

March 28, 1983

AN ATLANTIC POSITION ON
AN
INTERNATIONAL CENTRE FOR OCEAN DEVELOPMENT

Introduction:

An International Centre for Ocean Development has broad implications for the development and transfer of Canadian expertise and skills to assist developing countries in improving their social and economic situation. Several factors must be considered in order to make the impact of maximum benefit to both Canada and lesser developed countries. These largely involve existing resources and the most efficient way of using them to develop technology and transferring it to the lesser developed countries.

General Comments on Location:

Relevant Canadian resources now exist on both the east and west coasts. The resources directed toward the fishery on the west coast tend to be oriented toward one species (salmon) with smaller efforts toward herring and cod. On the east coast resources toward the fishery and aquaculture are more broadly directed and involve a greater number of research professionals. As well, there is a rapid development of resources directed toward recovery of non-renewable materials such as hydrocarbons from the ocean on the east coast. Very little of this type of development is underway on the west coast. Thus, the Atlantic coast resources are widely applicable to overall ocean development. All of the universities with strong graduate programmes in the Atlantic region are involved in some aspects of this work, in addition to specialized groups in industry and government. The scientists and engineers involved already have experience in international development and many programmes are world-class.

A logical scenario is a location which is central geographically, easily accessible, and which has a large concentration of relevant skills and expertise in pertinent areas. The central core organization in this area would draw from other resources in Atlantic Canada and where appropriate from other areas of Canada or abroad.

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Structure:

The structure of the International Centre for Ocean Development must be one which best combines maximum use of available resources and reasonable cost. The International Centre for Ocean Development would then be a strategic centre responsible for developing overall relations with the lesser developed countries to identify problems and needs for development and transfer of appropriate technology. This Centre must have a minimum management taking its policy direction from a Board of Directors. This Board should have not only adequate representation from Canada and the lesser developed countries but also representation from countries (e.g. Norway) who have other skills in ocean resource development. The Centre should have an advisory board consisting of expert scientists and engineers who would be representative of the universities, linguistic groups and governments in the Atlantic region. This Board should be flexibly constituted so that expertise appropriate to specific problems would be available. This Board would develop programmes and identify projects. The projects would be contracted to local institutions and the selection of scientists to complete the projects would be done using peer review by ad hoc committees established for this purpose.

This mode of operation suggests a small central office which would have in addition to management offices, space for seminar and meeting rooms. The possibility of housing visitors on site is worth considering since this allows for increased communication and exchange. Such a building would require minimum capital and leave the bulk of the start-up funding for transfer programmes in development and research. An approach which merits consideration is to provide the federal government financing (understood to be in the order of \$20 million) as an endowment fund. The Centre could establish a strong programme with such an endowment as a base.

Scope:

The proposed structure and mode of operation permits a scope that encompasses all aspects of ocean resources. It may be appropriate to initially concentrate on food related problems. It is, however, short-sighted to consider this as the only objective. As food becomes more plentiful the lesser developed countries will be interested in other ocean resources. Some lesser developed countries do not have the potential to develop fisheries in their region but could obtain considerable economic benefit from their other ocean

resources. In Atlantic Canada we are rapidly developing expertise in recovering other resources from the oceans while maintaining the fishery and reasonable environmental standards. We can help others to do so as well.

Objectives:

Under the overall umbrella of the International Centre for Ocean Development to encourage scientists, engineers and technicians from Canada and a lesser developed country to work together to solve problems relevant to that lesser developed country. Multi-disciplinary skills must be brought to bear on these problems. Thus, the traditional connotation of scientists and engineers must be extended to include experts in management, economics and social work. Not only the problem but also the solution and its implications must be relevant. The solution must take into account the work habits and the social conditions in the lesser developed countries and must be one that can be successfully managed by the lesser developed countries' personnel. A solution which might be pertinent and practical in Canada may be completely inappropriate elsewhere. The timing and kind of Canadian industrial input must be considered carefully in this context. Opportunities will arise for Canadian industry to develop products specifically designed for a lesser developed country. As well, industrial transfer and joint ventures with lesser developed countries will be developed.

A secondary objective which must be considered is the social impact of new developments. Plentiful food allows time for other human aspirations and usually implies changes in the social balance. Social scientists would participate so that these changes come in an evolutionary and not a disruptive manner. Social development planning has to be part of the overall objective.

Strategic Resources in Atlantic Canada:

The resources in Atlantic Canada cover a wide area of expertise. Aquaculture requires a variety of techniques and skills, for example, mapping and surveying of sites, site selection considering natural food supply and possible parasites, feeding and disease control in high fish population situations, harvesting, preserving and presenting the product as an attractive food package.

The key resources pertinent to ocean development are:

1. Oceanography
2. Marine Ecology
3. Hydrographic Surveying and Mapping
4. Marine Ecology and Genetics
5. Economics
6. Fisheries Resource Management
7. Aquaculture
8. Fish Diseases - parasitic, bacterial, viral
9. Food Science

The personnel resources supporting these areas of expertise include many world class scientists and engineers. These people exist in this region. The problem is not to seek out and engage a group of world class scientists and engineers but rather to use those we have in ways that will enhance their value while simultaneously training lesser developed country scientists and developing and transferring technology and skills. Many in the region have had successful "hands-on" experience in working with lesser developed countries (through CIDA and IDRC).

I N D E X

1. An Atlantic Position on an International Centre for Ocean Development.

2. University Submissions: Nova Scotia - Acadia University
 - Dalhousie University
 - Technical University of Nova ScotiaNew Brunswick - Universite de Moncton
 - University of New Brunswick
 - Huntsman Marine LaboratoryPrince Edward Island - University of Prince Edward Island

3. Submissions from Industry: Fisheries Resource Development Limited
Maritime Technology Consultants Limited

4. Submissions from Government: Fisheries and Oceans - Bedford Institute of Oceanography - Ocean Science and Surveys Atlantic
Fisheries and Oceans - Fisheries Research Branch (Scotia-Fundy Region)
Department of Fisheries - Province of New Brunswick
Department of Development - Province of Nova Scotia
National Research Council - Atlantic Research Laboratory
Ocean Industry Development Office
Nova Scotia Research Foundation Corporation
Research and Productivity Council
Department of Fisheries - Province of Nova Scotia