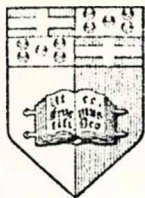


# International Ocean Institute

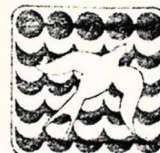
Take



The Royal University of Malta  
Msida - Malta

(TEL. 36450)

10 November 1973



Pacem in Maribus

## THE ECONOMIC ZONE AND THE MARINE FISHERIES OF THE DEVELOPING COUNTRIES

A three week interdisciplinary seminar - Summer 1974 -  
Malta/Berlin. Jointly organized by IOI and GFID.

### Purpose

To explore the likely effects of various ocean regimes on the future participation by developing countries in marine fisheries, with particular attention to a broad economic zone vis-a-vis regional cooperation.

### Commissioned Papers

- 1) General analysis of participation of developing countries in marine fisheries, and global expectations (by IOI).
- 2) Study of geographic distribution of "conventional" resources in relation to zones and interchanges of fish between these.
- 3) Movements of marine fishery products in and out of developing countries, and how this might be affected by new zones.
- 4) Effect of zones on present patterns of regional cooperation in research and management. Movements of resources between adjacent zones and between them and international waters.
- 5) Bilateral, and multilateral arrangements between coastal and non-coastal fishing countries in the economic zone - joint ventures, licensing, etc. The question of "nationality" (flags of ships, country of landing, etc.)
- 6) The effect of new fishery regime on supplies to land-locked states.
- 7) Conduct of fishery research in the economic zone and provision of scientific advice.
- 8) Problem of enforcing regulations in, and policing, the economic zone.
- 9) Effect of economic zone on future access to unconventional resources.
- 10) Effect of economic zone on the possibilities of extensive mariculture.
- 11) Analysis of interactions of ocean uses, including fishing, in the economic zone, and resolution of conflict between uses.

In addition, one might commission a few general regional studies:

Mediterranean  
Caribbean  
West Africa  
S.E. Asia  
S.W. Atlantic

Programme

1st week (Malta) - Presentation of papers - 3 each day -  
and discussion of each topic in turn.

2nd week - visits in Germany; preparation of subject  
reports.

3rd week (Berlin)

2 days - consideration of subject reports

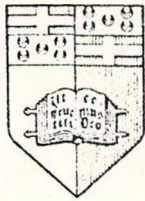
2 days - discussion and drafting of general report

1 day - consideration of general report and  
recommendations

Budget

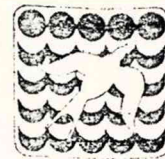
a) Comissioned papers: 16 at \$1000 each	\$16,000
b) Travel and per diem of invited participants: 30 at \$1500 each	\$45,000
c) Preparatory travel of Seminar Director	\$ 5,000
d) Secretariat costs (advance prep. of documents, etc.)	\$ 5,000
e) Publication of papers and report (including cartography, tables, etc.)	\$ 9,000
	<hr/>
	\$80,000





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Pacem in Maribus

## PROJECT PROPOSAL

Participation by developing countries in the  
use of the ocean and its resources

### Background

. It is now common knowledge that ocean space is increasingly a focus of economic and military activity, and that in the present state of international law, conflict there is becoming more frequent and sharper. In the period between the historic speech by Ambassador Pardo of Malta in the United Nations General Assembly in 1967 and the decision to convene a new UN Conference on the Law of the Sea in 1974, the points at issue have become more complicated, rather than clarified. One clear trend has been a polarization of positions as between the "developed" world, both capitalist and communist, and the "developing" countries. The People's Republic of China, on its entry to membership of the United Nations, added its voice to the claim by many of the other third world countries that, notwithstanding the General Assembly Declaration of December 1970 that the sea-bed and ocean floor beyond national jurisdiction is a common heritage of mankind and not subject to appropriation by any states or persons, the super-powers and their allies are effectively occupying ocean space and securing its wealth.

The aim of the proposed study is to examine critically this contention, through an analysis of recent history (about twenty years) and of the present situation, and suggest what actions are needed to ensure an equitable and peaceful use of the ocean in the future.

It might be thought that such a study would be outdated by decisions to be made by the UN Conference, the working session of which opens in Caracas, Venezuela, in July 1974. It is, however, practically certain that few, if any, firm

conclusions will be reached at that time; these will come, at the earliest, at the resumed session, scheduled for Vienna late in 1975. Furthermore, experience with the UN (Geneva) conventions of 1958 on the law of the sea, shows that delays in ratification and implementation, subsequent inter-governmental actions at regional and specialized levels, and new technological developments not only can cause time lags of a decade or more before general treaties have their full impact, but can also lead to a historical development very different from that foreseen at the time of drafting and signature of the treaties. It is suggested, therefore, that a two year study, begun in mid-1974, with preliminary results made available in mid-1975, would be timely and useful in this period of fluidity in international discussions. We are in the midst of a decision-process which will affect drastically man's life on this planet for centuries and perhaps millenia. This process involves not only negotiations between national governments, but also transnational - and even trans-bloc - actions of industrial enterprises, and regional and world-wide movements of persons concerned with the state of the human environment.

The Super-powers watch, and hide from, each other in places beyond national jurisdiction - in outer space and in the deep ocean. While doing so, they monitor natural and human events on the entire earth surface, and the suspicion grows in the weaker countries that this ability gives those states - and their relatively wealthy allies - unprecedented power to manipulate events and resources to their further advantage. It is not surprising, therefore, that strong pleas by the American oceanographers for continued "freedom" of marine research, have been received coolly elsewhere. Scientific knowledge, indeed, gives power to those having the technological and economic means to use it; simple access to information is not enough.

At the present time, we are witnessing a de facto "occupation" of the ocean by those who have acquired knowledge and



technique and have the will to apply these to economic and military ends. At the same time, weaker nations have tried to hold their interests by claiming special rights in wider and wider zones of sea adjacent to their coasts. The bigger these claims are, the less they can be defended against intruders; the more of them there are, the more numerous the points and the broader the area of potential conflict.

Actions by the weaker coastal states have not been purely defensive; some of them have been making efforts to play a role in marine industry and a few of them have been successful. This is particularly true with respect to the fishing industry, yet the same period has seen the fishing fleets of northern hemisphere maritime nations move to the tropics and southern hemisphere to compete for fish directly with the coastal nations there. Concurrently, where the poorer nations have developed their own fisheries, the products are often destined for eventual consumption in the wealthier nations. The first phase of this study will be an analysis of the relations between nations, but especially between the "developed" and "developing" world in matters of marine fisheries. In the second phase, the relations will be examined between fisheries developments and other uses of ocean space - including waste disposal among these uses - and the problems of participation by countries of the third world in other marine based industries, such as shipping and oil and mineral extraction.

#### Plan of Work for Phase 1

In the first year of study, attention will be given entirely to the fishery aspect. Fishing is conducted almost entirely to obtain food for man or his livestock. The existing published data do distinguish these two uses but do not show directly the total contribution of marine resources to human nutrition directly and indirectly. I have made some appraisal of this, mostly from unpublished data, but it now needs refinement, and application to forecasts of maximum potential yield of various kinds of living marine resources.

The recent history of participation by developing countries in marine fisheries will be examined first on a regional basis, with attention especially to selected areas where "developed" and "developing" countries are in direct competition - the Eastern Central Atlantic, the Mediterranean, the Gulf and Caribbean. In these areas we may also look at the activities of regional organizations whose purpose is to facilitate international cooperation in fishery research and development. In the Mediterranean, there are long-established bodies of this kind; in the E. Central Atlantic a more recently established body, and in the Caribbean a fishery body of limited scope has only just been created.

Since the management of fishery resources rests heavily on scientific knowledge about the dynamics and ecology of fish stocks, a basic function of international fishery organizations is to arrange cooperation in the pertinent research and also in the interpretation of the results. This poses special problems for the "developing", and hence scientifically weak, countries participating in such bodies, and several approaches have been taken to overcome this deficiency, ranging from joint research programs, to large scale technical aid programs, to special education and training activities. An evaluation will be attempted of the effectiveness of these in assisting the equitable participation of the weaker nations in exploration, development and management.

In recent years the most important activities by the more powerful fishing countries which have impinged on the interests of the weaker ones have been their deployment of fleets of large, mobile vessels which catch, process and transport the products. In theory, it was said that if competition was free, the coastal state, being nearer to the resource, could eventually dominate the fishery on that resource. Scale, technical efficiency and the location of markets have negated that optimistic view and, in fact, the power of large fleets in locally depleting a resource



is such that it then becomes difficult or impracticable for weaker latecomers to make a living from that resource. Successful operation of the long-distance fleets of large vessels has, however, depended largely on their ability to visit numerous areas and "take the cream" from more or less unexploited resources. Recent studies have shown that the consumption of energy, especially as engine fuel, for this kind of food-gathering relative to the yield is extraordinarily high. As the cost of fuels rises relative to other costs, and as the previously lightly fished stocks all become depleted, we may expect, in coming years, some lessening of distant-water fishing and a revival of interest in smaller vessels operating nearer to home ports, and other compensating developments. In this study, an attempt will be made to forecast the effects of such changes on the relations between the "developing" and "developed" fishing countries, and the new kinds of international arrangements that may be needed.

The uses and destinations of fishing products will also be reviewed. The trade of products mainly from developing to developed nations is of two quite different kinds of commodities - low priced livestock feed supplements and high-priced luxury foods such as shrimp and lobster. Events of the past two years, especially the collapse of the Peruvian anchovy fishery, have demonstrated the instability of supplies and the high vulnerability of the former type of industry both to climatic variation and to human error. The latter kind is based mainly on resources which are very easily overexploited, but which can be replaced by new fish-culture techniques. Fish culture can be carried out best in unpolluted water, with relatively cheap labor and in warm climates: these are all available in some developing countries. The consequences of fish culture developments on the one hand, and the changes in demands for cheap livestock feed supplements on the other hand, now need evaluation.

The exploitation of some marine resources requires a very high level of technology and investment. This was true for pelagic whaling which was, therefore, developed and dominated by a very few nations. Interest is now focused, by those same nations which have excessively depleted whale stocks, on other resources of the open ocean, and especially the Antarctic. There are first the small planktonic animals which form the food of baleen whales and oceanic fishes. To catch and process these animals, which exist in enormous quantities, requires large complex vessels and a heavy investment in oceanographic research and technological experiment. The same is true for another huge oceanic resource - the squids - which form in part the food of the sperm whale. Exploitation of these, and a few other large, but widely distributed resources, offers the main hope for substantially increasing food production from the sea in the future. In the context of this study, the question is "By what means and arrangements can the developing countries eventually secure benefit from such resources, especially those which are far beyond any claims of national jurisdiction and which can therefore properly be designated as part of 'the common heritage of mankind'?"

The above analyses would be directed eventually to consideration of domestic policies in the developing nations, and the impact on these of international developments. Fishery policy cannot, however, any longer be considered separately from other aspects of policy concerning man's use of the sea. The second phase of the study (second year), would, therefore, be concerned with these inter-relationships. Although this calls for a general overview of the problem, it would seem useful to make one or more case studies, in depth, of particular national situations. One of these - the first - would be of Malta, the tiny country which injected into the United Nations the elements of the global debate on the future of man's relation to the oceans,



and which exhibits itself many of the problems of multiple peaceful use of ocean space. It is a fishing country which nevertheless depends heavily on large imports of fish products of all kinds. Development of local industry interacts with the desire for expansion of seaside tourism. Malta's continental shelf is being explored for oil; even half the drinking water comes from the sea. Sea pollution originating on Malta is a growing problem, but so is pollution from neighboring countries and passing ships. Malta symbolically is an old-new country whose livelihood came mainly from a military use of the sea but whose survival will in future be inevitably linked with its peaceful uses. Just as the forts and residences of the Knights of Malta become marine laboratories, libraries, restaurants and hotels, and the naval dockyards become civil dockyards, one may ask to what peaceful uses may be put other obsolescent maritime installations. But, in such a case study, we would be concerned especially with the analysis of criteria for a viable domestic policy and their interactions with the elements of foreign policy - in our example with respect both to the wealthier states to the north and the poorer ones to the south, between which Malta is at present unstably suspended.

#### Budget

The figures given below are based on the assumption that the Twentieth Century Fund would cover the salary and related costs of the investigator at a rate equivalent to his present emoluments. Several different arrangements for this are possible and would be explored if and when the Fund made a decision, in principle, favorable to this project proposal. They include:

a) Continuation of the present arrangement whereby payment is made to a Fund-in-Trust with FAO for the services of the investigator who has a permanent appointment with that organization;

b) Payment to the International Ocean Institute for the services of the investigator who would seek a period of unpaid leave from FAO.

With present cost of living adjustments, and calculated with Rome, Italy, as the "duty station", the rate for a) is \$45,000 per annum. This includes an administrative overhead of 15% to FAO, repatriation and home leave costs, and superannuation, but is based on a net salary which is tax free. Option b) and others might avoid many of the former costs, but might equally have to provide for a gross taxable salary. Some other "duty stations" would be more expensive, other less so. Some time during the period would have to be spent in Rome, Malta and London, where much of the pertinent information is to be found. In addition, shorter visits would need to be made to some other countries to obtain first hand information.

The investigator would intend to spend 80% of his time on the proposed study. The remaining time would be:

10% Duties as Director and Secretary of the International Ocean Institute,

10% A commitment to FAO - whether or not a staff member - to direct a study of the status of marine mammals, due to be completed at the end of 1975.

Making allowance for this and, on the other hand, some continuing rise in costs of living, it is proposed that a personal services element of \$40,000 per year would be appropriate. The estimated cost of travel in the first year is \$3,000. In the second year, less travel would be necessary. However, since we should be gathering information from a very wide field, beyond the detailed experience of the investigator, it would be wise to provide for some outside contracts for information gathering, to be placed by the IOI, in the second half of the first year, preparatory to the second phase of the project. Finally, about half the time of a research assistant and half the time of a clerk/typist should be provided for. Thus, a notional budget would be:



	1st Phase World Fisheries	2nd Phase multiple ocean use & case study
<u>1st year (mid 1974-mid 1975)</u>		
Services of investigator	\$ 40,000	-
Research assistant	4,000	-
Clerk/typist	1,500	-
Travel	3,500	500
Contractual services	-	3,000
Total	\$ 49,000	\$3,500
	\$52,500	

<u>2nd year (mid 1975-mid 1976)</u>		
Services of investigator	-	\$40,000
Research assistant	-	4,000
Clerk/typist	-	1,500
Travel	-	1,000
Contracts - maps & diagrams	1,000	1,000
Total	\$ 1,000	\$47,500
	\$48,500	
Total, 2 years	\$100,000	

Sidney J. Holt  
Professor of  
International Ocean Affairs  
Royal University of Malta

4 February 1974

# International Ocean Institute



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Draft Proposal for an International Ocean Institute in Portugal  
possibly as a "satellite" of IOI (Malta)

S.J. Holt  
17 July 1974

1. The IOI (Malta) is established as a self-regulating Institute at the University of Malta (see attached Statute). It is governed by a "self-perpetuating"<sup>§</sup> Board of Trustees, and an internationally composed Planning Council, the members of which serve in their personal capacities for periods of three years. The IOI is financed from a variety of private sources, public foundations, and to a lesser extent, from interested governments. It was founded in June 1972 and in its first year was assisted by the Government of Malta and the UN Development Programme. It may accept funds from any source, provided they are contributed for the general purposes of the Institute or for specific "Study Projects" approved by the Planning Council, within the broad policy directives of the Board of Trustees. The attached Report of the Director for 1972-73 indicates the initial range of Projects and the expenditures on these, as well as the membership of the various organs of the Institute. The day to day running of IOI is the responsibility of the Directorate which at present comprises the Director, an assistant, secretary and voluntary assistance from time to time. The Chairman of the Planning Council is also an active officer of the Institute. The IOI is recognised formally as an International NGO by the UN, and UNEP, the IOC and the FAO General Fisheries Council for the Mediterranean.
2. The scope of the Institute is world-wide, but it has several regional projects, including a continuing activity in the Mediterranean, especially regarding the central area in which

<sup>§</sup> Subject to approval by Council of the Royal University of Malta.



its host country is located. The unique feature of the activities of the Institute is that they are completely inter-disciplinary as well as international. The aim is to encourage study, analysis and forecasting of the interaction, in ocean affairs, of scientific and technological developments with economic, legal and political factors. The annual "Pacem in Maribus" Convocations, convened by the Institute (the fifth will be in Malta, 9-13 September 1974) are now a well known forum for the informal gathering of, and exchange of views between, oceanographers, marine engineers, lawyers and economists and, most important, diplomats, especially national Delegates and members of delegations to the United Nations, to the UN Sea-bed Committee, and now to the Conference on the Law of the Sea. Interested members of the public, usually non-specialists, also participate. They include politicians, people in local government, civil servants, and persons involved in public associations such as environmental and ocean protection groups and other special interests. Senior staff members of the UN and of other bodies in the UN system (especially IMCO, Unesco, IOC, UNEP, UNDP, World Bank, FAO) regularly participate in the Convocations, and also in the specialised conferences and seminars organized by the IOI. The Convocations and the Study Projects have no disciplinary limits, and are concerned with all uses of ocean space, such as waste disposal, mineral extraction, energy supply, fishing, recreation, transport, and scientific research. They are particularly concerned with the growing interactions between these peaceful uses, and between those and military uses. The object in all cases is, through data analysis, dialogue, and proposals for governmental action, to reduce the danger of conflict between users and between nations and blocs of nations. Of particular concern is the relation between "developing" countries and established maritime powers in the use of ocean space. Emphasis is placed on the creation of international machinery appropriate to the growing and increasingly complex uses of the ocean and its resources.

3. Several, though not all, of the present projects deal with regional problems, partly because a relatively self-contained region such as the Mediterranean is viewed as a "model" of the ocean as a whole, partly because international tension is, or is potentially, much higher in one part of the ocean than another, and partly again because it seems increasingly likely that a rule of law in ocean space is likely to emerge from a network of regional solutions, developed within a global framework of basic rules. Regions to which attention has been given, in the order in which it has been given, are Mediterranean, Caribbean, Arctic and, starting in 1974, the Central and South Pacific. In most cases the IOI collaborates with existing regional or specialised international - and national - bodies, especially non-governmental and academic ones. Just as the IOI itself was founded to give continuity to work done in connection with the earlier PIN Convocations, so the Regional Studies tend to give rise to proposals for continuing regional "mechanisms" of one kind or another. Although there is no explicit statutory provision for such "mechanisms", or stand form for them, they are welcomed by the governing organs of the Institute.

In the Mediterranean, the Institute headquarters in Malta serves naturally as a regional centre (including documentation, some teaching activities, and a special interest in fisheries, and pollution control) but there are plans also for a "satellite" in southern Italy, to be locally funded and concerned with biologically related problems - sea-fish farming, retraining of fishermen, marine parks and reserves, ecological survey. In the Caribbean the emphasis is now on geological and biological survey (in cooperation with the Woods Hole Oceanographic Institution, USA). A planning and coordination group for the participating islands and the coastal continental states of the region is established in Jamaica under a Project Director. The Arctic Ocean Project is conducted jointly with the Arctic Institute



of North America; it is still in its early stage. The University of Hawaii and the IOI are now preparing a Pacific Project, which will be launched by a Conference in Hawaii, April 1975. The organizers have in mind the possible creation of a continuing "office" on an island in the Pacific area. Lastly, a project concerning the Indian Ocean - especially the Western Sector - has been proposed but not yet approved.

4. It is suggested here that there may be need for a special study of Atlantic Ocean problems, especially perhaps the Central and South Eastern area. This is now where there is the greatest interaction between the fishing fleets of richer N. Hemisphere countries and the fisheries of the developing countries of Africa. Oil and gas exploration and extraction are not yet very important on this seaboard, but transport, communications and tourism are, and also strategic factors. Marine pollution is a local problem, and a growing one, both by land run-off and from ships. Legal problems relating to the status of straits and the sea adjacent to islands are significant.

It is further suggested that the new government of Portugal, academic authorities, public foundations and private sources of funds in that country (e.g. maritime enterprises there) may be interested in supporting such a study, even to the extent of hosting a small preparatory conference, with a view to creating in Lisbon, or other suitable location (such as on one of the outlying islands), a regional center affiliated to the IOI and having compatible purposes. It might be particularly appropriate at this time of negotiation between the government of Portugal and "liberation movements" within its territories in Africa, and when better relations are being sought with independent African states, for Portugal to take an initiative in this direction. Continuing opportunities for informal discussion, mutual assistance and cooperative work may help to clear the way for closer future

governmental understanding and compatible ocean policies in the next few years. At the same time, Portugal is in the position of being conveniently situated geographically and to have close, historical and friendly, contacts on fisheries and other ocean matters with the coastal countries of Western Europe and with Canada. As does Malta in the Mediterranean, Portugal bridges the two worlds of "developed" Europe and developing Africa.

The Planning Council of IOI would welcome an invitation to hold one of its forthcoming sessions in Portugal.