IMPROVING THE STATE OF THE ART
IN INTERNATIONAL MARINE
INFORMATION TRANSFER
(PLENARY ADDRESS)

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ABSTRACT

There are numerous projects funded by many agencies from many countries that have as a goal the transfer of marine science information from industrialized to developing countries and between developing countries in certain regions. Some projects are very small and targeted to answer specific questions. Others form minor parts of large national or multinational assistance efforts. Regrettably, duplication of effort occurs and often the project falls apart when the aid funds are terminated.

This paper aims to give examples of two areas where a start has been made to consolidate effort and put some coherence into the planning of international marine information transfer. By concentrating on these two areas, I hope to stimulate the exchange of ideas on the transfer of marine science information and to emphasize the point that the past and present "ad hocery" is not enough if we are to succeed in transferring marine science information from information rich to information poor regions and to build an infrastructure that encourages information transfer within and between these regions.

AD HOCKERY IS NOT ENOUGH

To have significant improvements on the state of the art in International Marine information transfer, at least three factors need to be considered:

1. Consolidation of effort;
2. Strategic planning;
3. Implementation by priority.

In the international arena a start has been made on the first point, consolidation of effort. A group of information specialists from FAO,
IOC, WMO and UNEP meet annually to discuss common information problems associated with intergovernmental ocean research programs. The IOC Working Committee on International Oceanographic Data Exchange now encompasses non-numerical or text related information, on an equal footing with numerical information (data). Finally, the Group of Experts on Marine Information Management (GE/MIM) was recently formed. This group assumed responsibility for providing policy advice to IOC on all aspects of marine information management. Previously, this function was the responsibility of several advisory groups, each reporting to a different UN agency. A promising start has thus been made to consolidate effort.

In the second area, strategic planning, much remains to be done. Until now, much of the program development has been opportunistic. Projects were started as money became available from donor agencies with no real attention being paid to priority setting.

The GE/MIM though, has outlined its priorities, and on top of the list is the preparation of a program development plan for marine information and related matters. Such a plan, although it would take a long time to prepare, is considered essential by the group if the information needs of various regions of the world are to be addressed in a fair and coherent manner.

In fact, the third part, implementation by priority, will be virtually impossible without such a strategic plan. The Group considers that a carefully worked out plan, based on the expressed needs of various regions, nations, and institutions, is a necessity if donor agencies are to look favorably on project proposals, and bring some cohesion to marine information transfer, particularly as it applies to international development.

Without a sound program development plan, there is no foundation on which to build up and improve international marine information transfer. Hence my headline, ad hocery is not enough.

A NEW FOCUS FOR OCEAN RESOURCE DEVELOPMENT

The International Centre for Ocean Development (ICOD) was established recently and has great potential for improving the state of the art of international marine information transfer.

Role and Structure

In February 1985, ICOD was established as a Crown Corporation in Canada with headquarters in Halifax, Nova Scotia. ICOD's mandate is to initiate, encourage and support cooperation between Canada and developing countries in the field of ocean resource development. It will accomplish this mandate through non-capital intensive programs in three sectors:

1. Advisory and Technical Assistance
2. Training
3. Information Services

The budget allocated for the first 5 years is 27 million Canadian dollars.

Objectives

ICOD has the following objectives:

1. Initiating and supporting programs in developing countries for the improved management and utilization of ocean resources, particularly as a source of food;

2. Supporting the development of indigenous expertise and institutions in developing countries in order to increase the capacities of developing countries in integrated ocean use management;

3. Enlisting the expertise of people and institutions in Canada, developing countries and elsewhere;

4. Developing and sponsoring the collection and dissemination of information relating to ocean resource development;

5. Developing and sponsoring training programs, technical assistance and advisory services relating to ocean resource development; and,

6. Supporting research relating to ocean resource development.

Strategies

In pursuit of these objectives ICOD will adopt the following strategies:

1. ICOD will focus its effort on three sectors which are most directly related to the statutory mandate: Training, Information Services, and Technical Assistance (institutional development). This approach offers three particular advantages: (1) ICOD will specialize in providing assistance in all three of these sectors exclusively in the ocean development field; (2) capital-intensive projects, which are beyond ICOD's financial resources and better dealt with by other agencies, are avoided; and (3) sectorial concentration allows the Centre to provide assistance to smaller, discrete projects which often fall below the threshold of concern of major funding agencies, but which are nonetheless critical for establishing coordinated ocean management in developing states and regions.

2. ICOD will seek active and continuing coordination with Canadian and other aid programs to ensure two important conditions: (1) the
avoidance of unnecessary duplication or conflict of activities; and (2) the creation of complementary programs whenever possible. This latter factor is particularly important in that ICOD has the opportunity to fund critical "marine management" projects which may be integrated with and contribute to longer-term aid programs of other agencies. Such an approach will permit ICOD to extend the effective impact of its limited funding, and to improve its own general expertise and awareness as an information source on ocean development projects.

3. ICOD will act, where possible, as an aid broker between developing countries and regions and major aid agencies. This approach may involve ICOD in identifying projects and suggesting appropriate funding, as well as acting as a contract manager where appropriate.

4. ICOD will deal directly with governments and regional intergovernmental organizations and require that projects be submitted or endorsed at this level. In this way, it will be possible to ensure that projects have the full support of local authorities and contribute to national and regional marine development priorities and objectives.

5. ICOD intends, where possible, to promote and facilitate transfers of technology, information and expertise on a "South-South" basis, so that existing capacities in one part of the developing world are made more accessible to other regions.

6. The technical assistance programs of ICOD will attempt to make use of "person to person" forms of advisory services, such as the posting of small-scale Canadian fishermen, plant operators and others to engage in grass-roots development programs in developing countries.

7. ICOD will endeavor to serve as the institutional link for the Canadian governmental, research and industrial sectors involved in marine affairs, providing the international community with a single window on Canadian marine expertise.

8. ICOD will attempt, where possible, to focus its assistance at the regional level, in order to maximize the area of impact and to recognize the international nature of many marine management problems and the constraints often encountered at the national level. In addition, ICOD will concentrate on states and regions in which development of fishery and ocean resources will have maximum economic impact and in which the scale of operations will be small enough to permit the greatest possible results from the Centre's limited funds.

Operating Guidelines

Comprehensive guidelines for ICOD project selection are being developed. Although ICOD will always be open to new proposals, certain
fundamental criteria will be applied in the assessment of all requests for assistance.

1. ICOD will evaluate projects at all phases: proposal; operational; and project end, to provide performance measurements and a base for future project funding.

2. Special emphasis will be placed on training, information services and technical assistance aimed at establishing or strengthening institutions in developing maritime countries. Research programs which support the above objectives will be considered for support.

3. In order to be considered for ICOD funding, project proposals will be expected to:

   -form part of a coherent policy promoting the integrated development and management of ocean resources in a developing country or region.

   -demonstrate a clear potential to contribute to the economic and social development of a country through realization of national and/or regional marine priorities and objectives.

   -demonstrate the capacity to become self-sustaining.

4. Potential recipients will be expected to demonstrate their commitment to proposed projects and their desire to become self-reliant by contributing in-cash or in-kind, with increases in financial exposure over the project period. Such an arrangement, coupled with ICOD's commitment to develop indigenous expertise by training local personnel, is intended to promote realization of project objectives following termination of ICOD support.

5. In keeping with the principles of integrated ocean management, ICOD will favor, where practical, regional level programs which can benefit a broad number of countries, pooling available resources and avoiding the constraints often encountered at the national level.

   In all cases of requests for financial assistance, ICOD will wish to establish direct links with the recipient country or regional agency; ICOD will not normally fund through or entertain program proposals from third parties.

   In certain circumstances, ICOD may act as a broker to seek funding from other agencies or may offer its services as a contract manager to other national, regional or international organizations.

6. ICOD will not fund projects of a commercial nature where
benefits would accrue to a single company or individual in the recipient country or in Canada.

The Centre will normally not contribute to the funding of projects undertaken by other organizations except in cases where agreements on joint funding are drawn up at the project's inception. Additionally, ICOD will attempt to ensure, in all cases, that its programs complement those of other agencies.

ICOD will not fund major capital expenditures; however, the Centre may intercede with other funding agencies on behalf of recipient countries if significant capital expenditures are required as part of an ICOD project.

ICOD will refrain from underwriting conferences, seminars or workshops (or cover travel costs, per diem, etc., relative to such gatherings) unless directly related to an ICOD-sponsored program.

Programs

1. ICOD assistance, at least in its initial stages, will focus upon three broad areas:

Advisory and Technical Assistance. ICOD's primary objective will be to assist in creating indigenous fisheries and ocean management institutions and expertise in developing coastal regions.

Such projects in institution building may require inter alia review and assessment of existing data, resource surveys, economic, social and legal analyses, assistance in the development of long-term plans and the establishment of programs for comprehensive resource management and utilization.

An important aspect of the technical assistance program which should be noted is its interrelationship with the training and information services mandates of ICOD. Where possible ICOD technical assistance programs will incorporate training and information activities within the overall projects. As a result in-house training and information capacity will be brought into the operation of many technical assistance projects.

Training. ICOD will offer training as a component of all ICOD-sponsored technical assistance projects.

A limited fellowship program for foreign students interested in training in fisheries and oceans disciplines will operate independently of technical assistance projects. This program will provide for training in both anglophone and francophone institutions in Canada as well as in institutions abroad.

ICOD will prepare an intensive 2-week multidisciplinary course for policy makers in marine affairs and resource management to be conducted in Canada as well as in developing regions which will emphasize the rational management and use of the oceans. Courses will be conducted in English, French and other key regional languages.
Preliminary discussions will be held with Canadian universities or institutions to develop short and longer term programs in fisheries or marine affairs. A primary objective will be to develop a one-year Diploma Program in Marine Affairs, partially sponsored by ICOD, which will serve as an intensive ocean management course for individuals from the developing countries who have technical, managerial, or political experience in the marine environment.

ICOD has identified several other areas where Canadian expertise would be beneficial to developing coastal states. Short technical courses in areas such as contract negotiation, stock assessment, marketing, and environmental impact assessment, will be designed and developed to suit the specific needs of participating countries and regions.

In conjunction with the Marine Affairs Diploma program, ICOD will sponsor the development of a comprehensive package of course materials in both English and French including workbooks and audio-visual aids, which will be designed to meet the needs of the developing world.

In the longer term, the Centre will also undertake to develop courses and materials for specific marine sectors including, but not limited to, mariculture, fisheries and sea-bottom surveys.

**Information.** A key element in ICOD's program will be to assist developing countries in establishing and managing their own information systems. It will also assist developing countries to participate in regional and international information systems and to exploit these systems for their own benefit.

ICOD will develop an in-house capacity linked to government/university/industry networks to respond to requests for information from its partners in developing countries.

The Centre will publish and distribute a complete catalogue of fisheries and ocean training institutes and facilities in Canada for foreign students, in addition to other publications needed to fulfill its mandate.

The Information Program is an integral component of ICOD's corporate strategy to achieve its overall mission of enhancing developing coastal states' ocean resource management capabilities. The lack of accurate and/or accessible information and data upon which policy makers can base their decisions is a major problem confronting developing countries. Projects will be related to marine affairs, aimed at identifying and resolving specific information problems that exist in developing countries, assisting those countries in establishing and managing indigenous information systems, and promoting the effective use of information that can be obtained from industrialized countries, particularly from Canada.

2. ICOD will concentrate its assistance in areas of recognized Canadian expertise. Although the following is not meant to be an exclusive listing, the primary areas of concentration for ICOD assistance in the near future will be:
- policy development as it relates to implementation of the provisions of the LOS Convention;

- identification, formulation and implementation of national and/or regional priorities and objectives related to the marine environment;

- hydrography and nautical charting and their application to delimitation, resource development and transportation;

- fishery management, including stock assessment, allocation, monitoring and enforcement;

- negotiations of access by foreigners to the 200 mile zone including relations with foreign fleets, joint ventures, vessel traffic management systems;

- information systems, gathering and processing of statistics;

- environmental impact assessment.

CONCLUSION

This brief overview has indicated how the state of the art in international marine information transfer is being improved. It is intended to be indicative rather than exhaustive. I have concentrated deliberately on two aspects: the Group of Experts on Marine Information Management and the International Centre for Ocean Development (ICOD), because I feel that these two entities have the greatest potential to bring some coherence to the transfer of marine science information and to promote its use as an instrument of international development.

The purpose of this conference is to stimulate the exchange of ideas on the transfer of marine science information. The Group of Experts that I chair looks forward to any suggestions you may have. Proposals that are appropriate for ICOD consideration should be sent to the Centre's headquarters at P.O. Box 2003, Station M, Halifax, Nova Scotia, B3J 2Z1, Canada.

I hope that my remarks will serve to stimulate all of you, especially our guests from outside North America, to get together during the next few days and attempt to determine some priorities that will assist in transferring marine information more effectively to all regions of the world in need.