Marine Regionalism in the Southeast Asian Seas

by Lewis M. Alexander
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Research Report No. 11 • July 1982
East-West Environment and Policy Institute
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Library of Congress Cataloging in Publication Data

Alexander, Lewis M., 1921—
Marine regionalism in the southeast Asian seas.

[Research report; no. 11 (July 1982)]
Bibliography: p.
1. Marine resources and state — Asia, Southeastern.
I. Title. II. Series: Research report [East-West Environment and Policy Institute (Honolulu, Hawaii)]; no. 11.
GC1023.72.A53 1982  333.91'64'0959  82-18216

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FOREWORD

Changing national perceptions of the ocean are resulting in the unilateral extension of national claims to ownership of resources in the seabed and the watercolumn up to 200 nautical miles (nmi) from national baselines. Nevertheless, many marine resources such as fish, oil, and environmental quality are transnational in distribution; the ocean, a continuous fluid system, transmits environmental pollutants and their impacts; and maritime activities such as scientific research, fishing, oil and gas exploration, and transportation often transcend the new national marine jurisdictional boundaries. Management policies for these extended national zones of jurisdiction may be developed and implemented with insufficient scientific and technical understanding of the transnational character of the ocean environment. Such policies thus may produce an increase in international tensions, misunderstandings, and conflicts concerning marine activities, resources, and environmental quality.

These issues form the conceptual framework for the EAPI project, Marine Environment and Extended Maritime Jurisdictions: Transnational Environment and Resource Management in Southeast Asian Seas. The goals of the project are to provide an independent, informal forum for the specific identification and exchange of views on evolving Asia-Pacific ocean management issues and to undertake subsequent research designed to provide a knowledge base to aid in the international understanding of these issues.

The South China Sea is semienclosed by mostly small, physically adjacent, developing countries. Extended jurisdiction and claims to islands with their attendant jurisdictional zones encompass the entire sea, and much of the sea is claimed by more than one country. Marine resources, activities, and pollutants transcend these artificial lines naturally and thus the concept of marine regionalism comes naturally to the fore. This study appraises the present and potential role of multilateral mechanisms in coping with transnational maritime policy issues in the Southeast Asian Seas area. The project was indeed fortunate to attract the progenitor of the marine regionalism concept to undertake this study: Lewis Alexander, Professor of Geography, University of Rhode Island, and now Director, Office of the Geographer, U.S. Department of State.

Mark J. Valencia
Program Coordinator
Marine Regionalism in the Southeast Asian Seas

by

Lewis M. Alexander

ABSTRACT

The regional aspects of the marine environment have been slow to be recognized and used; marine regionalism to date has been oriented more toward specific issues than toward discrete regional areas. Typical of the Southeast Asian Seas area is the South China Sea. It is semienclosed by mostly small, physically adjacent, developing countries; and much of the sea is claimed by more than one country.

Marine regionalism, in the context of the Southeast Asian Seas area, can be traced by looking at the geographic setting; the types of issues that might be addressed through regional action; the interests of the region’s relevant “actions”; existing marine regional arrangements and their impact on ocean use; and marine regional models. Activities having regional connotations in the Southeast Asian Seas area are, among others, fisheries conservation and management, pollution control and abatement, shipping, data acquisition and storage, and law enforcement. The relevant parties for regional action there include littoral states, countries outside the area, international agencies, and private companies.

Certain generalizations about the interests of some relevant parties as to marine regionalism can be made. Interests may range from support for action, to inaction with regard to issues, to active opposition. Most countries of the area now do not seem prepared to make strong commitments to meaningful regional arrangements for marine-related activities.

Existing marine regional arrangements in the Southeast Asian Seas area can be analyzed according to five elements: Structure, Objectives, Functions and Powers, Processes, and Programs. The most important impact of existing marine regional arrangements may be the gradual developing of a network of organizations and people who will be able to respond positively to stimuli for more marine-related regional action. It would be wrong to imply, however, that what the Southeast Asian Seas area needs is more marine regional systems or greater integration of functions among existing agencies. Although the benefits from such processes may be obvious, the international structure may not now be able to support them.

THE NATURE OF MARINE REGIONALISM

The concept of regional approaches to ocean management issues is one that has evolved considerably in the years since World War II. An indication
of this is the birth of regional fisheries commissions and councils, both within and outside the United Nations framework. Currently more than twenty such fisheries organizations exist, each of which involves three or more states. Other examples of regionalism are: the cooperative investigations and regional associations of the Intergovernmental Oceanographic Commission (IOC), which provide frameworks for coordinated marine scientific research in various parts of the world ocean; and the ambitious Regional Seas efforts of the U.N. Environment Programme. The negotiators at the Third U.N. Conference on the Law of the Sea (UNCLOS III) have turned to the regional or subregional process as a method for addressing a large number of ocean issues, and the Draft Convention is replete with references to regional and/or subregional actions and organizations.

The term *regionalism* is used in this report to refer both to geographical regions and subregions and to the mechanisms designed to implement various types of cooperative activities among states at a less-than-global level. Regionalism often has been associated with land-based phenomena—witness the Arab League, the Association of South East Asian Nations (ASEAN), and the European Economic Community (EEC)—but regional aspects of the marine environment have been slow to be recognized and used. Most of the activities associated with marine regionalism to date have been oriented more toward specific issues than toward discrete regional areas. The fisheries organizations noted above generally have been directed toward the conservation and management of certain stocks, wherever they appear. The range of the stocks may be limited to certain parts of the ocean or to one or more semienclosed waterbodies, but the essential element here is that the organizations primarily are problem oriented, rather than area oriented.

Exceptions exist, of course, such as the General Fisheries Council for the Mediterranean, the International Baltic Sea Fishery Commission, and the Mixed Commission for Black Sea Fisheries. Such groups highlight the fact that the most readily definable areas for marine regional action are the semienclosed seas of the world, where there are often relatively discrete marine ecosystems, and where problems of access to the water areas and marine resources can be addressed more effectively than is possible with oceans. In recent years increased attention has been paid to the possibilities of cooperative action in such areas as the Mediterranean, the Caribbean, and the South China Sea.

Two aspects of this "regional sea" approach are important. First, a series of concurrent activities are likely within these water areas—such as fisheries conservation and management, pollution control and abatement, marine scientific research, and commercial shipping—leading to the possibility of multiple-use management programs, or at least to the creation of mutually
supportive links between management regimes in the same regional area. Regional marine-science support programs, for example, in some areas tend to be coordinated with fisheries conservation and pollution control efforts.

A second aspect of a "regional sea" situation is that many of the same countries ultimately will become involved in one or more marine management schemes. Addressing common problems of a marine nature can have potential as an integrative force, particularly at certain functional levels of government, such as those involved with data collection and with testing. Conversely, in the case of land-based regional groups, such as the EEC and ASEAN, the integrative efforts already developed between member states may spill over into management aspects of their common regional waterbodies.

Parameters of Marine Regionalism

The concept of marine regionalism has two aspects—marine regions as geographical phenomena and regional arrangements that are designed for particular areas. A region, geographically defined, is an area of the earth's surface differentiated from other areas by the existence within it of a certain association of features that are not present outside the region. The distinguishing criteria for the region may be physical in nature, or may represent demographic, economic, political, or other elements. In fact, no limits exist to the categories that may be used in determining a region, so long as the criteria selected are valid ones and the area in which the criteria occurs can be differentiated geographically from other areas and represented on a map.1

The term *regional arrangements* refers to multinational treaties, conventions, agreements, cooperative investigations, and so on, together with the mechanisms associated with these phenomena.2 For the purposes of this report, primarily those regional arrangements associated with the oceans and their use are considered. Only those marine-related phenomena involving three or more countries are termed *regional*. In the case of two countries, an arrangement is considered *bilateral*.

Because this report deals with a site-specific marine region, five components of regionalization are considered: (1) the geographic setting; (2) the types of issues that might be addressed through regional action; (3) the interests of relevant parties in regional action; (4) existing marine regional arrangements and their impact on ocean use; and (5) marine regional models for the area. Each of these components is described briefly here.
Geographic Elements

Geographers, in their treatment of regional issues, see a region as a perceptual concept "created by the selection of certain features that are relevant to an areal interest or problem, and by the disregard of all features that are considered to be irrelevant." Within the context of ocean affairs, most of the salient features selected would be those associated with ocean use and ocean management.

The relationship between "perceptual" regions in the ocean and "physically defined" ones may be complex at times, because some issues to which regional action is addressed or for which it is contemplated may not be confined to a semienclosed sea or other clearly distinguishable area. Fish stocks or oil pollutants may move between one water area and another, as between the Gulf of Mexico and the Caribbean, or from a semienclosed sea, such as the Gulf of Oman, into the wider Arabian Sea and the Indian Ocean. Decision makers may perceive policy problems within a regional context but throughout an area considerably at variance with certain physically defined geographic units. Because of this, I suggest identification of three types of marine regions.

First, we may define a physical region differentiated from other areas on the basis of coastal configuration. The major semienclosed seas form physically defined regions; these in turn contain subregions, such as the Adriatic and Aegean seas of the Mediterranean. Other forms of physical subregions are archipelagos or island groups.

Second, a marine region may be identified as a "management region" where a well-defined management problem exists that may be handled as a discrete issue. The annual range of a migratory species might form the basis for a management region; so too would the convergence of shipping routes, as in the Malacca Strait. For such regions special regulations and management schemes may be devised.

Third, "institutional" regions, the sites of one or more formal arrangements, may occur. Such regions might be defined, for example, by the limits of competence of a regional fisheries commission or council, or by the terms of an international treaty, such as that for the Antarctic. The limits of an "institutional" region should have some relevance to the limits of the "management" region within which exists the problem the institution is designed to address. At times, both the management and institutional regions correspond with the physical region, such as in the Black, Baltic, or Mediterranean seas.

A final note on the geographic setting concerns subregions. In this report, the terms region and regional, when used in a general sense, include subregional issues as well. The same three categories—physical, institutional,
and management—along with the issues of policy problem perception apply to subregions as well as to regions, but obviously more examples of bilateral approaches to problem-solving occur in subregional activities than in regional ones.

**Issues That Might Be Addressed Through Regional Action**

The variations in physical, economic, ideological, and other conditions, both in the world ocean and in the countries and territories adjacent to it, rule out the possibility of compiling lists with any degree of specificity of the types of marine-related issues that, in all parts of the globe, might be addressed effectively through regional action. Because this report is concerned with the Southeast Asian Seas area, and in particular with the South China Sea and its environs, the list of general issues is confined (1) to semienclosed seas and (2) to developing, rather than developed, countries.

Certain basic phenomena are associated with semienclosed seas, particularly with those seas having adjacent developing states. Two of the most obvious conditions are the fluid nature of the water itself and the migratory character of many of the living resources. Assuming that the enclosure movement has been, or will soon be, extended to all portions of an area, coastal states will have both the right and the responsibility to manage the living resources within their exclusive economic zones and to handle the problem of pollution control and abatement. The mobility of water and fish constitutes one rationale for regional action within semienclosed regional seas.

Regional action can be an asset, if not always a necessity, in acquiring and interpreting data about the physical nature of the marine environment within an area. At times simultaneous surveys of oceanic or atmospheric conditions may be an important component of scientific research as to water movement, temperature and salinity changes, and fisheries stock assessments.

Economic incentives for regional action may include joint contributions by countries of a region to projects of high cost or to those ventures that demand a high degree of technical skill; also, in the interest of efficiency, states may cooperate in establishing regional fishing ports, oil terminals, and, in time perhaps, offshore energy facilities.

Regional cooperation also can prove an asset in establishing rules and regulations, particularly against outsiders, as in the case of the transit of foreign tankers through an area. A united stand by three or more countries is more difficult for isolates to attack than is a unilateral promulgation of regulations by a single state.

Finally, there are potential links between regional or subregional action in marine activities and those activities among countries concerning other
phenomena. For example, five South China Sea countries over a period of more than a decade have been joined together in ASEAN, the Association of South East Asian Nations; as integrative ties among these countries continue to grow in the economic, political, and social fields, they may help and be helped by efforts toward regional action on common marine-related problems.

Listed below, in no particular order of importance, are categories of activities in the Southeast Asian Seas area that may have regional connotations. More specific data on these activities are included in the section titled The Geographic Setting. The categories are:

- Fisheries Conservation and Management
- Pollution Control and Abatement
- Shipping
- Marine Scientific Research
- Monitoring and Surveying
- Marine Data Acquisition and Storage
- Marine Education and Training
- Law Enforcement
- Development Assistance
- Access to the Sea and Its Resources for
  - Land-locked and Geographically Disadvantaged States

The Interests of Relevant Parties in Regional Action

Potential "relevant parties," those having interests in marine regional action in the Southeast Asian Seas area, comprise four groups: first, the littoral states themselves, which number eleven, as well as three dependent territories. These are:

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<th>States</th>
<th>Dependent Territories</th>
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<td>Burma</td>
<td>Brunei (UK)</td>
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<td>China</td>
<td>Hong Kong (UK)</td>
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<td>Indonesia</td>
<td>Macao (Portugal)</td>
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<td>Kampuchea (Cambodia)</td>
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Portuguese Timor was absorbed into Indonesia in 1975. Brunei is scheduled for independence in 1983. The future political status of Taiwan is, of course, problematic.

A second group of relevant parties is the outside countries with particular interests in the Southeast Asian Seas area. Foremost among these are Japan, the Soviet Union, and the United States. Among others are Australia, the United Kingdom, Portugal, France, and New Zealand. The relative importance of the area to the overall interests of these outside countries varies considerably and is subject to change over time.

The third group is the international agencies, particularly those within the U.N. system, which have various economic, environmental, scientific, peacekeeping, and other interests in the Southeast Asian Seas area. Outside the U.N. system are such agencies as the International Center for Living Aquatic Resources Management (ICLARM) and the Southeast Asian Fisheries Development Center (SEAFDEC).

A fourth group is private companies, such as shipping firms, oil companies, and banks. It is difficult to obtain and evaluate data relevant to the interests and the inputs of such organizations, but any comprehensive evaluation of marine regionalism must take these relevant parties into account.

Having identified the major categories of participants in the decision-making process regarding regional action in the Southeast Asian Seas area, some comments on the decision-making process itself are in order. How decisions are made within the various organizations must be considered. This involves, on the one hand, the internal mechanisms—that is, what organizations within countries, or what public or private institutions, are responsible for collecting and analyzing data, making recommendations, and setting policy? Associated with this are legal, political, and other constraints on a participant’s freedom of choice as to policy action concerning support or nonsupport of regional activities. Although it is beyond the scope of this report to conduct an in-depth analysis of the internal decision-making structures of the various “actors” as to marine regional activity in the Southeast Asian Seas area, some indication of possible future lines of research can be made.

Another consideration is the perceptions of the decision makers themselves. These decision makers include those from within the region who actually commit, or block commitment of their government to “invest” in regional activity through legislation that restricts the freedom of action of their country’s nationals by the appropriation of funds, through the granting of special rights and privileges to nationals of other countries of the regional system, and so on. The decision makers also encompass actors from outside the region who may participate in the regional arrangement or actively support or oppose the regional action.
The costs and benefits of regional action are elementary components of perception. Associated with these, of course, are the generalized objectives decision makers are likely to pursue. Miles (1978) suggests the following goals: "gaining or safeguarding access to wealth (redistributing the flow of income), access to knowledge (enlightenment), increasing one's own capabilities (skill), denying access to real or potential competitors, facilitating regional stability and conflict resolution, marine-oriented agreements as side payments for non-ocean issues, resource conservation, management of conflict within and across various ocean issues, and the like." The same author points out that "governments do not commit themselves to new arrangements generally unless the same objectives cannot be obtained elsewhere at less cost. Costs may be monetary or political."

Both costs and benefits must be thought of in short- and long-term situations. They must also be viewed as possible trade-offs. For example, if country A desires a regional fisheries arrangement that clearly will be of more benefit to its own nationals than to those of country B, what forms of advantage can country B seek in exchange for participation in the regional arrangement?

**Existing Marine Regional Arrangements**

A fair amount of literature has appeared over the past decade that treats marine regional arrangements as to both general attributes and specific types of arrangements, such as those involving fisheries, marine science, and environmental protection. There are a number of alternatives for describing and analyzing these arrangements. The method adopted here is modified from a system employed in a 1978 study for the United Nations.

According to this analytical approach, there are five basic elements in a marine regional arrangement. These are: Structure, Objectives, Functions and Powers, Processes, and Programs. Through this analysis runs the constant theme of "integration." To what extent and in what ways have the participants in a regional system moved to integrate their activities, including the centralization of authority and decision making? A body of literature can be found on the integration theory, and although the bulk of the material applies to nonmarine issues, some spillover into ocean affairs is taking place. A dichotomy inherent in marine regional arrangements occurs between intergovernmentalism and supranationalism; the latter can be seen in the increasing integrative processes of the EEC. Among the countries of the developing world, particularly those which only recently received their independence, low-level forms of regional intergovernmentalism seem all that reasonably can be expected within the foreseeable future.
Structure. A primary component of structure is the activity area for which an arrangement is designed. A number of potential activities were listed earlier under Issues. To these might be added energy production, military uses, construction of artificial islands, and dispute settlement. Although it is possible that, for a given area, some regional arrangements may encompass two or more activities, such a situation at present appears only a remote possibility in the Southeast Asian Seas area.

A second component of structure is geographic coverage. Sometimes, institutional arrangements are very specific as to their limits of competence, but often they are not. The question of geographic coverage carries with it the issue of neighboring states that remain outside the system. Are they excluded because they are "just outside" the region and, if so, does this cause "externalities"? And what about the land-locked states that are "neighboring" but not "adjacent" to a regional waterbody?

Another component is institutional affiliation. Is the regional arrangement in question part of a global network, such as those maintained by U.N. organizations, or a regional system, such as ASEAN? Can it look to these parent bodies for financial, technical, and other forms of support?

Membership may be open or closed depending in part on the objectives of the arrangement. It may or may not be extended to countries outside the region. Membership implies obligations to support a particular regional system, in terms of both adhering to its rules and regulations, and, in some cases, providing financial or other types of assistance. In some arrangements members are in a position to veto the admission of other states to the organization.

An additional component of structure is the administrative framework of a regional arrangement. Characteristically, this is a plenary group in which all member countries or other groups are represented, a secretariat to handle staff work, in some cases an executive council, and various subsidiary groups or committees. Successful regional organizations tend to keep administrative costs as low as possible, particularly if their operating budgets are small.

Objectives. The objectives of marine regional arrangements fall into three major categories: conservation, management, and development.

Conservation may encompass water quality, living marine resources, wetlands, marine sanctuaries, endangered species, scenic areas, and so forth. Management implies the planning and execution of programs whereby uses of the marine environment may be carried out more effectively. It also involves managing conflicts between and among ocean uses. Development of living or nonliving resources and of shoreline space, shipping lanes, offshore installations, or dumping sites may be sought. Development also involves acquiring knowledge and understanding of marine areas, as well as
of skills and equipment for their management. It also may necessitate improved systems within the member countries for marine-related action and multistate regional systems for dispute settlement or other goals.

Of course, other objectives of regional action occur. One is the protection of the special interests of countries, perhaps by denying access to competitors. Another is provision of greater equity to developing land-locked and geographically disadvantaged states concerning access rights to the sea and its resources. Still another objective may be military security. At times, regional arrangements may have more than one stated objective, as well as several hidden ones (at least for certain participants), such as strengthening regional ties or aiding the quest by one or more states of the region for a leadership position.

Functions and powers. These two items constitute the heart of regional arrangement analysis. What is the scope (functions) of the system; how much integration has been achieved in its mode of operation? Functions might operate at four levels, each of which might require more politicization and controversy than the previous one.

A first level involves what Skolnikoff (1972) refers to as “service,” that is, information exchange, data gathering and analysis, consultation, facilitation and coordination of programs, and joint planning. To this list might be added exchange of students and professionals among the member states of the region. Most existing regional systems perform the function of providing such service, acting primarily as a catalyst in the region. Such agencies tend to avoid controversy and to concentrate on “low priority” issues. Within a geographic region, a plethora of coordination and promotion agencies may exist, a phenomenon that can assist in the building up of a web of interrelationships which is necessary for successful regional arrangements.

A higher functional level involves “norm creation and allocation,” which includes the establishment of standards and regulations and the allocation of costs and benefits. Few regional marine organizations have achieved this level and, with the advent of extended maritime jurisdictional zones, the likelihood of achieving such levels, except under unique conditions as with the EEC, at present does not appear too favorable.

The third level, “rule observance,” includes the monitoring and enforcement by the regional organization of agreed-on standards. This activity is more probable with bilateral organizations, such as the International Pacific Salmon Fisheries Commission (IPSFC), than it is for multilateral organizations, particularly in areas such as the Southeast Asian Seas.

Finally, there are “operational” organizations concerned with management of resource exploration and exploitation activities, technical assistance, research analysis and development, shipping companies, and so on. Perhaps
ASEAN may commence operational units in time, but chances for operational systems for the Southeast Asian Seas area as a whole at present appear slim.

Turning from functions to powers of a marine regional organization, various levels of integration are found. At one end of the scale is what might be termed "voluntary acquiescence," in which member states are free to comply or not comply with rules or procedures established by a majority of the member states. At the other end of the scale is "consensus," which means any member state may veto a proposal, and the proposal will be rejected, even if it is approved by a majority of the other members.

In between are various forms of a "binding majority" situation, whereby a member state, even though it voted against the majority, finds itself bound by the decision of the majority if it intends to remain within the organization. In a developing and politically turbulent area such as Southeast Asia, conditions of either consensus or a binding majority within a regional organization are virtually nonexistent.

Processes. The term *process* is taken here to include (1) forces of integration and disintegration within a regional system, (2) the growth and/or decline of the organization, (3) the establishment of links between one regional system and others within the same geographic location, and (4) the impact of organizations on the nature and use of the ocean space over which their activities extend.

Integration and disintegration. Among the integrative forces within a region, that is, those supportive of regional action, are (1) the existence of other international arrangements among the member states that could contribute to the regional consciousness of the participants; (2) ethnic, cultural, historical, or other ties among the region's countries; and (3) clear indicators of economic benefits or other advantages to be gained through regional action, or clear indicators of common dangers that might best be met through regional cooperation.

Disintegrative forces would include (1) political, territorial, ideological, or other differences among countries of the region; (2) competition for positions of leadership among two or more states of the region; and (3) pressures against regionalization in the area on the part of one or more outside powers. A final force involves the perception, on the part of major decision makers concerned with policy problems, of the relative costs and benefits associated with regionalization. If, to all or most decision makers, the benefits from regional action outweigh the costs, and other courses of action do not offer attractive alternatives, then a strong integrative force may develop.
Growth and/or decline. Growth and/or decline of regional arrangements may be measured in any of several ways: total membership, functions and powers of the organization, new programs, expansion of the institutional region, and so on. Actually, the dynamics of marine regional organizations to date have received relatively little attention. Although I do not intend in this report to assess all the factors associated with growth or decline within marine regional systems, I will identify some salient elements.

National ocean interests. Each country must determine for itself the principal categories of benefits it expects to receive from ocean activities. Given its own peculiar geographical relationships with adjacent (and in some cases distant) ocean areas, it must then decide in what ways and to what extent it is prepared to "invest" in marine-related issues. One form of investment is participation in multinational regional organizations, and adherence to whatever forms of cost this membership entails.

A marine regional organization will grow if all, or at least the leading, member countries perceive that such growth is within their national ocean interests. It may grow even if the countries are unwilling to increase their investments, providing some outside agency supplies the necessary funds, technical assistance, administrative skills, and so forth. Such an outside agency may be either a part of the U.N. system or one or more nonregional states that perceive it is in their national interests to promote marine regionalism in the area.

Funding levels. Most marine regional units are considerably underfunded. Many depend on the seconding of personnel from member states and on outside support for the implementation of integral programs. Two notable exceptions are those of the U.N. Environment Programme (UNEP) Regional Seas Programme and the regional fisheries projects of the U.N. Development Programme (UNDP). Levels of funding relate directly to perceived national interests and to the ability of member states to contribute, as well as to long-term policy directions within agencies of the U.N. system and non-U.N. funding sources, such as the Agency for International Development (AID) and the Canadian Institute for Development Assistance (CIDA). Many organizations dealing with marine-related problems are not convinced fully of the efficacy of regional action except in special cases; they contend that their contributions go further and are more easily accounted for through individual country or, in some cases, two-country programs.

Leadership: A basic ingredient of growth is often leadership—both in quality and in relationships with member states. Is the leader a technocrat, a specialist in the field of fisheries development, navigation, or pollution control but without much political acumen, or conversely, is the leader a politician or a friend of politicians with little knowledge of the topic under
consideration? A leader who is both knowledgeable and dynamic can have a strong effect on the establishment and growth of a regional unit, as evidenced by the great success of the founder and director of UNEP's Regional Seas Activity Centre in Geneva.

Another facet of leadership is the administrative relationships between the leader (director) and the member states of the organization. In the case of some U.N.-sponsored units, such as those associated with the Food and Agriculture Organization (FAO), the director is an employee of FAO in Rome and is seconded from that office to the region. Representatives of member states in the region tend to feel that an FAO-employed director is somewhat removed from their authority and from their ability to influence decisions. Yet, the same countries may have few if any experts capable of efficient leadership of the regional organization.

Relationships with UNCLOS III. I have already noted that negotiators at the Third United Nations Law of the Sea Conference have recommended regional or subregional mechanisms on a number of occasions as a means for managing ocean activities and/or handling dispute settlements. Of the 320 provisions of the Draft Convention, 16 use the terms regional and/or subregional with reference to organizations. Regional or subregional arrangements may also be implied in the frequent references to "competent (or appropriate) international organizations."

A close reading of the Draft Convention text might lead one to conclude that the compilers resorted to the use of regional and/or subregional terminologies without really considering what such mechanisms would imply. Rarely is it obligatory, according to the terms of a particular article, to resort to regional/subregional techniques. And nowhere in the Draft Convention are the terms regional and subregional defined. Nevertheless, the frequent references to the concept have given it visibility, and officials within the U.N. system as well as in individual governments are beginning to think about possible parameters of marine regional action.

Article 123, titled "Cooperation of States Bordering Enclosed or Semi-enclosed Seas," is most germane to this report.

States bordering enclosed or semi-enclosed seas should co-operate with each other in the exercise of their rights and duties under this Convention. To this end they shall endeavor, directly or through an appropriate regional organization:

(a) To co-ordinate the management, conservation, exploration and exploitation of the living resources of the sea;
(b) To co-ordinate the implementation of their rights and duties with respect to the preservation of the marine environment;
(c) To co-ordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;
(d) To invite, as appropriate, other interested States or international organizations to co-operate with them in furtherance of the provisions of this article.

The text of this article must be read in conjunction with the text of Article 56, titled "Rights, Jurisdiction and Duties of the Coastal State in the Exclusive Economic Zone." Like article 123's call for cooperation in enclosed and semienclosed seas, the act of unilateralism contained in Article 56 also emerged from UNCLOS III negotiations. This article notes that in the exclusive economic zone the coastal state has: (a) sovereign rights over the natural resources, whether living or nonliving, and over other activities for the economic exploitation of the zone; and (b) jurisdiction as to the establishment and use of artificial islands and other structures and installations, marine scientific research, the preservation of the marine environment, and other rights and duties provided for in this Draft Convention. Because all of the waters of the Southeast Asian Seas area can be partitioned into the territorial sea (up to 12 nmi) or into exclusive economic zones of the littoral states, the provisions of Article 56 could represent a serious setback to regional cooperation unless and until the littoral states agree to yield some of their newly won rights to a regional body.

Note one final point about UNCLOS III. During the more than ten years of conference preparation and convening, two phenomena occurred which could, over time, favor the growth of marine regional action in areas such as the Southeast Asian Seas. One is the development of a cadre of law-of-the-sea experts from the region itself, who have frequent opportunities to meet and work together and to discover their mutual interests in marine developments. The other phenomenon is the widespread publicity given to law-of-the-sea matters throughout the Southeast Asian area. Not only are the specialists acquainted with the issues but many others are also. In addition, the numerous conferences, workshops, and seminars—many sponsored by U.N.-associated agencies—have contributed also to raising the visibility of marine issues. Without the protracted UNCLOS III activities, it is doubtful such communication would have occurred since the late 1960s.

The establishment of link between regional systems. The interactions between two or more regional systems within the same geographical area are often difficult to measure. There is obvious logic in forging links, as between fisheries and marine science organizations or between scientific and environmental protection groups. Yet, despite the advantages of shared data, shared scientific and technical personnel, and the joint use of
vessels and equipment, almost nowhere in the world are serious efforts being made by marine regional organizations to create such links.

Of course, many cases exist where two or more agencies provide joint support for a specific project. In the Caribbean Sea, the Intergovernmental Oceanographic Commission (IOC) and FAO have been successful in coordinating certain efforts under the Association for the Caribbean and Adjacent Regions program (IOCARIBE). And a relatively new agent on the ocean affairs scene, UNEP, is actively seeking to coordinate the activities of disparate groups within the semienclosed seas served by its Regional Seas Programme.

The issue of link involves many factors. For example, different regional arrangements are funded by different agencies, from both within and outside the U.N. system. The scope of many of these organizations often is limited to a few specific items, and the budgets are miniscule. Few assets may be available that could be shared meaningfully among organizations. One alternative, of course, is to combine small regional organizations into larger units, but this may have disturbing implications. Whatever the outcome, as regional organizations grow the question of links becomes a salient one.

Impacts on the environment. Not all of the marine regional systems are expected to have environmental impacts. Some are concerned with the acquisition and interpretation of data, the training of specialists, or the settlement of disputes. Others are involved with military security or the question of access to the sea for land-locked states.

But in such fields as fisheries conservation and management, or pollution control and abatement, definite impacts should be observable over time. The same is true in the case of regional development projects, such as the construction of fishing harbors or terminals for supertankers. Establishing multinational regulations over the transit of ships through straits could result in a reduction of pollution in the area.

Not all impacts are necessarily positive. Regional fisheries development projects could result in the appearance of larger vessels, greater harvesting capacities, and more cost-efficient fisheries operations—all at the expense of the local artisanal fisheries which traditionally have worked the area—only to see the availability of the resource decline drastically with the advent of new technologies.

Relatively little has been written to date on the environmental impacts of marine regional organizations. One explanation for this may be that most organizations (other than some associated with fisheries) have not existed long enough to generate significant impacts. Another might be that most writers associated with marine regional organizations are more concerned
with institutional and policy aspects. But for many situations, the issue of impacts may become an important one over time.

Programs. At any given point in time much of the apparent success or failure of a regional organization depends on the programs it is engaged in, has recently completed, or will soon undertake. Organizations exist with important problems to address, assigned functions and powers, and apparent indications of adequate funding support that are either unable to develop workable programs, or that, once such programs are launched, cannot successfully maintain them. Obvious problems that may be responsible for this lack of success include inadequate leadership, disagreement among supporting member states, and a shortage of trained personnel or of vessels. But the point here is that, besides understanding the basic framework of a particular regional arrangement, consideration must be given to its current and contemplated operations, as well as to its plans for the future, to determine its usefulness in regional marine matters.

**Marine Regional Models**

It is not too early in the field of marine regionalism to begin considering some elements of “ideal” regional systems. These elements would be different, in some cases, for regional organizations involving primarily developed states and for those organizations that encompass developing countries. They would also have to reflect the particular physical, ideological, and other conditions of a particular geographical area. Nevertheless, certain generalizations are possible.

For instance, some criteria should be established for delegating marine issues for consideration by regions or subregions with others receiving unilateral, bilateral, or global treatment. The identification of such criteria might enable planners to move more efficiently toward the establishment of marine regional schemes.

Second, some overall policies should be formulated and adopted within the U.N. system as to support of marine regional systems. Greater coordination also is needed between U.N. marine regional efforts and those of independent bodies, such as ASEAN, EEC, ICSEM (International Commission for the Scientific Exploration of the Mediterranean Sea), ICES (International Council for the Exploration of the Sea), and the various independent fisheries bodies.¹¹

Third, the level of integration of marine regional bodies should be considered. Schubert and others recommend a functionalist approach to regionalism in Asia, in which the controversy and politicization in cooperative efforts are minimized, emphasis is placed on “low-priority” sectors,
and numerous "functionally specific" institutions are established, along with decentralized decision-making authority. Such recommendations, of course, run counter to trends developing in the EEC.

Also necessary is the placing of marine regionalist movements within their proper perspective as to (1) member states' interests and expectations, (2) the priorities of marine problems to be addressed in the area, and (3) the relationships of the area and its institutional mechanisms to adjacent geographic areas and complementary mechanisms.

Any effort to construct "ideal" institutional models must reflect the interest and perspectives of the modeler, as well as the economic, political, and other conditions of an area at a particular time. And because no models of marine regional arrangements have been developed, the efforts undertaken in this report are very preliminary.

Assuming that some form of "ideal conditions" for marine regionalism in a given geographical area can be devised, what trends exist in favor of movement toward this model? In other words, what are the integrative processes, both marine and nonmarine related, that could facilitate adopting a regional or subregional approach toward ocean issues? In the section titled The Marine Regional Approach the integrative trends in the Southeast Asian Seas area are addressed. Note, however, that Southeast Asia is a volatile region, both politically and ideologically; one for which few people would want to predict the outcome of various transnational conflicts, such as those between China and Vietnam, China and Taiwan, and Kampuchea and Thailand. Thus, any predictions of trends must be hedged by the uncertainties of both interstate relationships in Southeast Asia and future directions of national goals and policies.

THE GEOGRAPHIC SETTING

The Southeast Asian Seas area consists of a wide variety of peninsulas and islands, with many bays, gulfs, and narrow waterways, and of a number of semienclosed seas. Access to the sea and its resources is physically possible for a high proportion of the area's population. To the west are the Bay of Bengal and the Indian Ocean, to the north through Formosa Strait are the East China and Yellow seas, and to the northeast is the Pacific Ocean. Thus, the area is important as a passage for many maritime routes. A number of shipping lanes converge here where half a dozen or more of the world's strategic international straits occur.

The four subregional marine sectors are: (1) the Andaman Sea; (2) the Sulu and Celebes seas; (3) the domestic archipelagic waters of Indonesia and the Philippines; and (4) the South China Sea.
The Andaman Sea is bordered by five countries—Burma, Thailand, Malaysia, Indonesia, and India, which controls the Andaman and Nicobar islands on the western fringes. Regional marine activity in the Andaman Sea is virtually nonexistent. The sea falls within the areas of competence of two FAO regional fisheries bodies, the Indo-Pacific Fisheries Council (IPFC) and the Indian Ocean Fishery Commission (IOFC), but neither of these conduct special fisheries projects focused on the sea itself. Likewise, the Andaman Sea falls within the scope of the FAO/UNDP Indian Ocean Fishery Survey and Development Programme; and the sea’s southern and central portions are within the bounds of the FAO/UNDP South China Sea Fisheries Development and Coordinating Programme (South China Sea Program), but again no special projects are centered exclusively on the Andaman Sea itself. Note that not all the littoral states are members of these various programs. Although the five bordering states are not ideologically or otherwise hostile to one another, India is basically an outside power, and Burma remains aloof from the ASEAN orientation of Thailand, Malaysia, and Indonesia.

The Celebes Sea is bordered by three states—Indonesia, Malaysia, and the Philippines—and the neighboring Sulu Sea by two—Malaysia and the Philippines. As with the Andaman Sea, these two seas fall within the competence areas of several fisheries organizations, and both presumably will be included within the proposed ASEAN Subregional Environment Programme (ASEP), which is to be launched under UNEP auspices. But there are no regional projects for the individual seas.

The archipelagic waters lying solely within the maritime limits of Indonesia and the Philippines, respectively, are not included in marine regional projects, except insofar as either of the two countries cooperates with such international programs as those of IPFC, ASEP, and the South China Sea Program.

The South China Sea, bordered by the territories of nine littoral states and three overseas dependencies, is the principal focus of marine regional action. It has an area of about 3.5 million km² (1.35 million nmi²), and extends northeast-southwest for more than 1200 statute miles. In the north it is connected with the East China Sea by broad Formosa Strait and with the Pacific Ocean by Luzon Strait between Formosa and the northernmost Philippines. Both are important navigation routes. On the east are a series of straits (eg, Mindoro, Balabac) connecting through the Philippines and with the Sulu Sea, and on the south the broad Karimata Strait links the South China and Java seas. Finally, on the southwest, the Malacca and Singapore straits lead into the Andaman Sea and the Indian Ocean. The importance of the South China Sea as a transit area is heightened by the straits oriented north–south through Indonesia, connecting through
the Celebes and Sulu seas with the South China Sea. Among these straits are Sunda, Lombok, and Ombai (Alor), and, further north, Makassar Strait.

Two major gulfs lie along the northwestern rim of the South China Sea—the Gulf of Siam and the Gulf of Tonkin. The former is bordered by Kampuchea, Malaysia, Thailand, and Vietnam and the latter by China and Vietnam. Three countries—Indonesia, Malaysia, and Singapore—border the Malacca and Singapore straits.

The South China Sea exhibits several somewhat unique physical traits. One is the large area of considerable depths (1800–4000 m) in the central and northeastern areas; slightly less than half of the South China Sea is underlain by continental shelf, thereby restricting the areas where trawling for demersal fishes is possible. A second feature is the numerous islets, banks, and reefs in the deeper parts of the sea: the Paracel Islands group, the Spratlys in part of the “Dangerous Ground” southwest of the Philippines, and isolated shallow areas, such as Macclesfield Bank and Pratas Reef. These islets and shallow areas are the subject of ownership disputes, which are causing considerable friction.

A third unique feature of the South China Sea is the seasonal reversal of currents, a result of the monsoons. This reversal affects the location of fishery resources at different times of the year. It also influences the gyrelike circulation, particularly of surface waters within the sea, and results in low flushing rates in the waters of the South China Sea.

Because of the numerous islands, peninsulas, and bays, most of the lands in the Southeast Asian seas area have easy access to the sea. Only northern and eastern Thailand, Laos, and the interior of the Island of Borneo (Kalimantan) are isolated from the coast. As a result, the area is “marine oriented,” although the nature of that orientation varies considerably from place to place. Many coastal areas are extremely localized, with the attention of the inhabitants directed to the immediate offshore areas. Decision makers in such areas are interested primarily in protecting what they perceive as theirs. But, in a few localities, interests are more distant-water in nature, and it is from these areas that forces are exerted toward regional marine action.

Political Areas

The fourteen political entities in the Southeast Asian Seas area (Table 1) vary in size from Macao’s 6 nmi² to China’s 3,705,600, and from Brunei’s 232,000 people to China’s more than one billion. Outside of China, the giant in terms of population is Indonesia, followed by Vietnam, the Philippines, and Thailand. Birth rates are generally high, and death rates
are declining, due in part to successful public health measures. The result for most of the Southeast Asian Seas area is a high population growth rate, which frequently is greater than the annual economic growth rate.

Levels of economic development are generally low. Per capita gross national products (GNP) are high in Singapore (with its commerce and industry), Hong Kong (an important entrepot), and Brunei (with its small population and sizeable oil export). All three of these, according to U.N. categories, are above the level of developing countries. Taiwan's per capita GNP is close to US$1500. But among the other countries of the area, per capita GNPs are low, the lowest being in Kampuchea (where only approximations are available) and in Laos. The United Nations maintains a list of thirty-one least developed countries of the world that should receive special economic attention; of these the only Southeast Asian member is Laos.

<table>
<thead>
<tr>
<th>Country</th>
<th>Area (statute mi²)</th>
<th>Population (Jan. 1981)</th>
<th>Annual Population Increase (%)</th>
<th>Per Capita GNP (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burma</td>
<td>321.939</td>
<td>34,842,000</td>
<td>2.4</td>
<td>150</td>
</tr>
<tr>
<td>Indonesia</td>
<td>735.809</td>
<td>152,754,000</td>
<td>2.1</td>
<td>350</td>
</tr>
<tr>
<td>Kampuchea</td>
<td>69.982</td>
<td>5,565,000</td>
<td>—</td>
<td>c. 50</td>
</tr>
<tr>
<td>Laos</td>
<td>91.406</td>
<td>3,499,000</td>
<td>1.1</td>
<td>90</td>
</tr>
<tr>
<td>Malaysia</td>
<td>50.687</td>
<td>14.179,000</td>
<td>2.4</td>
<td>1,480</td>
</tr>
<tr>
<td>Philippines</td>
<td>115.970</td>
<td>49,481,000</td>
<td>2.5</td>
<td>620</td>
</tr>
<tr>
<td>Singapore</td>
<td>225</td>
<td>2,406,000</td>
<td>1.2</td>
<td>3,810</td>
</tr>
<tr>
<td>Taiwan</td>
<td>12.452</td>
<td>17,987,000</td>
<td>2.0</td>
<td>1,830</td>
</tr>
<tr>
<td>Thailand</td>
<td>197.949</td>
<td>48,328,000</td>
<td>2.3</td>
<td>590</td>
</tr>
<tr>
<td>Vietnam</td>
<td>127.267</td>
<td>54,582,000</td>
<td>2.5</td>
<td>c. 150</td>
</tr>
<tr>
<td>China</td>
<td>3,705.600</td>
<td>1,034,364,000</td>
<td>1.4</td>
<td>510</td>
</tr>
<tr>
<td>Brunei</td>
<td>2.226</td>
<td>232,000</td>
<td>5.8</td>
<td>2,970</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>400</td>
<td>5,165,000</td>
<td>2.7</td>
<td>3,600</td>
</tr>
<tr>
<td>Macao</td>
<td>6</td>
<td>291,000</td>
<td>2.1</td>
<td>—</td>
</tr>
</tbody>
</table>

Accessibility to the sea and its resources may be measured in several ways. Lengths of coastline for the fourteen countries average approximately 5000 nmi (Table 2). Indonesia and the Philippines have by far the longest coasts. Areas included within the actual or potential exclusive economic zones average 222,000 nmi². In this case the area accruing to Indonesia is three times that of the Philippines, behind which are ranked China and Vietnam. Laos has no economic zone, and Hong Kong and Macao have only small territorial seas.
Table 2. Marine-Related Statistics (Southeast Asian Seas Area)

<table>
<thead>
<tr>
<th>Country</th>
<th>Length of Coastline (nmi)</th>
<th>Area Enclosed by 200-nmi EEZ (nmi²)</th>
<th>Annual Fisheries Catch: 1979 (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burma</td>
<td>1,897</td>
<td>148,000</td>
<td>565,300</td>
</tr>
<tr>
<td>Indonesia</td>
<td>35,784</td>
<td>1,577,300</td>
<td>1,731,731</td>
</tr>
<tr>
<td>Kampuchea</td>
<td>275</td>
<td>16,200</td>
<td>209,000e</td>
</tr>
<tr>
<td>Laos</td>
<td></td>
<td></td>
<td>20,000e</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2,899</td>
<td>138,700</td>
<td>698,087</td>
</tr>
<tr>
<td>Philippines</td>
<td>13,975</td>
<td>520,700</td>
<td>1,476,252</td>
</tr>
<tr>
<td>Singapore</td>
<td>120</td>
<td>100</td>
<td>16,932</td>
</tr>
<tr>
<td>Taiwan</td>
<td>648</td>
<td>114,400</td>
<td>885,044(78)</td>
</tr>
<tr>
<td>Thailand</td>
<td>1,996</td>
<td>94,700</td>
<td>1,716,441</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2,828</td>
<td>210,600</td>
<td>1,013,500e</td>
</tr>
<tr>
<td>China</td>
<td>8,990</td>
<td>281,000</td>
<td>4,054,295</td>
</tr>
<tr>
<td>Brunei</td>
<td>100</td>
<td>7,100</td>
<td>2,792</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>454</td>
<td>c.100</td>
<td>189,789</td>
</tr>
<tr>
<td>Macao</td>
<td>25</td>
<td>c.100</td>
<td>6,278</td>
</tr>
</tbody>
</table>

NOTE: e = estimated.

Marine resource potentials within the states' exclusive economic zones also vary considerably. Indonesia is considered by fisheries experts to have a large and only partially used fisheries potential within its jurisdictional zone. The shelf area off Vietnam and southern China also has a considerable and still underused potential. There are important resources in the Gulf of Siam and off eastern Malaysia: those in the gulf probably are overexploited, but some underused potential exists off Malaysia, although the presence of the Indonesian-owned Anambas and Natuna islands, east of southern Malaysia, means that much of the southwestern shelf of the South China Sea belongs to the Indonesians. The Philippines, an archipelagic state, also has considerable underused fisheries potential, most of it in the interisland (archipelagic) waters.

By contrast, Kampuchea, with its limited offshore jurisdictional zones, does not have much fisheries potential, nor do Singapore, Brunei, and Hong Kong. Thailand's potential is restricted to the upper portions of the Gulf of Siam and to the central Andaman Sea–Strait of Malacca area. Yet, Thailand has invested in a large fishing fleet and depends for its catch, in part, on fishing areas off other countries' coasts. Singapore has a much smaller distant-water fishing fleet as does Taiwan, while the distant-water capacity of the Chinese fleet, although currently small, is growing rapidly each year.
Four of the states produce offshore hydrocarbons—Indonesia, Brunei, the Philippines, and Malaysia. Vietnam is expected soon to be in production. Indications of oil potential in the Gulf of Siam have exacerbated the offshore boundary problems of Thailand, Kampuchea, Vietnam, and Malaysia, but as yet no oil is produced commercially in the gulf. Foreign oil companies also have expressed interest in exploration in the Gulf of Tonkin, thereby contributing to offshore boundary problems between Vietnam and China.

The other important offshore marine resource is the tin sands of Indonesia. Of course, offshore sand and gravel deposits occur throughout the area, and manganese nodules may be found in the deeper portions of the South China, Sulu, and Celebes seas. Energy development also is possible, although the Southeast Asian Seas area does not contain any of the important potential Ocean Thermol Energy Conversion (OTEC) sites of the world.

Three aspects of the coasts are significant for marine resource development: First, for the presence of natural harbors. Singapore immediately comes to mind, but there are many other sites, such as Rangoon and Manila. A number of the area's ports are located at river mouths, resulting in continuous dredging problems.

Second, the coastal areas can be used as sites for aquaculture projects. What is required here are low-lying areas that either flood or can be flooded. These conditions apply along considerable coastal sectors of Southeast Asia, although some concern is being expressed here by ecologists as in other parts of the world, over the prospect of altering swamps and marshes because this would constitute destruction of nursery grounds for fish.

Third, the coastal areas have potential for tourism. The most important elements here are pollution-free waters, sandy beaches, and safe and convenient waters for swimming and small boats. Other elements include a picturesque setting (as in Bali), accessibility to populous areas, and a socioeconomic milieu that tends to support tourism as an industry.

International Relationships

Of the eleven independent entities in the Southeast Asian Seas area, five are socialist in ideology, although China is on anything but friendly terms with the three socialist countries of former Indochina—Vietnam, Laos, and Kampuchea. Taiwan is an “outcast”—banned from the U.N. system and with no diplomatic ties—to other countries of the area.
The remaining five states—Indonesia, Malaysia, the Philippines, Singapore, and Thailand—although differing considerably from one another in ethnic composition, history, and governmental structure, are still close enough in ideologies and economic interests to have successfully maintained their joint association, ASEAN, for more than ten years. The organization has existed despite the territorial dispute between Indonesia and the Philippines over Sabah (North Borneo), the unresolved issues between Indonesia and Malaysia concerning offshore boundaries in the vicinity of the Anambas and Natuna islands, the unrest in the northern provinces of Malaysia supported in part by groups across the border in southernmost Thailand, as well as other tensions which tend to exist among developing and recently independent countries.15

So far as diplomatic relations are concerned, Taiwan has been relatively isolated. China has diplomatic relations with all of the other states except Indonesia, Singapore, and Taiwan. Kampuchea has no diplomatic ties with Thailand. Otherwise, the countries of the area maintain normal diplomatic relations with one another.

In several cases, relations between states are strained, a factor strongly influencing efforts to achieve regional cooperation. China, not long ago, invaded northernmost Vietnam; Kampuchea and Thailand are at odds both over the issue of Kampuchean refugees in Thailand and because of Thailand’s alleged continuing support for the ousted Kampuchean regime of Pol Pot. Neither Laos nor Kampuchea have governments that are friendly with China, and relations between China and Taiwan have been suspended.

The adherence of the states of the area to various global and regional arrangements with marine implications is detailed in the section on Existing Marine Regional Arrangements. In general, a number of serious transnational tensions exist in the Southeast Asian Seas area which represent impediments to any growth of regionalism. In a sense, the countries of the area can be organized into six groups: (1) the five ASEAN states; (2) the three socialist countries of Vietnam, Laos, and Kampuchea; (3) China; (4) Taiwan; (5) the three dependencies—Brunei, Hong Kong, and Macao; and (6) Burma. Within a short time Brunei will become independent; whether or not it subsequently will join ASEAN is difficult to predict. If it does not it may exist as an extremely isolated state.

Maritime Territorial Disputes

In several cases, relations between states are strained because of territorial disputes. The land boundary between China and Vietnam in
recent years has been the scene of military activities. Repeated reports have been heard of Chinese support for insurgent movements in the rugged terrain of northeastern Burma. Malaysia and the Philippines have had a long-standing controversy concerning sovereignty over Sabah—a controversy which, within the framework of ASEAN, hopefully may have been resolved.

There are also disputes with respect to maritime areas. China occupies the Paracel Islands off the coast of Vietnam, although these are claimed also by Vietnam and Taiwan. Southeast of the Paracels are the Spratly Islands, some of which are occupied by the Philippines, others by Vietnam, and still others by Taiwan. The group is claimed by all three countries, as well as by China. Ownership of the Spratly Islands will affect the ultimate delimitation of maritime boundaries in this potentially oil-rich area.

In other parts of the Southeast Asian Seas area, China and Vietnam have a maritime boundary dispute in the Gulf of Tonkin and, further south, Vietnam has overlapping continental shelf claims with Indonesia, Malaysia, Kampuchea, and Thailand. Overlapping shelf claims exist also between Malaysia and the Philippines and (in the Gulf of Thailand) between Kampuchea and Thailand. Potential maritime boundary disputes exist between Brunei and Malaysia and between Burma and India.14

ISSUES THAT MIGHT BE ADDRESSED THROUGH REGIONAL ACTION

Many marine-related issues occur that might be handled meaningfully through regional or subregional mechanisms. The intensity of the regional action may vary from simple data exchange or the joint sponsorship of workshops to the management by a regional body of some enterprise, such as a fishing fleet or a shipping line. In this section representative issues are dealt with according to activity area.

Fisheries Conservation

A distinction must be drawn between fisheries conservation and fisheries management. The former is based on biological conditions and is concerned with the fishing level for a particular stock beyond which the stock is unable to sustain itself. Fisheries management takes into account not only the conservation aspects but also the objectives, economic criteria, processing and marketing, allocation of wealth derived from the resources, and so on.15
The categories of functions noted here will correspond to those found under Functions and Powers in the first section.

Service

Data Processing

(a) Handling of Data Concerning Harvesting Activities
   exchange of data
   coordinated acquisition of data (eg, coordinated collection efforts)
   cooperative acquisition of data (eg, joint investigations of fishing activities by member states)
   cooperative research and interpretation of catch data

(b) Data on Stock Assessment
   exchange of stock assessment data
   coordinated acquisition of data (eg, coordinated cruise operations)
   cooperative acquisition of data (eg, joint cruises)
   cooperative research and interpretation of stock assessment data

(c) Oceanographic Data Relevant to Fisheries Conservation
   exchange of oceanographic data
   coordinated acquisition of data
   cooperative acquisition of data
   cooperative research and interpretation of data

Intraregional Exchange of Researchers, Students, Professors
Joint Sponsorship of Seminars, Workshops

Norm Creation

Joint establishment of conservation standards and regulations based on relevant data and its interpretation
Identification of potential marine sanctuaries

Rule Observance

Joint monitoring and enforcement of conservation regulations within the combined exclusive economic zones of the region

Operations

Joint operations of vessels, equipment, laboratories, and staff that are concerned with fisheries conservation activities.

Fisheries Management

Under Service much the same tasks are performed as in fisheries conservation; that is, data processing, exchange of personnel, and the
sponsorship of seminars and workshops. The topics addressed are obviously more sensitive in nature for they involve economic and other factors associated with commercial fisheries.

Norm Creation
Joint establishment of "optimal yield" quotas for individual species, taking into account biological, economic, environmental, and social criteria
Joint determination of the annual portions of the optimal yield to be allocated to "foreign" (eg, nonregional) fishing countries
Joint negotiations with foreign states to determine the portion of "surplus" catch to be allocated to each country and the fee structures to be charged to foreign vessels

Rule Observance
Joint surveillance of economic zone areas
Establishment of regional facilities to handle the settlement of disputes among member states of the region concerning fisheries management
Decisions on allocations of the harvesting of common stocks among member states or of the wealth derived from the harvesting activities

Operations
Establishment of regional fisheries training facilities, research centers, fishing ports, processing facilities, marketing infrastructures, and so forth

Pollution Control and Abatement
Many of the activities here are analogous to those listed under Fisheries Conservation. Within the framework of pollution Control, the acquisition and analysis of data in the interests of management would follow approximately the same pattern as in Fisheries Conservation; but within the scope of Fisheries Management differences would occur. Fisheries management is carried out in the interests of obtaining wealth; pollution control and abatement involves the expenditure of wealth (however the term may be defined) in the interests of environmental protection.

Norm Creation
The joint establishment of pollution control regulations may not be too difficult insofar as foreign vessels are concerned, although if one state (eg,
Singapore) is economically dependent on the servicing of foreign vessels while others (eg, Malaysia, Indonesia) are not, the joint establishment of common standards may be difficult to achieve.

As to pollution control regulations for domestic activities, little controversy may surface, although the expected expansion of UNEP activities into the ASEAN area may tend to heighten both the member states' awareness of marine environmental problems and their realization of the differences in approaches to resolving this issue.

Rule Observance

Joint Allocation of Wealth. Difficult to conceive of is an arrangement whereby the countries of the Southeast Asian Seas area would share with one another the costs of marine pollution control and abatement, other than allocating among themselves the costs of maintaining one or more "crisis centers," as have been established in the Mediterranean. They might agree also to allocation among themselves the revenues derived from outside sources, such as UNEP and UNDP, in the interests of pollution control.

Dispute settlement mechanisms. Independent countries are particularly sensitive to binding dispute settlement mechanisms of any type. Will regional dispute settlement mechanism for pollution control and abatement be preferable to a global one? Virtually nothing has been written about this question for Southeast Asia, but one might surmise that a regional dispute settlement arrangement (particularly one that included both China and Vietnam) now would be generally unacceptable.

Operations. Little evidence exists to suggest that regional or subregional enterprises will be established in the Southeast Asian Seas area to cope with marine pollution. Each state must resort to its own mechanisms, although there is always the possibility for developing regional crisis centers, which could dispatch oil cleanup facilities or other forms of technical assistance.

Shipping

The issues of shipping has many aspects in common with Pollution Control and Abatement. Considerable data are needed in the Southeast Asian Seas area on vessel-source pollutants, their impacts on the marine environment, and acceptable levels of restriction which could be applied to them. But regional aspects of shipping also involve the maintenance of channels and navigational aids, of facilities for handling disasters at sea,
and of regional ports, supply and refueling depots, and so on.

For navigation safety a variety of services can be performed at the regional or subregional levels, such as vessel location identification, weather reports, or notice to mariners of navigational hazards. Conferences may be held on such navigation issues as traffic-separation schemes in restricted water areas; and the interchange of personnel among national shipping groups can be accommodated through regional efforts. Clearly, in a geographically contiguous area such as the South China Sea and its environs, common shipping problems are an important issue.

When it comes to norm creation and rule observance, the issue becomes more complicated. Beyond the internationally accepted "rules of the road," what common standards might vessels in a particular region adhere to? Should governments accept certain competency tests for their ships' officers? Ought they to participate in periodic safety inspection exercises? Should they agree to recognize certain traffic-separation schemes? The whole issue of norm creation and observance in shipping is a highly complex issue, one that countries with different ideological and economic interests in a region may find extremely difficult to resolve. Considering the variety and intensity of shipping activities in the Southeast Asian Seas area, however, and such problems as piracy and boatloads of refugees, there may be compelling reasons for the ASEAN countries and others to work out multinational approaches to common shipping problems.

Joint management of shipping operations in the Southeast Asian Seas area is probably impossible, except on a subregional basis. ASEAN might establish a joint shipping agency, such as NAMUCAR in the Caribbean, but this probably would account for only a small proportion of the total shipping carried on in the area. Subregional port facilities might be developed at sites such as Singapore, but the general trend here will continue toward national rather than multinational action.

One subregional approach to navigation developed in the Straits of Malacca and Singapore. In 1971, Indonesia, Malaysia, and Singapore issued a joint statement in which they agreed to cooperate on navigation safety in the two straits. Six years later the three states reached a tripartite agreement affecting transit through the strait. Details are given under Shipping in the section on Existing Marine Regional Arrangements.

Marine Scientific Research

There is little need to speculate here on restrictions to freedom of scientific research by nonlittoral states. All of the waters of the Southeast Asian Seas area will be closed off by 200-nmi exclusive economic zones,
and within these zones coastal states are granted by the Draft Convention "jurisdiction" over marine scientific research. This means they can grant or withhold consent for other states to carry out research in these waters. As a regional or subregional action, states of the area might decide on a common approach to issues of access for nonregional states, but such action now appears unlikely. Conditions of access for foreign research vessels generally is seen as an important aspect of national sovereignty, as are the potential trade-offs associated with granting access. What the coastal state receives in exchange for the access seems a domestic rather than a multinational issue.

But there are marine scientific problems of common interest to the countries of the region—problems associated with fisheries, pollution control, weather forecasting, coastal zone management, and so forth. Three sets of problems are involved here: (1) data acquisition; (2) data assemblage and storage; and (3) data analysis. These issues already were addressed in this chapter. What remains are these questions: first, will the countries of the Southeast Asian Seas area cooperate in marine science data processing; and, second, will they support regional or subregional facilities for data acquisition and analysis? In the latter case, assuming their support, where should such facilities be located?

Need exists in the region both for marine scientific research and for training facilities, particularly for the applied aspects of marine science. Little has been done to date, except for the activities of SEAFDEC in connection with fisheries. But the potential is there for one or more marine science centers with attendant research vessels, computer networks, special libraries, and the other support facilities associated with research.

Other Activities

What is true for the activity areas described thus far holds for others as well, such as monitoring and surveying, developing assistance, and coastal zone management. In all cases, conceptual gaps exist between service functions, on the one hand, and norm creation and observance, on the other; and between the latter and actual operations involving joint investments and management. Within this three-tiered system, regional or subregional operations in the Southeast Asian Seas area at present are little developed and in the foreseeable future have only limited prospects of evolving. As noted repeatedly, some prospects may come through ASEAN; otherwise, the potential for marine regional action appears dim.

One special consideration is a subregional approach to access to the sea for the area's one land-locked state, Laos. The Laotians have arranged with
Thailand for the shipment of their exports and imports through Bangkok and other ports. More recently, they established transit relationships with Vietnam. But these are hardly regional approaches to the problem; bilateral arrangements were concluded with Thailand and Vietnam with no consideration given to the other two coastal neighbors of Laos, China and Kampuchea. Nowhere in the agreements (so far as is known) is Laotian access to the surplus fisheries stocks of either Thailand or Vietnam considered.

The littoral countries of the Southeast Asian Seas area have few marine-related interests in common, although they face many common marine-related problems. Overfishing of both coastal and highly migratory stocks, weather prediction, navigational safety—these and other issues logically should bring the countries closer together. But I postulate that within the foreseeable future the only marine-related issues handled meaningfully on a regional cooperative basis will be dealt with at the (1) bilateral level; (2) the subregional level if the issues are not politicized; (3) at the subregional level if the issues are perceived as highly important (eg, oil spills in the Malacca and Singapore straits); (4) at the subregional level if organizations such as ASEAN become sufficiently strong; or (5) at the subregional level if leadership and funding become available through a U.N. agency.

THE INTERESTS OF RELEVANT PARTIES IN REGIONAL ACTION

The relevant actors associated with marine regionalism in this part of the world are: (1) countries within the Southeast Asian Seas area; (2) countries outside the region; (3) international agencies; and (4) private companies. The interests can involve support of marine regional action within the area, inaction with regard to the issues, or active opposition to any moves toward regionalization.

A number of variables occur in this format. A country may perceive its interests as oriented toward one aspect of regional action (ie, fisheries conservation) but not toward other forms. And even within the scope of a single activity, interests in actual or potential regionalization may vary as the parameters of regional action change. For example, the Soviet Union, for effective fisheries conservation, might support regional action in the South China Sea if carried out under the aegis of ASEAN and/or the FAO and the South China Sea Program. But if it appears that a regional fisheries effort would be dominated by the Peoples Republic of China, Soviet support for or inaction toward such regionalization might become active opposition.

Interests of a country may change. On the one hand, cataclysmic changes occur, such as those in the government of Kampuchea; on the
other hand, more gradual transitions of national marine interests take place, as seem to have developed in China. Along with variations in the basic marine interests of states come variations in the decision makers' perceptions of these interests within the countries themselves.

Events may also cause change. A major oil find made by the Philippines off Palawan, a series of substantial oil spills in the Malacca Strait, a major Soviet build-up of naval strength in Vietnamese ports, the appearance of a massive Chinese distant-water fleet in the South China Sea—these and similar phenomena can influence national marine interest profiles both within and outside the region.

Still another variable is the international organizations associated with regionalism in the Southeast Asian Seas area. The FAO is increasing its interest in the South China Sea, and the IPFC in time may become divided, with one special unit designated for the South China Sea area. The UNDP is concerned with fisheries in the Southeast Asian Seas area and may increase its funding of projects there. The UNEP is undertaking a major effort toward environmental protection.

In the sections that follow, I make certain generalizations about the interests of countries and organizations as to marine regionalism in the Southeast Asian Seas area. I recognize that the topic should receive more comprehensive treatment than is possible in this report, and that the perspective presented is that of an outsider rather than that of a citizen of the area.

The format repeats the topics of fisheries conservation and management, marine pollution control, shipping, and other activities. The conclusions are based largely on deductive reasoning as to how states and other actors might react to regional action, but, again, I must stress that these conclusions are at best tentative.

Countries within the Southeast Asian Area

ASEAN States

Although the ASEAN countries have moved toward cooperative action on a series of fronts, various national interests toward marine activities remain which could be divisive and thus hamper regional or even subregional action. Indonesia has a large area of archipelagic waters; although some of these have been overfished, particularly for shrimp, a potential exists in many areas for concentrating on underused species. Indonesia reserves for itself all the fisheries of the interisland waters, and the country also stands to gain a large additional water area through its 200-
exclusive economic zone. The Philippines has a much smaller area of interisland waters than does Indonesia, but the extent of its exclusive economic zone, although less than Indonesia's, will nevertheless be a large one, with considerable living resource potential.

At the other end of the scale is Singapore, which stands to gain virtually no exclusive economic zone whatever. Yet, a large demand for fish exists in Singapore, and the country's distant-water fleet has no choice but to seek access to the exclusive economic zones of nearby states. Under the terms of the Draft Convention, which all of the ASEAN states support, Singapore is a geographically disadvantaged developing state that should be entitled to the surplus fisheries of other coastal states of the region.

Thailand is entitled to only a small exclusive economic zone, yet its population, which is much larger than Singapore's, also exhibits a large demand for fish. Thailand's offshore waters cannot supply that demand, consequently Thailand has the best developed distant-water fishing fleet in Southeast Asia. But, as with Singapore, that fleet must fish primarily in the exclusive economic zones of neighboring states, which for Thailand include not only the South China Sea littoral states but also Burma, Bangladesh, and India's Andaman and Nicobar islands.

Malaysia also has offshore waters both in the South China Sea and in the Andaman Sea–Strait of Malacca area. Its potential exclusive economic zone is half again larger than Thailand's, but Malaysia does not yet have a well-developed fishing industry. Its principal concern at present probably would be to prevent the overexploitation of its zonal resources by other countries' distant-water fleets.

It seems that both Singapore and Thailand would be interested in a regional-type ASEAN arrangement that would facilitate access for them to the fisheries resources of other states, but that Indonesia, the Philippines, and probably Malaysia would not be interested. Yet, these latter three would react favorably to a cooperative approach to the development of their domestic fishing industries; these same three would also be interested in regional efforts toward increasing the biological knowledge of the fisheries resources off their coasts.

Note two points about marine pollution control. The first concerns pollution from foreign tankers in transit through the ASEAN region. The differences in regional approaches to setting restrictions on such tankers and their operations between Malaysia and Indonesia on the one hand, and Singapore on the other, already have been covered (see Pollution Control and Abatement). Little interest seems apparent as yet in regional approaches to foreign vessel-source pollution for any other parts of the ASEAN area.

A second point concerns the impending development, under the aegis of UNEP, of the ASEAN Subregional Action Plan. Like many developing
countries, those of the ASEAN area may view domestic marine pollution largely as an internal problem, and as one toward which control efforts could sometimes operate to the detriment of economic development. Certainly, any proposed subregional or regional approaches to the marine pollution problem would be viewed by each of the ASEAN states from the standpoint of whether or not they themselves are being asked to bear unequal costs of environmental protection vis-à-vis their fellow members and/or nonmember neighbors, such as Vietnam and Kampuchea.

As to shipping, some divergence of interests exists among the ASEAN countries. Singapore is seeking to become a shipping center for the ASEAN region, both for transshipment of cargoes to and from areas outside ASEAN and for oil refining and re-export. The country is concerned about the possible divergence of shipping away from the Malacca and Singapore straits because of restrictions imposed (particularly on Japanese shipping) in the interests of pollution control. Singapore was a reluctant member of the recent tripartite agreement for traffic safety standards in the Malacca Strait, and Singapore failed to join Indonesia and Malaysia in their contention that the Malacca Strait is not an “international strait,” as defined in the Draft Convention.

Thailand is concerned over passage through the Malacca and Singapore straits of its own ships, linking its east and west coasts. It might welcome subregional action, involving itself, Singapore, Malaysia, and Indonesia, with the aim of guaranteeing transit by Thai vessels through the waterway.

So far as regional approaches to other marine-related activities are concerned, the prospects in ASEAN appear remote. Regional centers could be developed for marine scientific research, education and training, and technology development. Regional or subregional marine sanctuaries could be undertaken as well as regional approaches to coastal zone management. But all of these involve important commitments on the part of the individual states. Conversely, common action could be taken to declare the South China Sea a “zone of peace,” or to ban nuclear-powered vessels or those transporting nuclear wastes from the ASEAN area. But such action, if it ever occurs, appears years away.

The States of Indochina

The leading state here is clearly Vietnam, which not only has more territory, population, and economic and military strength than do either Kampuchea or Laos, but which also enjoys considerably better conditions of access to the sea. Vietnam has a long coastline, a broad continental shelf in the Gulf of Tonkin area and off the southern coast, and a fairly extensive exclusive economic zone. This country is building up its fishing capacity
and is concerned with harvesting the resources within its zone of maritime jurisdiction. It is also developing its offshore hydrocarbon potential, with French assistance.

Vietnam already is aligned politically with Kampuchea and Laos and is diametrically opposed to China, with whom it disputes ownership of the Spratly and the Paracel islands. Thus, Vietnam's only real option for marine regional action (other than in Indochina) would be with some or all of the ASEAN states. One precondition for such action presumably would be a settlement (or at least an agreement not to press claims at this time) with the Philippines over the Spratly Islands and with Indonesia over certain continental shelf boundary claims.

However, the possibility of regional cooperation between Vietnam and ASEAN appears unlikely. Laying aside the ideological differences, Vietnam now seems interested in building up its own not inconsiderable marine resources. A developing country recovering from the recent war, it is striving to build up its economic base, and as such presumably is less concerned than some other states of the area with issues of domestic pollution, safety standards for shipping, and other issues of potential cooperation. Although the Vietnamese might see no problem in becoming members of regional fisheries bodies such as the IPFC and the South China Sea Program, I anticipate that they would be reluctant to reveal more than a minimum of data on their own fishing activities. For the present, Vietnam probably will not get strongly involved in any marine-related regional action in the area.

A further question about Vietnam's interest in strong regional cooperation among the ASEAN countries is: Would this be viewed as detrimental to Vietnam's interests? Probably it would. For one thing, the ASEAN countries might support one another in opposition to Vietnam's unresolved maritime boundary problems with individual ASEAN member states. For another, Vietnam in time may wish to negotiate with particular ASEAN states for access rights to any surplus fishery resources within their exclusive economic zones. A single ASEAN subregional policy on this issue might interfere with the individual negotiations; and there is always the possibility of Chinese cooperation with ASEAN on maritime problems, again possibly to Vietnam's detriment.

Given Kampuchea's current political situation, it is difficult to predict what its interests in marine regional action might be. The state has a relatively short coast and small areas of exclusive economic zone and continental shelf. It also has offshore boundary disputes with both Thailand and Vietnam.

In years to come, Kampuchea may be interested both in developing its domestic fisheries and in gaining access to the resources of other states'
exclusive economic zones. To these ends, Kampuchea's regional alternative might be problematic, depending in part on the ideological “fix” of Kampuchea's future governments.

Land-locked Laos is interested in acquiring access to the sea for its overseas trade as well as to the fisheries resources of coastal states of the region. The two most obvious candidates for fisheries support are Thailand and Vietnam. Thailand claims there are no surplus fisheries resources in the Gulf of Thailand to which Laos might have access; what concessions Vietnam might make in its own exclusive economic zone are unclear. Presumably, if Laos had port facilities in either Thailand or Vietnam for its yet undeveloped fishing fleet, it could benefit from some sort of regional fisheries arrangements with the ASEAN states, thereby perhaps acquiring both access to the surplus resources of their exclusive economic zones and technical and financial assistance in fisheries development.

The issue of access to the sea for Laos exports and imports was handled in the past largely through arrangements with Thailand. But now, strong ideological differences exist between them. Moreover, a road reportedly is being built to connect Laos with the Vietnamese port of Danang. Thus, the direction of Laotian overseas trade may shift from the west to the east, with a consequent strengthening of Vietnamese influence in Laos.

China

China's aversion to participation in marine regional arrangements may be even stronger than Vietnam's. Not only is the country determined, through its own efforts, to develop its maritime capacities, but, unlike Vietnam, it apparently has the ability to accomplish this task. China might cooperate in some regional technical and scientific efforts, particularly those associated with the United Nations, but it now seems doubtful that China is willing to make meaningful investments in marine regional action, except possibly to achieve political or ideological ends. Obviously, China could join no regional organizations of which Taiwan is a member, and the Chinese would not wish to belong to a group that sought to weaken China's position on claims to the Paracel and Spratly islands. As the giant among the countries of Southeast Asia, China in time could be in a position of dominance in any marine regional system (assuming the Soviet Union did not participate as a counterforce). But such potential dominance may be a number of years away.

China would not want to see a strong ASEAN or other type of regional organization exist if it were not a member, particularly if such an organization were used as a vehicle for strengthening Soviet or Vietnamese influence in the Southeast Asian Seas area. Such an eventuality clearly
would force China to take some kind of counteraction. Chinese membership in a regional marine organization might be beneficial from the standpoint of "face," and could have some payoffs in technical and financial assistance. China has a long coastline and a reasonably extensive exclusive economic zone and continental shelf. Undisputed ownership of the Paracel and Spradly islands would increase considerably the extent of the exclusive economic zone and the continental shelf. China's neighbors to the south worry about the possibility of the South China Sea becoming a Chinese "sphere of influence," and therefore would be wary about participating in a marine-related system that could be an instrument for the expansion of Chinese maritime interests in the area.

Taiwan, Brunei, Hong Kong, Macao

Taiwan is a distant-water fishing country that is interested in acquiring access rights to other states' exclusive economic zones; to this end its interests would favor participation in regional fisheries arrangements, although it is difficult to imagine who the other members would be. In fact, one serious problem Taiwan faces is acceptance as a participant, or even an observer, at regional meetings and in regional organizations. As to trade and technical assistance, the country is of little importance to the ASEAN states or to those of Indochina. As an increasingly isolated state, Taiwan probably can look forward to participation in few, if any, marine regional arrangements in the Southeast Asian Seas area.

Brunei consists of two enclaves located on the northwest coast of the island of Borneo (Kalimantan). It is surrounded on three sides by the territory of Malaysia, and its economy is wholly dependent on the production and export of petroleum from both onshore and offshore wells. As an independent state, Brunei probably will find that its interests relate most closely with those of the ASEAN states, and it may eventually join ASEAN. But there also may be a problem with neighboring Malaysia over the delimitation of the lateral maritime boundaries, particularly because these could affect the distribution of offshore oil resources between the two countries.

Brunei has no fishing industry or shipping fleet. It would be very interested, however, in any regional action taken within the Southeast Asian Seas area for restricting tanker operations as a pollution control measure; foreign shipping (largely Japanese) handles Brunei's oil exports. The country also might be concerned with regional environmental regulations that could affect Brunei's own offshore oil operations.

Hong Kong, a British Crown colony, if independent, could easily qualify as a geographically disadvantaged state. It has a very short coastline and a
restricted exclusive economic zone and continental shelf. The colony’s two prime marine interests are its distant-water fishing fleet and its dependence on shipping both for its own imports and exports and for its role as an entrepôt. Hong Kong, therefore, probably will be interested in participating in any marine regional arrangements that offer its fishing fleet access to the exclusive economic zones of member countries and/or guarantee transit of tankers and other commercial vessels in the Southeast Asian Seas area.

Macao’s marine interests are minimal, except as to the shipping that handles its imports and exports. Its only concern with marine regional arrangements, then, would coincide with Hong Kong’s: to ensure by regional action the continued transit rights of tankers and other commercial vessels through the area.

Countries Outside the Southeast Asian Seas Area

Japan

The Japanese have considerable interest in the prospects for marine regionalism in Southeast Asia. Japan is a major fishing country there and also must use the region as a transit route for its tankers and commercial vessels. Moreover, the Japanese have invested heavily in the maritime activities of the area and are an important trade partner of several of the states.

As to fisheries, Japan is interested in multistate organizations, such as the IPFC and the South China Seas Program, which contribute to the general knowledge of the resources. Japan is the principal underwriter of SEAFDEC, an organization with regional concern for fisheries research, education and training, and aquaculture. Through financial and technical assistance, from both within and outside the SEAFDEC framework, Japan seeks to integrate itself more closely with the fisheries infrastructure of the region. This would put it in a better position both to acquire access rights to the fisheries resources of the exclusive economic zones and to invest in fishing industries directly and through joint ventures.

The problem of access rights for Japanese fishing vessels to the resources of the Southeast Asian Seas area is a serious one for Japan because its distant-water fleets increasingly are restricted in other waters of the Pacific Basin as well as elsewhere. Japan therefore would be concerned with any joint policies established by the ASEAN countries or others of the area on the question of access, and the Japanese would seek inclusion in any foreign access programs.
As to shipping, the Japanese continually are worried about the possibility of regional or subregional action that would restrict operations of their vessels through the Southeast Asian Seas area. In addition to their concern over the Malacca and Singapore straits, Japan would be anxious about any joint policies on transit through archipelagos. Should Indonesia and the Philippines, for example, decide to impose restrictions on foreign passage through their archipelagic waters (until or unless a binding law-of-the-sea treaty becomes operative for these countries), the Japanese might find that these policies are supported regionally—that is, by the other ASEAN states—to Japan's possible detriment.

Japan would be concerned about a strong ASEAN that sought to restrict any of their maritime activities in the area. This would be equally true for an expanded ASEAN that might include Brunei, Vietnam, and/or Kampuchea. Overtures by China or the Soviet Union to ASEAN might be seen by the Japanese as detrimental to their own maritime interests. Therefore, Japan appears willing to commit considerable funds, personnel, and other efforts to develop marine-related programs and projects in Southeast Asia.

Soviet Union

The Soviet Union is also a distant-water fishing state, and its interests in regional aspects of fisheries would be somewhat similar to Japan's. The Soviets would support increased knowledge of the resources and would be concerned about access to the surplus stocks in the exclusive economic zones of littoral states of the area. But to the Soviet Union, fishing in the Southeast Asian Seas area is of far less overall importance than it is to Japan. The Soviets have shown little concern over technical and financial assistance to the fishing infrastructures of the region, except in Vietnam and possibly Kampuchea; unless some political or economic capital can be gained in other Southeast Asian countries through such efforts, it seems doubtful that the Soviet Union will place high priority on such assistance there.

As to shipping, the Soviet Union would press for unrestricted transit through straits and archipelagic sea-lanes. Probably, little interest would exist for regional approaches to pollution control, except as countries sought to reduce vessel-source pollution through restrictions on shipping. The Soviets probably would resist efforts to declare any or all of the Southeast Asian Seas area a "zone of peace."

The Soviets would resist a strong ASEAN marine regional organization if it appeared that such a body might exclude or restrict Soviet activities in the area. They could be expected to resist even further any regional action that strengthened China's position in the Southeast Asian Seas. From this it
appears that, other than regional "service" organizations for fisheries, the Soviet Union would not be interested in marine regionalization efforts in the area.

United States

No direct interests of the United States exist for regional fisheries activities in the area, other than a general interest in workable conservation and management and a concern for fisheries growth in the developing countries, particularly the Philippines. Like the Soviet Union, the United States strongly favors unrestricted transit of shipping and generally would be opposed to regional and subregional groups that sought to restrict such transit, except in the direct interests of navigation safety and pollution control. Other than toward vessel-source pollution, the United States again would have no direct interests in environmental protection above and beyond the aforementioned general concern for conservation.

One activity that the United States would be interested in is marine scientific research; marine regionalism in the Southeast Asian Seas area might be viewed by Washington in the context, among others, of whether or not such action would lend support or be detrimental to foreign marine research efforts.

The United States would not wish the area declared a "zone of peace." On the other hand, assuming freedom of transit were retained, this country probably would be less concerned than the Soviet Union or Japan about whether or not a strong ASEAN marine regional organization were developed or about whether any regional unit became in time a vehicle for the expansion of Chinese influence into the Southeast Asian Seas area.

Other Countries

Australia has few commercial fishing interests in Southeast Asian waters, except to the extent that they represent grounds for Japanese distant-water fishing vessels, thereby reducing Japanese pressure on Australian waters. Nor do many Australian tankers and other commercial vessels pass through this area. Pollution of the Southeast Asian Seas has little effect on Australia, except perhaps along its northernmost coast.

Australians might be expected to favor a strong ASEAN marine regionalization effort as a move that would block any expansion of Chinese influence into the Southeast Asian Seas area. Australia is concerned about the economic growth of the developing countries to its north, and Australian technical and financial assistance has been advanced to the area.

Among other states which would have interests in marine regionalism in
the Southeast Asian Seas area are: the United Kingdom and Portugal, which have dependent territories there; France, whose vessels pass through the Southeast Asian Seas area en route to the Pacific and whose ties with its former Indochina territories (particularly Vietnam) are still strong; and New Zealand, which, like Australia, is situated not far from the region.

Britain's interests in regionalization would reflect those of Brunei and Hong Kong. In addition, the British would want freedom of transit through the area and opportunities for investment in marine-related activities. Portugal's interests would be nominal, except to support Macao, and, again, to have freedom of transit for its commercial vessels. France's principal interest would be in freedom of transit, although the French might also resist efforts to designate the Southeast Asian Seas area a "zone of peace." New Zealand, like Australia, could view a strong ASEAN regional effort as a potential block to the expansion southward of Chinese influence.

International Organizations

The principal international organizations with interests in the Southeast Asian Seas areas are the FAO, UNDP, UNEP, IOC, the World Bank, and the Asian Development Bank. Other bodies would include OETO (Ocean Economic and Technology Office), UNESCO's Division of Marine Sciences, ESCAP (Economic and Social Commission for Asia and the Pacific), SEAFDEC, ICLARM, and ASEAN.

One generalization about all these organizations, with the possible exception of the World Bank and the Asian Development Bank, is that they would favor closer marine regional or subregional action if it involved the field of specialization for which the particular body is responsible, and if the organization had the opportunity to function in a lead-agency or at least cooperative-agency role. There is little doubt that increased regionalization, under the aegis of the U.N. system, would mean considerable competition among agencies for funds and for leadership. The two banks, on the other hand, are only beginning serious interest in regional issues and, for now at least, would be concerned that the regional approach to financial and technical assistance is the optimum route to follow.

ASEAN, of course, is not a U.N.-related institution. Any regional cooperation in marine-related matters among the ASEAN members would be seen as strengthening the association's cohesion; but regional or subregional action involving some of the ASEAN states, together with non-ASEAN countries, could represent a divisive force.

Assuming that a comprehensive treaty on the law of the sea comes into
being that follows the lines of the various negotiating texts, a need will exist both for new international organizations for the Southeast Asian Seas area and for the expansion of activities of existing bodies. The articles of the Draft Convention are replete with references to “international, regional, and/or subregional organizations” to handle the issues of fisheries, environmental protection, shipping, marine scientific research, education and training, and others. Little effort is made in the text to assign responsibilities to ongoing agencies or to suggest the structure and overall functions of new organizations. But the demand for the new bodies is clear.

Three related points should be noted. First, new international organizations or a major expansion of the current ones will mean increased costs to the countries of the Southeast Asian Seas area and/or to the U.N. system. Neither source may be too promising for funds to support considerably increased administrative, scientific, and other efforts.

Second, regional action on marine-related issues in the area may be very difficult at present because of the ideological and other differences that exist among various countries. Presumably, multinational organizations will be established in time for the Southeast Asian Seas area, as elsewhere, to handle marine issues; it is problematic as to which states of the region will become members and which will not.

Finally, I anticipate a series of multinational marine organizations rather than one or two comprehensive ones. The consequence of this may well be competition for funds, jurisdictions, personnel, leadership roles, and so on.

Summary

How strong and well-defined are national interests in the Southeast Asian Seas area as to marine regional action? If countries there seek certain forms of marine regionalization, are these forms realistic, given the existing state of international relations?

This review of national and international organization interests indicates that most countries of the area are not prepared now to make strong commitments to meaningful regional arrangements for marine-related activities. They may cooperate in certain service functions; they may join in setting restrictions on the operations of vessels from other countries within their offshore waters; and, under the leadership of U.N.-related or other international organizations, they may be induced to carry out coordinated activities in environmental protection, fisheries conservation, and the like. Should ASEAN become a closely integrated regional organization, some of its integrative efforts may become oriented toward marine-related activities.
What countries actually do and what seems to be in their national interests often are different. In this chapter a number of possible interests in marine regional action have been identified. Some of the objects of the interests may be unrealistic, such as interest in regional fisheries organizations that would assure access to the surplus fisheries stocks in member states' exclusive economic zones. Such an arrangement, while logical operationally, may take years to bring about.

Countries located outside the Southeast Asian Seas area generally would be opposed to marine regionalization there except for general conservation and development purposes, and if a particular country could see in the regional arrangements an opportunity for political or economic gain. Given this framework of national ocean interests, it appears that no compelling pressures exist now for strong marine regional action in this area.

In the first section I suggested that a fourth group of "relevant parties" with possible interest in marine regionalization is private companies—shipping firms, banks, and so on. At this stage in the research project, there is little to indicate what these organizations' interests might be, and I will make no suggestions as to their concerns. But because of the influence some of these groups have on national policy, their views ultimately should be considered as part of national marine interest profiles.

EXISTING MARINE REGIONAL ARRANGEMENTS AND THEIR IMPACTS ON OCEAN USE

The states of the Southeast Asian Seas area have made relatively little progress toward meaningful regional cooperation as to marine issues. Although a number of organizations exist that directly or indirectly influence ocean use, membership is by no means universal (Table 3), and the organizations generally require little "investment" from participants, that is, funding, restrictive legislation, and so on. In addition, much of the impetus for marine regional action originates from outside the area and is supported by outside funds and personnel.

Background Elements

Certain phenomena related to regionalism in the area need noting before describing the marine regional arrangements. One concerns ongoing nonmarine regional institutions that could be supportive of marine regional efforts.
A basic subregional integrative force is ASEAN. Established in 1967, the association has a Secretariat located in Djakarta. The objective of ASEAN is accelerated economic growth, social progress, and cultural development of the region. To these ends the association has moved gradually in the direction of free trade and investment, has established a joint fund for development, and has instituted a series of permanent committees and ad hoc groups to address a wide variety of problems.19

Table 3. Membership in Regional Bodies (Southeast Asian Seas Area)

<table>
<thead>
<tr>
<th>Country</th>
<th>ASEAN</th>
<th>SEAFDEC</th>
<th>SCSP</th>
<th>IPFC</th>
<th>ADB</th>
<th>World Bank</th>
<th>CCOP</th>
<th>ESCAP</th>
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ASEAN takes a selective approach toward tariff reductions. Although in June 1979 the association’s Preferential Trading Agreement covered more than eight hundred items, these items in fact are not particularly significant to inter-ASEAN trade. But inter-ASEAN trade is not very important to any of the member countries, except for the export of rice from Thailand and oil from Indonesia. Valencia (1978c) notes that, of the total 1975 imports by the ASEAN countries, only 10 percent were supplied by other ASEAN members. The proposed ASEAN complementation projects, like some of the early ASEAN industrial programs scheduled to be granted tariff-free access to all ASEAN markets, appear still blocked by political and economic rivalries. Little action has been taken yet toward the establishment of a common external tariff for ASEAN, due largely to disagreements about the tariff level. For example, Indonesia favors high tariffs, while Singapore supports low tariffs.

On the positive side, ASEAN has succeeded in defusing the serious territorial dispute over Sabah between the Philippines and Malaysia and presents a united front on various policy issues, such as those involving Kampuchea. The first ASEAN industrial project is underway, a US$313 million fertilizer plant planned for Aceh, Sumatra, in part with Japanese support. In February 1979, at Manila, ASEAN businessmen decided to push through some joint, low-investment projects, among them a fishing company and a container shipping organization. So, even though its efforts at economic integration are low-key, ASEAN has proved itself a sustaining unit and is creating a spirit of cooperation within its member countries. Membership in ASEAN is open to other countries but not without limit (eg, not for Sri Lanka); Brunei may elect to join after independence.

Another integrative organization is the Asian Development Bank (ADB) headquartered in Manila. The bank, founded in 1966, makes or participates in direct loans, provides technical assistance for project preparation, and assists international and regional institutions. Its 42 members include all of the independent countries of the Southeast Asian Seas area except China; Hong Kong is also a member.

By the end of 1978, the bank’s total lending exceeded US$5 billion. Four countries of the area—the Philippines, Indonesia, Thailand, and Malaysia—between them borrowed nearly half of the US$5 billion. Although most of the funds loaned by the ADB go to projects in specific countries, the bank also is interested in regional and subregional activities and has devoted more than US$8 million to regional activities, such as conferences and data acquisition. Emphasis increasingly is on cofinancing with other agencies, such as the World Bank, the UNDP, and the EEC.

The Asian Development Bank’s impact on marine-related activities is evidenced by the following: as of September 1978, it had participated in
sixteen projects related to fisheries, involving a total of US$172,830,000; also, it had supported twenty projects related to ports, representing a total of US$203,980,000. Given the bank’s interest in regional and subregional projects, it seems likely a group such as ASEAN in time might propose, and have funded, some type of cooperative fisheries or port-related project.

All of the independent countries of the Southeast Asian Seas area except China are members as well of the World Bank (International Bank for Reconstruction and Development). All loans by the World Bank and the associated International Development Association (IDA) are country-specific, and there is little to indicate that the World Bank’s policy is likely to shift to include regional projects. Loans through the IDA are interest-free, and China soon may replace Taiwan in the International Monetary Fund and the World Bank, thereby being able to avail itself of the “soft” loans.

The World Bank is not oriented particularly toward marine-related activities, although during 1978 it helped finance port facilities development at Tawau, Sabah, with a US$13 million loan. Unlike the ADB, the World Bank provides loans for oil exploration, including exploration in offshore areas. With the growing interest in this activity in Southeast Asia, the World Bank before long may be approached by one or more of the countries for aid in offshore hydrocarbon activities.

The Economic and Social Commission for Asia and the Pacific (ESCAP) is one of the regional commissions of the U.N. Economic and Social Council. Headquartered in Bangkok, it promotes measures leading to the economic development of the region, but, with an annual budget of only about US$30 million, its role is largely advisory. Its thirty-two members include all the independent countries of the Southeast Asian Seas area. Brunei and Hong Kong are associate members.

The commission works largely through its committee structure. It has a Committee on Natural Resources and another on Shipping and Transport, as well as groups involved with typhoons, ocean freight rates, and landlocked countries. One of ESCAP’s regional bodies is the Committee for the Co-ordination of Investigations of the Lower Mekong Basin; another is the Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Off-Shore Areas (CCOP), whose activities are described in the section on Interests of Relevant Parties.

The commission decided recently to establish by 1980 an Asian and Pacific Development Center to handle training and research activities (some of them marine related), although a site has not been chosen. Presumably, it will be in the Southeast Asian area.

Among other arrangements of regional interest is the Asian Development Center, established in 1969 in Manila. Its objective is to serve legislative bodies of the region to promote regional cooperation toward
economic and social development. Members of the center include Indonesia, Kampuchea, Laos, the Philippines, Taiwan, Thailand, and Vietnam. An Asian Center for Development Administration exists also, established in 1972 at Kuala Lumpur with UNDP support. In addition, both UNESCO and the FAO have regional offices located in Bangkok.

Against this background of regional units, I will consider Southeast Asian marine regional arrangements according to their activity area.

**Fisheries Conservation and Management**

Four organizations in the Southeast Asian Seas area are concerned with fisheries activities that have regional implications: (1) the Indo-Pacific Fishery Commission (IPFC), (2) the South China Sea Fisheries Development and Co-ordinating Programme, (3) the Southeast Asian Fisheries Development Center (SEAFDEC), and (4) the International Center for Living Aquatic Resources Management (ICLARM). None of the four, either taken alone or collectively, is actually in a position to serve as a base for effective fisheries management in the area, the term *management* taken here to imply a basic knowledge of the living resources and their production potential, agreed upon objectives of a management program, and effective means of deciding on and implementing management measures.

**IPFC**

The FAO's Indo-Pacific Fishery Commission has nineteen member countries, seven of which are in the Southeast Asian Seas area. Headquarters are in Bangkok. Its jurisdiction encompasses millions of square miles. Actually, the geographical limits of the Indo-Pacific area have never been defined. A world map of international fisheries bodies in a 1974 FAO bulletin, *Fishery Development for the Future*, shows the eastern boundary of the IPFC area in the vicinity of 150° west longitude and the western boundary at about 60° east longitude. This would extend the area from east of the Hawaiian Islands to the east-central Indian Ocean. However, in the report *Analysis of the Concept of "Regions" in the Informal Composite Negotiating Text* (1978), Maria Gonçalves reports that at the Second Session of the IPFC, the secretary noted that the Indo-Pacific area “extends from somewhere about Easter Island (e.g., 109° W. Long.) in the east, to the African east coast in the west, and from the Asiatic mainland in the north, to points in New Zealand, Australia and Africa somewhere slightly south of the Tropic of Capricorn.” Under the latter definition, the IPFC area overlaps considerably the area of
competence of another FAO regional fisheries body, the Indian Ocean Fishery Commission. Of its thirty-three members, four are the same as in the IPFC.23

The secretariat of the IPFC consists of a staff and a director provided by the FAO. Its council meets every two years. A number of committees and technical working parties tend to meet more frequently than the council.

The IPFC's original aims were: (1) to identify fisheries problems in the Indo-Pacific area and to seek solutions oriented toward improved nutritional standards by encouraging, coordinating, and where appropriate undertaking research; (2) to exchange and disseminate information; and (3) to encourage and organize training courses on subjects related to fisheries. To these ends, cooperative programs now exist for the exchange of information, for coastal aquaculture, and for fish technology and marketing. There are also technical working parties on aquaculture and the environment, development and utilization of inland fishery resources, coastal and high-seas pelagic resources, statistical stock assessment, management of tuna, and fish technology and marketing. These technical working parties coordinate their activities through the commission's secretariat in Bangkok.

The IPFC adopted recently amendments to its original agreement empowering it to create new fisheries and increase the production, efficiency, and productivity of existing fisheries, to conserve and manage resources, and to protect resources from pollution. The committee also agreed to take immediate steps toward formulating management regimes for highly migratory species (particularly tuna) or for which the current effort is more intense than would appear to be economically desirable.

But formulating management schemes and setting economically sound objectives for the exploitation of fisheries resources are ambitious goals for an organization that (1) covers such a wide geographic area, (2) has a small staff and very limited budget, and (3) has responsibility for fisheries stocks that occur almost always within the stated or proposed exclusive fisheries limits of coastal states. China is not a member of the IPFC, nor are Taiwan, Singapore, Hong Kong, and the Soviet Union. Most of the member countries from Southeast Asia are perhaps more interested in the IPFC's efforts toward assisting in commercial fisheries development than they are in its conservation and economic efficiency efforts. Moreover, as Maar (1976) has noted, "over the years, FAO has not been responsive to a large proportion of the requests addressed by the Council to FAO. The reason given for this by FAO is that it operates on a finite budget and it has not been possible to accommodate these requests. While this is true in one sense, it is also true that FAO has attached a higher priority to other matters which it did take up than it has to the requests from the council which it did
not take up.” 24 One indication of Maar’s point is that, in November 1976 at the seventeenth session of the IPFC, its Working Party on Aquaculture and Environment, after considering the report of the IOC/FAO (IPFC)/UNEP International Workshop on Marine Pollution in East Asian Waters (held in Penang, Malaysia, April 1976), recommended to the IPFC follow-up action on seven specific pilot projects. These involved: assessing oil pollution in the South China Sea area and its impact on living resources; studies of pollution such as from agro-industrial wastes, siltation, and metals; and the impact of sedimentation and coral exploitation on reefs and shorelines. 25 So far as is known, the FAO has not moved to implement any of these recommendations.

The FAO regional fisheries bodies face two impending developments. One, as noted, is that, with the gradual extension seaward of economic or exclusive fishing zones, functions of the fisheries bodies may become modified substantially. On the one hand, they must be concerned increasingly with what coastal states want from a regional fishery organization. Such organizations will be important for data acquisition and analysis, as well as for consultation on conservation and regulatory efforts and for protecting the environment. They might also play other roles, such as assisting in marine education and training efforts, advising on processing and marketing, and contributing to the development of fisheries administrative personnel. But on the other hand, many coastal states, at least in the short-term, may resist the efforts of regional fisheries bodies to recommend specific conservation and management regulations within these states’ zones of extended jurisdiction, particularly if such regulations are to be applied across the board on a subregional or regional basis. Fisheries and other interests within particular coastal states will be quick to identify those aspects of multistate regulations that benefit their competitors (either foreign or domestic) more so than themselves.

A second dilemma for the FAO is the pressures from its member states for decentralizing the operations of its regional fisheries bodies. The members point out they are well on the road to administrative self-sufficiency and technical competence, and they want greater participation in the activities of the organizations. Although the seat of the IPFC is in Bangkok, its temporary secretary is actually the FAO regional fishery officer in Bangkok, and much of the staff work relating to the IPFC is handled in Rome. But the FAO, in 1978, estimated that decentralizing its nine regional fisheries bodies would cost more than US$3 million in additional funds and that some of the highly specialized technical matters now handled by the FAO in Rome might suffer from the decentralization. 26 Nevertheless, the trend to decentralization is strong, and the FAO may soon be compelled to carry out this process.
One new FAO development was the launching, in May 1980, of the Committee for the Development and Management of Fisheries in the South China Sea within the framework of the IPFC. The committee is a response to the new authority acquired by the developing states of the South China Sea area over fisheries in their exclusive economic or fisheries zones. Since it is concerned with only a portion of the IPFC area, it is, in effect, a subcommittee of the parent organization. Its goal, through technical assistance to the member states of the IPFC, is promoting the full use of living aquatic resources of the region. One of its early functions will be to provide guidance and assistance to the UNDP/FAO South China Sea Program (described next). It will also coordinate other international fisheries organizations in the area.

The South China Sea Program

The South China Sea Program (SCSP) was established in 1974 and is headquartered in Manila. Participating states include Indonesia, Kampuchea, Malaysia, the Philippines, Singapore, Thailand, and Hong Kong. Its initial terms of reference were that it was to continue for a period of five years and that both the UNDP and CIDA would contribute approximately US$2.8 million each over the period. The duration of the SCSP subsequently has been extended, although the CIDA contribution now is virtually terminated.

The geographical area covered by the SCSP is:

1. In the Andaman Sea the limits follow a line drawn northward from the tip of Sumatra along 95° longitude and east along 10° latitude to the Thailand-Burma border.
2. The southern boundary is along 3° south latitude.
3. The eastern boundary extends from Sabah along 5° north latitude and eastward to cover the continental shelf of the Philippines at approximately the 200 m contour, as well as that of Taiwan in the East China Sea, and west to the mainland provinces of China slightly above the 25° north latitude line.27

The area excludes the archipelagic waters of Indonesia.

The South China Sea Program was conceived initially by the IPFC, which continues to provide guidance and direction as well as a mechanism for regular review and oversight. Although the SCSP has its own program leader and staff, the IPFC supplies a coordinating committee to assist the SCSP in its activities. The program acts as an umbrella for all UNDP/FAO regional fishery activities in the area and must coordinate with both the
FAO's IOFC and the FAO/UNDP Indian Ocean Fishery Program, because its area overlaps that of the other organizations which include Indonesia and, in the Andaman Sea, Thailand and Malaysia.

The long-range objectives of the program are: (1) to stimulate fish production in the region; (2) to encourage rational stock management policies; (3) "to facilitate the establishment of a suitable regional coordinating mechanism to ensure the most efficient use of limited national and international funds available for the development of fisheries, particularly those of coastal and high seas"; and (4) "provide a focal point for fishery development, to stimulate investment in fisheries, [and] to introduce management systems and methods to increase protein supplies required to meet national objectives."

To implement its objectives, the SCSP instituted four categories of action-oriented programs involving (1) pelagic fisheries development; (2) demersal fisheries development; (3) crustacean and mollusc industry development; and (4) aquaculture. Particular emphasis is on pelagic fisheries and aquaculture. Complementary programs, whose execution is basic to the success of these action-oriented activities, include resource studies and planning, analyses of the institutional aspects of fisheries in the area, assessment of needs for facilities to handle present and anticipated harvests, artisanal fishery development, and coordination and modification of existing regional training programs in Southeast Asia.

The objectives and programs of the SCSP are ambitious, and initial funding has been substantial. Much has been done in data acquisition and analysis. One of the obvious problems as to action beyond data gathering and analysis is the growing trend, by the Southeast Asian Seas nations since the SCSP was born, toward extending maritime fisheries jurisdictions. Another problem is the nonparticipation of several of the coastal countries (China, Taiwan, Vietnam, and Brunei, as well as Laos).

The activities of the South China Sea Program, and its progress toward achieving its objectives, are outlined in its annual report. Unfortunately after its initial five-year phase and considerable progress, particularly in data acquisition and analysis, CIDA elected to terminate most of its funding support, a large proportion of which was slated for a pelagic fisheries development project. The SCSP continues to concentrate on small-scale fisheries, aquaculture, and the collection and analysis of fisheries statistics, but its potential as an overall management agency for the area is very limited.

SEAFDEC

In 1967 the Southeast Asian Fisheries Development Center was in-
augurated, largely with Japanese funding; it was designed as a regional technical body for training and research in fisheries. A Training Department was established in Paknam, Thailand, and a Research Department at Changi, Singapore. Later, an Aquaculture Department was established at Iloilo, Philippines. The annual budget, which now comes to more than US$14 million, is funded largely by the three host countries and by contributions from Singapore, although the Japanese supply vessels and equipment to the organization.

SEAFDEC is a truly subregional organization; students in its Training Department and research and other personnel in the Research and Aquaculture departments come from its various member states. The organization’s objectives, however, are largely technical in scope and do not include management aspects. Its membership, moreover, is very limited, and, without such countries as Indonesia, China, and Vietnam, its ability to coordinate fisheries activities in the Southeast Asian Seas area would be almost nonexistent. But SEAFDEC does present a useful technical base for certain aspects of regional or subregional fisheries management.

ICLARM

The International Center for Living Aquatic Resources Management was founded in 1975 under the sponsorship of the Rockefeller Foundation as part of its Conquest of Hunger Program. The center's aim is to conduct and accelerate research on all aspects of fisheries and other living aquatic resources; its program is designed to address major technical and socioeconomic constraints to increased production and improved resource management. In 1977 it established its headquarters in Manila, and, although its interests are worldwide, the organization’s attention is being directed initially to problems in Southeast Asia and the southwest Pacific.

The center is committed to cooperate with other institutions. In fact, ICLARM sees its ultimate success as dependent “to a considerable extent on the organization’s ability to establish good lines of communication with governments in the region, as well as on the creation of demonstrably effective linkage with other technical agencies and institutions. In all of its activities . . . ICLARM should remain open and responsible to locally expressed needs and learn from these how it can best serve in the development and management of aquatic resources.”

The center is staffed by about a half dozen professionals supplemented by short-term appointments of research associates and consultants. Its principal program elements include work in (1) aquaculture, (2) traditional fisheries, (3) marine affairs including resource development and manage-
ment, and (4) education and training. The center has no physical research infrastructure and instead undertakes cooperative programs with existing institutions when research facilities are required. Unlike SEAFDEC, with its technical approach to fisheries matters, ICLARM's attention is on the interplay among various fisheries subjects, such as resource economics, law, and international relations, as well as on the related physical and biological sciences. For example, one of ICLARM's major program thrusts is for the controlled breeding and mass production of fry in aquaculture projects. Another is the preparation of a series of fish hatchery manuals which provide instructions for mass producing "seed" of major cultivated species for domestic or commercial purposes. Still another project is the development of fisheries curricula, within the general context of resource development and management, that will be appropriate to the needs of developing countries.

ICLARM has developed institutional links and is undertaking cooperative projects with many organizations in Southeast Asia and the southwest Pacific. Among these are government fisheries agencies in the Philippines, Thailand, and Fiji; the Institute for South East Asian Studies in Singapore; and the ASEAN Secretariat located in Indonesia. One indication of ICLARM's success, over a relatively short time, is AID's decision to undertake much of the center's funding now that most of the seed money provided by the Rockefeller Foundation has been used. As a regional agency with an interdisciplinary approach to fisheries problems, ICLARM is developing into an important unit both for addressing problems and for strengthening interinstitutional networks in the Southeast Asian Seas area.

**Pollution Control and Abatement**

Although marine pollution is not yet a serious regional problem in the Southeast Asian Seas area, except oil pollution associated with shipping, steps already are being taken on several fronts to begin some action. In April 1976, the IOC/FAO (IPEC)/UNEP Workshop in Penang, Malaysia, on the State of Pollution in South East Asian Waters was held. The workshop identified four projects for future regional cooperation: (1) mangrove ecosystems as sewage and sediment buffer zones; (2) comparative studies of metals using oysters as indicators; (3) studies of red-tide occurrences in West Asian waters; and (4) studies of physical dispersal processes in coastal waters.

The participants at the workshop recognized the growing importance of noxious wastes in the area, including pesticides used in agriculture, and recommended a series of projects for the South China Sea, the Gulf of
Siam, and the Malacca Strait. Because of their potential importance to regional action, these recommendations are listed by priorities assigned at the workshop:

South China Sea
1. The impact of pollution on the mangrove ecosystem and its productivity
2. Levels of toxic metals in the living resources of the South China Sea
3. The effect of siltation on the biota of estuaries and marine coastal areas
4. The effect of oil on the marine biota of the South China Sea with particular emphasis on coastal resources

Gulf of Siam
1. Thermal effect studies on some marine organisms of the gulf
2. Effects of some agro-industrial wastes on the coastal ecosystem
3. Study of the waste assimilation capacity of the Gulf of Thailand

Malacca Straits
1. Assessment of oil pollution and its impact on living marine resources
2. Assessment of sedimentation levels and their effect on the environment
3. Monitoring of selected metals
4. Assessment of health and ecological effects of pollution by degradable organic compounds, such as sewage and agro-industrial waste

Since the Penang workshop, a number of agencies have become increasingly active in regional and subregional marine pollution problems. One is the FAO, which is concerned with the effects of pollutants on the fisheries resources of the area. Another is the three states (Indonesia, Malaysia, and Singapore) that border the Malacca and Singapore straits and which are threatened constantly by the dangers of pollution from passing tankers. These same three countries are participants in ASEAN pollution control plans and declarations. Both IMCO (Inter-governmental Maritime Consultative Organization) and ESCAP, through its Environmental Committee, also are involved in marine pollution problems in the area. But the lead agency in coordinating environmental programs is UNEP, through its worldwide Regional Seas Programme.

UNEP's Regional Seas activity began in the Mediterranean, where in 1975 representatives of sixteen coastal states approved the draft of an action plan and began work on a Convention for the Protection of the Mediterranean Sea against Pollution. The convention and accompanying protocols
were signed eventually by the participating states, and by February 1979 the convention and two of the protocols had been ratified by a sufficient number of signatories to enter into effect. By this time, UNEP was inaugurating similar processes for other waterbodies—the Persian (Arabian) Gulf, the Red Sea, the Gulf of Aden, the Gulf of Guinea, and the Caribbean; and in April 1979, the first draft of a Regional Action Plan for the South East Asian Region was completed by UNEP and presented informally to representatives of the ASEAN countries.

The action plan is intended initially to include only the five ASEAN countries. According to the draft proposal, "the geographic limitation of the marine environment and coastal area to be considered as part of the region will be identified by the Governments concerned on an ad hoc basis depending on the type of activities to be carried out as part of the Action Plan. Future extension of the region to comprise the marine environment and the coastal area of all the States bordering the entire South China Sea is considered desirable."

As in other UNEP Regional Seas programs, four areas are given top priority: (1) protection and management of the marine environment; (2) environmental (sic) development, especially the development of methodologies for environmental impact assessment; (3) water and urban air-quality monitoring; and (4) pollution control technologies. But UNEP also believes that in its action plans more should be done than just the assessment of the environment and the management of those marine and coastal development activities that may have an impact on environmental quality. There must also be development of legal instruments, at both regional and national levels, to provide the legal basis and stimulus for cooperative efforts to protect and develop the region. In addition, supporting measures are needed, including national and regional institutional mechanisms and structures, for the successful implementation of the plan. Among the latter are training facilities for managers and policymakers, particularly those concerned with coastal area development; the organization of cooperative projects for rational exploitation and management of marine living resources, including aquaculture; and the creation of a coordinated regional transport program with special emphasis on reducing pollution from maritime activities.

Three paragraphs from the draft proposal need emphasis, for they illustrate procedures through which UNEP hopes eventually to succeed.

24. In formulating institutional arrangements for carrying out the Action Plan, a mechanism should be established which uses, to the greatest possible extent, the national capabilities available in the region and the capabilities of existing regional and international
organizations and coordinating bodies, and which would deal with national institutions through the appropriate national authorities of the State concerned. Where necessary, national institutions should be strengthened so that they may participate actively and effectively in the various programmes.

27. The Action Plan programme should be principally financed by voluntary contributions from Governments, international organizations, and non-governmental organizations. Initially, support should be provided by the UN system on the assumption that this financial contribution will progressively decrease as the Governments themselves assume financial responsibility for the programme.

28. The ultimate aim should be to make the proposed regional programme self-supporting, not only by developing institutional capabilities to perform the required tasks, but also by supporting training, provision of equipment and other forms of assistance from within the region.

The UNEP recommendations came after considerable preliminary consultation and draft proposals in the Southeast Asian Seas area. The following summary of events illustrates how regional action may develop gradually.

Following the April 1976 workshop in Penang on marine pollution, a session was held in September 1976 to review the findings of the workshop by the IPFC Working Party on Aquaculture and Environment. By February of the following year, the tripartite navigation safety agreement had been signed by Indonesia, Malaysia, and Singapore with provisions for formulating a joint policy on marine pollution in the Malacca and Singapore straits area. Also, in 1977, the ASEAN Experts Group on Marine Pollution had produced a contingency plan for oil pollution, which was adopted at a regular meeting of the ASEAN foreign ministers.

The ESCAP Committee on Industry, Housing, and Technology also was active, and in July 1978 a joint ESCAP-UNEP Intergovernmental Meeting on Environmental Protection Legislation was held at Bangkok to consider the status of such legislation within the ESCAP region. A more expanded follow-up session on this topic was convened, again in Bangkok, in September 1978; representatives from Indonesia, Laos, Malaysia, Thailand, and Vietnam came to this session, as well as from Hong Kong. Not clear is why representatives from other Southeast Asian countries did not participate, because all of them, except Taiwan, are ESCAP members. The principal result of the meeting was further support for UNEP's efforts to draft a preliminary action plan for a number of countries of the area.

By the summer of 1979, ASEAN had formed a Sub-Committee on the
Environment, and work was progressing toward redrafts of an ASEAN Subregional Environmental Programme. Working groups already had been formed to discuss the marine environment, rural and urban development, environmental education, environmental planning and development. Responsibility for administering these working groups was assigned to the Sub-Committee on the Environment.

Shipping

Also at issue is oil pollution associated with shipping. The problem is relevant particularly in the Malacca and Singapore straits area. In November 1971, Indonesia, Malaysia, and Singapore issued a joint statement in which they agreed to cooperate on the safety of navigation in the two straits. At that time, the governments of Indonesia and Malaysia agreed that the waterways are not international straits, although they admitted fully the use of those straits for international shipping. Singapore did not join in this agreement. By the same statement, the three governments agreed to the formation of a body for cooperation in endeavors for the safety of navigation in the straits. Subsequently, both a Technical Working Group on Navigational Problems and a Council for the Safety of Navigation and the Control of Marine Pollution in the Straits of Malacca and Singapore were established; the latter consists of officials of the three countries at the ministerial level. From these groups emerged the 1977 tripartite agreement, which is discussed here.

Of the various topics and geographical areas that might be subject to regional or subregional action in this area, only the Malacca and Singapore straits area has received formal attention. The February 1977 tripartite agreement among Indonesia, Malaysia, and Singapore provided among other items:

1. that vessels passing through the straits shall maintain a single under-keel clear area of at least 3.5 m at all times;
2. that traffic-separation schemes shall be defined in three critical areas of the straits, namely the One Fathom Bank area, the main strait and Philip Channel, and off Horsburg Lighthouse;
3. that all tankers and large vessels navigating through the straits shall be adequately covered by insurance and compensation schemes; and
4. that a joint policy to deal with marine pollution shall be formulated by the three governments.

In November 1977, the joint traffic-separation scheme (IMS-TSS) was
presented to the Maritime Safety Committee of IMCO to secure adoption by the international shipping community. Note, in connection with this tripartite agreement, the primary interests of the three countries. Malaysia, which employs few, if any, large tankers passing through the straits, was the leader in seeking safety and pollution control provisions. Indonesia was also concerned reportedly with pollution hazards; an estimated 70 percent of Indonesia's petroleum exports go to Japan, but not through the two straits. If supertankers of more than 220,000 dwt (dead weight) were denied passage through the Malacca and Singapore straits, they would use alternate routes through Indonesian waters, particularly Lombok and Makassar straits, thereby threatening Indonesian coastal areas with pollution, but also possibly creating the opportunity for Indonesia to enter the market for transshipment, refining, and ship repair and provisioning. Singapore, the third party, is economically dependent on the passage of tankers through the straits (1) for its oil requirements; (2) to supply its refineries; and (3) because such tankers use its ship repair and provisioning facilities. Thus, Singapore did not desire very stringent pollution standards in the straits area.

The only other regionally related activity to note about shipping is the formation, by the Federation of ASEAN Shippers' Council located in Jakarta, of a Federation of ASEAN Shipowners' Association in 1975: "presumably to present a united bargaining position vis-a-vis the European-dominated Far Eastern Freight Conference, which controls trade and sets rates for the transport of goods between Europe and Asia."10

**Marine Scientific Research**

Two basic, though dissimilar, organizations exist associated with marine scientific research in the area—CCOP and WESTPAC.

The Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Off-Shore Areas (CCOP) was established in 1966 in Bangkok as one of the regional bodies of ESCAP. Its eight members include, from the Southeast Asian Seas area, Indonesia, Kampuchea, Singapore, Malaysia, the Philippines, Thailand, and Vietnam. The eighth member is South Korea. Japan, the United States, United Kingdom, West Germany, the Netherlands, Norway, and Australia are "cooperating" countries.

The primary functions of the CCOP are: (1) to promote, coordinate, and advise on the planning and implementation of surveys, prospecting projects, and investigations in the waters of its member countries; (2) to provide similar support for training programs and facilities pertinent to
geological, geophysical, and related fields; and (3) to seek out sources of financial and technical support for offshore activities. Most of the CCOP’s activities are associated with hydrocarbons, but it also addresses problems relating to tin and other detrital heavy minerals, and it is interested in marine phosphorite and manganese nodules. With the aid of UNDP funds, the CCOP established a Project on Regional Off-shore Prospecting in East Asia, through which it coordinates activities in the region, prepares seafloor and continental margin maps, carries out consultant and field services, and maintains a data service center in Bangkok for offshore activities and service results.

The CCOP has incipient cooperation with ASCOPE (ASEAN Council on Petroleum), particularly in tertiary basin analysis, and cooperates with the IOC in a Working Group on IDOE Studies of East Asia Tectonics and Resources (SEATAR). It is represented in WESTPAC and has cooperated with the U.N. Ocean Economic and Technology Office (OETO) and other international and national agencies in a 1979 Workshop on Coastal Area Development and Management in Asia and the Pacific, held in Manila.

The second marine science activity in the area is WESTPAC, the IOC Working Group for the Western Pacific, which held its first session in Tokyo in February 1979. The workshop, which was designed to identify scientific priorities for WESTPAC, was attended by representatives from China, Indonesia, Malaysia, the Philippines, and Thailand, as well as from Japan, the Soviet Union, the United States, and other countries.

WESTPAC was established as a semipermanent body under general IOC administration and is the second regional association of the commission, following the successful development of IOCARIBE. WESTPAC is a successor organization to the CSK, the Co-operative Study of the Kuroshio and Adjacent Regions, which, over a twelve-year period, represented the administrative framework for conducting cooperative multinational studies of the entire Kuroshio Current system, including its structure and variability. The studies were carried out by the research vessels of individual states under the aegis of the CSK.

Other Marine Regional Arrangements

Outside of the various committees and working groups of ESCAP and ASEAN, no other regional or subregional marine-related institutions operate in the area on a cooperative basis. Within the U.N. framework, OETO proposed a regional study of coastal management in the Strait of Malacca area, while the UNESCO Division of Marine Sciences, through the UNESCO Regional Office for Science and Technology in Jakarta, assisted
member states in attaining high quality marine science programs and infrastructures relating to the marine environment. In September 1975, TEMA, the IOC’s Committee for Training, Education, and Mutual Assistance in the Marine Sciences, held a regional conference in Manila attended by representatives from Indonesia, Malaysia, and the Philippines. TEMA is not designed to develop and fund programs in training and research, but rather acts as a catalyst to bring together countries interested in the marine sciences, so they may develop their own programs and initiate plans for mutual cooperation. Poor representation at Manila from countries of the Southeast Asian Seas area and virtually no follow-up to the conference, make it clear that cooperation, at least under the aegis of UNESCO, is not of high priority.

Impact of Existing Marine Regional Arrangements

The principal impact of past and current marine regional arrangements in the Southeast Asian Seas area center on fisheries. These impacts include: (1) data acquisition; (2) technologies; and (3) education and training.

Through the efforts of the IPFC and the South China Sea Program, considerable data have been acquired about the basic physical oceanographic and biological conditions of the area. Associated with this are data received and analyzed on the living marine resources, including fisheries habitats, movements of migratory species, stock assessments, and estimates of the maximum sustainable yield of particular stocks. Although much remains to be accomplished, the two FAO programs must be credited with achieving considerable progress in acquiring knowledge.

With the data have come improvements in methods of acquisition, including the updating and standardizing of equipment, intercalibration exercises, and managing simultaneous observations. Through training programs, better management and analysis of the raw data is possible.

As to technologies, several relevant factors apply. One is improved harvesting techniques: better gear and more efficient vessels and vessel maintenance. Here, the IPFC, the SCSP, and SEAFDEC all contributed. Improvements also have been made in fish preservation, processing, and marketing techniques. But equally important is the progress made in aquaculture—an endeavor that holds considerable promise for the future of the area.

Training and education—of fishermen, fish processors, fisheries scientists, administrators, distributors, and so forth—also are important products of regional and subregional agencies. Note that some of these people are involved in freshwater as well as marine fisheries. Here again, much
remains to be done, particularly for the small-scale artisanal fisheries where both per capita output and political visibility are low.

Absent from the list of positive impacts of regional organizations is any mention of management activities. To date, no regional agencies in the area have the authority to manage nor is it likely, at least in the immediate future, that such organizations will develop. The road to regional fisheries management may be devious.

Turning from fisheries to pollution control, the same pattern appears, although at a diminished scale. Regional activity, particularly through the IPFC and UNEP, led to increased knowledge of pollutants in the area and to improved methods of data acquisition, storage, and assessment. But, unlike the case of fisheries, regional efforts for pollution control have a short history. Consequently, only a very small amount of knowledge has been generated. Again, with regional management efforts, little progress has occurred, except for the tripartite agreement in the Malacca and Singapore straits.

Another activity is marine scientific research. Here, the principal agent is the CCOP in its coordinating role for offshore hydrocarbon exploration. The organization is small, as is its budget, and its effects to date are extremely modest. Hopefully, WESTPAC may become an integrating mechanism for marine science activities in the area.

Regional development assistance is also an issue. As noted, most of the support generated for development in the area by the two principal sources, the Asian Development Bank and the World Bank, is country specific rather than regional in character. Even those funds from the ADB that went into regional or subregional projects were not directed, with minor exceptions, toward marine-related projects.

In sum, the impact of regional marine arrangements in the Southeast Asian Seas area, with the exception of basic fisheries-related phenomena, has been minimal. The countries of the area are only beginning to become accustomed to the idea of cooperative action, a statement that applies also to the ASEAN experience.

Perhaps the most important impact relates not to the marine environment itself, but to institution building and the perceptions of the actors, both within and outside the area, as to advantages and costs of regional cooperation. Gradually, a network of organizations and of people is developing for both marine and nonmarine regional issues. These institutions and people will be able to respond positively to stimuli, either from within or outside the region, for more marine-related regional action.
For a number of obvious reasons, it is difficult to assess the future of marine regional systems in Southeast Asia. One is the unpredictability of both short-term and long-term relations among a number of the area's countries, for example, China/Taiwan, China/Vietnam, and Kampuchea/Thailand. Should general relations between these and other countries improve, conditions might also improve for more workable marine regional arrangements. Alternatively, should those cooperative forces now existing (eg, among the ASEAN countries) begin in time to deteriorate, current and anticipated regional actions associated with that organization might suffer.

A second reason is the types of marine-related problems that decision makers in the Southeast Asian countries consider suitable for regional or subregional action, together with the degrees of "investment" they are likely to undertake for such action. Marine pollution, except in specific areas such as the Malacca and Singapore straits, may be perceived by all or most of the decision makers as not yet a serious problem; consequently, little interest may exist for expending funds or agreeing to new regulations until pollution is clearly a vital issue.

Third, these same decision makers may be approached to establish regional or subregional institutions for marine research, education and training, data storage, or other activities. Here, the competitive factor, at least among the major states of the region, may be a restraint to regional action. Fourth, they may be asked to consider some form of regional action in response to new technological developments, such as energy production from the sea, the fencing-off of "fish farms" with bubble curtains or other means, or the creation of underground storage areas or floating cities. These new technologies may require regional or subregional action.

Still another uncertainty derives from the attitudes and policies of outside agencies toward regional marine action in the Southeast Asian Seas area. Will the U.N. system increase its support for regional marine action, particularly in semienclosed seas and, if so, will it take the steps necessary to coordinate more effectively its current and anticipated operations? One of the U.N.-associated groups with the greatest potential for such action is UNEP through its Regional Seas Programme, although large-scale funding for that program may be terminated in the early 1980s.

Beyond the U.N. system itself are individual governments and private organizations outside the Southeast Asian area that might be interested in supporting regional action. The following quotation sums up some of the potential trade-offs among developing and developed countries:
It might be hypothesized that for most developed States one objective they would come to expect from the new ocean regime is stability. Governments of developed States would want to be able to feel that once international agreements have been concluded, and conditions of operations established, there is reasonable likelihood, within some pre-arranged timeframe, that the rules will not change, except through the mutual consent of all parties concerned.

A second basic objective might be opportunity—opportunity for the developed State's vessels to move about freely over as large a part of the world ocean as possible; opportunity to investigate the nature of the marine environment, and opportunity for a State's nationals to exploit the ocean's resources within the framework of whatever restrictions are necessary in the interests of sound management practices.

A third objective is environmental protection. Although the developed States in the past were largely responsible for depleting or destroying fish stocks, polluting coastal areas, filling in wetlands, and placing pollutants in the atmosphere, these same countries now are gravely concerned over the state of the marine environment, and are determined to take the steps necessary to preserve and protect it.

To the developing States these goals are also important, but the ordering of priorities might be changed. A primary objective of the new ocean regime would be opportunity for them for their own economic development. Associated with this would be the opportunity for receiving training, education, and mutual assistance in the marine sciences.... They [also] desire active participation in the conservation, management, and development processes involving ocean-related activities which take place in their own exclusive economic zones, in the waters lying seaward of these zones, and with regard to regional or subregional problems affecting their own EEZs and those of neighboring States.

[A potential trade-off of interests might be possible] between developed and developing States. For a regional organization in which members of both groups participate, developed States (even if they are not located within the region) might see in the arrangement a chance for opportunity of access, stability of investments, and the likelihood for improved environmental protection. Developing States would also have an interest in these issues, particularly since stability might serve to encourage outside investments; and if regional marine institutions are established, these same States might have a meaningful role to play in management decisions. But as part of the benefits of participation, developing States might also come to expect concessions from their developed partners in the form of developmental assistance, and of training and education.42
Impossible to predict, of course, is whether or not some of the developed maritime states may recognize the advantages of such trade-offs and seek actively to support certain forms of marine regional action within various parts of the developing world.

Some Criteria of an "Ideal" Marine Regional Model

Several sets of criteria probably exist for an "ideal" regional model, depending, among other things, on whether the countries of the region are in the developed or developing category (or some combination of these, as in the Mediterranean), the general relationships among the countries involved, the physical nature of the marine area in question, and so on. The criteria listed here, although of some universal import, are directed specifically toward the Southeast Asian Seas area.

One criterion is that the member countries of a regional organization, treaty, or other institutional mechanism at least perceive that benefits of participation outweigh costs. This implies that, at the initial stages of a mechanism's development, the costs of membership be kept as low as possible. Later, as regional consciousness, particularly as to the issues addressed by the regional system, becomes more firmly established, the costs or investments of member states can increase.

Associated with benefit-cost ratios are the objectives and functions of intergovernmental arrangements, which should be as subject-specific as possible. A proliferation of fisheries, shipping, scientific research, marine education and training, and other organization is preferable in an area such as Southeast Asia to some supranational system and/or multipurpose unit that seeks to perform a multitude of functions within the framework of a single authority. This does not mean that efforts to coordinate various activities should be avoided. On the contrary, the establishment of links among regional units within the same geographic area is an important element of workability; moreover, some of the initial organizations gradually may develop "spill-over," whereby they begin to expand their operations and perhaps also their decision-making and implementation powers.

Another important criterion is recognition and, where necessary, promotion of subregional efforts, rather than too much emphasis on comprehensive regionalization. In the Southeast Asian Seas area, ASEAN is the principal subregional force; successful ASEAN ventures in the marine environment might in time prompt Brunei, Hong Kong, China, and perhaps even Vietnam to cooperate in some fisheries, pollution control, or other activities. Among other subregional units are the Malacca and
Singapore straits, the Sulu and Celebes seas, and the Gulf of Siam.

The psychological support necessary for successful regional efforts is another important criterion. Western Europe has been preparing for economic unity since the late 1940s. Institutions, both public and private, must establish regional links, and a cadre of personnel must develop (as is happening within ASEAN) that is committed to the regional concept. Institutionally, a loose but interrelated complex of marine regional systems could be created, possibly under the aegis of UNESCO, even though these regional units may have dissimilar memberships and functions. Associated with this complex might be a low-level “integration committee” (perhaps also under UNESCO) which could monitor and, when possible, coordinate the activities of the interinstitutional group. On the integration committee might be representatives not only of the member states and regional organizations but also of the FAO, UNEP, the UNDP, the ADB, and so forth.

Once regional and subregional arrangements within the Southeast Asian Seas area are successfully underway, greater coordination of activities may be possible. Maar (1976), for example, has suggested the formation of a South China Sea commission, which would undertake fisheries and resources management in the South China Sea. He believes all littoral states of the area (as well as Laos) should be members but nonlittoral countries should have only observer status. The functions of the commission might include research, formulating and adopting regulations, enforcement, and allocating among the member states the wealth derived from fisheries, according to agreed-on criteria. Although such an organization may be slow in coming (and probably supported initially through ASEAN), it represents what seems a highly rational approach to fisheries conservation and management issues.

A second proposal, noted earlier, is from UNEP for creating an ASEAN Subregional Environmental Programme (ASEP). The Mediterranean Action Plan is comparable. Within the framework of the latter, seven scientific pilot projects were initiated, on topics such as baseline studies and monitoring of oil and petroleum hydrocarbons in marine waters, research on the effects of pollutants on marine organisms and their populations, and pollutants from land-based sources. In all seven projects, other organizations also were involved, such as the FAO, the IOC, the WMO (World Meteorological Organization), and UNESCO.

The Mediterranean plan is an integrated program and seeks a balance between economic development and environmental protection. To this end the action plan addresses such topics as scientific and technological cooperation among the member states, soil conservation and water management in the area, tourism, and alternative sources of energy. A
network of scientific institutions has been established, and cooperative scientific and other efforts have been supported by UNEP seed money. Although it is difficult to predict how successfully these Mediterranean activities will transfer to the ASEAN area, there will certainly be strong pressure toward cooperation, at least at the ASEAN sublevel, once the UNEP Regional Seas Programme is adopted.

**How Might More Meaningful Marine Action Be Instituted in the Southeast Asian Seas Area?**

Given the potential for regional action in the area, what course or courses might be followed to promote intergovernmental cooperation? One course of action would involve outside support, such as from agencies of the U.N. system. The FAO, the IOC, and ECOSOC (Economic and Social Council of the United Nations) would, by nature, follow a limited and cautious approach, providing funding and other assets on a modest scale and for modest goals. The UNDP might have a somewhat greater impact, although only for a limited time. The UNEP possibly would create a very strong image for one or two years and then gradually disengage itself.

Another approach might be step-by-step action by the countries of the area. A hierarchy of regional or subregional activities, from the least integrative to the more ambitious, might be organized as follows:

**Cooperative Activities**
- Joint membership in large scientific or technical groups
- Joint membership in small regional scientific or technical groups
- Exchange of oceanographic data
- Participation in joint projects at marine science centers
- Exchange of students and/or researchers or professors
- Joint participation in field-survey data acquisition projects
- Joint publication of data and research results
- Joint sponsorship of large-scale marine scientific efforts
  - as under the aegis of the IOC Co-operative Investigations

**Joint Support Activities—**
- of specific marine science programs at institutions of one of the member states
- of new regional marine science centers and/or of regional research vessels
Joint Management Efforts

Recognition of the regional organization’s authority to recommend conservation or other regulations to member states

Compliance with the regional organization’s recommendations, even if not supported by the member state itself

Recognition of the regional organization’s competence to handle dispute settlement procedures involving the member states

Operation of an ocean energy facility, shipping line, or other project involving large-scale investment

According to this, governments that have little experience with working together may gradually develop forms of cooperative action, especially at the functional or “technocratic” level, without fear that such action would impinge seriously on their national sovereignty. One problem with almost any form of regional cooperation involving the marine environment is that other arrangements among the states (ie, economic, cultural) in time may collapse and lead to a collapse of marine-related action as well—for example, as with the East African Community, involving Kenya, Tanzania, and Uganda. The three states had contributed to EAMFRO, the East African Marine Fisheries Research Organization, located in Zanzibar. After the collapse of the East African Community, EAMFRO’s support also was terminated.

Another problem with marine regional arrangements, particularly in areas such as the Southeast Asian Seas, is the delay in tangible results. If progress is not made within a reasonable period, either the organization is weakened considerably or its objectives become altered. It may no longer be oriented primarily toward improvement of the marine environment, for example, but toward some auxiliary function, such as employing personnel, developing library or research facilities, or providing general services for convening seminars, workshops, and so on.

Note one final point. It is easy to criticize the actors in marine regionalism in the Southeast Asian Seas area for the shortage of meaningful arrangements. One has only to compare conditions there, however, with those of other semienclosed seas or other “regional” water-bodies surrounded by developing countries to put the matter in its proper perspective. More regional action exists in the South China Sea than in its nearest “competitor,” the Caribbean. The Persian Gulf and Red Sea areas are even less advanced, while almost nothing is occurring yet in the Gulf of Guinea, the East China and Yellow seas, or the Andaman Sea. One reason for the progress made in the South China Sea is ASEAN; here again Southeast Asia has evolved greater integrative measures than have the Economic Community of West African States (ECOWAS), the Caribbean
Community (CARICOM), or the South Pacific Forum.

The Case for an Action-Oriented Mechanism

If conditions in the Southeast Asian Seas area continue as in the past (except for progressive partitioning of the ocean into zones of national jurisdiction), the growth of marine regionalism there probably will be very slow. Earlier in this chapter I suggested that some form of cooperative mechanism might be established within the framework of UNESCO, an organization to which all of the independent countries of the area belong and which has a regional office for science and technology in Jakarta. But UNESCO, as the coordinating agency for regional action in the South China Sea (or any other semienclosed sea), might be challenged by UNEP, the FAO, the UNDP, and possibly the IOC, unless some previous understanding is reached as to how these other agencies' rights and responsibilities can be protected.

One course of action might be to form a coordinating and advisory group for the Southeast Asian Seas area, consisting of three interest groups: (1) the countries of the area; (2) the U.N. system; and (3) countries outside the area with genuine interest in marine regionalism, as well as private support agencies working in or on Southeast Asia. Such a group could meet once every two or three years, discuss long- and short-range plans and objectives, and advise on budgets and funding sources for what one hopes would be a variety of ongoing regional and subregional organizations. By such action, attention would focus on regional marine issues, and the stature of the coordinating and advisory group might induce countries, such as those of the former Indochina area, to participate.

ASEAN could furnish the secretariat and a small executive committee (representing countries of the area); the U.N. system (including the Asian Development Bank) and other outside interests could meet at least once a year to handle intersessional work.

Such a course, if it is to have any chance of success, should be preceded by (1) a draft proposal for the organization, (2) a workshop of representatives from the Southeast Asian countries, and (3) a larger seminar where these representatives can interact with others from the U.N. system, nonlittoral countries, and other organizations. With relatively modest expense, I believe such action might expedite considerably the incipient marine regional efforts in the area.
THE MARINE REGIONAL APPROACH

Marine regionalism is a relatively new process for problem solving in the ocean environment. It constitutes a workable mechanism only under certain conditions; one of them is that the problems addressed cannot be solved through other less expensive means. The term expensive is used here to denote the various costs incurred by regional or subregional action, including such nonmonetary ones as the administrative difficulties of dealing with three or more interacting governments, the various impingements on national authority associated with multinational cooperative actions, and the continuing need for officials to justify the rationale for a regional approach. Agencies within governments tend to resent the allocation of funds, personnel, and authority to international endeavors, instead of retaining these assets within the national framework.

A second component of workability is that of perception by the relevant decision makers. They must believe that within some appropriate time frame the advantages of regional action outweigh the costs, regardless of what these advantages are. In some cases the advantages are direct—for example, better use of marine resources or more effective methods of environmental protection. But advantages also may be indirect, as, for example, when one member of a regional body seeks a position of leadership among the states with which it is associated.

Still another condition of workability for marine regional organizations is that expectations of progress be within reason. The record of success of the EEC has tended to obscure the difficulties involved in truly integrated multinational action. The community was and is a unique phenomenon, where the early centripetal forces of common dangers and common aspirations came into play at a particular time in history, and where large-scale support for the United States aided the organization through its early years. But few specific examples of the EEC can be translated effectively to other parts of the world. The ASEAN countries recognized this early and have unanimously opposed a formalized treaty. Yet, expectation of some progress must be present to justify the existence of a regional or subregional arrangement, particularly one in which there are recognizable costs to the member states. It may be that in the balance of expectations lies one of the clues to the success of marine regional bodies in Southeast Asia.

Early in this study, I suggested that one avenue of research on marine regionalism might be to analyze the internal decision-making structures of various “actors” in the regional activities in an area. First, one would have to categorize types of actors at the macroinstitutional level—countries of the region, outside countries, international organizations, and so on—and to examine their political structures to determine how decisions actually
are made. Decisions might be arrived at within the same institutional framework by different procedures—through executive action, legislative approval, or popular referendums. A decision to participate in a regional organization, for example, might require legislative approval, but the nature of subsequent support might be determined largely by the executive branch of a government or agency.

Once the political structure is understood, assessments then would be made of "actors" at the microinstitutional level, such as political parties, political leaders, administrators of international organizations or private agencies, and so forth. How much real power do they possess at any given time? How do they interact with other decision makers? What are their short- and long-term objectives?

Associated with this is the need to examine the trade-offs involved in any regional action, along with decision makers' perceptions of them. As I have noted repeatedly, costs and benefits appear in many forms and quantities, and their nature often changes over time. But they are, in a sense, the essential components of cooperation at all levels of action.

To anyone analyzing multistate regional action, one fact soon becomes evident. Although the action has certain components of its own, the regional process is but part of a series of interacting milieus. As one publication has put it:

> With the recent and rapid changes in the international political arena, accepted perceptions of the operation of the political system itself have been challenged. In the face of new global challenges, some have been led to question the very ability of the traditional international structure of independent nation-states to respond to them.

In addition to the advent of new state actors, the salience of non-governmental organizations (whether they be associations of national interest groups or multinational corporations) have received increasing attention in recent years. In the past, industrial actors were seen largely as national organizations which affected only the policies of their local governments. Now it is recognized that they are also independent "transnational" actors (often with interests in many states), who participate in international decision-making and offer their various home states new forms of leverage on the policies of other countries.

Now conceptions of old actors are also emerging. The study of "transnational" relations has provided a new perspective of just what constitutes international politics. This has undermined the old version of the state itself, which often is not a "unity actor." Instead, with the diversification of actors and issues, various competing bureaucratic interests act across national boundaries, carrying on their business subnationally (or "transgovernment-
building foreign alliances in much the same way as the new
governmental actors.

Finally, with these new insights into the operation of national and
international actors, our conception of the nature of the international
organization itself is changing. “We need to think of international organiza­
tions less as institutions than as clusters of intergovernmental and trans-
governmental networks associated with the formal institutions” [see note].
That is, within these organizations, there is a continuous flow of officials
dealing with such a variety of issues that the function of the agency may be as
much a place to “activate potential coalitions” as to engage in more
formalized undertakings.46

Although the truisms noted above exist for all types of multinational
institutions, the complex of interrelationship becomes more apparent in
the marine than in the land environment, because the sea is uninhabited,
and only certain aspects of control over it can be claimed by governments. Also,
only in recent years have claims to national jurisdiction been
extended seaward from narrow territorial belts; it is still early enough in the
process to chart these extensions and assess their consequences. Because of
this, many countries recognize the growing need for bilateral and multi­
lateral cooperation in managing the claimed areas.

Although this study focuses on the Southeast Asian Seas area, cooper­
tive multinational actions obviously are going on in other regional seas; a
proposed research topic is comparison of the progress of integrative action
in one regional situation with that in others. But the results of integrative
action are only beginning to come to light. Slow but steady progress has
occurred, for example, in the North and Baltic seas, and somewhat
spectacular progress (given the region’s underlying divisive elements) in
the Mediterranean. In other semienclosed seas, regional action tends to be
low-key, although UNEP retains hopes for the Red Sea, the Persian Gulf,
the Caribbean, and other waterbodies.

To a country struggling with economic, social, political, ideological, and
other problems, some of which may threaten the nation’s very existence,
marine regional action that affects the waters off its coasts must rate low in a
government’s scale of priorities. Even a developed country may turn away
at times from such action, as evidenced by the withdrawals of the United
States and Canada from the International Commission for Northwest
Atlantic Fisheries (ICNAF) once the two countries had established 200-nmi
exclusive fishing zones off their coasts.

The gist of these remarks is that it would be wrong to imply that what the
Southeast Asian Seas area needs is more marine regional systems, or even,
for some existing agencies, greater integration of functions. Although the
benefits from such processes may seem obvious, the international structure may not now be in a position to support them. Units such as ASEAN, ICLARM, or WESTPAC are sensitive organizations which do not solve problems effectively by having money thrown at them or by accepting unrealistic functions and powers. Voluntary cooperative action at the regional/subregional levels must be nurtured carefully. Unfortunately, few guidelines exist by which to plan directions and rates of growth. Only through in-depth studies of past and present organizations operating under varying conditions and in varying parts of the world can knowledge be acquired that could in the future provide decision makers with insights on how to develop their own marine regional units.
**ACRONYMS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>AID</td>
<td>Agency for International Development</td>
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<td>ASCOPE</td>
<td>ASEAN Council on Petroleum</td>
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<td>ASEAN</td>
<td>Association of South East Asian Nations</td>
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<td>ASEP</td>
<td>ASEAN Subregional Environmental Programme</td>
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<tr>
<td>CARICOM</td>
<td>Caribbean Community</td>
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<tr>
<td>CCOP</td>
<td>Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Off-Shore Areas</td>
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<tr>
<td>CCOP/SOPAC</td>
<td>Committee for Co-ordination of Joint Prospecting for Mineral Resources in South Pacific Off-Shore Areas</td>
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<tr>
<td>CIDA</td>
<td>Canadian Institute for Development Assistance</td>
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<td>CSK</td>
<td>Co-operative Study of the Kuroshio and Adjacent Regions</td>
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<td>EAMFRO</td>
<td>East African Marine Fisheries Research Organization</td>
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<td>ECOSOC</td>
<td>Economic and Social Council of the United Nations</td>
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<td>ECOWAS</td>
<td>Economic Community of West African States</td>
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<td>EEC</td>
<td>European Economic Community</td>
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<td>EEZ</td>
<td>Exclusive Economic Zone</td>
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<td>ESCAP</td>
<td>Economic and Social Commission for Asia and the Pacific</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>ICCAT</td>
<td>International Commission for the Conservation of Atlantic Tunas</td>
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<td>ICES</td>
<td>International Council for the Exploration of the Sea</td>
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<tr>
<td>ICLARM</td>
<td>International Center for Living Aquatic Resources Management</td>
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<td>ICNAF</td>
<td>The International Commission for the Northwest Atlantic Fisheries</td>
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<td>ICSEAF</td>
<td>International Commission for the Southeast Atlantic Fisheries</td>
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<tr>
<td>ICSEM</td>
<td>International Commission for the Scientific Exploration of the Mediterranean Sea</td>
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<tr>
<td>IDA</td>
<td>International Development Association</td>
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<tr>
<td>IDOE</td>
<td>International Decade of Ocean Exploration</td>
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<td>IMCO</td>
<td>Inter-Governmental Maritime Consultative Organization</td>
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<td>IOC</td>
<td>Intergovernmental Oceanographic Commission</td>
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<tr>
<td>IOCARIBE</td>
<td>IOC Association for the Caribbean and Adjacent Regions</td>
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<tr>
<td>IOFC</td>
<td>Indian Ocean Fishery Commission</td>
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<td>IPFC</td>
<td>Indo-Pacific Fisheries Council</td>
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<td>IPSFC</td>
<td>International Pacific Salmon Fisheries Commission</td>
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<td>IWC</td>
<td>International Whaling Commission</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NAMUCAR</td>
<td>Multinational Shipping Corporation of the Caribbean</td>
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<td>NEAFC</td>
<td>North-East Atlantic Fisheries Commission</td>
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<tr>
<td>OETO</td>
<td>Ocean Economic and Technology Office</td>
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<td>OTEC</td>
<td>Ocean Thermal Energy Conversion</td>
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<td>SCSP</td>
<td>South China Sea Program</td>
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<td>SEAFDEC</td>
<td>Southeast Asian Fisheries Development Center</td>
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<tr>
<td>SEATAR</td>
<td>IDOE Studies of East Asia Tectonics and Resources</td>
</tr>
<tr>
<td>TEMA</td>
<td>Training, Education, and Mutual Assistance Projects</td>
</tr>
<tr>
<td>UNCLOS III</td>
<td>Third United Nations Conference on the Law of the Sea</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNEP</td>
<td>United Nations Environmental Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>WESTPAC</td>
<td>IOC Working Group for the Western Pacific</td>
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<tr>
<td>WMO</td>
<td>World Meteorological Organization</td>
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NOTES

2. Alexander (1978), pp. 1-13. A somewhat more basic definition has been offered by referring to marine regional arrangements as "attempts by *two or more* countries to respond to some perceived set of policy problems related to ocean use in a specific portion of the world ocean." See Edward L. Miles, *On the utility of regional arrangements in the new ocean regime* (1978), p. 259.
4. Unless otherwise stated, the term *exclusive economic zone* (EEZ) will be used to refer to the zone of jurisdiction, extending out to a maximum of 200 nmi from the coast, regardless of whether or not (a) the relevant country has yet made a formal claim to extended jurisdiction and (b) the claim, if made, is to an exclusive economic zone, an exclusive fisheries zone, or an extended territorial sea.
5. Not all semienclosed seas are bordered by two or more states. Hudson Bay has only one state littoral to it. The Sea of Okhotsk and the Sulu Sea are bordered by two states.
10. See James N. Schubert, *Toward a "working peace system"* (1978), in which he discusses international functionalism and the need to minimize controversy and politicization in Asian regional systems.
11. For example, ICCAT (International Commission for the Conservation of Atlantic Tunas), ICSEAF (International Commission for the Southeast Atlantic Fisheries), IWC (International Whaling Commission), and NEAFC (North-East Atlantic Fisheries Commission).
13. Four of the ASEAN countries have achieved independence since World War II. Thailand was an independent state prior to that war. In Indonesia's case, independence came only after a long and bitter struggle against the Dutch. Freedom for the Philippines was promised by the United States, effective in 1946 after a ten-year interim period. Malaysia and Singapore received independence from the British without a violent struggle.

15. Maar makes a distinction between "resource management" ("management by any means either to ensure the perpetuity of the stock . . . or to take advantage of some biological property of the stock") and "fishery management" ("management by any means to achieve some economic, social, or political objective"). John Marr, Fishery and resource management in Southeast Asia (1976), p. 18.

16. Note that "pollution" refers to any adverse changes in the marine environment, whether caused by human-built or natural conditions. The silting of waters, the destruction of mangrove swamps, the introduction of waste heat are as much occasions of pollution as are the dumping of noxious chemicals, sewage, or oil.

17. The Multinational Shipping Corporation of the Caribbean, headquartered in San Jose, Costa Rica, is subscribed to by seven states—Costa Rica, Cuba, Jamaica, Mexico, Nicaragua, Trinidad and Tobago, and Venezuela. It has a subscribed capital of US$14 million.

18. For a discussion of this, see J.D. Kingham and D.M. McRae, Competent international organizations and the law of the sea (1979).

19. For a discussion of integrative processes in ASEAN, see H. Monte Hill, Community formation within ASEAN (1978).


22. Indonesia, Kampuchea, Malaysia, Philippines, Thailand, and Vietnam.

23. Indonesia, Malaysia, Thailand, and Vietnam.


28. SCS Fisheries, p. 104.

29. SCS Fisheries.

30. A.G. Woodland, Project progress report of the South China Sea fisheries development and coordinating program (annual since 1974).


32. To avoid problems of terminology, UNEP refers to this area as "The Kuwait Action Plan Region."
33. See UNEP, Draft action plan for the protection and development of the marine environment and coastal areas of the South East Asian region (1979).
34. UNEP (1979), p. 3.
35. See UNEP, Guidelines and principles concerning a comprehensive action plan for the protection of regional seas through environmentally sound development (1976).
36. See Munadjat Danusaputro, Elements of an environmental policy and navigational scheme for Southeast Asia, with special reference to the Straits of Malacca (1978).
37. Following the 1977 tripartite agreement, as one block in the creation of an overall straits navigation scheme, Japanese shipping interests established a US$1.3 million revolving fund to cover costs of cleaning up and preventing oil spills from transit tankers.
38. I estimate that the requirement of a 3.5 m under-keel clearance will mean that the largest tanker that can pass loaded fully through the straits will be about 220,000 dwt.
39. Singapore is the third largest refining center of the world, behind Rotterdam and Houston.
41. For a discussion of this, see Alexander (1978), chapter 6.
43. Marr (1976), pp. 53-58.
45. An alternative to UNESCO would be ESCAP, but China, Laos, Singapore, and Taiwan are not members of ESCAP.
BIBLIOGRAPHY

Abueva, Jose V.
1979 Alternative priorities in development in ASEAN countries. Contemporary Southeast Asia 1:141–164.

Alexander, Lewis M.

Amerasinge, C.F.

Andrew, Dale

Axline, W. Andrew

Banks, Michael

Bilder, Richard B.

Bishop, Amasa S., and Munro, Robert D.

Cantori, Louis J., and Speigel, Steven L.

Cheek, Conrad
Chiu, Hongdah, and Park, Choon-ho

Christy, Francis T.


Committee for Co-ordination of Joint Prospecting for Mineral Resources in Asian Offshore Areas (CCOP)

Danusaputro, Munadjat

Djalal, Hasjim
1979a Conflicting territorial and jurisdictional claims in South China Sea. The Indonesian Quarterly 7:36–53.

1979b Indonesia and the new extents of coastal state sovereignty and jurisdiction at sea. The Indonesian Quarterly 7:80–94.

Economic and Social Commission for Asia and the Pacific

Eiricksson, Gudmundar

Fifield, Russel H.

Food and Agriculture Organization of the United Nations
1977 FAO's programme of assistance to countries in the development and management of fisheries in extended zones of national jurisdiction (COFI/78/4, March 1978).

1978a Future of FAO regional fishery bodies (COFI/78/5, April 1978, and COFI/78/5.) (Sup. 1, June 1978).

1978b National legislation relating to the management of fisheries under
extended zones of national jurisdiction (COFl/78/Inf.9).
1978c Review of the status of world fishery resources (COFl/78/Inf.4).
1978d Survey of external assistance to the fisheries sector in developing countries (COFl/78/Inf.12).

Gonçalves, Maria Eduarda
1978 Analysis of the concept of “region” in the Informal Composite Negotiating Text (COFl/78/Inf. 10, May 1978), Rome, FAO.

Gulland, John A.

Hanna, Willard A.

Hill, H. Monte

Intergovernmental Oceanographic Commission (IOC)

International Center for Living Aquatic Resources Management

Jacovides, Andreas J.

Johnston, Douglas M.

Joo-Jock, Lim
Kearney, R.E.

Keckes, Stjepan

Kent, George

Keohane, Robert O., and Nye, Joseph S.

Kingham, J.D., and McRae, D.M.

Kusumaatmadja, Mochtar

Leifer, Michael

Leifer, Michael, and Nelson, Dolliver

Maar, John C.
M'Gonigle, R.M., and Zacher, M.W.
1979 *Pollution politics and international law: Tankers at sea.* Berkeley: University of California Press.

Miles, Edward L.

Moberg, Phillip

Oda, Shigeru

Okidi, Charles Odidi

Panayotou, Theodore

Park, Choon-ho


Popper, F.E.

Prescott, J.R.V.


Schubert, James M.
Skolnikoff, Eugene B.
1972 The international imperatives of technology: Technological developments and the international political system. Berkeley: University of California, Institute of International Studies.

South China Sea Fisheries Development and Coordinating Programme
1973 The South China Sea fisheries: A proposal for accelerated development (SCS/Dev/73/1).

Southeast Asian Fisheries Development Center
SEAFDEC Newsletter (published several times a year). Bangkok, Thailand.

Tilman, Robert O.
1981 Asia, ASEAN, and America in the eighties: The agonies of maturing relationships. Contemporary Southeast Asia 2:308–323.

United Nations Environment Programme (UNEP)

1979 Draft action plan for the protection and development of the marine environment and coastal areas of the South East Asian region (UNEP/EAS.1, 5 April 1979).


1980b Second meeting of experts to review the draft action plan for the East Asian Seas, Bangkok, 8–12 December 1980 (UNEP/WG.52, 10 November 1980).

1981 Intergovernmental meeting on the protection and development of the marine environment and coastal areas of the East Asian region, Manila, 27–29 April 1981.

Valencia, Mark J.


Whittlesey, Derwent
Yue, Chia Siow
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