



## Memorandum

To: Members of the Executive Committee      Our File: 1003.12

From: Garry A. Comber

Date: January 18, 1989

Re: Executive Committee Meeting, January 30, 1989.

Please find attached the Draft Agenda and supporting documents for the forthcoming meeting.

We have not yet completed the redrafting of the Corporate Plan and its final review by the President. With your indulgence, it will be sent out on January 25 or 26 to local Members and kept for review by Roy Cheeseman and Robert McGuire upon their arrival in Halifax. We will clearly indicate the changes made to the document.

We look forward to seeing you shortly.

A handwritten signature in black ink, appearing to be "Garry A. Comber", written in a cursive style.

Garry A. Comber  
Vice-President



1003.12

**International Centre for Ocean Development**

**Draft Agenda**

**Executive Committee Meeting**

**30 January 1989  
0900 hours  
Halifax, Nova Scotia**

- |           |  |                 |                  |
|-----------|--|-----------------|------------------|
| <b>1.</b> | <b>CALL TO ORDER -</b>                                   |                 | <b>0900-0905</b> |
|           | Quorum, Adoption of the Agenda<br>etc.                   |                 |                  |
| <b>2.</b> | <b>REVIEW OF MINUTES OF 28 NOVEMBER<br/>1988</b>         | <b>EC88/D41</b> | <b>0905-0915</b> |
|           | (General Comments - Minutes of<br>Board Meeting)         |                 |                  |
| <b>3.</b> | <b>BUSINESS ARISING FROM MINUTES</b>                     |                 |                  |
|           | a) Overseas Board Meeting<br>Location & Date (Item 8.a.) | <b>EC88/D43</b> | <b>0915-0945</b> |
|           | b) Update on Reorganization<br>Activities (Item 7)       | <b>Verbal</b>   | <b>0945-1015</b> |
|           | <b>COFFEE</b>  |                 | <b>1015-1030</b> |
|           | c) Summary Record of ICOD<br>Seminar                     | <b>EC88/D36</b> | <b>1030-1045</b> |
| <b>4.</b> | <b>PRESIDENT'S REPORT</b>                                | <b>Verbal</b>   | <b>1045-1115</b> |
| <b>5.</b> | <b>FINANCIAL REPORT</b>                                  |                 | <b>1115-1130</b> |
| <b>6.</b> | <b>REVIEW OF REVISED CORPORATE PLAN</b>                  | <b>EC88/D44</b> | <b>1130-1200</b> |



LUNCH

1200-1300

7. **AUDIT COMMITTEE RECOMMENDATION  
RE SPECIAL EXAMINATION**

EC88/D42 1300-1315

Item III of Draft Minutes of Audit  
and Evaluation Committee

8. **PROJECT PROPOSALS**

1315-1500

- a) Fisheries Observer Training  
- Pacific Island Countries  
#880257 EC88/D28
- b) Conference on Management and  
Development Strategies in South  
Pacific Fisheries (FFA)  
#880255 EC88/D30
- c) Marine Law Database and Document  
Delivery Service (MARLAW)  
#880217 EC88/D31
- d) Marine Education Kits for  
St. Kitts/Nevis #870134 EC88/D32
- e) Coral Reef Research Unit  
- Maldives #880247 EC88/D33
- f) Aquaculture of Giant Clams  
- Seychelles #880249 EC88/D34
- g) Evaluation of Demersal Fish  
Stocks - Benin #880253 EC88/D35
- h) Specialized Fisheries Training  
- South Pacific #880256 EC88/D37
- i) Training of Francophone  
Lawyers in Maritime Boundary  
Delimitation (Global)  
#880254 EC88/D38
- j) Fisheries Division Institutional  
and Administrative Planning -  
Eastern Caribbean #880250 EC88/D39
- k) Enhancement of Coastal & Marine  
Environmental Monitoring  
Capability in the Caribbean  
#880252 EC88/D40

8. PROJECT PROPOSALS (CONT'D)

1) Crown of Thorns Starfish  
Program - Maldives #880240

EC88/D45

9. OTHER BUSINESS

1500-1530

a) Date of Next Executive  
Committee Meeting

b) Miscellaneous



International Centre for Ocean Development  
Centre international d'exploitation des océans

EC88/D41

January 12, 1988

CONFIDENTIAL

1003.10

EXECUTIVE COMMITTEE MEETING  
HALIFAX, NOVA SCOTIA  
NOVEMBER 28, 1988

DRAFT MINUTES

PRESENT: Elisabeth Mann Borgese, Chairman  
Roy Cheeseman  
Robert Maguire  
Gary Vernon, President  
Garry Comber, Secretary-Treasurer  
Jeanne-Mance Côté, Administration Officer

ABSENT: John Vandermeulen, Vice Chairman

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**1. CALL TO ORDER**

The Chairman had sent her apologies that she would be one hour late for the meeting. As there was a quorum present, it was decided to proceed with the first items. Roy Cheeseman was chosen to Chair the meeting until the arrival of the Chairman. The agenda was adopted as presented.

**2. REVIEW OF EXECUTIVE COMMITTEE MEETING MINUTES OF SEPTEMBER 19, 1988**

The President requested that the fourth paragraph on page 4 of the Minutes be rewritten to indicate that ICOD is striving to attain the goal of having everyone able to read both languages. This would then permit all staff to write in the language of their choice when communicating with their colleagues.



It was moved by Gary Vernon, seconded by Robert Maguire,  
**THAT THE MINUTES OF THE JUNE 19, 1988 MEETING, AS AMENDED, BE ADOPTED.**

Motion carried unanimously.

### **3. BUSINESS ARISING FROM THE MINUTES**

Item 3.A. of the previous Minutes dealt with a proposed questionnaire to Crown Corporations. Two documents were circulated dealing with the remuneration of Board Members and travel expenses. After a discussion concerning Board remuneration, it was agreed that a recommendation be made to the Board to seek Governor-in-Council approval of a change to the number of days for Board Members and the Honoraria as follows:

Chairman - \$300.00 per day - maximum 25 days per year.

Members of the Executive Committee - \$250.00 per day - maximum 20 days per year.

Other Board Members - \$250.00 per day - maximum 15 days per year.

The Executive Committee also reconsidered an earlier motion, indicated under Item 3.A. of the previous Minutes. The current proposal was to recommend to the Board that daily expenses, while on travel status, be set at \$50.00 per day. It was the consensus of the Executive Committee that these matters be presented to the Board in the form of recommendations and that a draft resolution be prepared.

### **4. PRESIDENT'S REPORT**

The President handed out an outline of the report which he proposed to give to the Board on November 30th. After a brief discussion, it was decided that a substantive report was not required at the Executive Committee meeting in view of the forthcoming Board Meeting.

### **5. SECRETARY-TREASURER'S REPORT**

The Secretary-Treasurer referred to the financial reports distributed with the Board documents. These reports indicate that ICOD's disbursements during the current fiscal year are slipping behind those of last year in percentage terms. However, the projection still indicates an over-commitment of funds during the current year. The staff will be requested to provide updated estimates during the month of December. The financial function will be closely managed during the balance of the fiscal year.

## 6. ROLE AND RESPONSIBILITY OF BOARD

It was agreed that while this matter had been raised in the past, it no longer seemed to be of great concern to Board Members. However, it was considered important to have it as an agenda item for the Board in case other Members wanted to raise specific issues.

## 7. ICOD RE-ORGANIZATION

The President indicated that, in addition to the documentation sent out to all Board Members, he was having some documents prepared to show the growth in ICOD funding and staff over the past few years and projected into the future. The Executive Committee raised a number of issues with the President in the form of questions and comments. The Executive Committee also went into camera to discuss the personnel management aspects of the proposed re-organization. Based on the in-camera discussions, the Executive Committee agreed to recommend the proposed re-organization to the Board.

The subject of eligibility was raised in one of the attachments to the document on Re-organization. The President explained his approach dealing with the ASEAN Regional Organization. It was agreed that this matter would be discussed further at the Board.

## 8. OTHER BUSINESS

### 8. A. Overseas Board Meeting

The possibility of holding a Board Meeting overseas was discussed. Preliminary cost estimates were given to the Executive Committee, who asked that more information be collected for presentation to the Board.

### 8. B. List of Proposals

It was suggested that a list of proposals received and/or turned down by ICOD should be presented to the Executive Committee. It was agreed that this would be done on the understanding that ICOD keeps information only on projects formally submitted to it.

### 8. C. Project Summaries

The Executive Committee reviewed the project summaries forwarded to the Board in order to make recommendations to the Board on these projects.

#### i) **OECS Small Projects Funding Program - 880227**

Recommended as submitted.



- ii) **Training in Fish Quality Control and Inspection - Seychelles - 880226**

Recommended as submitted

- iii) **Co-operative Development Program, ISSTH University of Moncton (Shippagan) - 880231**

Recommended for approval in principle, as requested. The President indicated that approval would be sought once further discussion established more specific objectives.

- iv) **Institute of Marine Resources, USP, Institutional Enhancement - 880229**

The Executive Committee felt that the University of the South Pacific should be required to contribute to the salary costs of the lecturer, perhaps on an increasing basis over the life of the project. This would permit them to take over responsibility for the position at the end of the project. The recommendation to the Board for approval would note this point.

- v) **Training in Geology, Pacific Island Countries - 880230**

Recommended as submitted.

- vi) **International Maritime Law Institute Scholarships - 880233**

There was discussion as to the background of this project and the difficulties which the institute is experiencing in obtaining the core funding required to get it started. The project was recommended as submitted including the caveat on page 4 of the project summary.

- vii) **Near Shore Non-Fuel Mineral Resources Courses - Indian Ocean - 880210**

There was a discussion as to other potential sites should the situation in Sri Lanka make it difficult to hold the course in that country. The project was recommended as submitted.

8. D. ICOD Accommodation

There was a discussion concerning ICOD accommodation needs and costs. Based on the projected increase in ICOD staff, it was suggested that: 1) ICOD seek suitable accommodation in the current building required over the next one or two years; 2) Once that was done, ICOD should seriously look at future possibilities, including alternatives such as buying a building, leasing a complete building, seeking similar accommodation in another building or striking as good a deal as possible with our current landlord to continue in the current building. It was agreed to follow this course of action.

The meeting was adjourned.

BOARD OF DIRECTORS MEETING  
HALIFAX, NOVA SCOTIA  
30 NOV.-1 DEC. 1988  
DRAFT MINUTES

PRESENT: Elisabeth Mann-Borgese, Chairman  
Roy Cheeseman  
Mary Jo Duncan  
Gastien Godin  
Vaughan Lewis  
Ellen McLean  
Robert Maguire  
Philipp Muller  
Sharon Proctor  
Gary Vernon, President  
Garry Comber, Secretary/Treasurer  
Jeanne-Mance Côté, Administrative Officer  
Peter Houliston, CIDA Observer

ABSENT: John Vandermeulen, Vice-Chairman  
Danielle de St-Jorre  
Moise Mensah  
François Pouliot

1. A. CALL TO ORDER

The Chairman welcomed Members and noted the absence of two International Board Members, Danielle de St-Jorre and Moise Mensah. It was also noted that the Vice-Chairman would be absent due to illness and Board Members extended their wishes for a prompt recovery. The Chairman announced the recent appointment of François Pouliot to the Department of Fisheries and Oceans and welcomed Peter Houliston as an observer on behalf of CIDA.

The Chairman noted that this meeting had a quorum.

1. B. **ADOPTION OF THE AGENDA**

It was moved by Roy Cheeseman, seconded by Ellen McLean,

BD88/2/R1 **THAT THE AGENDA BE ADOPTED AS PRESENTED.**

Motion carried unanimously.

It was moved by Gastien Godin, seconded by Mary Jo Duncan,

BD88/2/R2 **THAT WISHES FOR A COMPLETE AND SPEEDY RECOVERY  
BE EXTENDED TO THE VICE-CHAIRMAN.**

Motion carried unanimously.

2. **REVIEW OF MINUTES**

2. A. **JUNE 1988 BOARD MEETING**

BD88/D45

It was moved by Ellen McLean, seconded by Sharon Proctor,

BD88/2/R3 **THAT THE MINUTES OF THE JUNE 1988 BOARD  
MEETING BE ADOPTED AS PRESENTED.**

Motion carried unanimously.



**2. B. 19 SEPTEMBER 1988 EXECUTIVE COMMITTEE MEETING**

BD88/D46

The President advised Members that paragraph 5 on page 4 of the minutes dealing with ICOD's position on bilingualism will be changed to better reflect his comments at the time of the meeting. The Board noted the Minutes of the Executive Committee meeting of 19 September 1988.

**2. C. REPORT OF THE EXECUTIVE COMMITTEE**

- i. The Executive Committee made a recommendation to the Board to increase a) the daily honorarium from \$200 to \$250 for Board Members and from \$250 to \$300 for the Chairman; b) to increase the number of days per year for Board meetings and related business to 20 days for Members of the Executive Committee and 25 days for the Chairman; and c) to increase the daily expense allowance to \$50. This matter would be dealt with under Item 3.A.iv.
  
- ii. The Chairman reviewed the roles of both the Board and the Executive Committee. It was suggested that the Agenda and the Minutes of Executive Committee meetings be sent to all Board Members for their information.



- iii. The item on the proposed ICOD Reorganization would be dealt with under Item 4 - President's Report.
  
- iv. The President advised Members that because of additional funding, the list of eligible countries would have to be reviewed. This matter would be dealt with under Item 6.
  
- v. Project proposals were reviewed by the Executive Committee and recommendations will be given under Item 8.
  
- vi. The costs of holding Board Meetings overseas were discussed. This matter will be dealt with under Item 3.A.vi.
  
- vii. In line with the restructuring of ICOD, additional space will be required to accommodate the growing number of staff. It was recommended that for the immediate future, ICOD seek to obtain additional space in the current building at the same rate as the present lease and with the same expiry date.

It was also recommended that, one year before the present lease is to expire, ICOD should investigate all options for accommodations including purchasing

a building, leasing an entire building, moving to a different location, or negotiating the best deal possible with the current landlord.

3. **BUSINESS ARISING FROM MINUTES**

3. A. **BOARD MINUTES**

i. Yearly ICOD Seminar BD88/D64

A list of attendees to the Seminar and a list of guests to the Breakfast were circulated for information. The schedule of events was reviewed.

ii. Information Policy BD88/D47

François Pouliot's letter on ICOD's Information Policy was tabled for information. The President invited Members to send their comments on the policy. The Chairman recommended contacting the Foundation for International Training in Toronto for possible cooperation re training materials.

iii. Rotational Program Officer Position for Developing Country Candidates

The President asked Board members for names of

possible candidates for this position and a letter to that effect will be sent to the absent International Board Members.

iv. Board Remuneration and Living Allowance

It was moved by Roy Cheeseman, seconded by Robert Maguire,

BD88/2/R4

THAT APPROVAL BE SOUGHT FROM THE MINISTER AND GOVERNOR IN COUNCIL FOR THE FOLLOWING TERMS AND CONDITIONS OF REMUNERATION FOR DIRECTORS OF ICOD:

1) THE DIRECTORS OF THE INTERNATIONAL CENTRE FOR OCEAN DEVELOPMENT SHALL BE PAID THE FOLLOWING FEES FOR ATTENDANCE AT MEETINGS OF THE BOARD AND ANY COMMITTEES THEREOF OR FOR ANY OTHER WORK REQUESTED BY THE BOARD; A) IN THE CASE OF THE CHAIRMAN, \$300/DAY AND B) IN THE CASE OF OTHER DIRECTORS (EXCLUDING THE PRESIDENT), \$250/DAY.

2) THE NUMBER OF DAYS TO BE PAID FOR ATTENDANCE AT MEETINGS OF THE BOARD AND ANY COMMITTEES THEREOF IN A GIVEN YEAR SHALL NOT EXCEED TWENTY-FIVE (25) IN THE CASE OF THE CHAIRMAN; TWENTY (20) IN THE CASE OF DIRECTORS

WHILE SERVING ON THE EXECUTIVE COMMITTEE; AND  
FIFTEEN (15) IN THE CASE OF OTHER DIRECTORS  
(EXCLUDING THE PRESIDENT).

Motion carried unanimously.

It was moved by Roy Cheeseman, seconded by Robert Maguire,

BD88/2/R5

THAT IN LIGHT OF INFORMATION RECEIVED SINCE  
THE 19 SEPTEMBER 1988 MEETING OF THE EXECUTIVE  
COMMITTEE, THE TRAVEL EXPENSES ALLOWANCE FOR  
THE ICOD BOARD MEMBERS, WHILE ATTENDING  
MEETINGS OF THE BOARD AND ANY COMMITTEES  
THEREOF OR WHILE ON ANY OTHER WORK REQUESTED  
BY THE BOARD, BE ESTABLISHED AT \$50.00 PER DAY  
WITH THE PROVISION THAT ANY UNUSUAL EXPENSES  
OVER AND ABOVE THAT AMOUNT MAY BE SUBMITTED  
FOR CONSIDERATION BY ICOD.

Motion carried unanimously.

- v. Update on Possible Upgrading of Marine  
Affairs Diploma Program

BD88/D48

The President gave an update on the proposals for  
upgrading the diploma programs to Masters Degree  
Programs at both Dalhousie University and



Université du Québec à Rimouski.

UQAR proposes to increase the program to 20 months with an increase in scholarship costs to ICOD of \$3600 to \$7200 per student. The program is expected to start in September of 1991, pending approvals from UQAR and the Ministry of Education.

Dalhousie University proposes a one-year Masters with the IOI pre-requisite course possibly becoming an elective credit course. Pending Dalhousie University and the Maritime provincial governments' approvals, the program may be ready for September of 1989 and no extra costs for ICOD are foreseen.

One Member asked if credits were transferable to other universities. Another suggested that a mid-project evaluation of both Universities be undertaken.

vi. Costs for Possible Board Meeting Overseas

BD88/D49

After discussion, Members agreed that holding Board meetings in one of the Regions would benefit Members of the Board. It was suggested that the Annual June Board Meeting be held in Halifax. The



location of the second Board Meeting, held in the fall of each year, would alternate from one year in another Canadian city to the following year in one of the overseas Regions of concentration.

It was decided that details of the first overseas Board Meeting would be discussed at the next Executive Committee meeting and their decision would be communicated to the Board in February.

3. B. EXECUTIVE COMMITTEE MINUTES

i. Future Role of the Board

This item was discussed under item 2.C.ii above.

ii. Evaluation Activities

BD88/D65

A recommendation was made to the Board to expand the role of the Audit Committee by assigning responsibility to the Committee for reviewing evaluation activities as well as audit activities.

It was moved by Ellen McLean, seconded by Gastien Godin,

BD88/2/R6

THAT THE AUDIT COMMITTEE, REFERRED TO IN ARTICLE VII OF THE BY-LAWS, BE RECONSTITUTED AS THE AUDIT AND EVALUATION COMMITTEE AND THE BY-LAWS BE AMENDED ACCORDINGLY.

Motion carried unanimously.

iii. Role of Information Division

This item was deferred to Item 6.

iv. Letter to D. Lindores

BD88/D66

The document was tabled for Board Members' information.

3. C. OTHER BUSINESS ARISING

i. Letter on Behalf of the Board

A letter of congratulations to François Pouliot and a letter to Stewart McInnes, former Minister of Public Works, will be drafted on behalf of the Board for the Chairman's signature.

ii. Reports from International Directors

Philipp Muller gave an overview of the most recent initiatives in the South Pacific namely the Boundary Delimitation Program, a Surveillance Officers' meeting, the signing of the South Pacific initiative with CIDA and the opening of ICOD's regional office in Suva. Mr. Muller also mentioned his earlier visit to the Seychelles where he was able to review fisheries management approaches and make recommendations based on the South Pacific activities to date.

Vaughan Lewis thanked the President for his visit to the Caribbean relating to the redesign of CIDA Marine Resources Assessment Project and signing of several ICOD project MOAs. Mr. Lewis also spoke of a meeting of Heads of Governments which commended ICOD support in the area of fisheries development. An ICOD-sponsored workshop on Foreign Fisheries Access and Surveillance was held for Fisheries Officers and Legal Officers of the Region. Mr. Lewis stressed that ICOD financial assistance was crucial to accomplish these types of projects.

Questions were asked to the International Members on whether ICOD was focussing on the right type of projects; were these based on real needs; and what was the Centre's profile in the countries where there is ICOD involvement?

Both Members answered positively to the first two questions although cautioning that ultimately, success could only be measured by the direct benefits to the client groups. On the third question, the Member from the Caribbean admitted that although CIDA was the better known agency, ICOD is carving itself a niche and all project reports mention the ICOD name. The Member from the South Pacific felt that ICOD was relatively well known in his Region.

It was indicated that ICOD should consider more bilateral projects in future. It was felt by recipients that ICOD had the least self-interest amongst donors and hence, was easy to deal with. A suggestion was made to apply stickers with the ICOD logo on all ICOD-related materials.

With reference to a question on environmental issues, Philipp Muller discussed the degradation of



reef areas due to heavy exploitation and felt that ICOD could help by providing technical expertise in that area. Vaughan Lewis acknowledged an increasing awareness of environmental problems by the Caribbean Basin countries such as: coral reef conservation, beach degradation, mining, observance of fishing seasons, control and surveillance, and stock conservation. ICOD could help by raising the consciousness of the population and the governments.

#### 4. PRESIDENT'S REPORT

The following documents were given to Board Members for their information:

Status of Active and Completed Projects	BD88/D50
Projects Approved under Presidential Authority	BD88/D51
Cost Overruns Approved under Presidential Authority	BD88/D52
List of ICOD Contracts	BD88/D53
List of Scholarships	BD88/D69
Charts, Maps, Corporate Plan Estimates	BD88/D72
List of ICOD Staff and Board Members	BD88/D73

In addition, the following documents were made available for review by Board Members:



Draft of Personnel Management Manual	BD88/D74
Draft of Administrative Policy Manual	BD88/D75
Draft of Evaluation Systems and Procedures Manual	BD88/D76

## I. POLICY

The President reviewed the growth in ICOD's budget which indicates an increase in funding from \$25 M over five years when ICOD was created to possibly \$135 M over the next five years; of this figure, \$95 M is ICOD core funding and the rest would be from contract funding. He stressed the need to rationalize and strengthen ICOD's operations by building an increased administrative capacity, gaining better access to sectoral expertise and rationalizing ICOD's internal structure. The proposed Reorganization to be discussed subsequently indicated that Divisions would reflect geographical considerations rather than the original functional approach of Information, Training and Technical Assistance.

ICOD's role is also changing from a reactive to a proactive stance. Linkages with regional organizations will have to be strengthened and greater project administrative authority transferred to those organizations. It is proposed to expand ICOD's sectoral activities to more fully meet ICOD's broad mandate. The expansion of eligibility to support regional

projects in areas such as Southeast Asia, South Asia, the littoral of the Caribbean, and South America would be examined. Bilateral assistance to small countries in which ICOD is active could be expanded. ICOD support for South-South exchanges will be maintained. As always, ICOD's main objective will be to build the capacity of developing countries to manage their own resources.

## II. PROGRAMS

### Caribbean

#### 1. General Comments

The Caribbean is one of the two main areas of concentration for ICOD in terms of funding and it is expected that over \$13 M in core funding will be spent in the Region over the next five years.

#### 2. Operational Update

- ICOD will broaden its geographical focus by looking at bilateral projects in non-OECS countries.
  
- At the request of CIDA, ICOD has agreed to undertake a Resource Assessment Project which will include all CARICOM countries in the Region.
  
- ICOD is also broadening its sectoral focus in the Caribbean: projects have started in support of

marine parks, and a Resources Management degree program with special emphasis on environmental matters is being undertaken at the University of the West Indies.

- ICOD is holding discussions with CIDA on the posting of an officer in the Caribbean to manage CIDA and ICOD projects.

### West Africa

#### 1. General Comments

This region is one of the most difficult to deal with as it has no effective regional organizations dealing with ocean issues. It is ICOD's highest priority for planning at present even though participation is still at a "reactive" stage. The Centre has taken part in several planning missions, but projects are taking longer to get started than elsewhere. The expenditure target is \$10 M over the next five years.

#### 2. Operational Update

- ICOD has participated in an FAO mission in West Africa in the early part of 1988 but a promised mission report from FAO with proposals for future action, has not yet been issued. More recently, contacts were made with the sub-regional Commission



of Fisheries in Dakar. A project titled "Cooperative Development Program between ISSTH (Mauritania) and the University of Moncton (Shippagan Campus)" is being submitted for Board approval.

- Several bilateral projects have been developed for a number of countries. ICOD is undertaking a regional Non-fuel Mineral course in Ghana. The Centre is reviewing proposals on habitat protection in Mauritania, a regional Maritime Boundary Delimitation Course in Morocco and a review of the shipping code in Cameroon.
- ICOD has been approached by CIDA to undertake the training component of an ongoing project on Surveillance and Enforcement in Senegal. Although events have now overtaken the request, further discussions may ensue in future.
- ICOD will be participating in a World Bank mission to Guinea-Bissau which could lead to a proposal for ICOD support. If conditions for projects in that country appear favourable, Guinea-Bissau may be proposed as a target country.



The Chairman suggested that ICOD contact the Department of Oceanography at the University of Ghana who are intent on promoting Marine Sciences on a regional basis. It was also suggested that greater efforts are required in West Africa, including the possible posting of an ICOD employee to accelerate planning activities.

### South Pacific

#### 1. General Comments

ICOD has a very close working relationship with the Forum Fisheries Agency, the University of the South Pacific, CCOP/SOPAC, and the South Pacific Commission. Agreements relating to the CIDA project in the South Pacific as well as some ICOD project agreements were recently signed during the President's visit. Projected disbursements from core funding over the next five years should total approximately \$10 M.

#### 2. Operational Update

- A balance between CIDA and ICOD funding for future projects must be struck; ICOD is looking into more bilateral projects to absorb its own core funding in future years.
  
- A comprehensive Fisheries and Oceans planning project was presented to ICOD by the Government of

Vanuatu and is currently under review.

- Among the projects underway, the President noted that a Non-fuel Mineral Course was held in Fiji and Law of the Sea specialist has just completed a teaching program at the University of Papua New Guinea.

### Indian Ocean

#### 1. General Comments

There is no effective regional focal point in this Region. There is also heavy competition from other large donors. Nonetheless, in the Indian Ocean Region, ICOD has achieved the best balance thus far between fisheries and non-fisheries projects. Recent unrest in Sri Lanka and the Maldives (where two ICOD staff members were travelling at the time of the recent attempted coup) will have to be taken into account in any future projects. Expenditures over the next five years should total approximately \$9 million.

#### 2. Operational Update

- ICOD's aim is to support a regional focus through the Indian Ocean Commission (IOC) and/or the Indian Ocean Marine Affairs Cooperation (IOMAC). Country profiles are being drawn up on fisheries and marine activities.

- ICOD's list of target countries has been expanded to include the East coast of Africa - Djibouti, Somalia, Kenya, Tanzania and Mozambique.
  
- Bilateral programming has been active in Comoros, Madagascar, Seychelles, Mauritius, Maldives and Sri Lanka.

### Global

#### 1. General Comments

Expenditures on projects of a global nature represent the greatest proportion of ICOD spending. It is expected that over \$26 M will be spent on global programs over the next five years.

The President indicated that some ICOD scholarship recipients were experiencing difficulties with their grades. A discussion followed about reasons for these problems and what ICOD could do to avoid such problems in future.

#### 2. Operational Update - Global Training Programs

- A proposal for marine sectoral scholarships representing \$10 - \$15 million over the next five years has been discussed with CIDA.



- Scholarship support is being given to the International Ocean Institute, the World Maritime University, and a project is being submitted for Board approval for scholarships to the new International Maritime Law Institute.
  
- ICOD provides scholarships and training programs at many Canadian institutions such as Erindale College (University of Toronto), UQAR, Dalhousie, Shippagan, the Newfoundland College of Fisheries. There have been recent discussions with British Columbia universities and colleges and a South Pacific scholarship project targeted to the West Coast is being submitted for approval.

3. Operational Update - Global Information Programs

- ICOD has been working closely with the International Ocean Institute and the World Maritime University to develop a roster of marine training specialists.
  
- ICOD is also working with those same organizations in developing oceans issues training brochures.
  
- ICOD publications have included the Directory of Marine Training Institutions in Canada, the Annual



Report, the ICOD Newsletter and an upcoming ICOD video.

### III. ADMINISTRATION

#### 1. Restructuring

This issue is discussed under Item 6.

#### 2. Internal Update

Three manuals have now been completed: the Administrative Policies and Procedures Manual, the Personnel Management Manual, and the ICOD Evaluation Systems Manual.

Through a competitive selection process, ICOD has secured the services of a travel agency which will have staff dedicated solely to the ICOD account. Cost savings and more effective travel planning are anticipated.

The position of Program Officer, South and West Indian Ocean, Technical Assistance Division, has now been filled and interviews will be conducted shortly for the positions of Legal Counsel and Personnel Administrator.

#### 5. **REPORT OF THE SECRETARY/TREASURER**

##### 5. A. **FIVE YEAR FINANCIAL PROJECTION**

BD88/D54

The figures shown in the reference document represent the current approved projections and actual commitments over the next five years. Additional core funding, once approved by the Government, will be included in the totals to bring them in line with the projected Corporate Plan totals.

**5. B. CURRENT FINANCIAL STATEMENT**

BD88/D55

A new Revenue and Expense Budget document was circulated which now provides Directors with comparative figures between last year's and this year's disbursements. This comparative reporting will allow Senior Management to monitor Divisions budgets closely and take remedial action.

As per the end of November 1988, 44% of the year's total funding has been spent. One of the reasons for the lag in disbursements is the "Study in Canada" program which has not attracted as many students as expected. This is reflected in Training Division expenditures.

**6. RESTRUCTURING OF ICOD**

BD88/D56

An in-camera session was held to discuss the proposed ICOD Reorganization resulting in Board approval for the restructuring.

The positions of Vice President and Director of Finance were

created and it was decided that the Vice President would serve as both Secretary to the Board and Treasurer of ICOD. Changes will be made to the job description for the position of Director of Finance in keeping with this decision.

It was moved by \_\_\_\_\_, seconded by \_\_\_\_\_,

BD88/2/R7           **THAT THE PROPOSED ICOD ORGANIZATION INDICATED  
IN DOCUMENT BD88/D56 BE ADOPTED WITH THE  
ABOVE-NOTED CHANGES.**

Motion carried unanimously.

In light of the Board's agreement to authorize the position of Vice President of ICOD,

It was moved by , seconded by 

BD88/2/R8           **THAT GARRY COMBER BE CONFIRMED AS VICE  
PRESIDENT OF ICOD AND THAT HE RETAIN THE  
RESPONSIBILITIES OF SECRETARY TO THE BOARD AND  
TREASURER.**

Motion carried unanimously.

It was agreed that other administrative matters relating to

the organization would be left to the discretion of the President.

**DELEGATION OF AUTHORITY CHART**

Noting that the title "Treasurer" will be replaced by the title "Director of Finance",

It was moved by Roy Cheeseman, seconded by Robert Maguire,

BD88/2/R7

**THAT THE BOARD**

(A) APPROVE THE NEW DELEGATION OF AUTHORITY CHART DATED 1 DECEMBER 1988; AND

(B) AUTHORIZE THE PRESIDENT TO DELEGATE THE SIGNING AUTHORITY ACCORDED TO THE POSITION OF VICE PRESIDENT TO ANY OTHER SENIOR OFFICER EMPLOYED BY THE CORPORATION IF BOTH THE PRESIDENT AND VICE PRESIDENT ARE TO BE ABSENT FROM THE OFFICE FOR A PERIOD IN EXCESS OF FIVE

(5) DAYS, SUBJECT TO THE PRESIDENT NOTIFYING THE EXECUTIVE COMMITTEE OR THE OFFICER SO DELEGATED AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF THE DELEGATION.

Motion carried unanimously.



**BANKING RESOLUTION**

Following the previous resolution on the Delegation of Authority Chart, a new Banking Resolution was drawn up to reflect the addition of the Director of Finance and the Personnel and Administration Manager.

Noting the change in title from Treasurer to Director of Finance,

It was moved by Roy Cheeseman, seconded by Robert Maguire,

BD88/2/R8            **THAT APPROVAL BE GIVEN TO THE BANKING  
RESOLUTION AS AMENDED.**

Motion carried unanimously.

(Banking Resolution appended hereto as Annex A.)

**STAFFING (AMENDMENT TO BY-LAWS)**

BD88/D67

It was moved by Sharon Proctor, seconded by Mary Jo Duncan,

BD88/2/R9            **THAT ARTICLE VIII OF THE ICOD BY-LAWS -  
EXECUTIVE OFFICERS - BE AMENDED TO INCLUDE A  
REFERENCE TO THE VICE PRESIDENT IN SUBSECTION  
1 OF ARTICLE VIII AND TO PROVIDE A NEW**

SUBSECTION 5 DEFINING IN GENERAL TERMS THE DUTIES OF THE VICE PRESIDENT. ARTICLE VIII, SUBSECTIONS 5, 6 AND 7 WOULD THEREFORE BE RENUMBERED AS 6, 7, 8.

Motion carried unanimously.

**OVERSEAS BANK ACCOUNTS - SIGNING AUTHORITY**

The Office of the Auditor General of Canada have recommended that ICOD seek blanket approval from the Board of Directors to delegate to ICOD's Senior Management responsibility for deciding the signing authorities of all Field Office accounts.

It was moved by Roy Cheeseman, seconded by Robert Maguire,

BD88/2/R10      THAT UPON BOARD APPROVAL OF THE OPENING OF A FIELD OFFICE, THE PRESIDENT MAY DESIGNATE SIGNING AUTHORITIES TO HIMSELF AND OTHER ICOD STAFF FOR THE NECESSARY BANK ACCOUNTS BASED ON THE DELEGATION OF AUTHORITY CHART APPROVED BY THE BOARD (AS AMENDED PERIODICALLY).

Motion carried unanimously.

**7. REVIEW OF CORPORATE PLAN**

BD88/D57

Both the President and the Secretary/Treasurer identified sections of the Corporate Plan which, as a result of the Board's approval of the new ICOD structure, would require changes or rewriting. Reference was made to the document "Corporate Plan Estimates" handed out earlier which showed financial projections by geographic Region. The new version of the Corporate Plan will be submitted to the Executive Committee at its 30 January 1989 meeting.

One Member expressed concern over Madame Landry's statement (shown in the Press Clippings) on the use of private sector consultants from the Maritime provinces. ICOD indicated that the Minister's statement was in relation to the CIDA projects and that ICOD attempts to balance the hiring of consultants among the regions of Canada.

It was suggested that the financial targets set for the thirteen sectoral priorities (Section VIII) derived from the Government's new Official Development Assistance Strategy be kept for internal ICOD use only and not be given as official targets in the Corporate Plan submitted for approval.

**8. PROJECT PROPOSALS**

**8. A. OECS SMALL PROJECTS FUNDING PROGRAM**

BD88/D58

There was a discussion as to whether ICOD should become involved in the approval of each sub-project. It was agreed that ICOD should set criteria for approval of sub-projects by the OECS Fisheries Desk. The Centre would monitor the program closely and report on a regular basis to the Executive Committee.

The Director from the Caribbean Region suggested that the Memorandum of Agreement clearly indicate a mechanism for the review of proposed sub-projects by the OECS in relation to criteria established by ICOD. The CIDA observer at the meeting suggested that the people responsible for this project liaise with the CIDA authorities in the region, who are responsible for a similar small projects fund.

It was moved by Robert Maguire, seconded by Gastien Godin,

BD88/2/R11

**THAT FINAL APPROVAL BE GIVEN TO PROJECT  
#880227 - OECS SMALL PROJECTS FUNDING PROGRAM  
- TO A MAXIMUM ICOD CONTRIBUTION OF \$675,000  
CANADIAN WITH THE PROVISIO THAT REGULAR REPORTS  
ON THE IMPLEMENTATION OF THE OVERALL PROGRAM  
BE SUBMITTED TO THE EXECUTIVE COMMITTEE.**

Motion carried with one abstention.



8. B. TRAINING IN FISH QUALITY CONTROL AND INSPECTION

- SEYCHELLES, SOUTH WEST INDIAN OCEAN BD88/D59

It was moved by Sharon Proctor, seconded by Philipp Muller,

BD88/2/R12 THAT FINAL APPROVAL BE GIVEN TO PROJECT  
#880226 - TRAINING IN FISH QUALITY CONTROL AND  
INSPECTION - SEYCHELLES, TO A MAXIMUM ICOD  
CONTRIBUTION OF \$87,503 CANADIAN.

Motion carried unanimously.

8. C. COOPERATIVE DEVELOPMENT PROGRAM BETWEEN ISSTH  
(MAURITANIA) AND THE UNIVERSITY OF MONCTON  
(SHIPPAGAN CAMPUS) BD88/D60

The President indicated that final approval would be sought once further discussions established more specific objectives and targets for the staff exchanges envisaged within the overall framework of the project.

It was moved by Roy Cheeseman, seconded by Sharon Proctor,

BD88/2/R13 THAT APPROVAL IN PRINCIPLE BE GIVEN TO PROJECT  
#880231 - COOPERATIVE DEVELOPMENT PROGRAM  
BETWEEN ISSTH (MAURITANIA) AND THE UNIVERSITY  
OF MONCTON (SHIPPAGAN CAMPUS) - WITH AN

**ESTIMATED ICOD CONTRIBUTION OF \$151,300  
CANADIAN.**

Motion carried unanimously.

**8. D. INSTITUTE OF MARINE RESOURCES; INSTITUTIONAL  
ENHANCEMENT - UNIVERSITY OF THE SOUTH PACIFIC**

BD88/D61

In recommending this project to the Board, the Executive Committee indicated that they felt that the University of the South Pacific (USP) should be requested to contribute to the salary costs of the lecturer, perhaps on an increasing basis over the life of the project. This would permit USP to take over responsibility for the position at the end of the project. It was indicated that the University of the South Pacific was short of funding due to the budget constraints of all member countries.

Based on the discussion that followed, it was indicated that the project would be approved on the condition that ICOD would make its "best efforts" to negotiate a contribution to the salary cost of the lecturer from the University of the South Pacific. However, if such a contribution were not possible in view of the limited funding available to the University, the project would still proceed.

During this discussion, it was also indicated that a three year time frame may be too short for the development of training capacity. Therefore, on this or other projects, ICOD should assess early on whether start up projects should be viewed as the first phase of a broader initiative.

Noting the above comments,

It was moved by Elisabeth Mann-Borgese, seconded by Vaughan Lewis,

BD88/2/R14      THAT FINAL APPROVAL BE GIVEN TO PROJECT  
 #880229 - INSTITUTE OF MARINE RESOURCES,  
 INSTITUTIONAL ENHANCEMENT - TO A MAXIMUM ICOD  
 CONTRIBUTION OF \$70,000 CANADIAN WITH THE  
 PROVISIO THAT THE UNIVERSITY OF THE SOUTH  
 PACIFIC BE ASKED TO CONTRIBUTE TO THE SALARY  
 OF THE LECTURER.

Motion passed with one abstention.

8. E. TRAINING IN GEOLOGY; PACIFIC ISLAND  
 COUNTRIES

BD88/D62

The Board noted that this was the first major undergraduate training initiative since their discussion about such scholarships and programs a year ago. It was also noted that







(It is understood that these funds will be disbursed only in the event that the International Maritime Law Institute acquires sufficient core funding to begin operations and that the scholarship costs remain in the range given in the project budget.)

Motion carried unanimously.

**8. G. NEARSHORE NON-FUEL MINERAL RESOURCES COURSE**

**- INDIAN OCEAN**

BD88/D68

There was a discussion as to other potential sites should the situation in Sri Lanka make it difficult to hold the course in that country. The President noted that the costs per participant may be reduced in which case the number of participants funded by ICOD from ICOD target and secondary focus countries might increase.

It was moved by Roy Cheeseman, seconded by Sharon Proctor,

BD88/2/R17      **THAT FINAL APPROVAL BE GIVEN TO PROJECT  
#880210 - NEARSHORE NON-FUEL MINERAL RESOURCES  
COURSE - INDIAN OCEAN - TO A MAXIMUM ICOD  
CONTRIBUTION OF \$155,000 CANADIAN.**

Motion carried unanimously.

9. OTHER BUSINESS

9. A. COUNTRY ELIGIBILITY

A discussion on country eligibility took place. It was requested that a three or four-page document be proposed outlining the criteria for country eligibility in each Region and for discussion about the possible extension of eligibility to new countries or regional organizations. It was also suggested that country profiles might be prepared which would include a general view of a possible for ICOD in those countries.

The Directors from the Caribbean and South Pacific were asked if their Regions still required financial assistance. The Member from the South Pacific replied that they had tried to restrain the number of requests and that more project requests could certainly be made if funding were available. He also felt that the impact of ICOD assistance was far greater in smaller countries than in larger countries like India. He also suggested more projects with a direct impact on fishermen and a project for a Bachelor Degree training in the Region.

The Member from the Caribbean stated that his organization had reached the end of the first phase of assistance from ICOD. The second phase would include the continuation of

training, emphasis on access policy and monitoring and surveillance systems and greater funding for small projects assistance.

Other issues which are coming to the forefront are: economies of scale of fish production and marketing; tourism and the marine environment, and; in general, the economics of the sea.

Mr. Lewis stated that, despite other pressing world problems, there is still a serious need for financial assistance in the Caribbean.

**9. B. PRESENTATIONS TO BOARD MEETING**

One Member asked that presentations on countries, regions and related projects be made at Board meetings on a regular basis.

**9. C. COST OF LIVING INCREASE FOR ICOD STAFF**

Board Members were informed that the 1988 Cost Of Living Increase for ICOD staff was 4%.

**9. D. REAPPOINTMENT OF INTERNATIONAL BOARD MEMBERS**

It was moved by Sharon Proctor, seconded by Gary Vernon,

BD88/2/R18

**THAT REAPPOINTMENT OF THE THREE INTERNATIONAL DIRECTORS WHOSE TERM OF OFFICE EXPIRES IN APRIL 1989 BE SOUGHT FROM GOVERNMENT.**

Motion carried unanimously.

**10. DATES FOR THE NEXT BOARD MEETINGS**

The Annual Board meeting will be held in Halifax on 15 and 16 June 1989.

Members were asked to keep the period of 15 November to 15 December open for the Fall Board meeting. A decision on exact date and location will be taken by the Executive Committee as soon as possible. As indicated earlier, the Executive Committee will meet on 30 January 1989 to review the final draft of the Corporate Plan and conduct other business, as appropriate.





EC88/D43

PROJECTED COSTS FOR POSSIBLE  
OVERSEAS BOARD MEETING

<u>SUVA, FIJI</u>	<u>TOTAL</u>
	\$ 86,000
<u>CARIBBEAN (Jamaica, St. Vincent, Barbados)</u>	<u>TOTAL</u>
	\$ 59,000
<u>HALIFAX</u>	<u>TOTAL</u>
	\$ 33,000
<u>VICTORIA</u>	<u>TOTAL</u>
	\$ 46,000

NOTE: These costs assume full Board attendance and four ICOD staff.

The costs also assume conference facilities are included with accommodation charges.

Included in the totals are: Honoraria, Airfares, Meals and Accommodation.



EC88/D36

## Memorandum

To: All Board Members Our File: J-68-87

From: Gary C. Vernon

Date: January 9, 1989

Re: ICOD Seminar

Attached for your perusal and record is a Summary Record of the Breakfast meeting held on December 2. The Record incorporates also points arising from subsequent informal meetings with Prof. Orio Giarini, Dr. Max Borlin and others.

As suggested during the Breakfast meeting, and as a first step in any future activity on the subject, ICOD will make enquiries with the relevant UN offices, World Bank and EEC to see what initiatives, if any, are being undertaken in this field. We will then report to the Board on any future role ICOD might take.

A handwritten signature in cursive script, appearing to be 'G.C. Vernon', located at the bottom right of the page.

ICOD Seminar  
on "The Contribution of Ocean  
and Ocean Development to  
Wealth and Welfare with  
Particular Reference to  
Developing Countries"

EXECUTIVE SUMMARY

The focus of the Seminar was the contribution of oceans to wealth and welfare. The presentation by Prof. Orio Giarini and Dr. Max Borlin stressed the need for developing, applying and evaluating monetary as well as non-monetary indicators which can provide a more adequate accounting in order to better use, preserve and enhance the common heritage of the oceans.

Within this framework, it was suggested that ICOD could play a useful role:

- a) by consulting international agencies/organisations such as the U.N.'s Office for Ocean Affairs and Law of the Sea, UNEP, World Bank and also EEC to see if they are doing any work in monitoring the creation of wealth from ocean resources;
- b) if such organisations were already undertaking or beginning to undertake any work in this area, ICOD could lend its support to the success of their work by assisting its target regions/countries to contribute to monitoring the creation of wealth from the oceans, taking into account the monetary and non-monetary aspects of such wealth creation;
- c) in the event the above-mentioned international organisations were not undertaking any initiatives in this area, ICOD, where feasible could attempt to formulate simple indicators of ocean wealth and test them on a pilot basis in one of its target regions; in so doing, it could encourage its target countries to participate in this experiment.



ICOD Seminar

SUMMARY RECORD OF THE  
BREAKFAST MEETING  
HELD ON SATURDAY DEC. 2, 1988  
(9 a.m.-11 a.m.)

1. Following ICOD Seminar on "The Contribution of the Ocean and Ocean Development to Wealth and Welfare with Particular Reference to Developing Countries", on Friday Dec. 1, 1988, a selected group met on Saturday Dec. 2 to consider the main points emerging from the meeting.

2. In Attendance:

Elisabeth Mann-Borgese - Chairman, ICOD  
Gary C. Vernon - President, ICOD  
Mary Jo Duncan - ICOD Board Member  
D.A. Phillip Muller - ICOD Board Member  
Tony Charles - Saint Mary's University  
Phillip Reynolds - UNDP  
Orio Giarini - Seminar speaker  
Max Borlin - Seminar speaker  
Ian McAllister - Dalhousie University  
Howard Hume - ICOD  
Joshua John - ICOD

3. During the discussion, the following points were made:

3.1 It was suggested that ICOD consider taking the initiative to develop appropriate and relevant ocean wealth indicators as emphasised during the seminar held on Dec. 1. At the outset, it would be useful to test the indicators with reference to one country or a discrete region. Alternately, ICOD could assume the role of a co-ordinator in assisting other institutions which are already engaged or planning to engage themselves in the development of ocean wealth indicators and in collecting related information. Many international organisations may have already begun the task of developing indicators and gathering relevant ocean resources-based information.

Dr. Borlin could provide assistance in clarifying concepts and definitions in order to identify indicators that are meaningful and relevant. On this basis, ICOD might consider doing a pilot project for a limited period and determine what in fact was feasible.

3.2 The question was asked as to what progress, if any, other institutions have made in developing and applying such indicators. In this connection, it was noted that no



international or regional organisations have to date done any significant work in this field and that the present gap, perhaps, could be filled by an institution such as ICOD. In this context, reference was made to UNEP's "Ocean and Coastal Areas Program" and the "Mediterranean Action Plan" as examples. It was also stated that during a six month period, one could attempt to define and develop appropriate indicators and carry out discussions with relevant international organisations in this field.

3.3 It was suggested that if ICOD adopted the role of a coordinator or concerned itself with the gathering and dissemination of information, other institutions may follow the lead and collaborate.

3.4 If ICOD defined and developed some indicators and offered them to a regional organisation such as the Forum Fisheries Agency (FFA), it would be possible to ascertain its usefulness and relevance, on a pilot basis. In this connection Mr. Phillip Muller, Director of FFA (and a member of the Board of ICOD) mentioned, that leaders of governments in the South Pacific may welcome the opportunity to test the feasibility of an approach such as this in their region. Non-monetized measures would be of much interest but difficult to formulate.

3.5 The group was informed that organisations such as UNEP and the World Bank had access to a vast array of data relating to oceans and the environment. The distinction between monetized and non-monetized indicators was a crucial one but involved problems of definition. In this context, it was suggested that care be taken to draw the distinction between the short term and long term. The issue was how to get around the problem of long term valuation in non-monetized terms.

3.6 The need for training people in undertaking cost-benefit analysis particularly in non-monetized terms was emphasised. Reference was made, in this context, to the World Bank's publication on "Appraisal of Agricultural Projects". Because of the lack of training, many officials were not fully utilising the World Bank manual. The practical problem was to take these technical ideas of cost-benefit analyses and apply them at the project level. Skill development in this area was essential.

It was noted that in Canada, Dr. Sylvia Ostry and others had done some pioneer work in setting up regional development indicators; Economic Council of Canada had also done some work in this area. The issue was how to use these indicators in a meaningful way. Reference was also made to the inherent difficulties in comparing regional data because of interregional differences. If ICOD planned to do any work in this field, it would be useful to chose a specific pilot region. Before embarking on such a project, ICOD would be well advised to find out what institutions were



already doing work in the field.

3.7 In this context, reference was made to the recently published "Compendium of Environmental Statistics", by the Economic Commission for Europe. This Compendium contained extensive environmental data. It was also an attempt at integrating the various indicators. It was noted that, at present there were six countries (including U.S. and South Korea) where the contribution of oceans to GNP have been calculated with a reasonable degree of accuracy.

3.8 The question was asked if the U.N. Secretariat had started to develop environmental/ocean wealth indications like the ones mentioned by Messrs Giarini and Borlin or if it had any intention of developing such measures. The answer was that World Bank had experts who had begun to do some work in this area. (Dr. Malhotra, Prof. Herman Daly, Dr. J. Warford and Dr. Goodland). It was suggested that ICOD begin by talking to these individuals to ascertain what they were doing. The World Bank was moving more and more into environmental impact analysis, vulnerability as well as risk analysis. Thus, the starting point would be to discuss the project with the World Bank.

3.9 The point was raised as to how, at the project level, non-monetary benefits would be assessed and valued. This was a practical problem. In this connection, it was noted that non-monetary benefit calculations were increasingly becoming a part of environmental accounting.

3.10 It was mentioned that the U.N. agencies have not, traditionally, been very forthcoming with data on a global or international basis. Their data has, generally, been on a regional or sectoral basis. It was also suggested that a global data base be established. The Ocean Yearbook was an example of such global data available. The World Bank, perhaps, could take on this initiative and build up a global data bank. Some of the existing data bases operated by U.N. agencies were isolated and did not adequately reflect "services" (which is a major part of the modern economy), innovation, science and technology and management.

3.11 The need for looking at "critical" indicators and for the integration of such indicators was stressed. It would be useful for ICOD to take the initiative to develop a methodology which will enable target countries or regions to evaluate projects, to evaluate the stock of wealth from the oceans at a discrete country/regional level rather than at the global level. The latter would be a formidable task and beyond the normal capability of a small organisation such as ICOD. ICOD resources could be better utilised by focussing on:



- (a) the development of a methodology; and
- (b) data collection on a pilot basis confining itself to a discrete country or region.

A comprehensive and globally based data base would need a U.N. organisation, with a large capacity for data collection, definition, and analysis. The pitfall of adding up regional data to arrive at global conclusions was noted.

3.12 It was suggested that the most practical approach for ICOD would be to co-operate with existing institutions such as the World Bank and the U.N. Office for Ocean Affairs and Law of the Sea rather than go it alone. The UNDP, presently, has a check list for development projects and in view of the growing importance of environmental impact assessments, this check-list would be broadened to include critical environmental factors, both short and longer-term.

3.13 The World Bank has, over the years, been actively involved in development, but had paid little attention to the oceans. Its priority, traditionally, had been agriculture. It was necessary for the World Bank to correct this and to include in its publications (eg. World Bank Investing in Development) a chapter on the oceans and its development potential.

Reference was also made to the excellent development policy review in Sweden and suggested that Canada could learn a lot from this. Canadian international development agencies could put resources to develop manuals like the ones developed by the European Investment Banks or other regional development banks but with particular reference to the oceans.

3.14 It was noted that the issue of Ocean wealth indicators was a subject the "Donor Consultation" could discuss at the next meeting to be held in 1989. These Consultations started in Paris in 1986 and the second meeting was held in Abdijan in 1987.

3.15 It was mentioned that the U.N. Office for Ocean Affairs and Law of the Sea may be an appropriate body for ICOD to consult on this subject. It would be useful for ICOD to attend the next meeting of this body to determine what assistance could be obtained in this area.

3.16 The suggestion was made that ICOD could assist its target countries/regions to provide environmental/ocean wealth creation data to any U.N or other agencies planning to collect such data.

3.17 ICOD may wish to consider assigning one person to develop meaningful indicators and to start collecting relevant data.

3.18 The Chairman suggested that ICOD open discussion with all U.N agencies eg. Office for Ocean Affairs and Law of the Sea, World Bank, UNEP and also the EEC to determine what initiatives, if any, they were undertaking in this field. If there was a U.N. agency undertaking any work on ocean wealth creation, ICOD should try to assist its regions/target countries (through training) to contribute information to such agencies and thus to participate in the monitoring process.

3.19 Prof. Giarini mentioned that, if there was sufficient interest, he could organise a meeting with Jacques Cousteau and the Cousteau Society to discuss the subject.

JJ/28/12/88



**CONFIDENTIAL**

1009.5

**AUDIT AND EVALUATION COMMITTEE  
HALIFAX, NOVA SCOTIA  
DECEMBER 2, 1988**

**DRAFT MINUTES**

**Present:**

Ellen MacLean, Chairman  
Sharon Proctor  
Gastien Godin  
Elisabeth Mann Borgese, Ex Officio  
Gary Vernon, Ex Officio  
Garry Comber, Secretary-Treasurer  
Jeanne-Mance Côté, Administration Officer

**Invited Guest:**

Kevin Potter, Office of the Auditor General

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I. **Call to Order**

It was noted that in view of the decision of the Board of Directors, the name of the Committee had been changed to the Audit and Evaluation Committee. It was indicated that the Committee would discuss three matters;

- i) The Audit Plan for the financial audit of fiscal year 1988/89;
- ii) The appointment of a "Special Examiner";
- iii) The role of the Committee and evaluation activities.

It was noted that a quorum was present.

## II. Audit Plan for Fiscal Year 1988/89

The Chairman welcomed Mr. Kevin Potter of the Office of the Auditor General who had replaced Rick Lewis as the Audit Manager. Mr. Potter referred to the Report to the Audit Committee dated December 1, 1988, which gave the details of the Audit Plan. Mr. Potter indicated that the financial audit for fiscal year 1988/89 would be a standard audit. Three items to note were that; 1) the Auditor General's Office would attempt to use computers to assist in the audit and would be providing a computer program to ICOD to facilitate this; 2) the auditors would assess the risks involved in ICOD's activities and concentrate on high risk operations; and 3) the auditors would review the Authorities under which ICOD operates, such as the Financial Administration Act, the ICOD

Act, the By-Laws, Resolutions of the Board, etcetera, to determine that ICOD's activities were conducted in accordance with such Authorities. He indicated that the audit would be a substantive audit based on a testing approach.

During the course of the discussion which followed, it was indicated that ICOD was still awaiting the commencement of internal audit activities utilizing the services of the Audit Services Bureau of the Department of Supply and Services. Such activity was expected to commence shortly, now that ICOD was in the process of publishing a series of manuals.

The Audit Plan was considered acceptable to the Audit Committee.

### III. Special Examination

Under the terms of the Financial Administration Act, there must be a Special Examination of ICOD by February 1990 (5 years after ICOD's creation). Under the terms of the Financial Administration Act, ICOD could appoint a Special Examiner other than the Auditor General. However, it was recommended that the Auditor General be retained in view of their familiarity with ICOD, their previous experience in auditing ICOD, and the fact that they would undertake the Special Examination at no cost to ICOD.

It was moved by Sharon Proctor, seconded by Gastien Godin,



That the Office of the Auditor General be retained to conduct the Special Examination of ICOD.

Motion carried unanimously.

It was also agreed that planning for the Special Examination should proceed so that the Audit Committee would be in a position to recommend a specific plan to the Board of Directors in June 1989.

During the discussion which followed, Mr. Potter indicated that he would make available a sample format used in Special Examinations. In view of the tight time-frame, it was agreed that the Auditor General's staff would do a survey of the audit requirements and prepare a plan for review by the Audit Committee at its next meeting in either May or June 1989. This plan would subsequently be recommended to the Board of Directors along with the selection of the Auditor General's Office. The Special Examination would be undertaken during the period September to December 1989 with the report being made available by February 1990. This report could be reviewed by either the Audit Committee or the Board.

Although the Office of the Auditor General would conduct the Special Examination without charging fees or travel expenses, it was pointed out that ICOD would have to devote a certain amount of time on the part of its staff during both the planning and implementation phases. The criteria to be utilized in the Special Examination would be agreed upon with the Audit Committee.



#### IV. Evaluation Activities

The draft manual entitled "ICOD Evaluation Systems, Approach and Procedures" had been made available for distribution at the meeting of the Board of Directors. It was suggested that Members of the Audit and Evaluation Committee might want to review the document and contact ICOD officials if they had any questions or comments. It was further indicated that in accordance with the chapter of the Corporate Plan dealing with Performance Evaluation, the Audit and Evaluation Committee would be involved in reviewing evaluations and making reports to the Board of Directors of lessons learned, problems encountered, areas needing additional work, etcetera. There was also a discussion concerning the potential role of Members of the Board of Directors in evaluation activities undertaken by consultants.

Evaluation activities will be discussed in greater detail at the next meeting of the Audit and Evaluation Committee.

The meeting was adjourned at 10:10 a.m. to allow for other activities in connection with the ICOD Seminar.



International Centre for Ocean Development  
Centre international d'exploitation des océans

CONFIDENTIAL

EC88/D28  
Project #880257  
January 17, 1989

Project SUMMARY  
(Approval)

Project Title: Fisheries Observer Training;  
Pacific Island Countries

Division: Training

Recipient: Member States of the Forum Fisheries  
Agency

Implementing Agency: Forum Fisheries Agency

Duration: Three years

Project Components: One Observer Training Course  
Two Observer Upgrading Courses

Financial:

ICOD Contribution:	\$ 117,000
Recipient Contribution:	\$ <u>9,500</u>
Project total:	\$ 126,500

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

Summary:Background:

The multilateral treaty on fisheries between Pacific Island Countries and the Government of the United States allows for the placement of observers on U.S. purse seiners for the purposes of monitoring catch and compliance under coastal state laws and for the collection of scientific and biological data. Collected information is used in fisheries management by both the Forum Fisheries Agency (FFA) and the South Pacific Commission (SPC). The Forum Fisheries Committee has approved a specific level of observer coverage for U.S. vessels but notes that the level of annual coverage could be increased if performance under the treaty is not as expected.

With ICOD funding, two observer training courses were conducted by FFA (project #870113) under which 25 Member Country participants have been trained. However, owing to a high turnover rate, the potential for increased coverage, and the changing emphasis on data collection, there is an ongoing need to train new recruits and to upgrade the knowledge and skills of full time observers.

Project Description:A. Objective:

The objective of this project is to assist Pacific Island Countries in the management of their marine resources by supporting the training of onboard fisheries observers in order to monitor the activities of foreign vessels operating under multi-lateral treaty arrangements.

The specific objective of the project is to support the development and delivery of one Observer and two Upgrading and Retraining Courses in order that a core group of qualified fisheries observers is available to meet the annual target level of observer coverage for vessels operating under the multilateral treaty.





B. Project Components:

All three courses will be conducted by FFA with assistance, as required from SPC, FAO and the cooperation of U.S. vessel personnel. Member Countries will nominate approximately 30 participants to undergo training and upgrading. It is necessary for participants to pass the Observer Course to qualify for observer duties.

An Observer Training Course will be conducted in 1989 in Apia, Western Samoa and will follow a format similar to previous courses. It is anticipated that 12 trainees will participate in the course which is two weeks in duration. As emphasis will be placed on the practical aspects on board the vessel, part of the course will take place at the purse seine port of PagoPago.

Following an evaluation of the previous project (two courses) and the Observer Training Course, two Upgrading and Retraining Courses will be conducted. These courses are planned to be conducted in the Federated States of Micronesia in 1990 and in the Solomon Islands in 1991. It is anticipated that 10 participants will attend each course. These courses will be combined with an in-country assessment of the observer program.

C. Project Beneficiaries:

- a) The direct beneficiaries of the project are the Member Countries of FFA which will benefit from improved treaty implementation.
- b) Beneficiaries also include those participants who undergo training and qualify for employment as fisheries observers.

D. Project Management:

The project will be managed by FFA.



Project Appraisal/Constraints:

Appraisal:

- a) The project contributes to a uniform regional approach to monitoring the treaty and the collection of data for fisheries management purposes.

Constraints:

- b) Experience from the first two courses indicates there was a high turnover of trained observers even before placement began. This has been attributed to involvement in other national duties and placement on other than U.S. foreign vessels.
- c) There is a high turnover of those who have done observer duty because of the long duration of trips.

Relationship to Other ICOD Projects

- a) As noted, the project is a follow-on from the two previous observer courses (project #870113).
- b) The project complements FFA's surveillance activities (project #850011) and the observer program (project #880215).

Financial Information:

1) Fiscal Year Disbursements

FY 1989-90	\$ 34,000
FY 1990-91	\$ 34,300
FY 1991-92	\$ 48,700



## 2) ICOD Budget Components (3 Courses)

	<u>Apia Year I</u>	<u>FSM Year II</u>	<u>Sol.Is. Year III</u>
Daily Subsistence Allowance and Travel	25,000	26,000	27,000
Lecturer Expenses	2,500	2,500	2,500
Course Materials	300	300	300
Communications	2,000	2,000	2,000
Ground Transportation	1,700	1,500	1,700
Miscellaneous on site Expenses	<u>2,500</u>	<u>2,000</u>	<u>2,500</u>
	\$34,000	\$34,300	\$36,000
		Sub Total	104,300
		Contingency	<u>12,700</u>
		TOTAL ICOD CONTRIBUTION	\$117,000

## 3) Recipient Budget Components

In-country course support (facilities, secretarial, equipment, etc).	\$ 4,000
FFA contribution (staff time, administrative support)	\$ 5,500

CDN. \$1.00 = SI \$1.77

Recommendation

It is recommended that final approval be given to Project #880257 -- Fisheries Observer Training; Pacific Island Countries -- to a maximum ICOD contribution of \$117,000 Canadian.





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CONFIDENTIAL

EC88/D30  
Project #880255  
January 18, 1989

PROJECT SUMMARY  
(Approval)

Project Title: Conference on Management and Development  
Strategies in South Pacific Fisheries

Division: Information

Recipient/  
Implementing Agency: Forum Fisheries Agency (FFA) Honiara,  
Solomon Islands

Duration: 2 weeks in September/October 1989

Project Components: Participants' airfare and living  
allowance; meeting costs and publication  
of proceedings.

Financial:

ICOD Contribution:	\$ 162 400 CAD
<i>Australian</i> Recipient Contribution:	\$ <u>11 000</u> CAD
Project total:	\$ 173 400 CAD

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Conditions of Approval or Comments

Record of Approval



SUMMARY:

Background:

1. The South Pacific Forum Fisheries Agency traces its origin to the South Pacific Forum meeting in Port Moresby in 1977 which adopted a Declaration on the Law of the Sea and the establishment of a regional fisheries agency.
2. The Agency was established to promote regional co-operation in various aspects of fisheries with the objective of securing the maximum benefits from the living marine resources of the region for their peoples, and for the region as a whole with emphasis on the young, developing nations.
3. Currently 16 countries are members of the South Pacific Forum Fisheries Agency. They are Australia, Cook Islands, Federated States of Micronesia, Fiji, Republic of Kiribati, Republic of the Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Solomon Islands, Tonga, Tuvalu, Vanuatu and Western Samoa.
4. The Agency's work program is organized into sub-programs that were originally developed by a meeting of officials and experts held in 1981 which discussed a Regional Research and Development Program (RRDP).
5. The original Regional Research and Development Program (RRDP) has given FFA a critical advantage over other regional agencies. It provided FFA with a strategic blueprint for its activities with a clear set of agreed regional priorities and a way to filter the wide array of conflicting demands on limited resources made by member countries.

Project Description:

A) Objectives

6. The general objective of the project is to provide a forum in which developments in fisheries in the South Pacific and other regions during the last ten years can be critically reviewed and in the light of this review, new directives for the next decade discussed.





7. The specific objectives will be to hold a conference at FFA headquarters in Honiara in September/October 1989 to:
- i) review the achievements of the Forum Fisheries Agency since its inception in October, 1979;
  - ii) review and discuss developments and policies of fisheries organizations from other regions so as to promote inter-regional co-operation in fisheries affairs;
  - iii) seek broad policy directions for the Forum Fisheries Agency for the next decade; and,
  - iv) publish the proceedings of the conference.

B) Project Components

8. Funding being requested from ICOD will support the following:
- i) Airfares and living allowances for 3 participants from 13 member countries of FFA (Australia and New Zealand participants are excluded from this support).
  - ii) Airfares and living allowances for 6 key specialists in marine affairs and fisheries to play a catalytic role in generating discussions relating to the past operations of FFA and future role of the Agency in the region.
  - iii) Airfares and living expenses of 4 participants from other geographical region (South West Indian Ocean, Caribbean, etc.) to foster greater inter-regional cooperation and lead to more technical cooperation among developing countries (TCDC).
  - iv) Miscellaneous meeting expenses including the publication of the final proceedings of the conference.





C) Beneficiaries of the Project

9. The beneficiaries of this conference will clearly be the member countries of FFA as it provides them with a forum to do forward planning. Auxiliary beneficiaries are donor agencies who are provided with a clear set of regional priorities endorsed by member countries.

D) Project Implementation

10. The project will be implemented by the Director of the FFA with assistance from senior professional staff. The Agency has nineteen professional staff and sixteen office and support staff.

11. The staff of FFA will produce the majority of discussion papers relating to the retrospective history of FFA and provide some ideas of future programs. The participants from the member countries will be expected to be prepared to provide significant input towards the future planning at the conference.

E) Institutional Funding

12. The on-going operations of the Agency are funded largely by the contributions of Member Governments with support from the Commonwealth Fund for Technical Cooperation (CFTC), the United National Development Program (UNDP), the United Nations Food and Agriculture Organisation (FAO). In the last three years, the Canadian International Development Agency (CIDA) and the International Centre for Ocean Development (ICOD) have made significant financial contributions to various components of the Agency's work program.

Project Appraisal:

13. The conference will discuss developments during the last decade and on the basis of this, identify and provide advice for the future role of FFA in fisheries affairs in the region. As such, the project will provide one of the most important forums for the discussion of fisheries-related policy matters in the South Pacific.



14. In May 1988 the Forum Fisheries Committee approved that the FFA coordinate and hold a conference every two years to focus on the economic, legal and biological aspects of fisheries development and management in the South Pacific region. This first conference, that also coincides with the 10th Anniversary of the Agency, should provide new incentives and directions to the Agency and also emphasize the strengthening of inter-regional cooperation.
15. In addition, the participation by representatives from the South West Indian Ocean and the Caribbean will foster greater intra-regional cooperation and lead to more technical cooperation among developing countries (TCDC).

Constraints:

16. It is recognized that only 8 or 9 months of lead time is allowed before the scheduled conference, however FFA has given its assurance that it will be able to organize the conference in the proposed time-frame.
17. The conference is planned to be of 5 days duration. The average allowance of 12 days travel status appeared excessive. FFA has clearly indicated that due to the constant and frequent re-scheduling of flights and the grounding of one of the regions major inter-island airlines (Air Nauru), that 7 days travel to accommodate a 5 day meeting is normal within the South Pacific region.

Relationship to Other Projects:

18. As stated in paragraph 12, ICOD has been a major funding agency towards FFA initiated projects since 1985 with an ICOD contribution exceeding 2.3 million CAD representing 21 projects. Given the extent of ICOD's faith and commitment to FFA it is entirely consistent that ICOD should support this retrospective review and future planning activity.





BUDGET SUMMARY  
(CAD)

## 1) Projected ICOD Disbursements by Fiscal Year

FY 88/89	50 000
FY 89/90	104 700
Contingency	<u>7 700</u>
Total	162 400

## 2) Budget Components (See Annex A for details)

1) Airfares	78 400
2) Living Expenses	67 300
3) Conference expenses and publication	<u>9 000</u>

Sub total	154 700
ICOD contingency	<u>7 700</u>

Total ICOD contribution 162 400 CAD

Recipient contribution 11 000 CAD

Recommendation:

It is recommended that final approval be given to project #880255, "Conference on Management and Development Strategies in South Pacific Fisheries" to a maximum ICOD contribution of 162 400 CAD.



DETAILED BUDGET

ICOD Budget Components:	<u>CAD</u>
1. <u>Participants</u> (13 member countries X 3 participants)	
Airfares (39)	53 400
Living Allowance, Accommodation	55 300
2. <u>Observers</u> (6 Key specialists and 4 Regional Observers)	
Airfares (10)	25 000
Living Allowance, Accommodation	12 000
3. <u>Other</u>	
Reception/Refreshment	2 000
Communications	3 000
Miscellaneous	1 000
Publication of Proceedings	<u>3 000</u>
<b>Sub-Total</b>	<b>154 700</b>
ICOD Contingency	<u>7 700</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b><u>162 400</u></b>
 <u>Recipient Contribution:</u>	
1. Administrative support	4 000
2. Staff time	6 000
3. Local transportation	<u>1 000</u>
<b>Total FFA</b>	<b>11 000</b>
<b>TOTAL ICOD AND FFA</b>	<b><u>173 400</u></b>

Budget Notes:

1. Travel cost estimated at average of 12 days in travel status for participants.
2. Observers (10) to include representatives from the Caribbean and Indian Ocean Regional Fisheries Organizations.



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CONFIDENTIAL

EC88/D31  
Project #880217  
January 17, 1989

PROJECT SUMMARY  
(Approval)

Project Title: Marine Law Database and Document Delivery Service (MARLAW)

Division: Information

Recipient/Implementing Agency:

- University of the West Indies (Cave Hill Campus)
- Faculty of Law Library

Duration: Three (3) years

Project Components: Provision of two small microcomputers and fax machine for computer system development and document dissemination; local staff salary support for one librarian and two clerical assistants; regional travel for network development; document acquisition fund for legal materials; and, minimal printing allowance for brochures and indexes.

Financial:

ICOD Contribution	:	365 000 CAD
Recipient Contribution:	:	469 935 CAD
Project Total	:	834 935 CAD

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Conditions of Approval or Comments

Record of Approval





SUMMARY

Background:

- 1) The Third United Nations Conference on the Law of the Sea (1973-82) and the ensuing Law of the Sea Convention 1982, has emphasized the necessity of island nations to properly organize the control of their marine environment. The ability of a state to implement and protect its recently acquired marine sovereign rights and jurisdiction depends on a modern legal framework to properly and efficiently organize and access its marine legislation.
- 2) Besides promoting national rights over marine space, the Law of the Sea Convention imposes an obligatory legislative onus on coastal states. The amendment of old and the enactment of new marine legislation by the coastal state has to conform to the Law of the Sea Convention and other conventions to which it may be a party. Also, regional management of the environment and marine uses require regional states to harmonize their legislative practices in view of common ends.
- 3) Marine law reform in Caribbean island nations would be greatly facilitated if there was regular access to information on all aspects relating to marine law in the Caribbean Basin. The marine law of the Caribbean Basin constitutes a valuable resource which can be collected, centralized and disseminated on a regular basis. A comprehensive compilation of marine legislation including non-Commonwealth Caribbean law has never been attempted.
- 4) This proposal for the establishment of a marine law database and document delivery service (MARLAW) consists of the creation and organization of an accessible resource which will enhance national and regional ocean development, management and cooperation.

Project Description:

(A) Objectives:

- 5) The general objectives of the project are: (a) to provide national governments and regional institutions with comprehensive information on marine legislation; (b) to provide a resource centre within the University of the West Indies Faculty of Law for training programs related to development studies of coastal states and law of the sea studies.





- 6) The project will involve the following quantifiable activities:
- (a) reinforcing the informal network within the English-speaking Caribbean for the acquisition and collection of marine legislative materials.
  - (b) establishing a similar informal network within the Legislative Assemblies of the Caribbean non-Commonwealth countries for the collection of marine legislative materials.
  - (c) creating a computerized marine law database comprising citation reference and indexes to national marine laws and relevant treaties and other international agreements, and also including secondary material such as conference proceedings, research reports and special studies.
  - (d) operating an on-demand document delivery system to the Caribbean region through facsimile and photocopy.
  - (e) issuing a periodic newsletter to publicize the MARLAW database and resource collection.

**(B) Project Outputs:**

- 7) The MARLAW database will be an integral part of the UWI Faculty of Law Library and will be comprised of about 5 000 records of primary legal materials and approximately 15 000 records of secondary legal materials. All MARLAW resources will be available to regional and extra-regional territories and agencies on request. The Faculty of Law Library will issue MARLAW publications and publicize the availability of this resource. A special effort will be made to make the MARLAW resources available to the Organisation of Eastern Caribbean States (OECS) and cooperate with them in these objectives. A fax machine, located in the Law Library will ensure speedy transmission of requested legislative materials.

**(C) Project Components:**

- 8) The project will provide the necessary funds to develop and create an automated database consisting of the national laws relating to marine space, use, resources, and industry; and to develop the network for collection of the marine legislation within the Caribbean. The following components will be involved:



9) Staffing

The project will be integrated into Law Library operations, and will involve, as part of the Recipient contribution, inputs from the professional librarians in charge of various divisions (all law-trained librarians). The ICOD contribution will cover the costs of the Project Leader (3 person months), one MARLAW librarian, and two clerical assistants with computer-keyboarding skills, as the essential staffing needs of the project. The Project Leader of MARLAW will be identified from the Law Library's staff.

10) Consultant

The setting up of the system will be undertaken by a Programmer/Consultant from the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) based in Port-of-Spain, Trinidad, who has an indepth knowledge of the hardware and software to be used by MARLAW. This consultancy will require four, one-week trips to Barbados over a period of six months.

11) Travel

The geographic coverage of MARLAW will cover the following areas:

- (i) Commonwealth Caribbean
- (ii) Non English-Speaking Caribbean
- (iii) Latin American Territories Bordering the Caribbean Basin

To ensure the continued collection of materials for entering into MARLAW an informal network will be established with Legislative Assemblies in the region. Approximately six circle trips have been budgeted in the project to cover the wider Caribbean.

Documents will be included in the original language of the law concerned, i.e. English, French, Spanish, Dutch, accompanied by English indexes.





12) Equipment Requirements

- (i) Two IBM System/2 Model 30 computers, and a Local Area Network (LAN) to link the system to the Law Library's IBM System/2 Model 80 computer, are required to support MARLAW.
- (ii) A fax machine will be purchased for the Law Library to facilitate speedy delivery of MARLAW documents.

(D) Methodology:

13) It is estimated that three years will be required to establish the collection network, create and test the database, and input the complete data from the Commonwealth Caribbean and selected data from the Caribbean non-Commonwealth countries. The following phased methodology will be utilized:

(a) Step 1: Computer Configuration, File Preparation and Formatting

Issues to be addressed during this period involve definition of subject scope of the files and formatting of the records, and the setting up of the computer equipment.

(b) Step 2: Constructing the Database

This phase is to test and perfect the system using sample data for the Commonwealth Caribbean held in the Faculty of Law Library.

(c) Step 3: Inputting Commonwealth Caribbean Data, and Review of Existing Network

Once the system is perfected the MARLAW project will concentrate on inputting data for the Commonwealth Caribbean.

A comprehensive review will be conducted of the existing informal network for the acquisition of Commonwealth Caribbean materials.

(d) Step 4: Creation of New Network for Non English-Speaking Caribbean

This phase will concentrate on the creation of a new network for the selective acquisition of materials from the non English-speaking territories of the Caribbean and of Latin America that border the Caribbean Basin.





(E) Implementation:

The project will be implemented by the UWI Faculty of Law Library with minimal computer consultancy assistance from within the region (UNECLAC).

(F) Beneficiaries:

- 13) The objective of the project is to provide regional governments and other interested entities with comprehensive information supportive of legislative requirements pursuant to the 1982 Law of the Sea Convention. MARLAW will also be used as a resource centre for training programs concerned with law of the sea and ocean development studies.
- 14) The UWI Faculty of Law's teaching and research programs in law of the sea and related areas, are additional important beneficiaries to gain from MARLAW.
- 15) Legislation information is one of the stated priorities of the OECS Information Network (INFONET) and as a result of this clearly stated demand, priority for data input and document delivery (via facsimile transmission to the OECS Secretariat) will be given to the OECS countries.
- 16) The individuals who will most directly benefit from the existence of MARLAW are the staff within Ministries of Planning and Legislative Offices who are responsible for writing and amending legislation related to law of the sea.

Project Appraisal/Constraints:

- 17) In the law of the sea, national legislation has a vital role. For orderly national marine development and management, the coastal state today requires an increasingly sophisticated legal system and access to marine legislation from other states. This project will establish a system for making the collection of, and access to, marine legislation related to the Caribbean region more efficient.
- 18) MARLAW is a data system which would be adaptable to other regions, such as the South Pacific, East and West Africa, Southeast Asia and the Indian Ocean.



- 19) "Implementation of the Law of the Sea" is one of the 13 types of activities/initiatives/sectoral priorities which ICOD has identified to focus its resources. This regional activity will advance the knowledge within the Caribbean about the legislation already enacted and provide a necessary service to those states wishing to introduce new marine legislation.
- 20) The staff of the Faculty of Law Library are well qualified in law information and are well versed in general computer systems, but they lack knowledge in "local area networks (LAN)". Any risk to the project is minimized by using the consultancy services of UNECLAC to set up the computer equipment.

Relationship to Other Projects:

- 21) The major output of the project - the MARLAW database - has the potential of providing a useful resource to the staff of the OECS Fisheries Desk (ICOD project #850010) and to the students attending the ICOD supported Graduate Program in Marine Resources and Environmental Management at the University of the West Indies (ICOD project #880195).



Budget Summary  
(CAD - 3 years)

## 1) Projected ICOD Disbursements by Fiscal Year

FY 88/89	75 000 CAD
FY 89/90	97 000 CAD
FY 90/91	125 000 CAD
FY 91/92	37 145 CAD
Contingency	<u>30 855 CAD</u>
Total	365 000 CAD

## 2) Budget Components (See Annex A for details)

	<u>ICOD</u>	<u>UWI</u>
1) Staff Salaries	241 690	318 600
2) Consultant	5 670	-
3) Network Development Travel	22 375	-
4) Equipment & Supplies	22 410	45 135
5) Document Acquisition, Dissemination & Printing	38 050	-
6) Office and Storage Space	-	106 200
7) Project Administration	<u>3 950</u>	<u>-</u>
Sub Total	334 145	469 935
ICOD Contingency	<u>30 855</u>	
Total ICOD Contribution	<u>365 000</u>	

Recommendation:

It is recommended that final approval be given to project #880217, "Marine Law Database and Document Delivery Service (MARLAW)" at UWI to a maximum ICOD contribution of 365 000 CAD.





DETAILED BUDGET  
(CAD)

1) <u>Staff</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
(i) Project Leader (3 person months per year)	12 330	13 450	14 660	40 440
(ii) MARLAW Librarian (full time)	41 420	45 140	49 200	135 760
(iii) Clerical Assistants (48 person months at Grade 2 level)	<u>7 380</u>	<u>23 910</u>	<u>34 200</u>	<u>65 490</u>
Sub Total	61 130	82 500	98 060	241 690
2) <u>Consultant</u>				
(i) Computer Programmer - fees (4 wks x 750 BBD)	1 770	-	-	1 770
- travel (4 airfares Trinidad/Barbados/ Trinidad + 20 days per diem)	<u>3 900</u>	<u>-</u>	<u>-</u>	<u>3 900</u>
Sub Total	5 670	-	-	5 670
3) <u>Network Development Travel</u> (6 circle trips from Barbados within the region)				
(i) transportation	1 770	1 475	6 380	9 625
(ii) living expenses	<u>4 250</u>	<u>2 125</u>	<u>6 375</u>	<u>12 750</u>
Sub Total	6 020	3 600	12 755	22 375
4) <u>Equipment &amp; Supplies</u>				
(i) Two PS/2 Model 30 computers complete with LAN software and cabling	11 200	-	-	11 200
(ii) FAX machine with book copying capabilities	-	3 550	-	3 550
(iii) Four-drawer vertical file cabinets for MARLAW materials	2 350	-	-	2 350



DETAILED BUDGET (cont'd)  
(CAD)

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
(iv) Computer and Fax supplies	<u>1 770</u>	<u>1 770</u>	<u>1 770</u>	<u>5 310</u>
Sub Total	15 320	5 320	1 770	22 410
5) <u>Document Acquisitions, Dissemination and Printing</u>				
(i) Acquisition of MARLAW materials	5 900	10 620	12 980	29 500
(ii) Document delivery (photocopy cost 22 500 pages)	300	900	1 450	2 650
(iii) Printing (Indexes, Directories, and Brochures)	<u>1 470</u>	<u>2 070</u>	<u>2 360</u>	<u>5 900</u>
Sub Total	7 670	13 590	16 790	38 050
6) <u>Project Administration</u> (10% of capital equipment and travel for UWI administration costs)	<u>1 950</u>	<u>700</u>	<u>1 300</u>	<u>3 950</u>
Project Sub Total	97 760	105 710	130 675	334 145
7) ICOD Contingency	-	-	-	<u><u>30 855</u></u>
Total ICOD Contribution (CAD @ .59 BBD)				<u><u>CAD 365 000</u></u>



FACULTY OF LAW AND LAW LIBRARY CONTRIBUTION  
(CAD)

	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Total</u>
<u>STAFF COSTS</u>				
Professional	70 800	70 800	70 800	212 400
Clerical	35 400	35 400	35 400	106 200
<u>OFFICE AND STORAGE SPACE</u>	35 400	35 400	35 400	106 200
<u>EQUIPMENT AND SUPPLIES</u>				
(Typewriters, photocopiers, printing equipment, etc., stationery including computer paper, file folders, postage costs, etc.)	14 160	14 160	14 160	42 480
<u>COMPUTER EQUIPMENT MAINTENANCE</u>				
Maintenance contract for the computer hardware	<u>885</u>	<u>885</u>	<u>885</u>	<u>2 655</u>
TOTAL (CAD)	156 645	156 645	156 645	469 935

Budget Notes:

- 1) The MARLAW Librarian (Budget item 1(ii)) is a new post that will be absorbed into the UWI Law Faculty Library after ICOD's three year support.
- 2) Clerical assistance will be required for a total of 48 person months (Budget item 1(iii)). It is proposed that one Clerical Assistant will be engaged for 6 months in the first year, and 12 months in the following 2 years. A second Clerical Assistant will be engaged for 6 months in the second year, and 12 months in the third year.
- 3) The figures for travel (Budget item 3) are based on quotations received from travel agents in Barbados.
- 4) Budget item (5i) for acquisition of MARLAW material will most likely be used for the purchase of photocopies of back issues of marine legislation.





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CONFIDENTIAL

EC88/D32  
Project #870134  
January 16, 1989

PROJECT SUMMARY  
(Approval)

Title: Marine Education Kit for St. Kitts/Nevis

Division: Information

Recipients/  
Implementing  
Agencies: Fisheries Division, Ministry of Agriculture,  
Lands, Housing, and Development, Government  
St. Kitts/Nevis;  
Ministry of Education, Government of  
St. Kitts/Nevis

Duration: One (1) year

Project  
Components: Production of Education materials, training  
teachers in the use of education and resource  
materials, pilot project for potential  
regional activity.

Financial: ICOD Contribution: 108 000 CAD  
Recipient Contribution: Estimate of 4 000 CAD  
in cash and approximately 17 000 CAD in kind

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Conditions of Approval or Comments

Record of Approval



**SUMMARY:**

**Background:**

- 1) In St. Kitts/Nevis, there are currently no teachers trained in marine subjects and no appropriate institutional materials available. This project, an outgrowth of a request for curriculum materials on local marine resources from local teachers, will develop, introduce, and test a marine educational program adaptable to primary and secondary school courses in St. Kitts/Nevis. Concepts developed in implementing the project will be available at an early stage to the education ministries of other members of the Organization of Eastern Caribbean States (OECS) to promote more widespread development of such materials.
- 2) The need for a marine educational program for schools in St. Kitts/Nevis has been underscored recently in several ways. In June 1987, the Organization of American States conducted a workshop in St. Kitts on natural resources and education and concluded that local schools needed an environmental education program. At another workshop, in Nevis, the OECS and the Government of St. Kitts/Nevis agreed that a marine awareness program aimed at schools and the general public would be crucial if the project on the management of coastal resources that they identified recently is to succeed.
- 3) This project received approval-in-principle at the Board of Directors meeting November 1987. Since then the officials in St. Kitts and program staff of ICOD have worked on tightening the objectives and clarifying the methodology of the project.

**Objectives:**

- 4) The objective of this project is to create a base for ongoing marine environmental education activities in the primary and secondary schools of St. Kitts/Nevis.
- 5) Specifically this will provide the following:
  - (i) the education tools required by the teachers of social studies to include marine issues in their curriculum.
  - (ii) educational handouts for students in 9 grades of primary and secondary levels to assist with the learning of marine issues.
  - (iii) a teacher training program in the use of the marine education tools.





- (iv) a small collection of resource material in each of the 37 schools in St. Kitts/Nevis.
- (v) a local area network of available resource persons to provide additional information support on marine issues.

**Project Outputs:**

- 6) The project will produce several printed products as follows:
  - (i) A teacher's guide to the marine environment of St. Kitts/ Nevis consisting of 5 units
    - fishes
    - coral reefs
    - conchs, lobsters and sea turtles
    - sea grass beds
    - beaches, salt ponds and mangroves
  - (ii) Student booklets for each of the 5 units with drawings for colouring, puzzles or questions on marine subjects to cover the 9 levels of classes.
  - (iii) A small collection of resource material for each of the 37 schools.
  - (iv) A directory of available resource persons in marine issues.

**Methodology:**

- 7) It is estimated that 12 months will be required to complete the project with December 1989 being the critical deadline to complete the education tools and teacher training for the second semester of the academic year 1989/90. In order to accomplish the above objectives, the following methodology will be followed:
  - a) Project Administration
    - (i) A Steering Committee will be struck consisting of the Chief Education Officer, Director of Agriculture, Permanent Secretary of the Ministry of Agriculture, Lands, Housing and Development, Permanent Secretary for the Ministry of Education and the Project Leader to ensure joint Ministry cooperation and to oversee the work of the project team and the working groups.





- (ii) The overall administration of the project will be undertaken by the Fisheries Division of the Ministry of Agriculture, Lands, Housing and Development. The Assistant Fisheries Officer (Mr. Samuel Heyliger) will be identified as the Project Leader and responsible for the implementation and co-ordination of the project. A graduate in marine or biological sciences will be engaged full time for 10 months to act as project manager and will be responsible for collecting resource material and co-ordinating the work of the working groups in preparing the education kits.
- (iii) Most of the work of the project will be undertaken by working groups composed of teachers of social studies drawn from the schools of St. Kitts/Nevis. Minimum use of additional resource people will be used as required and drawn from the region.
- b) Design and Consultation Workshop (2 days)
- The purpose of this meeting is to discuss and endorse the work plan for the project and to identify five working groups (a maximum of 5 persons per working group) to work on compilation of the 5 units of teacher's guides and associated student booklets.
- c) Review Workshop
- Four months following the initial workshop, the working groups and the Steering Committee will meet in Nevis for a 3-day workshop to review progress on the units and to ensure compatibility and standardization among the units.
- d) Resource Material Collection
- The responsibility to collect the subject material required for the teacher's guides and student booklets will fall on the staff of the Fisheries Division. To assist with this task and to assist with the overall coordination of the working groups a full time (10 month) extra budgetary staff position is provided for within the project.



e) Literature Collection for the Schools (40 sets)

From the material collected a representative selection will be made and purchased or duplicated by the Fisheries Division to be placed in each of the 37 schools of St. Kitts/Nevis; 1 set in the Fisheries Division and 1 set in the public library of St. Kitts and 1 set in the public library of Nevis.

f) Final Workshop

(i) Four months following the review workshop, the members of the working groups will meet in St. Kitts to review and finalize the teachers' guides and student booklets prior to final printing. In addition they will plan pre- and post-lesson tests to evaluate the effectiveness of the materials.

(ii) The purpose of this one-day session to train one teacher from each of the 37 schools in the use of the guides and materials will also be undertaken at this time.

g) Directory of Resource Persons

There are a number of people available in St. Kitts/Nevis who are expert in special aspects of Marine Sciences who are willing to act as Resource persons for the schools. It would be useful to the teachers to have a directory of these persons with an indication of their specialty. This information will be collected and organized into a printed directory by the Fisheries Division

h) Printing

(i) The printing of the teacher's guides, student booklets and directory will be done in St. Kitts.

(ii) Due to the lack of suitable colour printing facilities in St. Kitts, the duplication of colour photographs of fish and coral reefs will be done in Canada. Up to 1,000 copies will be duplicated.

(iii) Five hundred copies of the teacher's guides will be printed.





- (iv) It is estimated that 5,000 copies of the student booklets will be required to cover the 9 grades.
- (v) Seventy-five copies of the directory will be produced.

**Project Monitoring and Evaluation:**

- 8) The project is constructed in such a way that allows on-going monitoring and quality control of the material being prepared during the workshops.
- 9) Evaluation of the effectiveness of the program within the schools will be done by the Ministry of Education and the Ministry of Agriculture Fisheries Department using the lesson tests prepared in the final workshop.

**Potential Regional Impact:**

- 10) Interest has been voiced by other countries within the region (notably the Eastern Caribbean States) in this project by St. Kitts/Nevis. This interest will be fostered by inviting observers from other Ministries of Education and the Caribbean Examinations Council to the Review Workshop. Once St. Kitts produces the products of the project, copies will be shared with the other countries within the region. It is possible that these products may be viewed as pilot products for a future regional or sub-regional project. It is probable that ICOD will be approached to fund an independent, external evaluation after the education program has been in place for a year.

**Advantages/Benefits:**

- 11) The absence of marine-related education in the primary and secondary schools of St. Kitts/Nevis and other eastern Caribbean states is an acknowledged serious gap for nations whose potential for economic development depends substantially on natural resources. This project would begin the process of filling that gap.
- 12) The exercise of planning and developing these prototype marine educational tools for one island state would stimulate other eastern Caribbean states to begin the environmental awareness themselves by adapting the concepts developed for St. Kitts/Nevis.





- 13) The next generation of St. Kitts/Nevis citizens would be in a better position to assess proposed commercial developments of their coastal resources and to support or contribute to environmental legislation designed to safely ensure sustained resource development.

Relationship to Other Projects:

- 14) This would be the first ICOD project to prepare marine related material for primary and secondary schools. As mentioned earlier, it would be a logical follow-on to the recommendations of the OECS and the Government of St. Kitts/Nevis, who have clearly identified the need for a marine awareness program in planning their current project on the "Management of Coastal Resources".



BUDGET SUMMARY  
(CAD)

	<u>ICOD</u>	<u>Gov't STK/N</u>
1. Staff Salaries	\$ 11,500	\$2,750
2. Consultancies	6,050	-
3. Workshops	24,250	750
4. Supplies & Resource Materials	25,000	500
5. Printing	<u>32,000</u>	<u>-</u>
Subtotal	\$ 98,800	\$4,000
ICOD Contingency	<u>9,200</u>	<u>-</u>
<b>Total ICOD Contribution</b>	<b><u>\$108,000</u></b> CAD	

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Disbursements FY 88/89	\$ 50,000 CAD
Disbursements FY 89/90	48,800 CAD
Contingency	<u>9,200</u> CAD
	<b><u>\$108,000</u></b> CAD



Recommendation:

It is recommended that final approval be given to project #870134, "Marine Educational Kit for St. Kitts/Nevis" to a maximum contribution of 108 000 CAD.





DETAILED BUDGET  
(CAD)

	<u>ICOD</u>	<u>GOVT ST.K/N</u>
1) <u>Staff</u>		
(i) Project Leader (part time)	-	2 000
(ii) Project Manager (full time/10 months)	10 000	-
(iii) Secretarial Support (part time 10 months)	1 500	750
2) <u>Consultancies</u>		
(i) Workshop Animateur/ Teacher Trainer Travel to Workshops (air and living expenses)	1 050 3 000	- -
(ii) Graphic Design \$100 day x 20 days	<u>2 000</u>	<u>          </u>
Sub total	17 550	2 750
3) <u>Workshops</u>		
(i) <u>Design Workshop</u> - St. Kitts 45 persons x 2 days all inclusive local travel/accommodation/meals for 11 from Nevis	4 000	-
(ii) <u>Review Workshop</u> - Nevis 30 persons x 3 days x 100 in Nevis Local travel (Ministry)	9 000 -	- 250
(iii) <u>Final Workshop</u> - St. Kitts 30 persons x 3 days x 100 45 persons x 1 day x 50 Local travel (Ministry)	9 000 2 250 <u>-</u>	- - <u>500</u>
Sub total	24 250	750



DETAILED BUDGET (cont'd)  
(CAD)

	<u>ICOD</u>	<u>GOVT ST.K/N</u>
4) <u>Supplies and Resource Material</u>		
(i) Resource material (acquisition or photocopies and photographs)	10 000	-
(ii) Purchase and distribution of library materials for schools (40 sets)	12 000	-
(iii) Communication, photocopying, workshop supplies, shipping	<u>3 000</u>	<u>500</u>
Sub total	25 000	500
5) <u>Printing</u>		
(i) Teacher's Guides 400 pages x 500 copies	6 500	-
(ii) Colour reproduction 500 - 1000 copies (See Budget Note 16)	20 000	-
(iii) Student Booklets 25 pages x 5000 copies	5 000	-
(iv) Directory 10 pages x 75 copies	<u>500</u>	<u>-</u>
Sub total	<u>32 000</u>	<u>-</u>
Total	<u>98 800</u>	<u>4 000</u>
ICOD contingency	<u>9 200</u>	-
Total Govt. St. Kitts/Nevis Contribution	-	<u>4 000</u> CAD
Total ICOD contribution	<u>108 000</u> CAD	-
Disbursements FY 88/89 -	50 000	
Disbursements FY 89/90 -	<u>48 800</u>	
	98 800	



**Budget Notes:**

- 15) In addition to the actual cash contribution by the Recipient, as indicated in the budget, the in kind contribution for the salaries of the teachers and Ministry of Agriculture staff involved in the project as well as office space and administration exceeds 17 000 CAD.
- 16) Budget item (5ii) refers to the colour reproduction of fishes and coral reefs required to accompany the Teacher's Guides. Although the cost is stable, there is a choice of formats available. One is colour plates incorporated in the Teacher's Guides as an annex in which case 500 copies would be required. The other is to produce two colour posters (one for fishes and one for coral reefs) in which case 1000 copies could be reproduced. The final decision on format will be made by the Steering Committee.





International Centre for Ocean Development  
Centre international d'exploitation des océans

CONFIDENTIAL

EC88/D33  
Project #880247  
January 16, 1989

PROJECT SUMMARY  
(Approval)

Project Title: Coral Reef Research Unit - Maldives

Division: Technical Assistance

Recipient/  
Implementing Agency: Republic of Maldives, Marine Research  
Section of Ministry of Fisheries

Duration: Commencing June 1989 for a duration of  
12 months.

Components: Two ICOD consultant ecologists sampling  
kits and diving equipment.

Financial:

ICOD Contribution:	\$ 266,100
Recipient Contribution:	<u>25,300</u>
Project Total	\$ 291,400

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

Summary:Background:

Following his address to the United Nations General Assembly in New York in 1988 where he outlined the environmental threats to the continued existence of his country, the President of the Maldives has tasked the Department of Fisheries with the responsibility for establishing an operational team for the protection and study of the marine environment. This sector is now recognized as one of the top priorities for donor assistance. There is a shortage of biological expertise in the country required to address the high priority issue of marine environmental degradation. In particular, there is an urgent need to establish a baseline data collection system to assess the status of the coral islands and reef structures and to determine the extent and negative impact of both coral reef bleaching and cracking. Bleaching effects the aesthetic value of the coral reef to foreign diving tourists while reef cracking is a major problem where it weakens the structural strength of both the capital Male with its high population density, and the island which serves as the archipelago's international airport. There is a requirement for the training of selected Maldivians to undertake future monitoring and assessment of environmental impacts in the coral reef structures within the Maldivian Archipelago. The Government has requested that a Coral Reef Research Unit be established within the Ministry of Fisheries in order that reef cracking and other reef-related projects can be centrally coordinated. It is recommended that the Research Unit liaise directly with the Maldivian Environment Commission. Diving courses for selected Maldivian staff could be undertaken locally.

Project Description:A) Objectives

1. The general objective is to assist in the establishment of a Coral Reef Research Unit to monitor and recommend action to maintain and protect the marine ecosystem in the atolls of the Maldives.



2. Specific objectives of the project are:

- a) Form the nucleus of a Coral Reef Research Unit comprised of two ICOD contract marine ecologist divers and two Maldivian counterpart divers and administrators to assess marine environment concerns in the Maldives.
- b) Mapping of the north-east Male reef using Maldivian land surveyors for the shallow reef top and the ICOD marine ecologist divers for supervision and ecological assessments.
- c) Fixing of markers by the Coral Reef Research Unit marine ecologists along the north-east reef to use as reference points to measure extent of reef cracking.
- d) Establish baseline data on the status of the marine ecosystem of the Male reef and an on-going monitoring system for Maldivian counterparts.
- e) Development of an information brochure and questionnaire to enlist sport divers (tourists, etc.) to monitor and report to the Coral Reef Research Unit, the status and noticeable changes to the marine environment.
- f) Train two Maldivian counterparts in monitoring sampling and assessment procedures and gradually create expertise in the Maldivian team to ensure on-going continuity of the program.

B) Implementation

The project will be conducted in four phases:

- 1) An assessment phase where an ICOD-funded specialist will assist in the selection of the Maldivian counterpart team and establish equipment, administrative support and training requirements.





- 2) Development, with the two Maldivian counterpart divers and Maldivian land surveyors, of a detailed planning survey of the north-east reef of Male atoll to map the reef, establish baseline data on the marine ecosystem and select future monitoring sites.
- 3) Practical training of Maldivian counterpart divers in the collection of samples, recording of data and monitoring procedures. This will be carried out while mapping the reef and establishing monitoring sites by affixing markers in areas of reef cracking.
- 4) Assimilation of data collected over the first year and training Maldivian counterparts in the assessment of the data to determine any concerns relating to the marine environment. Assistance and training will be given the Maldivians in formulating appropriate recommendations to the Government to address the noted concerns.

The project will be 12 months in duration and will require six trips to the Maldives by the ICOD contract specialists.

- C) Project Components include two ICOD contract specialists leading a team of Maldivian counterparts; training counterparts in marine ecology; sampling, monitoring and assessment procedures and techniques, sample kits for field analyses and video equipment.

ICOD shall select and fund the contract specialists who will implement the project and train the Maldivian counterparts.

The Government of the Maldives shall provide the counterpart team consisting of divers, preferably with bio-technician training, and administrative support and transportation for the project.

- D) Beneficiary of the project is the Government of the Maldives.



- E) Project Implementation shall be through the joint efforts of the ICOD-funded contract specialists and the Maldivian counterpart team. Minor equipment for diving and marine environment assessment will be included in the project.

Project Appraisal/Constraints

1. This project will form the base for a Coral Reef Research Unit in the Maldives which will establish a suitable baseline monitoring system to determine the environmental health of the coral reef structures. Effective reef management will help protect the fragile home of 200,000 Maldivians and promote strong inshore fishery and tourist industries, the mainstay of Maldivian economy.
2. The major constraint is the ability of the Maldivian counterpart team to assimilate the knowledge and practical applications during the period of the project. This may be supplemented by further training both locally and overseas.
3. A further constraint is the availability of Canadian expertise.

Relationship to Other Projects (ICOD and Other Donors):

This project is similar in basic concept to ICOD Project #870135 - Lagoonal Health Characteristics - Mauritius - using low technology techniques and may run in conjunction with the Project #880240 - Crown of Thorns Starfish Program - Maldives.

Financial Information:

- 1) Projected ICOD disbursements by Fiscal Year:

FY 1989/90	\$200,000
FY 1990/91	89,000



## 2) ICOD Contribution:

Phase one - Assessment (4 weeks, 3 weeks on-site) Includes Professional Fees, Travel, Meals and Accommodation Equipment and Incidentals	\$ 39,100
Phase Two - Detailed mapping survey and preliminary site selection (5 weeks, 4 on site) Includes Professional Fees, Travel, Meals and Accommodation and Incidentals	46,000
Phase Three - Implementation (9 months) Includes Professional Fees, Internal Travel, Meals, Accommodation and Allowances, and Incidentals	132,000
Phase Four - Interpretation and Recommendations (2 weeks) Includes Professional Fees, Travel, Meals and Accommodation, and Incidentals	\$ 25,000
Phases One to Four	242,100
Contingency 10%	<u>24,000</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$266,100</b>

3. Recipient Contribution

Salaries Maldivian Counterparts	10,000
Office space, secretariat support	4,000
Housing of 2 ICOD specialists for 9 months	6,300
Transportation	<u>5,000</u>
<b>TOTAL RECIPIENT CONTRIBUTION</b>	<b>\$ 25,300</b>
<b>PROJECT TOTAL</b>	<b>\$291,400</b>





Recommendation:

It is recommended that final approval be given to Project #880247 -- Coral Reef Research Unit - Maldives -- to a maximum ICOD contribution of \$266,100 Canadian.



Project Budget

Annex "A"

1) ICOD Contribution:

Phase one - Assessment  
(4 weeks, 3 weeks on-site)

Professional Fees		\$ 11,250
Coral reef ecologist/diver (30 days @ \$375/day)		
Travel		
Halifax pre-project briefing	\$ 2,000	
Maldives	<u>4,500</u>	6,500
Meals and Accommodation (21 days @ \$150/day)	\$ 3,150	
Equipment (Diving equipment for 4 plus assessment parts)	16,000	
Incidentals (phone, fax, freight, etc.)	<u>2,200</u>	<u>21,350</u>
Phase One Sub-Total		\$ 39,100

Phase Two - Detailed mapping survey and  
preliminary site selection  
(5 weeks, 4 on site)

Professional Fees		26,250
2 specialists (70 days @ \$375/day)		
Travel - Maldives (2 persons @ \$4,500 each)		9,000
Meals and Accommodation 2 persons (28 days @ \$150/day each)		8,400
Incidentals		<u>2,350</u>
Phase Two Sub-Total		\$ 46,000



**Phase Three - Implementation (9 months)**

Professional Fees		\$ 84,000
2 coral reef ecologists		
@ \$42,000 each		
Travel - Maldives		
2 persons @ \$4,500 each	\$ 9,000	
one trip home @ \$4,500 each	<u>9,000</u>	18,000
Meals and Accommodation	\$ 5,400	
Subsidized accommodation		
supplied by Government of		
Maldives.		
(ICOD contribution \$600/month)		
Allowances - 2 persons:		
Health Insurance	3,000	
(\$1,500 each)		
General Allowance	5,400	
(\$300/month each)		
Settlement/Resettlement	3,000	
(1,500 each)		
Equipment	5,000	
Incidentals	4,000	
(communication, samples,		
freight, etc.)		
Report Preparation	<u>4,200</u>	<u>30,000</u>
Phase Three Sub-Total		\$132,000

**Phase Four - Interpretation and Recommendations (2 weeks)**

Professional Fees		10,500
2 coral reef specialists		
(2 weeks @ \$375/day)		
Travel		9,000
2 persons @ \$4,500 each		





Meals and Accommodation 2 persons (10 days @ \$150/day each)	3,000
Incidentals (Phone, fax, final report)	<u>2,500</u>
Phase Four Sub-Total	\$ 25,000
Phases One to Four	242,100
Contingency 10%	<u>24,000</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$266,100</b>

2. Recipient Contribution

Salaries Maldivian Counterparts	10,000
Office space, secretariat support	4,000
Housing of 2 ICOD specialists for 9 months	6,300
Transportation	<u>5,000</u>
<b>TOTAL RECIPIENT CONTRIBUTION</b>	<b>\$ 25,300</b>
<b>PROJECT TOTAL</b>	<b>\$291,400</b>



International Centre for Ocean Development  
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CONFIDENTIAL

EC88/D34  
Project #880249  
January 16, 1989

PROJECT SUMMARY

(Approval)

Project Title: Aquaculture of Giant Clams - Seychelles  
Division: Technical Assistance  
Recipient/  
Implementing Agency: Government of Seychelles  
Duration: To commence July 1, 1989 with a duration  
of 24 months  
Financial:  
ICOD Contribution: \$ 95,000  
Recipient Contribution: \$ 20,000  
Project Total: \$ 115,000

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

Summary:Background:

Giant clams of the family Tridacnidae occur naturally in the Seychelles where the limited stocks appear to have been over-fished. Only small and medium sized giant clams are harvested in the Seychelles at this time. There has been success using low cost, low technology aquaculture techniques in farming giant clams in other areas of the Indo-Pacific region for use in supplementing the natural food supply, for the export trade, as tourist ornaments and to introduce aquaculture as a viable secondary industry.

The Seychelles Government has expressed interest in the possible polyculture of clams of the Tridacnidae family together with Trochus snails in the natural lagoons of the Seychelles. It is recommended, however, that this project concentrate on the giant clams and, if this proves successful, a further project could be considered for the production of Trochus snails.

Project Description:A) Objectives

1. To investigate the feasibility of growing giant clams in the natural lagoons in the Seychelles.
2. Training of one Seychellois technical/biologist in giant clam husbandry at the Micronesian Mariculture Demonstration Centre (MMDC), Republic of Palau. The identified Seychellois counterpart would also participate as an assistant to the ICOD consultant in the first phase of the project.
3. Commence prototype aquaculture of giant clams at the selected sites.

B) Implementation

ICOD would provide funding over a two-year period to implement a three-phase project commencing with a one-month feasibility study, including site selection, and brood stock availability. This would be followed by a one-month training of a counterpart aquaculturist, and assistance over 20 months to start up and monitor a prototype aquaculture project for giant clams.





The transfer of technology to the Seychellois counterpart is paramount to the project. Equally important will be the link to the Seychelles Marketing Board for assistance to the aquaculturist in the marketing of the product.

The consultant would be required to travel to the Seychelles to conduct his feasibility with the Seychellois counterpart. This first trip would also identify training requirements that may be additional to that provided by MMDC due to species differences between the Seychelles and Palau. The consultant will then be required to return to the Seychelles for one month at the commencement of the prototype production, and at the end of the second year for final evaluation.

#### Project Appraisal/Constraints:

- a) Low cost, low technology introduction of aquaculture to the Seychelles.
- b) Conservation and possible restocking of wild giant clam population in the Seychelles reefs which are presently subject to over-exploitation.
- c) Develop a new food resource for local markets to supplement present food sources and reduce import requirements.
- d) A possible constraint may be the lack of local brood stock.
- e) If the feasibility study in Phase I indicates that aquaculture of giant clams is uneconomical, the project will be terminated (see recommendations).
- f) Canadian expertise is limited; the only available experts may be from MMDC or the International Centre for Living Aquatic Resources Management (ICLARM).

#### Relationship to Other Projects (ICOD and Other Donors):

1. This is similar in context to ICOD Project #870128 for training of giant clam aquaculturists at the Micronesian Mariculture Demonstration Centre. This project also includes a feasibility study, prototype production and possible polyculture as an end product.

Financial Information:

## 1. Projected ICOD Disbursements by Fiscal Year

FY 1989/90	\$65,000
FY 1990/91	\$30,000

## 2. ICOD Contribution (Progress to each new phase dependent upon success of previous phase)

Phase 1	- Feasibility, site selection, brood stock availability.	\$ 30,600
Phase 2	- Travel and training in giant clam aquaculture, at MMDC.	6,550
Phase 3	- Prototype production giant clams	<u>45,600</u>

Sub-Total	\$ 82,750
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Contingency 15%	<u>12,250</u>
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<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$ 95,000</b>
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## 3) Recipient Contribution

Counterpart Biologist	5,000
Transportation	3,900
Subsidized Accommodation	7,300
Administrative Support	<u>3,800</u>

<b>TOTAL RECIPIENT CONTRIBUTION</b>	<b>\$ 20,000</b>
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<b>TOTAL PROJECT</b>	<b>\$115,000</b>
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Recommendation:

It is recommended that final approval be given to Project #880249 -- Aquaculture of Giant Clams - Seychelles -- to a maximum ICOD contribution of \$95,000 Canadian subject to President's assessment and approval to continue to each progressive phase of the Project.



ANNEX A

DETAILED PROJECT BUDGET

1) ICOD Contribution

**Phase 1 - Feasibility, site selection, brood stock availability**

Professional Services (34 days @ \$400/day)	\$ 13,600
Travel - Consultant - Halifax	2,000
- Seychelles	4,500
Meals and Accommodations: - 30 days @ \$200/day - Seychelles	6,000
Transportation - Taxis/car rental	500
Incidentals - Telephone, Assessment Equipment, Shipment Samples and Equipment	3,000
Report Preparation	<u>1,000</u>
Phase 1 Sub-Total	\$ 30,600

**Phase 2 - Training Giant Clam Aquaculture - MMDC**

Travel - Palau	2,500
Meals and Accommodation (\$50/day 30 days)	1,500
Course Fees - aquaculture	500
- diving	400
Course Materials - books	250
- cages (100 @ \$7.00)	700
Air Freight	500
Diving Equipment	<u>200</u>
Phase 2 Sub-Total	\$ 6,550





### Phase 3 - Prototype Production

Professional Services (63 days @ \$150/day)	\$ 25,200
Travel: a) Consultant (2 trips @ \$4,500/trip)	9,000
Meals and Accommodation: a) Consultant:	
- 1st trip (30 days on site @ \$200/day)	6,000
- 2nd trip ( 7 days on site @ \$200/day)	1,400
Incidentals: Phone, Freight, Minor Equipment	3,000
Report Preparation	<u>1,000</u>
Phase 3 Sub-Total	\$ 45,600
Total Phases 1, 2, 3	82,750
Contingency 15%	<u>12,250</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$ 95,000</b>

## 2. Recipient Contribution

### Phase 1

Counterpart biologist salary (2 years)	5,000
Administrative support	1,200
Transportation car/vessel (30 days)	1,500
Subsidized accommodation at hotel (30 days) (525 srps instead of 890 srps/day for \$90/day)	2,700

### Phase 2

Counterpart biologist salary	as above
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### Phase 3

Site preparation	not known
Transportation, Consultant	2,400
Subsidized accommodation at hotel	4,600
Administrative support	<u>2,600</u>

**TOTAL RECIPIENT CONTRIBUTION** \$ 20,000

**PROJECT TOTAL** \$115,000



CONFIDENTIAL

EC88/D35  
Project #880253  
January 16, 1989

PROJECT SUMMARY

(Approval)

Project Title: Evaluation Of Demersal Fish Stocks - Benin

Division: Technical Assistance

Recipient/  
Implementing Agency: The Comité national océanographique (CNO) of Benin under the supervision of the Centre béninois de la recherche scientifique et technique (CBRST)

Project Components:

1. Advisory counselling in stock assessment by a Canadian fishery biologist;
2. Training of CBRST and CNO staffs;
3. Collection, review and analysis of scientific data;
4. Scientific advice for demersal fisheries management purposes.

Duration: Two years divided in four stages.  
(Commencement during the first semester of FY 1989-90.)

Financial:

ICOD Contribution:	\$ 104,050
Recipient Contribution:	\$ <u>61,600</u>
Project Total:	\$ 165,650

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

Summary:



### Background:

In the mid 80's, three oceanographic cruises were carried out in Benin's continental shelf in cooperation with France's Office de recherche scientifique et technique d'outre-mer (ORSTOM) with the objectives of completing a bathymetric study and of collecting data in order to evaluate the country's demersal fish stocks.

Results of the cruises show that the marine waters of Benin contain appreciable demersal fish stocks, including species that are in high demand for their commercial value.

Though diverse in nature, the data collected during the ORSTOM cruises have been so far of only limited use for management purposes because sufficient information is not available on other essential components of the local fisheries, such as:

- the fluctuation and distribution of fish landings, species by species; and
- the status of Benin's artisanal and industrial fishing fleets.

In order to remedy the situation and to review and up-date the cruises' data, the Centre béninois de la recherche scientifique et technique (CBRST) has requested from ICOD technical and financial assistance.

The request of CBRST reflects a long standing concern throughout the Region over the lack of new stock assessment studies, particularly in the central part of the CECAF Zone. It also reflects the recommendations of several aid specialists who have been involved in Benin's fisheries sector.

### Project Description:

#### A) Objectives

The general objective is to help the Comité national océanographique (CNO) of the CBRST in preparing and delivering a research program to assess the demersal fish stock potential of Benin's continental shelf and recommend management measures.





Specific objectives of the Project are to:

- examine the requirements for demersal fish stock assessment in Benin;
- advise in the planning and conduct of stock assessment activities;
- assist in the collection and analysis of scientific data on stocks and landings;
- provide training for the CNO and CBRST staffs;
- advise the CNO and the CBRST on management measures.

B) Project Components

ICOD will support a Béninois research team which will be constituted within the CNO in order to execute the Project in four stages over two years. ICOD will assist the CNO team through the provision of short-term consultancy services in Benin by a Canadian fisheries biologist with stock assessment experience.

- Stage 1 Adoption of stock assessment research program - one month.
- Stage 2 Collection of data from field surveys and research cruises - twelve months.
- Stage 3 Analysis (qualitative and quantitative) of data - nine months.
- Stage 4 Formulation and discussion of final report on country's demersal fish stock potential (completing the ORSTOM preliminary report and providing scientific advice) - two months.

During each stage, the training needs of CNO and CBRST staffs in related stock assessment subjects will be assessed and short-term seminars (one or two days) will be organized.



The Canadian biologist will participate in one research cruise. He will advise the CNO and the CBRST on the planning of all resources and institutional arrangements that are requested for the proper execution of the Project. He will be placed directly under the responsibility of CBRST's Director General.

The Canadian biologist will present to ICOD and CBRST at the end of every short-term consultancy his overall observations on the progress of the Project with appropriate recommendations.

C) Beneficiaries of the project.

The project will benefit the members of the CNO research team and CBRST through enhanced marine fisheries research capabilities.

Other government institutions and the fishery sector will benefit from any scientific recommendations leading to the effective management of the demersal fish stocks.

D) Implementation

Conduct of the Project will be under the supervision of CBRST's Director General who will be assisted by the Fisheries Director of the ministère du Développement rural et de l'Action coopérative and the national coordinator of the "Projet Modèle Bénin" of the IDAF FAO Regional Program. These three will form a Technical Committee that will periodically review progress of the Project. In addition, they have indicated their intention to devote the human and/or material resources needed for an adequate execution of the Project. This comprises the provision of a fishing vessel and office facilities.

The Canadian biologist will be recruited by ICOD in consultation with CBRST. He will attend at least one of the Technical Committee's meetings during each stage of the Project.

The CNO research team responsible for the execution of the Project will include a fishery biologist, one physical oceanographer, two fishery technicians and a master fisherman.





Financial management of the Project will fall under the responsibility of CBRST and ICOD. It is expected that, in addition to ICOD's financial monitoring, the auditor of CBRST will annually report to ICOD on the use of the funds placed under CBRST's responsibility.

Finally, cooperation with the Centre de recherche océanographique (CRO) of Ivory Coast has been secured in order to facilitate exchange of data and cooperation in their analysis since one scientist from Abidjan has participated in two of the ORSTOM cruises of the mid 80's.

#### Project Appraisal/Constraints:

##### a) Appraisal

- The project provides direct assistance to CBRST to update demersal fish stock assessments which go back to the late 70's and will help determine how to facilitate the expansion of this particular fishery.
- The project will support the local marine scientific community and enhance CBRST's capabilities in stock assessment.
- The project will encourage participating institutions to establish and develop a coordinated approach in the management of demersal fish stocks.

##### b) Constraints

- The severe indebtedness of Benin's government may inhibit support for the Project and hamper the government's capacity to pursue it after completion.
- ICOD has no solid information on the operating status of the fishing vessel to be used for the research cruises.
- Canada has limited French-speaking expertise available in stock assessment, particularly of tropical fish.





Relationship to Other Projects (ICOD and Other Donors):

- The Project is complementary to the "Projet Modèle Bénin" of the FAO IDAF Regional Program.
- It builds upon the results of Project #860060 which provided a course in Stock Assessment Training. It was attended by two participants from Benin, one of whom is the present secretary of the CNO.

Financial Information:

1) Projected ICOD Disbursements by Fiscal Year.

FY	1989/90	\$ 69,490
FY	1990/91	\$ 34,560

2) ICOD Budget Components (see Annex "A" for details).

Professional fees (consultant at \$375/day for 90 days)	\$ 33,750
International travel ((\$2,500 X 4)	10,000
Per diem accommodation ((\$140/day for 90 days)	12,600
Local transportation for consultant	1,800
In-Canada airfare and travel (associated with debriefing in Halifax)	2,400
* Report preparation, office accessories, documentation and communication expenditures	3,500
* Support to the organization of field surveys and research cruises	20,600
* Purchase of computer and accessories	<u>10,000</u>
Sub-Total	\$ 94,650
Contingency (10%)	<u>9,400</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$104,050</b>

\* To be administered by CBRST



## 3) CNO/CBRST Budget Components

Salary of CNO research team staff (one biologist, one physical oceanographer and three fishery technicians)	\$ 39,600
Provision of research vessel and crew (4 cruises x 10 days x \$400/day)	16,000
Office/Workspace	<u>6,000</u>
<b>TOTAL CNO/CBRST CONTRIBUTION</b>	<b>\$ 61,600</b>

Recommendation:

It is recommended that final approval be given to Project #880253 -- Evaluation of Demersal Fish Stocks - Benin -- to a maximum ICOD contribution of \$104,050 Canadian.



ANNEX "A"

Detailed Budget

A) <u>ICOD Budget Components</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Total</u>
Professional Fees (Consultant at \$375/day for 90 days)	\$ 20,250	\$ 13,500	\$ 33,750
International Travel (4 trips to Benin x \$2,500)	5,000	5,000	10,000
Per Diem Accommodation (\$140/day for 90 days)	7,560	5,040	12,600
Local Transportation (90 days x \$20)	1,080	720	1,800
In-Canada Airfare & Travel (associated with debriefing in Halifax)	1,200	1,200	2,400
* Report preparation and office accessories		1,500	1,500
* Documentation	500	500	1 000
* Support to the organization of field surveys and research cruises:			
* - lease of transportation facilities	6,500	1,000	7,500





* - purchase of fuel (including four research cruises at \$1,500/cruise)	9,500	2,500	12,000
* - work accessories	1,100		1,100
* Purchase of Electronic Data Processing Equipment (computer with 20 Mg and accessories)	10,000		10,000
* Communication Expenditures	<u>500</u>	<u>500</u>	<u>1,000</u>
Sub-Total	\$ 63,190	\$ 31,460	\$ 94,650
Contingencies (10%)	<u>6,300</u>	<u>3,100</u>	<u>9,400</u>
<b>TOTAL ICOD CONTRIBUTION</b>	<b>\$ 69,490</b>	<b>\$ 34,560</b>	<b>\$104,050</b>

\*To be administered by CBRST

B) CNO/CBRST Budget Components (mostly in-kind)

Salary of CNO Research Team:

- 2 researchers x \$7,200 per year	\$ 14,400	\$ 14,400	\$ 28,800
- 3 fishery technicians x \$1,800/year)	5,400	5,400	10,800
Provision of Research Vessel and Crew (4 cruises x 10 days x \$400)	12,000	4,000	16,000
Provision of Office/Work- space	<u>3,000</u>	<u>3,000</u>	<u>6,000</u>
<b>TOTAL CNO/CBRST CONTRIBUTION</b>	<b>\$ 34,800</b>	<b>\$ 26,800</b>	<b>\$ 61,600</b>



International Centre for Ocean Development  
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CONFIDENTIAL

EC88/D37  
 Project #880256  
 January 17, 1989

PROJECT SUMMARY  
 (Approval)

Project Title: Specialized Fisheries Training - South Pacific

Division: Training

Recipient: Republic of Marshall Islands

Implementing Agency: Forum Fisheries Agency

Duration: Three Years Commencing February, 1989

Project Components: Two three-year scholarships

Financial:

ICOD Contribution:	\$ 68,000
Recipient Contribution:	\$ <u>none</u>
Project total:	\$ 68,000

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(This portion for details of Approval)

Conditions of Approval or Comments

Record of Approval

Summary:Background:

The Republic of the Marshall Islands consists of 1,156 islands, scattered over half a million square miles of Pacific Ocean, with a surface area of only 70.07 square miles. Thirty-eight of the atolls and islands are inhabited. Historically, marine resources have supplied the protein needs of the indigenous people. In recent years, population drift has resulted in the concentration of almost two-thirds of the Republic's population (estimated at 36,000) in the urban centres of Majuro and Ebeye creating a strong local market demand for fisheries products. Near-shore marine resources and the local harvesting capacity are more than adequate to supply existing subsistence and market needs.

The Marshall Islands Marine Resources Authority was formally established in 1988 and given overall responsibility for fisheries development and management. With the establishment of the Authority, the Government of the Marshall Islands set three primary objectives for the fisheries sector: these include;

- 1) the establishment of a foreign fishing base,
- 2) the establishment of a local industrial fishing industry, and
- 3) the development and enhancement of the existing artisanal fishery throughout the islands.

In practice, the two major responsibilities of the Authority are the management of the existing fishery and the development of the country's fisheries potential. However, it is recognized that the current lack of trained personnel restricts the Authority's ability to implement meaningful fisheries management and development programs. In order to meet these responsibilities, an active recruitment and training program is required, commencing with a core group of three trainees.

On behalf of the Republic of the Marshall Islands, the Forum Fisheries Agency (FFA) has requested ICOD's support in the





provision of specialized fisheries training for two of the three trainees selected by the Marine Resources Authority.

Project Description:

A. Objective:

The general objective of this project is to assist the Republic of the Marshall Islands to develop and manage its marine resources by increasing the technical capacity of the Marine Resources Authority.

The specific objective is to provide specialized fisheries training for two Marshall Islanders. Selected candidates will pursue the three-year Diploma program in Tropical Fisheries offered by the University of the South Pacific (USP).

B. Project Components:

The Marine Resources Authority will select three qualified candidates to enroll in the Tropical Fisheries Diploma program. Two students will be funded by ICOD and the third student by the Authority.

The students will commence study at the University's Institute of Marine Resources (IMR) in February, 1989, and continue for three academic years. During the period between academic years, the Authority will arrange on-the-job attachments for the students and will employ the graduates on completion of study.

C. Project Beneficiaries:

The immediate beneficiaries of the project are the students selected to study at USP; the eventual beneficiary is the Marine Resources Authority.

D. Project Management:

The project will be managed by FFA in cooperation with USP.



Project Appraisal/Constraints:

Appraisal

The Project:

- a) contributes to the development of fisheries expertise in a country which is heavily dependent on marine resources;
- b) supports the utilization of the regional academic institution; and
- c) promotes the integration of a former American Trust Territory with the South Pacific regional community.

Constraints

- a) Experience suggests that some Micronesian students find it difficult to adapt to the cultural and academic environment at USP.
- b) Graduates with this level of training may be enticed to employment in the non-government sector.

Relationship to Other Projects (ICOD and Other Donors):

- a) A further increase in the country's fisheries expertise complements ICOD's support for the training of Marshall Islanders at the Micronesian Mariculture Demonstration Centre (project #870128).
- b) By February, 1989, ICOD will be supporting students from the Federated States of Micronesia (project #860062) and the Republic of Palau (project # 870160) at IMR in the Tropical Fisheries Diploma program.
- c) Other ICOD projects support the review of IMR's teaching program (Project #880222) and enhance its teaching capacity (project #880229) thus benefitting current and future students.
- d) A project (#C-88-001) funded by the Canada South Pacific Ocean Development Project supports various IMR program activities.



Financial Information:

1)	Projected ICOD Disbursements	
	FY 1988-89	\$17,000
	FY 1989-90	\$20,000
	FY 1990-91	\$20,000
	FY 1991-92	\$11,000
2)	ICOD Budget Components (see detailed estimates attached as Annex A).	
	Academic Expenses	\$25,590
	Residence Fees and Allowances	17,190
	Travel Expenses (Marshall/Fiji)	<u>18,000</u>
	Subtotal	\$60,780
	Contingency	<u>\$ 7,220</u>
	TOTAL ICOD CONTRIBUTION	<u>\$68,000</u>

Note It is assumed that stipends will be paid by the Government to the students during periods of on-the-job training; efforts are being made to identify this contribution to the project.

Recommendation:

It is recommended that final approval be given to project #880256 --- Specialized Fisheries Training; South Pacific --- to a maximum ICOD contribution of \$68,000 Canadian.



Project # 880256



Annex A

Two, Three-Year Scholarships

A. Academic Expenses

Tuition Fees (\$3962 x 2 x 3)	\$23,772
Student Association Fees (\$21.00 x 2 x 3)	126
Books (214.00 x 2 x 3)	1,284
Deposits (\$68.00 x 2 x 3)	408

B. Residence Fees & Maintenance Allowances

Fees (\$2010 x 2 x 3)	\$12,060
Allowances (\$855 x 2 x 3)	5,130

C. Travel Expenses

Return Aifares (Marshall Islands to Fiji) (\$3000 x 2 x 3)	<u>\$18,000</u>
Subtotal	*\$60,780
Contingency	<u>\$ 7,220</u>
TOTAL ICOD CONTRIBUTION	*\$68,000

\*Cdn. \$1.00 - F\$1.17



International Centre for Ocean Development  
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CONFIDENTIAL

EC88/D38  
Project #880254  
January 18, 1989

PROJECT SUMMARY  
(Approval)

Project Title: Training of Francophone Lawyers in  
Maritime Boundary Delimitation (Global)

Division: Training

Recipient: Lawyers from Francophone African and  
Southwest Indian Ocean Countries

Implementing Agency: ICOD in cooperation with Faculty of Law,  
Université Mohammed V, Rabat, Morocco

Duration: Commencement immediately, course  
delivery prior to February, 1990

Financial:

ICOD Contribution:	\$ 155,000 (Cdn.)
Recipient:	none

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

Summary:Background:

The new legal regime of the oceans negotiated during the Law of the Sea Conference enables states to extend their maritime boundaries seaward up to and sometimes beyond 200 nautical miles. As a result, all coastal and island states must delimit their offshore zones of jurisdiction. This task inevitably involves legal and technical negotiations with adjacent and opposing neighbouring states.

In order to facilitate the development of the necessary technical support required to define offshore limits for resource exploitation ICOD agreed to sponsor a seven week course for hydrographic surveyors at Erindale Campus, University of Toronto. This course has been held since 1986 and will be offered again in 1989 and 1990; this course has been very well received and is over subscribed.

Familiar with the Erindale course, several West African countries requested that ICOD organize a course for francophone hydrographic surveyors and requested that another course be designed to meet the needs of the francophone legal community in ocean boundary making.

Project Description:

In order to create a nucleus of trained francophone lawyers in the juridical aspects of maritime boundary delimitation, a special course will be designed in cooperation with Université Mohammed V, Rabat, Morocco. The three (3) week course to be held in Rabat (late 1989, early 1990) will be offered to nominees from all eligible francophone countries. ICOD will underwrite the organization and delivery of the course as well as sponsor the participation of up to 15 lawyers from eligible francophone areas of concentration. These lawyers should be drawn from their government's boundary delimitation negotiation teams. This course will be a pilot training initiative in maritime boundary legal issues.





A) Objectives:

The general objective of the project is:

1. to expand the cadre of francophone lawyers trained in the juridical aspects of maritime boundary delimitation.

The specific objective of the project is:

*see list*

1. to design and deliver a three week course, together with teaching materials, to familiarize lawyers from eligible francophone countries in maritime boundary delimitation.

B) Project Components:

1. A Canadian coordinator will be selected to plan, organize, design and deliver the course in cooperation with the Université Mohammed V.
2. A course outline will be developed and guest lecturers invited to participate in course preparation and delivery of lectures. Two Canadian lecturers will be selected and three from the francophone target countries.
3. Up to fifteen (15) participants will be selected from nominations submitted to ICOD for sponsorship.
4. The course materials and simulation exercises will be prepared.
5. The course materials will be distributed prior to the course in order to enable participants sufficient time for course preparation.
6. The course will be delivered in Rabat, Morocco.
7. The course evaluation and recommendations for future courses will be conducted upon completion of program.

C) Beneficiaries:

The beneficiaries of this project will be primarily the course participants and their national governments.



D) Project Management:

The Canadian coordinator will oversee the management of the project in close cooperation with the Université Mohammed V and ICOD.

E) Evaluation:

Upon completion of the three week course the training module will be evaluated by the participants and lecturers. Recommendations for continuing education in maritime boundary delimitation will be proposed.

Advantages:

1. This project enables ICOD to address an identified need resulting from extension of jurisdiction by providing Canadian assistance and proven Canadian expertise in maritime boundary delimitation to developing coastal and island states.
2. This course will address the need for a francophone training program in the law of ocean boundary making.
3. This course will strengthen national and regional expertise in the legal aspects of maritime boundary delimitation.
4. This training program is intended to familiarize the participants with the issues, jurisprudence and state practice associated with ocean boundary making. Follow-up training and education will be required if nationals are intended to significantly participate in their national government's maritime delimitation procedures.
5. The course will be a major regional training initiative targetted to the legal community - both the subject matter and the target group have not been previously addressed by ICOD in these regions.
6. The course will be designed for two ICOD geographic areas enhancing South-South cooperation and professional networking.
7. The course will establish the first institutional link for ICOD with a University in francophone Africa.





Constraints:

1. As with any regional initiative the logistical problems inherent in conducting such a program are numerous, however Morocco is a relatively well organized and efficient country and the Université Mohammed V is a modern institution, pleased to cooperate.
2. As this course is the first francophone training program to be offered in the legal aspects of maritime boundary delimitation extensive course preparation will be necessary.
3. If the course objectives are to be realized, participants will be required to carry out assigned reading prior to and during the course. This is particularly important in legal training where class discussion is encouraged. Also participants will require a sound understanding of the course materials in order to participate effectively in the simulation and other practical exercises.
4. The Université Mohammed V is interested to cooperate in this endeavour and to donate the use of its classroom facilities as the venue for the course. However, as the project is an ICOD initiative in response to several requests, the University is accordingly not the recipient and there is no other recipient contribution.
5. This is a pilot project. The need and character of future training programs will be assessed following this course.
6. Delivering training programs in the regions is costly. The costs presented in this proposal reflect the best estimates based on current information. Wherever possible these costs will be negotiated and reduced during the course preparation stage.

Relationship to Other Projects:

ICOD has sponsored several projects related to maritime boundary delimitation (SEAPOL Boundary Course - 860059, Maritime Boundary Computer Program Training - 870141, Caribbean Boundary Workshop - 860091, Erindale Maritime Boundary Delimitation Course for Hydrographers - 870123). The proposed Training of Francophone Lawyers in Maritime





Boundary Delimitation complements existing and future initiatives designed to strengthen indigenous expertise and ICOD's ability to respond in this subject area.

Financial Information:

Budget: (Cdn \$)

a) Project Disbursements:

FY 1988-1989	\$ 4,000
FY 1989-1990	\$ 151,000

b) ICOD Budget Components:

**Course Preparations:**

1. Course Manual (design, development and production)	\$ 15,000	
2.a Canadian Coordinator fee	\$ 8,000	
2.b Moroccan Coordinator	\$ 2,000	
3. Canadian Coordinator to Morocco travel and expenses	\$ 4,000	\$ 29,000

**Course Delivery:**

4. Teaching Materials (films, overheads, slides)	\$ 1,500
5. 15 ICOD sponsored participants (travel, accommodation and living expenses) (21 days x \$120 x 15=\$37,800) + (\$2000 x 15 = 30,000)	\$ 67,800
6. Lecturers (2 Canadians, 3 Regional) travel, accommodation, living expenses, honoraria 21 x \$120 x 2 =\$5040 per diem \$3500 x 2 = \$7000 travel \$1500 x 2 = \$3000 honoraria \$15,040 Canadians	\$ 33,100



	21 x \$120 x 3 = \$7560 per diem		
	2000 x 3 = \$6000 travel		
	1500 x 3 = \$4500 honoraria		
			\$18,060 regional
7.	Canadian Coordinator (travel, accommodation and living expenses)	\$ 5,180	
8.	Administration in Morocco	\$ 5,000	
9.	Excursion and local transportation	\$ 5,000	
10.	Miscellaneous (certificates kits, shipping charges)	\$ 1,000	\$118,580
	Subtotal		\$147,580
11.	Contingency		\$ 7,420
	Total		<u>\$155,000</u>

Partner Contribution:

Université Mohammed V:

To provide regional coordinator, classroom facilities, excursions, administrative and secretarial support.

Recommendation:

It is recommended that final approval be given to project #880254 -- Training of Francophone Lawyers in Maritime Boundary Delimitation (Global) -- to a maximum ICOD contribution of \$155,000 Canadian.



International Centre for Ocean Development  
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CONFIDENTIAL

EC88/D39  
Project #880250  
January 16, 1989

PROJECT SUMMARY

(Approval)

Project Title: Fisheries Division Institutional and Administrative Planning - Eastern Caribbean.

Division: Technical Assistance

Recipient: Member states of the Organisation of Eastern Caribbean States (OECS).

Implementing Agency: OECS Fisheries Unit

Duration: One year, commencing upon Approval

Components: Consultants, travel expenses, and workshops.

Financial:

ICOD Contribution:	\$ 155,000
OECS Contribution:	38,000
National Government Contribution:	<u>18,360</u>
Project Total	\$ 211,360

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval



Summary:Background:

Considerable advances have been made in regional cooperation in fisheries management in the Eastern Caribbean since the establishment of the OECS Fisheries Unit. The Unit has undertaken programs such as foreign vessel licencing, Monitoring Control and Surveillance (MCS), vessel insurance, fishermen's training, data collection and analysis and market strategy development on a regional level, thus changing the general responsibilities of National Fisheries Divisions. However, many of the officers and their staff continue to expend time and money on activities which may be better addressed at this regional level. As a result, national governments are not receiving the maximum benefit from their budgetary allocations to the Fisheries Division and to the OECS.

In some OECS Member States the effectiveness of the Fisheries Division is limited by the lack of proper definition of staff responsibilities. Fisheries officers, assistants and extension personnel have little or no guidelines to define their duties and undertake initiatives which can have little or no impact on the development of the industry. This problem can be further complicated by staff shortages which exist in many states; a problem that results in overworked staff who can not properly address priority objectives within the countries management/development plans.

On behalf of the OECS Member States, the OECS Fisheries Unit is requesting support for a program which will assist national governments design and establish more rational institutional structures for their respective Fisheries Divisions. The program is to address three aspects of the present situation which limit the effectiveness of the national and regional fisheries management units, namely:

- a) the need for increased staff within the Fisheries Division of some states;
- b) alterations needed in the definition of staff responsibilities in some states; and
- c) the need for further recognition of activities which are undertaken more effectively at the regional level.



Project Description:

The general objective of this project is to assist Member States of the OECS in the development and management of the living marine resources within their EEZ's. The specific objective of the project is to provide Member States of the OECS with the advisory support needed to design efficient national fisheries departments.

Appropriate organizational structures for fisheries management and development units will be determined using, where appropriate, a Canadian Consultant working in cooperation with the OECS Fisheries Unit and the National Ministries of Agriculture. The Canadian Consultant will coordinate national planning committees established to prepare organizational structures which can:

- a) be supported by the national governments, and
- b) address the national and regional issues and responsibilities of fisheries management.

Local consultants, working with the Canadian consultant, will assist Member States identify national and regional personnel qualified for various positions within the management structure, identify appropriate training programs (short and long term) useful to the implementation of the revised management units. Local consultants will also be responsible for the administrative aspects of mid project workshops on certain aspects of the implementation of new management structures including, among other topics, the preparation of job descriptions for Fisheries Division personnel.

Outputs to the project will include: individual operational structures for the OECS Member States which will be based on harmonized fisheries development and management plans; national reports on the availability and sources of qualified persons for Fisheries Division staff positions; and descriptions of existing and recommended training programs useful for improving the effectiveness of Fisheries Division staff in the performance of their duties.

Primary benefits will be realized by the member states who will gain from more efficient cost effective fisheries management units. The OECS Fisheries Unit will indirectly benefit from the increase in capacity for the implementation of regional programs. The project will be managed by the OECS Fisheries Unit.





ICOD may receive a request for support for a larger program, based on the implementation of recommendations presented to OECS Member States during the course of this project.

Project Appraisal/Constraints:

a) Appraisal.

- 1) This project will provide advice on strengthening national capabilities for fisheries management in the Eastern Caribbean.
- 2) This project focuses on fiscal and manpower constraints within each individual country within the OECS.
- 3) This project addresses factors which limit national involvement in programs which increase the potential for sustainable fisheries development on the regional level (particularly efforts undertaken by the OECS).
- 4) This project further promotes regional cooperation in fisheries management and development.
- 5) Subject to the implementation of recommendations presented as part of this project, this project could assist Member States increase the potential for fisheries development at the national level in the Eastern Caribbean.

b) Constraints.

- 1) Full impact of this project is directly dependent on the active participation and commitment of Member States to the implementation of recommendations presented by the consultants through the OECS Fisheries Unit. Preliminary evaluation by the OECS of the demand for and commitment to this program has indicated widespread informal support for this program.





Relationship to Other Projects (ICOD and Other Donors):

This project will:

- 1) Strengthen and support efforts made by the OECS Fisheries Unit at the national and regional levels, particularly:
  - i) Fisheries Data Management - Institutional Enhancement Program ICOD Project #870132);
  - ii) Fisheries Monitoring Control and Surveillance Program (ICOD Project #880199);
  - iii) Foreign Access and Vessel licencing; and
  - iv) Fisheries Marketing Strategy (ICOD Project #880189).
- 2) Build upon initial efforts made by FAO under the Technical Cooperation Project (TCP) project "Fisheries Management Planning for the Lesser Antilles".
- 3) Improve the potential for effective implementation of the proposed CIDA funded "Regional Marine Resources Assessment and Management Program" presently being redesigned under the auspices of ICOD.
- 4) Provide useful information and advice related to the implementation of the forthcoming CIDA supported Leeward Islands Fisheries Infrastructure program.

Financial Information:

1)	Projected ICOD Disbursements by Fiscal Year.	
	FY 1989/90	\$100,000
	FY 1990/91	\$ 50,400
2)	ICOD Budget Components	
1)	Consultants Fees (\$375 per day X 100 days)	\$ 37,500
2)	Consultants travel (2 X Canada-Caribbean return; X 2 plus inter-island travel)	13,000
3)	Consultants Accommodation & Living Expenses (140 days X \$180/day)	25,200
4)	Local Consultants Fees (\$265 per day X 15 days X 8 countries)	31,800
5)	Local Consultants travel (inter-island)	10,000
6)	Workshop	20,500
7)	Report preparation, distribution	<u>4,900</u>
	Sub-Total	\$142,900
8)	Contingency	<u>12,100</u>
	<b>TOTAL</b>	<b>\$155,000</b>



## 3) OECS Budget Components

1) Project Coordinator	\$ 20,000
2) Communications	3,000
3) Secretarial and Clerical support	<u>15,000</u>
<b>TOTAL</b>	<b>\$ 38,000</b>

## Member States Budget Components (Estimated in-kind)

1) National Planning Committees (Salary, travel, etc.) (\$1,600 X 8 countries)	\$ 12,800
2) Office Space (\$250 X 8 countries)	2,000
3) Secretarial & Clerical Support (\$170 X 8 countries)	1,360
4) Communications (\$275 X 8 countries)	<u>2,200</u>
<b>TOTAL</b>	<b>\$ 18,360</b>

Recommendation:

It is recommended that final approval be given to Project #880250 -- Fisheries Division Institutional and Administrative Planning - Eastern Caribbean -- to a maximum ICOD contribution of \$155,000 Canadian.





International Centre for Ocean Development  
 Centre international d'exploitation des océans

CONFIDENTIAL

EC88/D40  
 Project #880252  
 January 16, 1989

PROJECT SUMMARY

(Approval)

Project Title: Enhancement of Coastal and Marine Environmental Monitoring Capability in the Caribbean

Division: Technical Assistance

Recipient: Commonwealth Caribbean States

Implementing Agency: The Caribbean Environmental Health Institute (CEHI)

Duration: Three and one half years, commencing upon approval

Project Components: Canadian Consultants (fees and travel), equipment (field test kits, glassware, chemicals), seminars

Financial:

ICOD Contribution:	\$ 478,500
Recipient (CEHI) Contribution:	88,375
National Governmental Contribution:	<u>770,000</u>
Project Total:	\$1,336,875

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(This portion for details of approval)

Conditions of Approval or Comments

Record of Approval

*Cooperative with UNEP*

Summary:Background:

The island states in the Caribbean basin are heavily dependant on their coastal and marine resources for their economic and social well being. Development pressure is resulting in multiple and conflicting demands on the limited resources available from the fragile marine ecosystems. Efficient management of the marine resources and environment is only possible if relevant data are made available to government managers, private developers and users. To this end, the Caribbean Environmental Health Institute (CEHI), an agency of CARICOM, has been implementing a program entitled "Protection of the Marine and Coastal Environment of the Caribbean Islands" since 1982. This program involved establishing a sub-regional network of pollution monitoring units which are currently monitoring bacterial pollution levels, primarily at principle sewage outflow areas. CEHI is requesting support for a regional program to expand capabilities within the Commonwealth Caribbean for regular monitoring of microbiological and physio-chemical parameters as well as hydrocarbon and agricultural pesticide and herbicide pollution.

Project Description:

The general objective of this program is to increase the capability of Commonwealth Caribbean nations to undertake coastal marine development planning, based on sound environmental management practices. The specific objectives of this project are to:

- i) enhance the capability of existing units, and where necessary, establish new units, to monitor a comprehensive range of coastal marine environmental parameters for use in development and management planning of marine resources; and
- ii) adapt and promote the use of standard methodologies for marine environmental monitoring within the Caribbean region.

The monitoring programs will be designed by the Caribbean Environmental Health Institute project staff in consultation with relevant government departments, para-governmental institutions, developers, and resource users, making use of private consultants (Canadian) as necessary.





Four states will be chosen for program development during the first two years of the program while consultations and other preliminary work will begin with remaining countries participating in the program. These countries will undertake implementation during the latter eighteen months of the project.

Activities to be undertaken at the national level in the program include:

- i) comprehensive micro-biological baseline monitoring of areas used for recreational activities and marine waters affected by sewage outfalls and drains, yacht discharges, and treatment plant discharges;
- ii) collection of baseline data on physio-chemical environmental parameters such as turbidity (moving suspended sediment), pH, temperature, salinity, and dissolved oxygen;
- iii) monitoring of hydrocarbon pollution by measuring tar balls on beaches and preparation of water, sediment and biota samples for dissolved/ disbursed hydrocarbon measurement at CEHI and other selected laboratories;
- iv) collection (water, sediment and biota) and preparation of samples for pesticide and PCB analysis at CEHI and other selected laboratories;
- v) measurement of nutrient levels, eutrophication, biological oxygen demand and other factors;
- vi) ecological monitoring of the health status of selected ecosystems such as mangroves, coral reefs, seagrass beds and sandy beaches, including erosion/degradation rates; and
- vii) measurement of nearshore current patterns, suspended solids and sedimentation rates.

The project will be managed by the Caribbean Environmental Health Institute, who will provide a project director. ICOD will identify suitable Canadian consultants to assist in providing technical and advisory support in sample analysis methods, and training of national counterparts.





To facilitate the implementation of national programs and the establishment of a regional networking of national units, CEHI will organize and host a series of specialized seminars on various aspects of the monitoring programs (such as data collection procedures, sample handling and analysis methods). The Canadian consultant will assist in planning and delivering these seminars. This Project will directly benefit the participating countries by increasing their capacity to collect data useful in planning and executing marine resource development activities.

#### Project Appraisal/Constraints:

##### A) Appraisal:

- i) This project will provide Commonwealth Caribbean countries with the capability of collecting, on an ongoing basis, environmental information necessary for sound management and development of their coastal marine resources.
- ii) by promoting standard methods of data collection and analysis throughout the region, this project provides a compendium of comparable baseline data which promotes the development of regional environmental guidelines and standards.

##### B) Constraints:

While the project includes the provision of basic field test kits, glassware and reagents used for routine analyses, these materials will need replacing as part of an ongoing program. The success of the regional program will, therefore, depend on the commitment of participating governments to the replacement, and maintenance, of materials provided;

#### Relationship to Other Projects (ICOD and Other Donors):

- i) This project will provide information useful to participants in the ICOD-funded Marine Parks and Protected Areas Management project;



- ii) This project assists countries in enhancing their capabilities to collect basic oceanographic data, hence it facilitates the implementation of the proposed CIDA-funded Caribbean Marine Resources Assessment and Management Program currently being planned by ICOD and CARICOM.
- iii) Activities related to monitoring of health and status of various marine ecosystems in the Caribbean supports ongoing and proposed activities under UNESCO's Man and the Biosphere program and UNEP's Caribbean Action Plan.
- iv) Establishing active environmental monitoring units at the national level can provide data and opportunities for research for graduate students studying within UWI-CERMES. The project may also provide possible employment opportunities for graduates of the ongoing environmental and resource management diploma program or proposed masters program.
- v) This project would facilitate implementation of the proposed "Coastal Zone Management Program", presently being considered by CIDA, by providing useful baseline information and trained personnel.



Financial Information:1) Projected ICOD Disbursements by Fiscal Year:

FY 1988/89	\$ 60,000
FY 1989/90	\$ 153,500
FY 1990/91	\$ 166,000
FY 1991/92	\$ 99,000

2) ICOD Budget Components:

Consultants Fees	\$ 109,500
Consultants Travel and Expenses	110,500
Sampling and Analytical Equipment	115,000
Travel (CEHI and National Personnel)	40,000
Seminar Delivery	25,000
Reports, Manuals Production	35,000

Sub-total	\$ 435,000
Contingency (10%)	43,500

**TOTAL ICOD CONTRIBUTION: \$ 478,500**

3) CEHI Budget Components:

Personnel (Project Director, scientific and technical staff)	39,375
Sample analysis (chemicals, solvents, etc.)	20,000
Equipment (HPLC, GC, etc.) (operation and maintenance)	23,000
Clerical and Secretarial Support	6,000

**TOTAL \$ 88,375**

4) National Government Contribution:

Local Transportation (\$3,000 X 16 countries)	48,000
Data Collectors (\$2,000 X 16 countries)	32,000
Laboratory and Technical Staff (\$43,125 X 16 countries)	690,000

**TOTAL \$ 770,000**

**PROJECT TOTAL \$1,336,875**





Recommendation:

It is recommended that final approval be given to Project #880252 -- Enhancement of Coastal and Marine Environmental Monitoring Capability in the Caribbean -- to a maximum ICOD contribution of \$478,500 Canadian.

Annex A

1)	Consultants Fees ( \$365/day for 300 days )	\$109,500
2)	Consultants Travel ( Canada-Caribbean return X 6 X 3 years )	34,900
3)	Consultants Accommodation and Living Expenses ( \$180/day X 420 days )	75,600
4)	Sampling and Analytical Equipment ( glassware, field kits, chemicals, etc )	115,000
5)	Travel ( inter-island travel )	40,000
6)	Seminar Delivery ( document preparation, conference room expenses, etc. )	25,000
7)	Report Preparation ( Standard Operations Manual Production )	<u>35,000</u>
	Sub-Total	\$435,000
8)	Contingency ( 10% )	<u>43,500</u>
	<b>TOTAL</b>	<b>\$478,500</b>



International Centre for Ocean Development  
Centre international d'exploitation des océans

CONFIDENTIAL  
EC88/D45  
Project #880240  
January 17, 1989

PROJECT SUMMARY  
(Approval)

Project Title: Crown of Thorns Starfish Program-  
Maldives

Division: Information

Recipient: Ministry of Fisheries, Maldives

Implementing Agency: Worldview International Foundation  
(WIF), Maldives and Ministry of  
Fisheries, Maldives

Duration: Twenty four (24) months

Project Components:

1. 20 ten-minute video programs
2. 1 thirty-minute documentary

Financial:

ICOD Contribution	:	\$ 68,000
Recipient Contribution:	:	\$ 71,210
Project Total	:	\$139,210

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Conditions of Approval or Comments

Record of Approval





Background:

The Republic of Maldives consists of 26 natural atolls over a coral reef system with a total area of approximately 90,000 km<sup>2</sup>. Maldivians are dependent on their natural surroundings due to the small size of the coral islands and the narrow resource base. The reef provides coral blocks and lime for building as well as a habitat for fish which are the main source of protein in the daily diet. A high percentage of the workforce is engaged in fishing and fishery-related activities. An important tourist industry is developing based on the attraction of the Maldivian coral reefs.

A sizeable infestation of Crown of Thorns Starfish, which feeds on living corals, has been found in the Maldives. The impact of this organism could be detrimental to both the biology and the economic base of the Maldives. In order to deal with the problem, the Government of Maldives wishes to conduct a broad survey to determine the spread of the organism and develop a public awareness program to assist in the survey, and, ultimately, to support any control action the government undertakes.

A survey will be carried out to assess the current abundance of Crown of Thorns Starfish over the whole Maldives and to identify any sites of major outbreaks. There are no resources to carry out a massive survey using trained marine biologists to visit a large number of reefs in different atolls. Therefore, the survey will be based on the distribution of questionnaires to:

- a) all resort islands where diving instructors will be asked to report on the occurrence of Crown of Thorns Starfish in the vicinity;
- b) all inhabited islands where island officers will be asked to question reef fisherman, bait fisherman and coral collectors and report any sightings of Crown of Thorns Starfish in their area;

A series of field trips and lectures will be conducted during the period the Crown of Thorns Starfish program is underway. The field trips will be for those students taking Fisheries Science in both private and government schools. A total of six field trips will be organized to infected areas as well as those areas which are free of the organism. Lectures on the Crown of Thorns Starfish infestation and means of control will be provided to schools and in resorts where Crown of Thorns Starfish infestations are evident. A total of 10 lectures is envisaged.





Given the potentially disastrous effects that Crown of Thorns Starfish could have on the reefs, a critical aspect of the proposed program will be to create widespread awareness of the Crown of Thorns Starfish problem throughout the islands. The Maldivian public will be encouraged to cooperate in the completion of the Ministry's survey questionnaires, to provide early reporting of Crown of Thorns Starfish outbreaks and to support any government-sponsored control program that may be initiated.

Components of the public awareness program will include: the preparation and distribution of printed leaflets to all inhabited and resort islands, the production of 20 ten-minute video programs and a 30 minute documentary. ICOD has been requested to provide funding for the series of short video programs and for the documentary. The government of the Maldives is funding the rest of the program.

**Project Description:**

A series of ten-minute video programs will be prepared in both English and Dhivehi, the local language and will be shown in schools and locally owned cinemas. These programs will provide information on the reef environment, the Crown of Thorns Starfish relationship, follow the progress of the survey and of any control program that may be developed and, in general, encourage awareness and participation by the public in the Crown of Thorns Starfish program.

It is anticipated that the video programs may be produced at the rate of one per month, depending on the progress of the Crown of Thorns Starfish program.

Upon completion of the video programs, a 30-minute documentary synthesizing the Maldivian Crown of Thorns Starfish program and the experiences learned will be prepared from existing footage for distribution and sale to interested parties.

**Project Components:**

Components of this project are production and research costs for the series of short video programs and for the 30-minute documentary. An amount has also been budgeted to cover film, editing and miscellaneous expenditures.



Project Beneficiaries:

Beneficiaries of the project will be:

1. Maldivians who will learn about the infestation and government measures being undertaken by watching the series of short video programs;
2. Ministry of Fisheries who will use the video programs to enlist the cooperation and support of Maldivians in implementing the survey and whatever control measures may be undertaken.
3. Ultimately, other countries faced with similar infestations will be able to use the 30-minute documentary to learn about what the Maldivians did to handle the infestation in their waters.

Project Implementation:

Most of the COT program will be implemented by the Ministry of Fisheries. However, the series of video programs and the final 30-minute documentary video, which ICOD has been requested to support, will be implemented by the local office of Worldview International Foundation (WIF) in collaboration with the Ministry's Marine Research Unit. This office is staffed by Maldivians with a good capacity for making underwater films. WIF, itself, is an international, non-profit, non-governmental organization with a focus on media for development communication and education productions.

Project Appraisal/Constraints:

- a) T.V. sets and video playback machines are available in the Maldives. Most inhabited islands have locally owned video cinemas. There is the potential to take advantage of these locally owned cinemas as a vehicle for the video programs to be used as public service announcements.
- b) There is the potential for additional use and distribution of the video programs and documentary through the WIF regional network including Sri Lanka.
- c) The public awareness component of the Crown of Thorns Starfish program will be crucial in creating a widespread awareness of the Crown of Thorns Starfish problem and to ensure public support and participation.





- d) There is a shortage of biological expertise on reefs and the Crown of Thorns Starfish in the Maldives. The scientific expertise required for this program will likely be identified through Project #880247, Coral Reef Research Unit (Maldives), also being submitted for approval.
- e) Evaluation of this project can be based on its outputs, that is, the successful production of the series of ten-minute video programs and the thirty-minute documentary video.
- f) As a non-profit NGO, WIF itself is making a substantial contribution to the project in terms of providing video and other equipment, filming crew, and other production staff, resulting in substantial cost savings in this project. Furthermore, the staff, facilities and equipment of the WIF Centre, located in Malé, will be used, thereby resulting in further cost savings since airfares and living expenses will not be required. This results in a project whereby a normally expensive output (video productions) will be achieved for a relatively low cost.

Relationship to Other ICOD Projects:

1. The technical backstopping necessary for the Crown of Thorns Program will be provided through Project #880247, Coral Reef Research Unit Study (Maldives) submitted to ICOD for approval.
2. Both this project and project #880196, Fisheries Training Videos on Fish Chilling (SPC), focus on the use of visual media as information tools. They differ in that this project focusses on the use of video as a means of communication and education for the public, while the other project focusses on the use of video as a training tool.



Financial Information:

1) Projected ICOD disbursements by Fiscal Year:

FY 89/90	:	\$33,400
FY 90/91	:	\$28,400
FY 91/92	:	\$ 6,200

2) ICOD Budget Components (see detailed estimates attached as Annex A)

20 ten-minute programs	\$55,200
Thirty minute documentary	5,450
Film, editing, miscellaneous	1,150
Contingency	6,200
Total	<u>\$68,000</u>

3) Recipient Budget Components:

a) Ministry of Fisheries Contribution  
(in kind):

	<u>Total</u>
Questionnaire Survey	
Local transport	\$ 700
Administrative support (2 full time staff for 1 year)	4,100
Leaflets	2,050
Radio spots	4,360
Field trips and lectures	2,500
Total (in kind) Contribution Ministry of Fisheries	<u>7,500</u>
	\$21,210

b) WIF Contribution (in kind):

Camera, production and post-production equipment; facilities; personnel time including film crew, production and post-production staff.

Total WIF (in kind) Contribution equivalent to:

\$50,000

Recommendation:

It is recommended that final approval be given to project #880240, "Crown of Thorns Starfish Program, Maldives" to a maximum ICOD contribution of \$68,000 Canadian subject to a review of the number of videos required and their content.

ANNEX A  
(Detailed Budget)

	89/90	90/91	91/92	Total
Ten-minute programs				
- production costs (20 x \$2,725/program)	32 700	21 800	-	54 500
research costs (20 x \$35/program)	700	-	-	700
Documentary production costs (condensed from above footage)	-	5 450	-	5 450
Film, editing, miscellaneous	-	1 150	-	1 150
Sub Total	33 400	28 400	-	61 800
Contingency (10%)	<u>-</u>	<u>-</u>	<u>6 200</u>	<u>6 200</u>
Total	33 400	28 400	6 200	<u>68 000</u>