the Agreement of 1994
- 2.4 UNCED : the Rio Declaration and Agenda 21
- 2.5 Regional Seas Programme: structure and content
- 2.6 Regional Centres of Marine Science and Technology
- 2.7 Test: Review Questions on international and regional systems and their impact on the respective region/ country

Module 3: Physical System

On completing the module the participant will be able to:

Diagnose the physical coastal subsystem.

- 3.1 Behaviour of waves near coasts, wave induced currents, sediment transport.

- 3.2 Natural phenomena of coastal erosion and accretion and measures to counteract their effects.
- 3.3 Chemical oceanography: chemistry of sea water and ocean floor material
- 3.4 Geological oceanography and the coastal zone

- 3.7 **Test:** Individual assignment to diagnose the physical subsystem of the participant's region or country

Module 4: Non-living Resources

On completing the module the participant will be able to:

Assess the non-living resources of the coastal system

- 4.1 Nearshore minerals, their exploration and extraction and impact on coastal equilibrium
- 4.2 Occurrence of hydrocarbons, their exploration and exploitation
- 4.3 Ocean energy: overview of potential sources and technologies for harnessing the different forms of energy

- 4.4 **Test:** Individual assignment to assess the non-living resources of the participant's region or country

Module 5: Living Resources

On completing the module the participant will be able to:

Assess the living resources of the coastal system and appreciate their importance

- 5.1 Overview of living resource of the oceans, biodiversity and its importance for future sustainability
- 5.2 Fish resources: stock assessment methods and models
- 5.3 Impact of degradation of mangroves and coral reefs on fisheries

- 5.4 **Test:** Individual assignment to analyse the living subsystem of the participant's region or country

Module 6: Natural Disasters

On completing the module the participant will be able to:

- 6.1 Natural disasters (cyclone, storms, surges), their impacts and mitigation measures

Module 7: Information Systems

On completing the module the participant will be able to:

Draw up the information requirements for coastal zone management and understand the use of GIS and other tools

- 7.1 Information requirements for decision making in the context of sustainable development.
- 7.2 GIS and Remote Sensing; Databases for Coastal Zone Management

Module 8: Human Resources

On completing the module the participant will be able to:

Appreciate the importance of human resources in coastal zone management

- 8.1 Nongovernmental groups, the informal sector, indigenous people, women and youth: their role in sustainable development.
- 8.2 Conflict resolution
- 8.3 Capacity building as a pre-requisite for sustainable development: the institutional imperative.

Module 9: Sustainable Development

On completing the module the participant will be able to:

Understand project planning in the context of sustainable development

- 9.1 Economics of sustainable development
- 9.2 Environmental impact assessment techniques
- 9.3 Project formulation, assessment and evaluation techniques
- 9.4 Techniques of project appraisal and selection: economic, financial and environmental aspects
- 9.5 Test: Group exercises on environmental impact assessment and cost benefit analysis

Module 10: Human Activities and their Impact

On completing the module the participant will be able to:

Formulate, evaluate and implement projects in the coastal zone in the context of sustainable development.

- 10.1 Aquaculture and its impact
- 10.2 Planning, development and management of ports and harbours
- 10.3 Development, management and impacts of tourism on the coastal ecosystem

Approval of New Courses to be conducted in 1997

The new courses for 1997 are:

Centre	Name of course	New/Old
Costa Rica	1. Natural resource economics and EIA	New
	2. Interactions between tourism and fishing activity	New
	3. Environmental education for City of Puntarenas with emphasis on Gulf of Nicoya	New
	4. Establishment and restocking of a Clam Bank by fisherwomen associations	New
	5. Training of mass media in coastal threats and hazards	New
	6. Institutional reorganisation for improved ICZM	New
	7. Marine and coastal pollution	New
India	1. Workshop on Coral Reefs - 4 weeks	New
Senegal	1. Train sea coast course: Harmonisation of fishery legislation	New
	2. Law of the sea	New
	3. Planning and Management of Coastal and Marine Biosphere Reserves	New

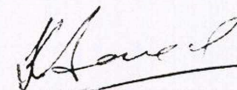
The three Directors may bring syllabi of the courses to the meeting.

In this connection the comments of Director IOI Costa Rica are reproduced.

I want to point out what I have always told during the IOI Director's meetings and what has been repeatedly expressed by participants of courses and seminars developed by this operative centre: our courses should not exceed two weeks.

It does not matter if it is a decision maker at a high or medium level or a fisherman, directly involved with fisheries. A training course exceeding this period of time, limits the participation of persons whom in order to attend the course, fail in producing in their own countries. This is the main reason because we have been obliged to carefully select and combine the material of the "two week basic reader" with the specific topics of the course to be developed.

The above needs to be discussed.

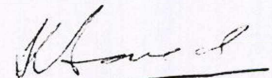


Dr. Krishan Saigal
Executive Director

Approval of course syllabi not approved earlier

IOI Costa Rica conducted a 2-week course on "Tropical Sustainable Fisheries" in October, 1996.

The syllabus of the course is at Annex I for approval of the Committee.



Dr. Krishan Saigal
Executive Director

UNIVERSIDAD NACIONAL
INTERNATIONAL OCEAN INSTITUTE

COURSE
TROPICAL SUSTAINABLE FISHERIES

DATE: 30 September- 10 October 1996

COORDINATOR: M.Sc. Jorge Arturo Rodriguez

COURSE DESCRIPTION

The course's final goal is to provide the participants with the knowledge and the understanding of the importance of sustainable fishing activities. Special attention will be given to issues such as fishing gear choice, and fishing techniques. Also the course will provide some insights on alternatives to reduce fishing pressure over the resources in Central America and the Caribbean's coastal zone.

INTENDED PARTICIPANTS

- A- Artisanal and semi-industrial fishermen who are truly engaged in commercial fishing activities.
- B- Communal or entrepreneurial leaders (cooperative promoter, small scale organizations coordinators)
- C- Fishing Extensionist and non professional fishing organization developer

PARTICIPANT COUNTRIES

Mexico, Belize, Guatemala, Honduras, El Salvador, Nicaragua, Panama, Colombia, Venezuela, Peru, Ecuador, Dominic Republic, Puerto Rico and Costa Rica.

COURSE SCHEDULE AND METHODOLOGICAL STRATEGY

The course will last 2 weeks and it will consist of four daily sessions, each lasting about 1 hour, with 25 minutes to allow the participants to engage in open discussions.

For each conference, the lecturer will provide the participants with guidelines, including a brief summary of each topic as well as the lecturers curriculum vitae.

The final part of the course will consist of a day and a half workshop designed to allow the participants to inquire about the most critical problems faced in other countries or regions of Central America and the Caribbean. The goal of the workshop is to generate the basis which enable the participants to elaborate a regional document on fishing resource sustainability.

COURSE GENERAL OBJECTIVE

Given the fact that the course will offer general guidelines on law of the sea, sustainable development, responsible fishing and marine ecosystems potential. The participants will be able to understand and collaborate with the formulation and/or execution of policies in the management and administration of fishing resources, conducted by its respective governments in the coastal zones and the exclusive economic zone.

PROGRAM

1. PART. GENERAL ASPECTS

THEMES	SESSIONS	LECTURER
1. What is the ocean? its importance. Coastal zone, exclusive economic zone.	1	Stella Vallejo
2. UNCLOS and the new law of the sea	1	Mayrand Ríos
3. The ever changing international system Globalization process. Competitivity, technological transformation.	1	Evelio Granados
4. Natural resources economics	1	Edmundo Castro
5. Fishing legislation, Regional Agreements and Central America and the Caribbean institutions.	1	Ignacio Scorriola
6. General oceanography.	1	Carlos Brenes
7. Marine ecosystems: dynamics and structure	1	J. A. Rodriguez
8. Coastal ecosystems: shallows and coral reef.	1	Carlos Jimenez
9. Marine contamination, fisheries and quality.	1	Sandra Leon
10. Marine productivity and algae ...	1	Roxana Viquez
11. Commercial resource species	1	Farid Tabash
12. Reproduction and life cycles	1	Luis Sierra
13. Technological transference in fishing activities.	1	Raul Cruz
14. Stock, world fishing statistics	1	Mauricio Vargas
15. Sustainability and sea live resources	1	Ignacio Escorriola
16. Local fishing order	1	J. A. Palacios
17. Regional fishing order	1	Raul Cruz
18. Fleet and fishing systems	1	INA
19. Remote Sensing and fisheries	1	Guillermo Quiros
20. Resource search through underwater systems	1	Luis Sierra
21. The choice of hook and handlines	1	Mauricio Vargas
22. The choice of fishing nets	1	Farid Tabash
23. Local fishing statistics	1	Incopesca
24. Bioeconomics models and fishing	1	Ignacio Escorriola
25. Responsible fishing and food security	1	INCOPECA
26. Fishing resources processing	1	Wilfredo Flores
27. Export quality and national consumption	1	Ignacio Escorriola
28. Social Organization and fisheries	1	Luis Ovaes
29. Stock Reproduction and family fishing act.	1	R.A Cruz
30. Mariculture, harvesting and Central America and the Caribbean	1	Jorge Alfaro
31. Fishing harvesting as an alternative	1	Jorge Boza
32. Harvesting of mollusk en Central America and the Caribbean	1	Eduardo Zamora
33. Technology in shellfish harvesting	1	Jorge Alfaro
34. Fishing resources management	1	Angel Herrera
35. Fishing arrangement plans	1	Angel Herrera
36. Workshops		