1987

Status of marine affairs in Malaysia

Zakaria Yusof

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THE STATUS OF MARINE AFFAIRS
IN MALAYSIA

BY
ZAKARIA YUSOF
MALAYSIA

A paper submitted to the Faculty of the World Maritime University in partial satisfaction of the requirements for the award of a

MASTER OF SCIENCE DEGREE
IN
GENERAL MARITIME ADMINISTRATION

The contents of this paper reflect my personal views and are not necessarily endorsed by the University.

Signature:

Date 22 October 1987

Supervised and assessed by: Prof. Dr. A.A. Monsef

Co-assessed by: Prof. Dr. Edgar Gold

Executive Director
Ocean Studies Programme
Dalhousie University
Halifax.
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Zakaria Yusof
Preface

Malaysia does not have strong marine tradition. Interest in marine sector only came after the new discoveries of offshore oil and gas and the concern over balance of payment problems attributed to shipping services. At the same time, fishing, the oldest traditional marine activities grew, tourism industry and ports developed and a great concern over marine environment in Malaysia became evident.

As the new actors of the ocean uses increase, as well as the rapid development of traditional marine sector, the demand for a comprehensive marine policy in Malaysia grew fast. So far there is no proper marine policies adopted for the whole marine activities nor a clear policy for various sectoral marine development in the country. There is also no agency singly looking after the marine affairs and thus allow various conflicts and overlapping functions between various government agencies.

The same problem also faced by the environmental issues in Malaysia. So far there is no comprehensive environmental policy framework which cover the control of pollution generated from the marine-base industries. Environmental policy is yet to be improved to cover every zone established by the government.

No doubt that Malaysian marine policies are also affected by the international event of marine affairs such as the CLOS and other international conventions. Though Malaysia is not a party to CLOS and ratified only
a few international conventions, nevertheless, it observed the implication and output of those conventions to the national interests.

The most salient setback in overall marine affairs in Malaysia is the problem of implementation of rules and regulations suggested by various international conventions. Marine affairs in Malaysia still being dominated by the overlapping functions of various government agencies, lack of expertise, outdated marine laws, etc. The author strongly feel that a coordinated approach of marine affairs is the most important tool to solve the problems. This will lead the country to treat marine affairs as a whole rather than treating each of them in separate policy area.

This study attempts to provide a basic discussion of method that could contribute to a better coordinating framework for Malaysian marine affairs, its management concept and the conservation measures.
### Abbreviation

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASCOPE</td>
<td>ASEAN Council on Pollution</td>
</tr>
<tr>
<td>ALAM</td>
<td>Maritime Academy of Malaysia</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>CLOS</td>
<td>Convention on the Law of the Sea</td>
</tr>
<tr>
<td>EEZ</td>
<td>Exclusive Economic Zone</td>
</tr>
<tr>
<td>EQA</td>
<td>Environmental Quality Act</td>
</tr>
<tr>
<td>FEFC</td>
<td>Far Eastern Freight Conference</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>IMO</td>
<td>International Maritime Organisation</td>
</tr>
<tr>
<td>MAJUIKAN</td>
<td>Fisheries Development Authority of Malaysia</td>
</tr>
<tr>
<td>LNG</td>
<td>Liquified Natural Gas</td>
</tr>
<tr>
<td>MEPC</td>
<td>Marine Environment Protection Committee</td>
</tr>
<tr>
<td>MFBC</td>
<td>Malaysia Freight Booking Centre</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
</tr>
<tr>
<td>MSA</td>
<td>Merchant Shipping Act</td>
</tr>
<tr>
<td>MSO</td>
<td>Merchant Shipping Ordinance</td>
</tr>
<tr>
<td>MOT</td>
<td>Ministry of Transport</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>MISC</td>
<td>Malaysia International Shipping Corporation</td>
</tr>
<tr>
<td>NEP</td>
<td>New Economic Policy</td>
</tr>
<tr>
<td>NMCC</td>
<td>National Maritime Coordination Centre</td>
</tr>
<tr>
<td>PETRONAS</td>
<td>National Oil Corporation</td>
</tr>
<tr>
<td>PNSL</td>
<td>Perbadanan Nasional Shipping Line</td>
</tr>
<tr>
<td>TSS</td>
<td>Traffic Separation Scheme</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nation Environment Programme</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>VLCC</td>
<td>Very Large Crude Carrier</td>
</tr>
</tbody>
</table>
Chapter I

Introduction

Malaysia(1) is a young medium-sized country (independent from Britain in 1957), covering an area of 332,952 sq.km. It is situated in Southeast Asia, Peninsular Malaysia being separated from East Malaysia by South China Sea about 650 km apart. Peninsular Malaysia, protruding southward from the mainland Asia, bordered on the north by Thailand, on the east by South China Sea, in the south by the Strait of Johore, and on the west by the Straits of Malacca and the Andaman Sea. Sarawak is situated on the north west coast of Brunei. It is bordered on the north by Sabah, on the northeast by Indonesia, on the east and south and the South China Sea on the west. Sabah is situated on the northern end of Borneo. To the north is the Balabac Strait, northeast by the Sulu Sea, southeast the Celebes Sea, to the south is Indonesia, to the south west is Sarawak and to the west is the South China Sea.

Peninsular Malaysia covers an area of 131,870 sq.km and has a coastline of about 2000 km. East Malaysia lies on the northwest coast of Borneo Island and has a coastline of more than 1500 km. (see Annex 1).

The study of marine affairs in Malaysia is interesting because it is rather a new area of study with conflicting demands on the use of the ocean. Current awareness on marine sector has increased significantly arising from the fact that the ocean has become a source
of food and energy, as important transport means, employment creation and recreation purposes.

Marine resources exploration and other economic activities comprises a large spectrum of independent activities falling under the jurisdiction of various agencies each with their own particular interest and requirement. These interests, often conflict and there is also a problem of overlapping jurisdiction. It can generally be grouped into various uses of the ocean i.e. renewable resources; non-renewable resources; pollution; recreation etc.

In Malaysia the problem of overlapping jurisdiction and conflicting demands is significant due to the fact that there is an absence marine policy on the use of the ocean and no single agency is responsible in the area of the marine affairs. With the growing importance on the use of the sea, the demand for meaningful and well defined marine policy has become more urgent in Malaysia.

However, in order to formulate a national marine policy, the country has to proceed by harmonizing and coordinating all activities composing this sector. There should be a links between shipping, energy development, tourism, fishing and the conflicts that may arise from these uses. There is also a need for the government to place considerable importance in this sector. The shifting of government priorities towards other sectors of the economy may create further weaknesses in the overall marine sector.
As the economic dependence on the ocean grew, the policies towards ocean uses and exploitation of renewable and non-renewable resources could be seen through the sectoral development of the marine activities. Energy sector recently gains economic priority and an energy policy was adopted with regard to Malaysia's energy utilization. Among the objectives of the policy are to reduce the country's dependence on oil and develop other sources of energy such as hydro and gas.

Malaysia's policy on fishery has been directed at alleviating the poverty that exists among fishermen. Efforts have been made to reduce the number of people dependent on fish resources for their livelihood and to ensure that for the remaining fishermen alternative sources of employment are found. Malaysia is attempting to promote commercial exploitation of resources in the full 200 miles economic zone. This is due to the fact that serious over fishing has taken place within 12 miles limit where resources has traditionally been plentiful. A major element of Malaysia's plans to take advantage of the fisheries resources in the 200 miles zone is the improvement of its enforcement capacity to reduce foreign fishing in the area.

Shipping, another important use of the sea has been proclaimed to play a vital role and the country hopes to achieve the status of a "maritime nation" in the future. The term towards "maritime nation" then became a policy objective which until now is not defined nor an agency has been appointed to carry the task. The focus has been more on port and fleet modernizations with ill defined long term objectives.
The most important event in Malaysian marine affairs were marked by the evolution of the 1982 United Nation Convention on the Law of the Sea, which has been hailed as a comprehensive legal instrument which seeks to regulate almost every aspect of human activities with regard to the ocean. The basic aim of this convention is spelt out to establish a legal order for the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.

Although Malaysia is not yet party to this convention, however took an active interest in its development. Thus in shaping up the national marine policy, the Law of the Sea Convention was taken into consideration. Subsequently the sectoral development of the marine resources and uses of the ocean emerged in conjunction with this convention. Malaysia proclaimed its EEZ in 1980.

The aims of this study is to highlight major marine developments in Malaysia. These developments will be assessed with regard to their effects to various components of marine activities especially to living resources, coastal communities etc. The study also attempts to discuss various controversial issues in overall marine developments such as outdated marine laws, overlapping jurisdiction over marine resources, lack of marine expertise etc. This will include the discussion of a need to have a proper approach to steer the existing problems into a proper coordinated mechanism of controlling and managing the marine activities and ocean uses.
The study will also discuss the inter-linkages and conflicts in marine developments and suggest an integrated approach of exploiting marine resources while preserving the marine environment. This will be discussed within the context of an integrated marine policy and proper marine authority which could exercise the overall approach of marine resource development. The study has been carried out in a general manner by taking into account major marine developments in the world, the inter-linkages and conflicts which exist in the marine environment.

Chapter II and III of this study would review the country's general policies on major marine sectoral activities. Chapter IV examines the environmental issues and chapter V assessed various aspects of inter-linkages, conflicts and deficiencies of the marine sector.

Chapter VI examines the evolution of the Law of the Sea Convention and its implication to Malaysia. In this chapter the problem of resources exploitation, resource management programmes, boundary disputes and EEZ jurisdictional issues will be discussed.

The statement of method toward the maximum utilization of ocean wealth within which national jurisdiction is discussed in chapter VII. This chapter deals with various aspect of ocean management, integrated maritime policy and the process of shaping Malaysian marine policy. Chapter VIII would discuss about the newly established National Maritime Council, giving suggestions as regard to its priorities, task and composition. Chapter IX is the summary and conclusion.
1. Formerly known as Malaya before independent in 1957. On 1st of August 1962, Britain and Malaya agreed in principle on the formation of new state of Malaysia—a political merger of Singapore and the British Borneo Territories (Sarawak, Brunei and North Borneo) with Federation. On 1st of September 1962, by 70% plurality, Singapore voted in a referendum for incorporation in the proposed Malaysia, but an abortive revolt staged by Brunei’s ultranationalist, Brunei’s People Party in Dec. 1962 eliminated the proposed merger. On 16th. Sept. 1963, the Federation of Malaya, Singapore and the newly independent British colonies of Sabah and Sarawak merged to form Malaysia. Singapore seceded from Malaysia and established an independent republic on 7th of August 1965.
Chapter II

Marine Policies In Malaysia: An Overview Of The Sectoral Development—Marine Resources

2.1. Introduction

The development and formulation of marine policies in Malaysia came about from expansion of various activities in the marine sector. These development have a direct function with exploration, exploitation and management of the natural resources of the sea. The main economic activities are the energy sector, fishing and the tourist industry. Port and shipping are also important areas and will be discussed in latter chapters. In overall planning of the country, all these sectors have been treated separately with independent policies running parallel to each other.

In the discussion of marine affairs in Malaysia, it is important to note that under the Federal System of Government, the States in the country, has some jurisdiction in coastal areas. This matter should be taken into account in planning of maritime activities of the country.
2.2. Economic Contribution of the Marine Sector

The Marine sector contributes 15.2% of Malaysian GNP. It is by comparison the highest in the ASEAN region. See exhibit I, the biggest revenue generator is from offshore/hydrocarbon.

Exhibit I

<table>
<thead>
<tr>
<th>Ocean Uses</th>
<th>ASEAN</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Singapore</th>
<th>Thailand</th>
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<tr>
<td>Offshore petroleum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of production</td>
<td>6.8</td>
<td>4.1</td>
<td>2.6</td>
<td>0.1</td>
<td>—</td>
<td>minimal</td>
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<tr>
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<td>5.7</td>
<td>10.8</td>
<td>0.36</td>
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<td>—</td>
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<tr>
<td>Value of production</td>
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<td>NA</td>
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<tr>
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<td>NA</td>
<td>—</td>
<td>—</td>
<td>0.16</td>
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<tr>
<td>Marine fishing</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Value of production</td>
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<td>0.6</td>
<td>1.1</td>
<td>Nil</td>
<td>0.4</td>
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<tr>
<td>Percent of GNP</td>
<td>1.7</td>
<td>1.4</td>
<td>2.7</td>
<td>3.2</td>
<td>—</td>
<td>1.1</td>
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<tr>
<td>Value of exports</td>
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<td>0.138</td>
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<td>Percent of total exports</td>
<td>1.4</td>
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<td>3.0</td>
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<td>Shipping</td>
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<td>Estimated income</td>
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<td>15.2</td>
<td>4.4</td>
<td>12.7</td>
<td>1.2</td>
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</tbody>
</table>

* Source: Samson 1983.
† Estimates as of 1980–81; except Thailand's tin production, which is for 1982.
‡ This is a rough first approximation and does not consider costs of production.
§ Billions of U.S. dollars.
¶ Not available.
\[ Direct earnings only; other figures include both direct and indirect earnings. 
° Total GNP of ASEAN in 1980 was US$185.5 billion.

2.3. Energy Sector

Petroleum emerged as an important source of commercial energy and economic dependence in Malaysia as early as 1913. The first oil was discovered on land in Miri, Sarawak and this led to the building up of Malaysia's first oil refinery by Shell in Miri in 1917. This also led to the building and development of petroleum logistic and distribution facilities. Today oil exploration is being conducted along the coasts of Sabah and off Trengganu on the east coast of Peninsular Malaysia.

Beside the oil refinery in Miri, there are other refineries in Malaysia, a 90,000 b/d refinery of Shell Refining Co. Bhd. in Port Dickson, the 42,000 b/d refinery owned by ESSO Malaysia Bhd. (also in Port Dickson) and the 30,000 b/d refinery owned by the National Oil Corporation (PETRONAS) in Kertih, Trengganu.

Oil began to play progressive role in the Malaysian energy supply scene when it displaced coal a long time ago. Oil demand expanded at an average annual rate of 11% in the 1960s and 9% in the 1970s reaching 163,000 b/d oil equivalent in 1960. By 1983, Malaysia consumed approximately 198,000 b/d of petroleum product.

In 1981, Malaysia produced 285,000 b/d of high quality crude oil. In 1983 crude oil production has reached 365,000 b/d. It has been reported that in 1985 crude oil production has reached 440,000 b/d. During the next 4 years, the National Oil Corporation expects to award contracts to drill between 15-20 wildcat wells and 10 appraisal wells. This will result in 25-30% expansion in exploration of wells being drilled annually up until
In 1986 a total of 23 explorations of wells were drilled, two less than the previous year. PETRONAS has a production sharing with 4 contactors namely:

i. EPMI;

ii. Sarawak SHELL;

iii. Sabah SHELL Petroleum Co.; and

iv. Elf Equitaine.

Since January 1986, the contractors and PETRONAS Carigali (the production arm of PETRONAS) discovered oil reserves totalling 4.2 bn. barrels of oil and 55.1 trillion cubic ft. of gas. Gas reserves at the beginning of last year totalled about 3 mil. barrels, 53 trillion cu. ft. of gas and 70 trillion cu.ft. of associated gas. Malaysian oil reserves are expected to last about 15 years at the official production rate of about 480,000 b/d, which recent years has been fluctuating in relation to movement in oil prices.

Natural gas production is another important project which has already developed in Malaysia. Central Luconia area, about 100 miles off the coast of Bintulu, Sarawak has been utilized. Currently two projects are being developed. The first is the liquid natural gas plant. The plant will consume on plateau about 975 millions cubic feet of gas per day. The plant also will produce six million tons of LNG per year. The LNG plant is owned by Malaysia's LNG Sdn. Bhd. whose shareholders are 65% PETRONAS, 17.5% by Shell Gas B.V. and 17% by Mitsubishi of Japan. The total investment in this gas project is in excess of US$3 bil-
lion. This investment includes the five LNG carriers which is owned by MISC. Each carrier is capable of carrying approximately 130,000 cubic metres of LNG. A gas reserves totalling 55.1 trillion cu.ft. has been discovered in Malaysia. Associated and non-associated gas is expected to last about 78 years at a production rate of 1.5 mil. cu. ft. a day (6).

The natural gas from Central Luconia area will also supply gas to ASEAN Bintulu fertilizer plant built in Bintulu. It consumed approximately 50 mmcf/d of natural gas per day. A gas project is also being developed in the State of Sabah. The Sabah Energy Corporation built three projects which consumed associate gas from the field offshore Sabah. These projects are the methanol plant which will produce about 2,000 tonnes of methanol per day, a sponge iron plant which will produced approximately 7,000 tonnes of sponge iron per day and a 450 MW power plant. All the projects are situated in Labuan, Sabah.

The National Oil Corporation (PETRONAS) is also developing a natural gas project in Peninsular Malaysia. The first phase of the project is to pipe gas from the fields off the east coast of Peninsular Malaysia to Trengganu. Oil producing fields in Malaysia are located offshore. The fields are shown in Exhibit II.

It is evident that there is considerable scope for the development of various related offshore activities. Several massive projects have been identified, the principal being the Malaysian $1 billion Peninsular Gas Utilization Project (phase 2) which was awarded to a contractor, Novocorp. Other projects include the development of 4 oil fields in the Balingan province in East Malaysia.
by Sarawak SHELL at an estimated cost in excess of M$1 bn. EPMI will meanwhile develop the Seligi fields offshore Peninsular Malaysia. The first platform is expected to cost about M$480 mil. A total of 7 or 8 platforms are expected to be involved.

Exhibit II(a): Oil and Gas Fields in Malaysia
(Sabah and Sarawak)
PETRONAS Carigali and EPMI plan to develop Dulang Fields off the west coast of Peninsular Malaysia on a unitised basis. The project is expected to cost about M$1bn. However, the movement of oil prices will no doubt affect various development plans which have been drawn up. Malaysia which is dependent on a quarter of its federal revenue on oil and gas production has been affected.
by the declined in oil prices. The country, which is not an OPEC member, and had set a production limit of 480,000 b/d before the price collapse, pumped in excess of 580,000 b/d to offset the reduced earnings. Recently, however, in a show of solidarity with OPEC members, Malaysia offered to reduce by about 50,000 b/d(7).

Legislation on minerals and petroleum in Malaysia is not covered by one single Code. It is covered by a number of Laws, Enactments, Ordinances, Acts, Rules and Regulations. In addition to the existing legislative framework, there is a number of government policies which do not have a force of law but are nevertheless observed. The Federal Government has powers to legislate in respect of oil and the development of mineral resources, including coal, the sale and export of these minerals, petroleum products and regulations pertaining to the safety of oil fields.

Because of the division of powers between the Federal and the States, legislation relating to the minerals and petroleum will not be just a simple matter of States or Federal Laws, but rather a hybrid. The combination of both Federal and State elements can be further explained by the fact that most of the legislation was enacted before the Second World War, at that time Malaysia was not an independent nation and did not have a Constitution with strict division of powers(8).

In Malaysia it is clear that minerals found on land and in submarine areas beneath the territorial waters are the property of the state concerned and that only the states have the power of their exploitation. This power was
declared in the National Land Code 1965. Under this Code, three miles is still the limit of territorial waters even though these were extended to twelve miles by Emergency Ordinance 1969. In this respect the Ordinance as regard to Federal laws are extended to twelve miles, whereas territorial waters as regard to State Laws are three miles.

The Government of Malaysia recognized the advantages of exploiting the Continental Shelf of Malaysia, with the availability of advanced science and technology and in 1966 has passed three Acts as follows;

i. The Continental Shelf Act 1966;

ii. The Petroleum Mining Act 1966; and


These three Acts embodied the petroleum mining policy in the most comprehensive terms up to 1974. In 1974 The Parliament of Malaysia passed the Petroleum Development Act which came into effect on 1st of Oct. 1974. Within the passing of the Act the Government incorporated a company, Petroleum Nasional Berhad (PETRONAS) under Companies Act 1965, vesting in it the entire rights and ownership of petroleum industry(9).PETRONAS then became the National Oil Corporation of Malaysia. The most significant impact of this Act is that it passes the rights, powers, liberties and privileges of the country in the exploration and exploitation of petroleum to PETRONAS. The Act opened the new era in petroleum and gas exploration and production in Malaysia where PETRONAS became the authority whose approval was necessary for all exploration and production.
activities in Malaysia. Other policies relating to production and depletion has also been drawn up to ensure that the country develops with least possible constraints of growing energy crisis. With the spirit of NEP(10), the law may be further tightened in response to frequent calls by locals to be given a bigger role in the development of offshore oil and gas industries.

2.4. Fisheries

The value of fisheries to Malaysian economy lies in fish as a source of protein, foreign exchange and employment. Per capita consumption is around 25 kg., which supplies as much as 2/3 of the animal protein intake for the population. The high dependence on fish as food is explained by its low price relative to other animal sources and its acceptibility by all ethnic groups in the country.

The Malaysian fisheries is at the crossroads of development in light of the adoption of new fisheries policy contained in the national agricultural policy. The general policy outline for the development of the fisheries sector is spelled out as follows;

"Fish is another important source of protein and the country's fish requirement will be met through the use of modern methods to fully exploit the fishery resources. Offshore fishing will be stepped up through the utilization of both local and foreign expertise and the setting up of adequate fishing fleets"

"Aquaculture will be developed to augment the local supply of fish. In addition, this industry offers
great potentials as an export earner. In view of this the development of the industry will be encouraged." 

Basically, the government policy on fisheries development is comprised of two important elements:

i. to manage and regulate the exploitation of fisheries resources with the view to realizing the optimum production of fish and fish products to meet the country's food demand; and

ii. to increase the productivity and income of fishermen and fish farmers.

The government has embarked on a radical move to revitalise the fisheries industry and to restructure the sector from one which is dependent on subsidy, to one which is commercially oriented.

Malaysia has a negative balance of trade in fisheries in terms of volumes but is a net exporter in terms of value (US$170 Mil.) due to the exports of high-value species particularly shrimps. More than 110,000 persons were engaged in fishing industries in Malaysia in 1980, representing around 2.3% of the labour force (11). Some 75% of the fishermen operate on or from Peninsular Malaysia, while 15% are in Sabah and 10% in Sarawak. Aquaculture employs less than 10% of the labour force. Fishing contributes 2-2.5% in 1970 to the GNP of the country.

With the modernization of fishing facilities and techniques, marine fish landings in Malaysia in 1984 has increased to 725,700 tonnes as compared to 719,640 in
The marginal increase in a long period of time is due to the depletion of fish resources as a result of over exploitation within the twelve miles coastal limit and particularly in the Strait of Malacca.

As the overfishing has taken place within the twelve miles, the government is attempting to promote commercial exploitation of resources in the full 200 miles Economic Zone. This is consistent with the companion objective of increasing fish production, given the state of the resource in traditionally fished marine waters (12). The Government has been encouraging deep sea fishing in a bid to slash the import bill of $337 million annually for 237,000 tonnes of fish and fish product. Furthermore, it hopes to curb overfishing in inshore and offshore areas, which at present provide a 600,000 tonnes catch annually worth $1,400 million. The Department of Fisheries indicate that the deepsea fishing industry's is enormous. 350,000 tonnes of sea harvest are available annually (13).

The promotion of exploiting in the non-traditionally fishing waters, the EEZ, means Malaysia has to proceed with better equipped fishing apparatus. The promotion thus reflected in the EEZ Act 1984 which may generally be described as a composite legislation which incorporates several concepts pertaining to fishery (14). This Act also reflects the aims of the government to manage and conserve this resource.

The fisheries in the EEZ Act of 1984 has been regulated by the Fisheries Act 1985. Under this Act, several legislation will be introduced to regulate various aspect of fishing activities. These includes the following;

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i. condition to be observed by local fishing vessels within Malaysian waters;

ii. limitations on the quantity, size and weight of fish caught and retained or traded;

iii. method of fishing;

iv. collection of statistics and the supply of such information as may be required;

v. the licensing, regulation and management of a particular fishery; and

vi. to improve the collection of statistics and to require any person engaged in fishing, marketing, processing or aquaculture to supply such information as may be required.

The large scale fishing (trawling) had begun in Malaysia in 1965, and by 1977 Malaysia had 4,720 licensed trawlers which were to confine their activities to the sea outside the 12 miles limit but in fact did not; using a mesh of 25 mm and not 37.5 mm which would prevent the depletion of fish resources, they have seriously endangered the livelihood of small scale fishermen, and catches have been declining (15).

In the year 1986-87, the Department of Fisheries have approved 212 trawling and 55 purse seine licences. Of these, 43 are operational and as for the rest, their boats are under construction and should be ready at the end of this year. More than 100 other licences are also being processed by that department. A total of 646 licences will
initially be issued for the deep sea fishing. Of these fishermen in the east coast of Peninsular will be given 196 permits, west coast fishermen 50, Sarawak fishermen 350 and Sabah 50. These fleet will create jobs for at least 6,500 fishermen, as a deep sea fishing trawler requires a 10 men crew on the average, while a purse seiner needs about 20 men (16).

The two government institutions, the Department of Fisheries and MAJUIKAN are the responsible bodies to look after fisheries matters in the country. The Lembaga Kemajuan Ikan Malaysia Act, 1971 has instituted the Fisheries Development Authority of Malaysia (MAJUIKAN) as public commercial fisheries corporation responsible to the Ministry of Agriculture and Fisheries. The Authority is responsible for:

i. promoting and developing efficient and effective management of fisheries enterprises;

ii. promoting efficient marketing of fish;

iii. providing and supervising credit facilities for fish production and ensuring the maximum use of these facilities;

iv. engaging in commercial fisheries enterprises; and

v. stimulating the establishment and expansion of fisheries related industries.

MAJUIKAN also, in addition to those above, is saddled with socio-economic responsibilities of uplifting the economic status and social condition of the fishermen;
increasing fish production; generating employment opportunities; and reducing economic imbalance among fishermen. However, these attempts have failed in certain projects which were carried out by MAJUIKAN and there is very little evidence of profitable performance by this fully state-controlled agency. The failure mostly was affected by the relatively high cost of operation in the MAJUIKAN trawlers project and poor management of the Authority itself (17).

The Department of Fisheries is responsible for the following functions:

i. training of fishermen;

ii. provision of extension services for the fishing communities;

iii. research activities; and

iv. management of fisheries resources through licensing and enforcement.

Beside these two institutional arrangements, the Agricultural Bank of Malaysia provides credit for fisheries sector.

Effort to develop deep sea fishing were discussed as far back as 1978 when the National Action Council was set up to study and recommend national policies and effective ways to promote the nation’s deep sea resources. Among the recommended items were as follows:

i. research to be done on the qualities and
distribution of deep sea marine resource;

ii. efficiency studies to be carried out;

iii. technology and equipments to be upgraded;

iv. systematic training to be carried out;

v. proper infrastructure, for e.g. landing sites and freezer rooms to be provided; and

vi. credit and tax incentives.

The fisheries training institute was set up 15 years ago in Penang as a follow up action from those recommendation. The Fisheries Department is also negotiating with Thailand, to have joint deepsea ventures in order to bring in proven expertise and transfer of technology. The harbour and landing facilities at fishing complexes in Chendering, Trengganu; Batu Maung, Penang; Sedili, Johore; and Tumpat, Kelantan are being expanded and modernized. The Fisheries Department is also consulting the Ministry of Transport to utilize commercial ports of Tanjung Berhala in Trengganu, Pasir Gudang in Johore and Labuan Port for the same purpose.

2.4. Conclusion

Fisheries industry, is comparatively, a poor sector of Malaysian economy where poverty exist among its fishermen. As this resource is important to raise the income and the standard of living among the fishermen, the management of this resource is necessary. The enforcement of laws therefore should cover every zone that has been
established. Compared to energy sector, fisheries activity comprised of entrepreneurs and small scale fishermen and thus demands greater government attention.

The depletion of resources in the traditionally fishing grounds has encouraged the deep fishing but whatever plan it make for this sector, the small fishermen would not gain much since this will demand more capital, technology etc. In addition to that, the illegal fishing from the neighbouring country is reported fishing in Malaysian waters and piracy still exist.

The enforcement of fisheries law should be strengthened to safeguard the conservation of the resource especially within the 200nm. of the EEZ of fisheries zone. This step would encourage active participant of small scale fishermen. NMCC which is given the task to carry out surveillance and control of the waters should be given wider role in implementing the marine laws in Malaysian waters. However, the internal constraints within the agencies in charge with fisheries were blamed to result in the slow growth and failures of certain project in this sector.
Notes

1. In this study the term energy refers to petroleum and gas activities.

2. Petroleum embraces all exploitation, development and production of crude oil and gas, the related downstream business in petroleum industry.


4. SHELL Briefing Service (SBS), Number 2, 1986.


6. ibid.

7. ibid.

8. ibid.


10. The New Economic Policy is a social policy "to reduce and eventually eradicate poverty by raising income levels and increasing employment opportunities for Malaysians, irrespective of race; and to accelerate the process of restructuring society so as to reduce and eventually eliminate the indentification of race with economic functions."


15. Maritime Affairs, A World Handbook, 1985, pp. 120.


Chapter III

Shipping Policy In Malaysia

3.1. Introduction

The development of the maritime sector specifically on shipping was officially enunciated in the Third Malaysian Plan 1976-1980, where the notion of maritime nation became the policy objective. This was brought about by increased attention to the international evolution of shipping, the increased awareness of the conference system (1), particularly to the Code of Conduct for Liner Conferences, the growing concern for the need to arrest the huge outflow of foreign exchange in the form of freight and insurance payment abroad, and of policies adopted by other countries.

However the shipping policy for Malaysia is not defined nor an agency is established to carry that task. The establishment of the Maritime Division in the Ministry of Transport in 1982 should be seen as an indication of serious awareness of the need to devote concentrated attention to maritime matters. However this establishment should be seen as an initial measure, which, with the passage of time should be expected to grow in stature and taken on added responsibilities and functions.
Ministry of Transport has chosen to define the national shipping policy as to develop:

i. an efficient well diversified and modern merchant fleet;

ii. an efficient and economically viable shipbuilding and repairing industry; and

iii. skilled and professional manpower to operate all aspect of the industry.

3.2. Rationale For Fleet Development

The prime rationale for the government interest in shipping has developed from Malaysia's balance of payment difficulties. Loss of freight and insurance costs are of the largest contributors to Malaysia's current service account deficit; this foreign exchange loss is frequently cited as the rationale for Malaysia's efforts to develop its own fleet, the MISC in 1968.

The outflow of freight and insurance have been due to its almost total reliance on foreign shipping for its trade; a huge demand ironically created because of vigorous export-led growth. Freight and insurance has always been the second largest items in the services account both in terms of gross and net payment after investment income outflow. Freight and insurance comprised between 25-35% of the services account deficit in the 70s and early 80s. Although this has been moved down to 16.3% in 1985, totalling $654 Million, the problem still remains. An effort to push exports of resource based industries could
actually attract higher freight rates than has been accounted for by raw materials.

There are several issues attributable to the establishment of national merchant fleet in Malaysia. Among the most important are as follows;

i. Role Of The Conference System

The conference line especially the Far Eastern Freight Conference (FEFC) have a virtual monopoly of the European trade route and delivered Malaysian product at the door step of foreign consumers. The nature of service and its monopolistic status, as a matter of fact, failed to explore all avenues and examine the possibilities for introducing alternative, more suitable, efficient and less costly system for Malaysia's primary product. Malaysia's shippers complained that they are facing high freight rates.

The government and Malaysian shippers were unable to take step during the earlier post independence day to regulate or control the influence of the conference system. Malaysia did not then have much of a bargaining power, either through the possession of large quantity of cargo and/or adequate and efficient fleet. In 1970 a very significant percentage of Malaysia-European trade was monopolised by the FEFC. With the view to minimise cartel influence of the conference, Malaysia established its national fleet.
ii. Malaysia-Singapore Separation In 1965

After Singapore’s separation from Malaysia in 1965, Malaysia’s took measures to improve her shipping industry. The three-fold reaction began as follows:

i. It attempted to build up its own national fleet;

ii. Develop port infrastructure that could break the reliance on Singapore as the transhipment center; and

iii. It supported these moves by enacting a cabotage policy on domestic Malaysian routes.

3.3. Mechanism For Supporting Fleet Development

Even though Malaysia does not have a systematic shipping policy, the existing feature of shipping activities proves the keenness of Malaysian government to provide ample condition and to encourage local participation in shipping. A wide range of shipping policies covered many facets of shipping activities in Malaysia. The encouragement of shipping growth in Malaysia could be seen from several initiatives and incentives as follows:

i. Cargo Reservation

The government’s cargoes are required to use the vessels of MISC and PNSL. A waiver may be granted if those vessels are unavailable or if the cargo move from ports where none of the services offered by both lines. Malaysia has adopted the UNCTAD Code of Conduct For Liner Conference but has not formalised
the means by which the allocation of non-government cargoes is to take place.

ii. Financial Incentives

The 1982 Budget improved the tax benefits for Malaysian shipowners, and was specifically directed towards promoting fleet expansion by the private sector. The shipping companies do not have to pay corporate tax for incomes derived from shipping business and similarly any dividend paid, credited or distributed in a foundation period is also tax exempted after the approval of Budget 1984. In 1982 the companies have received 50% tax exemption if profit, after the declaration of dividends is credited towards a fleet acquisition reserve, and 75% of that reserve is used for ship acquisition. The 1984 Budget thus gave more incentives for the Malaysian to participate in shipping business. The 5% government surtax is also excluded from duties on imported ships and tax is also exempted on those ships greater than 26 dwt. Further to encourage local participation of Malaysian in manning Malaysian vessels, income tax is exempted.

iii. Cabotage Policy

The historic formation of Malaysia in 1963 could be considered as the turning point for domestic shipping in the country. With the integration of Peninsular Malaysia, Sabah and Sarawak which is separated 640km apart, maritime transport took precedence in facilitating intra-regional trade between the Peninsular and East Malaysia.
The Cabotage Policy was implemented on the 1st of Jan. 1980. From this date ships more than 15 NRT engaged in carrying cargo and passengers between two ports in Malaysia should possess a valid domestic license issued by the Domestic Shipping and Licensing Board (DSDLB). The aims of this Board within the context of Cabotage Policy is to eliminate foreign registered vessels servicing in Malaysian national trade. In 1984, it also covered the activities of offshore supply vessels.

However, the Cabotage Policy allows the granting of waiver if Malaysian vessels are not available to carry the cargo, with the intention that the waiver will eventually be phased out. In 1981 from 351 ships registered, 178 or 51% are foreign registered. In 1982 the licenses issued to foreign registered vessels were reduced to 30%. In 1983, only 120 out of 451 were issued to foreign registered vessels which comprised to only 26.6%, whilst in 1984, only 13.2% out of 438 ships were issued to foreign registered vessels (2).

IV. Provision Of Labour

Malaysian shipping industry is confronted with the lack of manpower. Most of the vessels are manned by foreign personnel. The government is giving priority to the development of national training centres. The two training centres in Malaysia are the Maritime Academy of Malaysia (ALAM) (3), which trains general purpose and catering ratings, radio officers and pre-sea deck cadets and the second
institution the Politeknik Ungku Omar at Ipoh which offers marine engineering diploma.

3.4. Fleet Development

The Malaysian registry (which is a close register) has shown steady growth. Even though Malaysia does not have a shipping policy, it may not hamper development, but it has certainly brought about an uncoordinated approach in shipping activities.

Those incentives mentioned above are part of the government policy to encourage the growth of the national shipping industry. It appears that the incentives are generous and since then the fleet has grown from little over 600,000 GRT since 1981 to 2.4 million GRT in 1986. Theoretically the increased of tonnage at least would have produced a capability to lift 20 million tonnes or about 70% of Malaysian seaborne cargo. However, this is not the case and foreign shipping still being dominated by foreign shipping services.

The growth of more than 400% in the merchant fleet was due largely to the expansion of MISC, especially its five LNG tankers totalling 360,000 TDW and the formation of PNSL with the fleet strength of 270,000 TDW. Coastal tonnage also grew significantly from 150,000 to 450,000 TDW between 1981-1985, but was mainly in the category of ferry, barges, tugs, supply boats and tankers.

3.5. Role Of MISC As An Instrument Of Policy

The establishment of MISC in 1968, aims at minimizing the cartel influence of the conference. It was in the
hope that an increase in the number of Malaysian ships servicing the Malaysian/European routes may achieve economies of scale. It was also hoped that such an establishment would, over a period of years, help Malaysia to develop her own corpus of entrepreneurs and private shipping enterprises, managers and other skilled personnel capable of establishing a viable maritime industry.

The MISC growth from a single ship of 11,000 GRT in 1970 to more than a million GRT at the moment shows a clear sign of national dependence on that company to play a big role to implement the government shipping policy. Thus, the shipping policy is much tied up with the expansion of MISC and its role to meet the government desire. Therefore the existence of MISC is in the form of "mixed marriage" where the government interest has to be served and in other hand to meet the commercial challenge.

The obligation and participation of the government in the expansion of the national fleet indirectly hampered the development of the private participation. Some of the coastal shipping failed to participate in the carriage of cargo in domestic trades. The problems of overtonnage are seriously faced by the domestic shipping.

Recently MISC has faced serious crisis. This has been due to the changing relationship with the government whereby the country's largest shipowners and operator does not always appear to have moved in the same direction as the government would have wished. The divergence was confirmed in March 1982 when the company's role was called into question by the formation of the second national line, PNSL.
The establishment of MISC was initially guided by the need to provide efficient seaborne transport for various primary commodities vital to Malaysian economy in terms of foreign exchange earnings. The government desire, however, was to establish a strong presence of Malaysian flag vessels in the bulk export trades and also in the liner services connecting Malaysia with its major trading partners, was tempered by an increasing concern over the volatility of commodity prices in world markets. This concern meant that any support for the Malaysian shipping industry, with MISC as the standard bearer, was effectively overshadowed by government efforts to ensure the international price competitiveness of Malaysian products including a need to secure low transport costs. Consequently, low freight rates for Malaysian bulk exports such as palm oil, tin, timber and rubber, acted as a disincentive forcing MISC to look elsewhere for more lucrative earnings.

The formation of the second national line apparently to provide complementary shipping services under Malaysian flag, but more specifically to meet certain national requirements which were believed not fulfilled by MISC. The establishment of PNSL as a complement to MISC has strengthen the argument that a national line should play a vital role in serving the government in the process of reducing balance of payment difficulties.

Since the MISC, the biggest national line, is an active cross trader, the movement of establishing a shippers’ council or similar organization can control shipping arrangements or wield some influence over freight rates, and thus match the strength of shipping conferences. The Malaysian National Shipper’s Council brings
together major commodities organizations to look into shipping issues related principally to liner conferences. However, in Malaysia, consultations are not mandatory since there is currently no legislation to back the process of consultation. As a result conferences has been able to exert greater influence over shippers.

While the formation of shipper's council is to strengthen the bargaining position of the major commodities organization, the recent establishment of the Malaysian Freight Booking Centre under the Ministry of Trade grew out of the need to assist at the best obtainable freight. It is hoped the MFBC will assist in eliminating or at least minimising several shipping problems confronting Malaysian shippers as well as to promote a change in the traditional practice of quoting of FOB or CIF terms.

3.6 Port Development

At the time of independence, there were two main ports in Peninsular Malaysia, Port Penang and Port Swettenham (Port Klang) to cater for the external trade Peninsular Malaysia. The external trade for north western Peninsular was channeled through Penang while Port Klang handled most of the goods, traffic for west-central Peninsular Malaysia. Apart from these two ports, a considerable proportion of external trade was channeled through Singapore.

After independence in 1957, particularly since the separation of Singapore from Malaysia in 1965, the Malaysian Government has made massive investments to improve the internal transport system, infrastructure facilities and the construction of new port facilities to serve the
expanding needs of commerce and industry in the country. Two new ports has been completed at the southern end of the Peninsular at Pasir Gudang, and in the east coast, Port of Kuantan. The latest port was established in Bintulu, Sarawak. (see Annex 2).

The cargo handled through Malaysian Ports has increased from 23.6 mil. metric tons in 1980 to 41.6 mil. metric tons in 1985. The handling of general cargo has increased 5.7% annually, liquid bulk 18.5%, containerised cargo increased 14.9% and the bulk cargo increased 24.3%. The total capacity of the cargo handled by Malaysian ports increased from 25.5 mil. metric ton in 1980 to 56.5 mil. metric ton in 1985. Port development in Malaysia had been characterized with great expansion of berthing capacities and the construction of new ports. Recently, however, the official policy has changed with the emphasis on qualitative measures to improve port productivity which is reflected in the current development plan (Fifth Malaysian Plan 1985-1990) which has slashed funds available for port development from $577mil. to $154mil.

Privatisation (4) of port services and facilities is one of the measures currently being pursued to improve the competitiveness of the ports. The handing over of the Port Klang Container Terminal to the private sector is one of the major privatisation exercises carried out by the Government.

The absence of a definitive policy on ports in Malaysia has not only brought about considerable excess capacities but a lack of competitiveness. An approach has been made to ratify this problem with recent National Ports Study taken by the government and the World Bank.
3.7. Conclusion

Shipping and ports have undergone a promising development in the late 70's and in the 80's. However the lack of shipping and port policy has brought about an uncoordinated approach in policy making towards shipping and port competitiveness. Moreover, the problem of too many government agencies involved in marine activities has to be solved as soon as possible. This uncoordinated approach with regard to shipping will in the long run create obstacles for the successful development of shipping and ports in the country.
Notes

1. Shipping Conference, thereby groups of lines operating on routes with basic agreements to charge uniform rates operating for more than a century. It is an unincorporated association of mutually competitive liner operators, maintained for the controlling competition among members and strengthening the members, through the cooperative action in their competitive fight against non-members carriers. The liner conference system which has existed since 1875 illustrated very clearly the power of traditional shipowners. This monolithic structure of close door monopolies had become widespread and dominated every major trade route by 1960s. Developing countries faced difficulties with respect to admission of their national lines to conferences suffering the consequences of this system of unilateral fixing of freight rates, discriminatory practices, the stiffing of competition by tying shippers to members of the conference and the refusal of conferences to hold consultations with shippers from developing countries. This position has gradually changing after the coming into force of the UN Code of Conduct for Liner Conference in Oct. 1983. See Singh N., Achievement of UNCTAD I and UNCTAD II in the Field of Shipping and Invisibles, S. Chand and Co., New Delhi, 1969. See also UNCTAD Report TD/B/C.4/62.


3. After the establishment of MISC, there was a need for not only trained officers, but also a well trained crew capable of operating the sophisticated
ships of the fleet. The MISC promoted the setting up of Malaysian Training and Education of Seamen (MATES) Foundation, with co-sponsorship by the International Maritime Carrier (Malaysia) Bhd. and the Kuok-Foundation, with representative from the then Ministry of Communication. The Foundation then undertook the construction of the Maritime Training Centre (MTC) in Malacca. The MTC commenced its training in June 1977.

By giving priority to the expansion of Malaysia's merchant fleet, and giving due importance to maritime training, the government decided to play a more active role in developing the MTC and on 15th August 1981, MTC was upgraded to become the Maritime Academy of Malaysia (ALAM) under the MATES Foundation. ALAM is now capable of producing locally trained officers and crew.

ALAM is controlled by a mixture of 50% Government's fund and another 50% by private sector. The sketch below explains the position of inter-relationship with regard to the development of ALAM;
With regard to manpower policy for maritime sector, Malaysia does not have one. This situation is almost similar in most of developing countries where coherent manpower planning still in developing stage or do not exist at all. For further explanation, see Training for Industrial Development; How Government Can Help, International Labour Review, Vol. 125, No. 5, Sept.-Oct. 1986.

4. Privatisation, the vogue of the economic philosophy of the 80's is advancing in Malaysia. The Government's Economic Planning Unit's guidelines on privatization expound the philosophy: "it is aimed at relieving financial and administrative burdens in undertaking and maintaining the vast and constantly expanding network of services and investments. It is expected to promote competition, improve efficiency and increase productivity. By stimulating private entrepreneurship and investment, it is expected to accelerate the growth of the economy. It is also expected to assist in reducing the size and presence of the public sector with its monopolistic tendencies and bureaucratic support. This is aimed at contributing towards meeting Malaysia's National Economic Policy Plan. As a result of this philosophy a few government controlled services has been privatised, including the privatisation of the container terminal of Port Klang.
Chapter IV

Environmental Issues, Preservation And Prevention Of Marine Pollutions

4.1. Sources Of Marine Pollution

Sources of marine pollutions(1) in Malaysian waters originates from land-based industries and the rapid development of the marine sector. Land-based sources of pollution includes the discharge of petroleum related products such as lubricating oils into the sea; the direct discharge of untreated municipal and industrial wastes containing many refined and partly weathered oils through sewers and rivers; and effluents generated from production and processing of oil.

Marine oil pollution are also attributed to the increased offshore oil production and the transport of crude oil to refineries or exporting terminals. Shipping generated pollution accounts for about 10% of overall marine pollution.
The impact of oil pollution on the Malaysian environment is felt mostly in the estuarine and inshore coastal areas of the Strait of Malacca where the sea is narrow and receives several rivers as well as the oil from accidents and discharge from tanker traffic. From 1975 through early 1980, 10 major incidents involving ship collision, grounding, or accidental discharge occurred in Malaysian waters. In 1975 the Showa Maru went aground in the Singapore Strait, releasing 4000 tons of Kuwait crude oil which drifted into the coastal waters of Malaysia, Indonesia and Singapore. Hundreds of hectares of mangrove in the area reportedly died out, and a team sent to examine the situation years later reported that the affected mangroves had not begun to regenerate.

In 1976 the Diago Silang collided with another ship in the Malacca Strait, releasing 5,500 tons of Kuwait crude, and in 1979 the M.V. Fortuna was involved in a collision in the South China Sea which spilled 10,000 tons of oil. The safety record for offshore drilling in Malaysian waters is relatively good, with only a few incidents of gas blowouts. However, one serious offshore well blowout did occur in Brunei, and the resulting slick affected Malaysian waters. Still, a recent survey by the Malaysian Division of Environment of beaches on the east coast of West Malaysia demonstrated that over 57% of the beaches surveyed carried tar residues. One beach had a tar density of 8.5 ml/m², compared with an average 5.7 ml/m² on Malacca beaches. (2)
4.2. The Environmental Policy

After independence in 1957, Malaysia did not opt for rapid industrialization as a growth strategy, but concentrated on agriculture development. The process of industrialization as a growth strategy began in the late 1960's and the need for control measures against industrial pollution, partly from agro-based industries, was not felt until the early 1970's. Hence the evolution of legislation for direct control of pollution is very recent in Malaysia.

Malaysia's overall environmental policy takes into account the following factors:

1. the impact of population growth, man's activities and industrialization on the environment;

2. the critical importance of maintaining the quality of the environment relative to the needs of the population, particularly in regard to the productive capacity of the country's land resources in agriculture, forestry, fisheries and water;

3. the need to maintain a healthy environment for human habitation;

4. the need to preserve the country's unique and diverse natural heritage, all of which contribute to the quality of life; and

5. the interdependence of social, cultural, economic, biological and physical factors in determining the ecology of man.
In light of these factors, the responsibilities for environmental management fall under four basic tasks:

1. Environmental assessment which includes monitoring, research and review;

2. Planning;

3. Controlling; and

4. Decision making in such areas as resource allocation, land use, economic and industrial planning.

These elements underpin and reinforce each other in the strategy of the environment in terms of the overall structure, content and trust of the environment programme. The first and essential task is environmental assessment which seeks to examine, assess and evaluate the environmental conditions prevailing in various localities through the air and water quality monitoring programme, baseline studies and source emission inventory survey which are being currently undertaken by the Environment Division of the Ministry of Science, Technology and Environment.

Malaysia is located in a region of intense oil exploration and development activities and lies across the main oil transport route between the oil exporting countries in West Asia and the oil importing countries such as Japan in East Asia. The increased role of the Strait of Malacca as an important international shipping passage has brought about an increased public awareness
of the need to safeguard the Malaysian coast from pollution generated from ships. The Showa Maru and the Diego Silang incidents has aroused not only the environmentalist, fishing community, tourism industry, but also the public concern over basic requirement to safeguard coastal areas. The Malacca Strait are said to have a traffic of 37,000 ships per year, that means an average of 100 ships per day. It has been reported that, considering the size of the Malacca Strait, the strait has the largest density of the very large crude carrier traffic compared to any other place in the world. One single VLCC of 200,000 tons or more having an accident in the Malacca Strait is sufficient to destroy the entire ecosystem and the resources that it presently sustain.

The shallow water of the strait also contributes to the generation of oil pollution from ships. This is because the tankers when entering the strait, have to reduce their draft by discharging ballast water. It is no doubt that the greatest of tanker oil pollution is the discharge of tank washing. Between .35 and .50% of a tanker's cargo settles out during long sea voyages and unscrupulous operators discharge this into the sea. Approximately 1,000 tons, or 300,000 gallons, on a single voyage of a 200,000 tons tanker could be discharged into the sea with tank washing. Exhibit III shows the situation of ballast and tank washing in Southeast Asia where the Strait of Malacca are greatly affected.
Exhibit III: Southeast Asia-Ballast and Tank Washing

Source: Hann, The Status of Oil Pollution Control in Southeast Asian Region 182(1981)
4.3. Environmental Legislation

Environmental legislation is the legal instrument for the control of the environment against pollution dangers. Environmental legislation in Malaysia seeks to regulate human activities that may directly or indirectly affect the quality of the environment, and is also preventative in controlling future hazard of pollution.

Pollution control has been the central activity in the Environment Division's programme for environmental conservation and enhancement of environmental quality. Important as these measures are for controlling existing and future environmental problems, they must be planned and designed within the framework of the growth targets of the development plan, and take due account of administrative procedures at both the Federal and State level.

In the final analysis, these control measures must be consistent and workable within the framework of the Federal Constitution, insofar as it concerns the relationship between the Federal Government and the States. With this constitutional framework, the environment Division is adopting a two-prolonged approach involving both statutory control and non-statutory control, adapting to Federal and State areas of jurisdiction.

The choice of these control measures and their application depends significantly on the areas to be controlled. Statutory control is adopted in areas which are expressly within the ambit of the Environmental Quality Act of 1974 or more precisely in those matters which are specified in the Federal or Concurrent List. The Act of
1974 is the most recent piece of legislation concerning environment which attempts to regulate resource conversion so as to minimise damage to the environment.

Non-statutory control, on the other hand, is applied in areas where the existing responsibilities are shared by various government agencies and in those areas which are in the competence of State Governments. Matters such as land, agriculture, forestry, mining, soil erosion, drainage and irrigation which are fundamentally important in environmental management are explicitly under the State and Concurrent Lists, and it is in these areas that non-statutory control must be directed with great care to avoid undue administrative conflicts.

The legal controls are being applied through various Regulations which have been drawn up on the advice of the Environmental Quality Council in accordance with the Environmental Quality Act, 1974. They are among others:

1. Environmental Quality (Prescribe Premises) (Crude Palm Oil) Regulations, 1977;

2. Environmental Quality (Prescribe Premises) (Raw Natural Rubber) Regulations, 1978;

3. Sewage and Industrial Effluents Regulations, 1979;


The EQA 1974, authorised the Minister in charge of the environment to regulate releases of wastes from all sources except those of mining, offshore exploration and exploitation, agriculture logging and earthwork. The Petro-
leum Mining Act 1966 (Revised 1972) empowers the Petroleum Authority (PETRONAS) to specify in any exploration license that the licensee shall take all steps practicable to prevent the escape of oil or waste from hydrocarbon discovered in the exploration area.

With regard to pollution from vessel sources, Malaysia has yet to promulgate rules and regulations under the EQA for controlling oil or other related wastes. There are deficiencies in the existing Act, notably its liability provisions, which appear to have no application at all to oil spills attributable to collisions and running aground regardless of the cause of accident. The Act which specifically prohibits discharges of oil in any part of the seas outside territorial waters of Malaysia is only enforceable for Malaysian-owned vessels and those flying the Malaysian Flag. Malaysia has not adopted any of relevant international conventions relating to pollutions.

In the event of oil spill emergency, Malaysia, under the coordination of the Division of Environment and the operational support of the Marine Department, has a contingency plan to combat pollution involving the ports of Penang, and Johore with the help of other designated bodies, both private and public, with specific responsibilities.

Malaysia has a comprehensive legislative measures to regulate the release of wastes from land-based sources. It has yet, however, to develop a complete set of regulations for controlling oceanic waste sources. Although there is a central pollution control agency at the Federal level, the Division of Environment, its jurisdiction is limited to pollution arising from agro-based and manufac-
turing industries, sewage treatment plants and merchant shipping. Other forms of pollution remain under the general responsibility of the resource development agencies PETRONAS for the offshore oil and gas and the Department of Mining for other types of mining.

Although discharge controls are the main instruments of water pollution control now used in Malaysia, it is recognized that by itself it is not adequate to cope with the complex and interlocking problems of the nation's fresh water and marine environments. Such control must be supported by a comprehensive, long range plan for achieving well defined environmental quality objectives. In Malaysia, however, attainment of this goal is made difficult by the sharing of responsibilities between the Federal and States authorities as well as among several agencies of both Federal and State Governments.

4.4. Regional Action Plan

The regional Pollution control activities are presently underway in ASEAN. The principal pollutant receiving coordinated regional attention is oil. Within the ASEAN, two bodies have been established to deal with oil pollution:

1. the ASEAN Council on Petroleum (ASCOPE), which deals mainly with the environmental consequences of the exploration for petroleum and natural gas. ASCOPE has been discussing the standardization of environmental and safety regulations for offshore drilling and local complexities of combating transnational oil spills; and
2. The ASEAN expert group on marine pollution.

The expert group has organised a contingency plan for the control and mitigation of marine pollution and provides for a system for alerting member countries if major oil spills occur within the region. The plan provides for exchange of information on operational capacities to combat pollution within each nation and a programme of mutual assistance to cope with oil spills that member countries cannot handle alone. Specific features of the plan include:

1. Adequate and coordinated contingency planning by the governments concerned;

2. Responsibility of the appointed institution to report immediately to the established emergency control centers;

3. Availability of sufficient and appropriate recovery and containment equipment, including vessels;

4. Availability of adequate slop tanks onshore capable of receiving contained oil spillages; and

5. Availability of trained personnel for the cleanup operations.

ASEAN is attempting to develop a regional governmental approach to pollution management based on coordinated policies and cooperative programs. The states have also required the national and foreign oil companies to develop their own capabilities to support the govern-
ments' policies.

The regional action plan was first drafted in 1979 and was eventually adopted by ASEAN States in early 1981 at an intergovernmental meeting convened by UNEP in Manila, Philippines. The principal objective of the action plan is the development of the coastal areas for the promotion of the health and well-being of present and future generations. The action plan is intended to provide a framework for an environmentally-sound and comprehensive approach to coastal area development particularly appropriate to the needs of the region. The action plan consists of environmental assessment and environmental management components, the latter concentrating on control of pollution from oil and from land-based sources. Subsequently to the adoption of the action plan, a trust fund was established and UNEP was entrusted with its management. The East Asian Seas Action Plan currently includes the member states of ASEAN only, that IMO has provided a general framework for cooperation in marine pollution incidents in the form of an ASEAN Contingency Plan which entered into force in 1976.

Two important aspects with respect to UNEP Regional Seas programme are as follows:

i. an increased awareness on the part of coastal states of the need to stop the gradual degradation of the marine environment;

ii. it is not in principle, confined to the preservation or control of pollution and that it endeavours to take other factors into consideration, in particular the preservation of important habitats, the
rational management of coastal ecosystems, the development of mariculture, the preservation of fresh water resources and the protection of soils.

Another significant conservation development which has emerged from the UNEP Regional Seas Programme is the new emphasis on coastal zone protection and management. This subject has now become an integral part of several of the proposed or adopted Regional Seas Action Plan.

Cooperation between IMO and ASEAN on oil pollution problems developed in the first place through IMO’s involvement with the ASEAN Expert Group on Marine Pollution, which has responsibility for administering the ASEAN Oil Spill Contingency Plan. In recognition of the importance of the second VLCC routes in the region, the Lombok/Makassar Straits and the Celebes Sea, which is less well served by the contingency plan and anti pollution measures, in 1980 an IMO/UNEP expert meeting was convened in Jakarta to consider the development of sub region oil spill arrangement in the Celebes Sea. On the basis of risk analysis and evaluation of oil combating capabilities in the sub region, the meeting concluded that support should be sought from funding agencies for procurement of major items of equipment and that training should be provided in its maintenance and operation. Subsequently, an IMO/UNDP project has been implemented which has resulted in the upgrading of the capabilities of an existing sub-branch of the National Operation Centre for Oil Pollution (NOCOP) of The Philippines Coast Guard in Davao, in term of both equipment and trained personnel, so that an at-sea response can be initiated in the event of a tanker accident in the sub region. Practical training has also been provided and operational procedures for surveillance of
oil spills, inter country communication and operation and maintenance agreed between the three countries cooperating in the project (Indonesia, Malaysia and the Philippines).

In addition to the various rules and regulations regarding oil pollution, Indonesia, Malaysia and Singapore are signatories to a navigation safety agreement for the Straits of Malacca and Singapore. Under this agreement, all tankers and large vessels navigating through these straits must carry adequate insurance and compensation coverage. There is also a US$1.3 mil. revolving fund established by the Malacca Strait Council (Japanese shipping interest) and the straits nations to cover costs of clean up and preventing oil spills from tankers.

4.5 Traffic Separation Scheme

The most important event in ensuring the safety of navigation in the Straits of Malacca and Singapore was the introduction of the TSS, which would reduce the risk of pollution arising from accidents in the strait. TSS is essentially a system for routeing ship. Routeing involves vessels being channelled by more or less mandatory means into lanes or areas of sea so as to reduce risks of collision. IMO routeing system has been defined as any system of one or more routes and/or routeing measures aimed at reducing the risks of casualties; it includes TSS, two ways route recommended, tracks, areas to be avoided, inshore roundabouts, precautionary areas and deep water routes (7).

IMO has adopted at least 90 international TSS lying partially or wholly outside the territorial waters of
states. Many more national schemes, lying wholly within territorial waters, are operative without any need from IMO approval (8).

The three states, Malaysia, Indonesia and Singapore, who jointly shared the straits, acknowledge the urgent need for systematically coordinated joint efforts to protect the marine environment in the straits against the growing danger of oil pollution. More specifically, as a result of the findings of the joint hydrographic survey conducted since 1969 in the straits, the conviction has grown that one of the most effective measures to prevent the danger of oil pollution is the application of TSS designed to steer the vessels clear of the shallow points in the straits (9). This jointly announced after the foreign ministers of the three states had a meeting in Singapore in February 1975. The TSS introduced in the straits incorporated for the first time in maritime history a vessel size limitation formula in the form of an underkeel clearance of 3.5 meters.

This joint effort of three states are in accordance with annex V of Resolution 375 (X) of the Assembly adopted on 14th Dec. 1977 and subsequently amended in Nov. 1981 incorporating the Rules for vessels navigating through the Straits of Malacca and Singapore. Malaysia has enacted legislation as mentioned earlier, incorporating Annex V which sets out the TSS in specific parts of the Strait of Malacca. Malaysia also introduced an Order mentioned earlier which incorporates the COLREG 1972. These regulations include Rule 10 which specifically relate to TSS. To a coastal state such as Malaysia, the success of the TSS will depend on the cooperation of users states and the establishment of an effective monitoring and surveillance
system. The role of NMCC based in Lumut, Perak should be integrated to cover pollution matters. This is due to the fact that the Marine Department and Environment Division has limited resources to carry out regular surveillance and control. Exhibit V below shows the TSS in the Straits of Malacca and Singapore.

Beside the surveillance and control system which need to be effectively carried out, it is also important for Malaysia to exercise Port State Control (PSC) in Malaysian waters.

4.6. International Development Of Oil Pollution Responsibility And The Impact On Malaysian Marine Environmental Policy

Until the UNEP was brought into existence, IMO (formerly known as IMCO) was the only organisation in the field of the marine environment. IMO is specifically charged with the prevention and control of marine pollution from ships and dealing with legal matters related thereto. It has a MEPC and legal committee. MEPC's terms of reference include such functions as are or may be conferred upon the organisation under international conventions for the prevention and control of pollution from ships, particularly with respect to adoption or amendment of regulations or provisions as provided in such conventions.
Exhibit V: Traffic Separation Scheme In The Straits of Malacca and Singapore
The legal committee was created after the Torrey Canyon disaster in 1967 to prepare draft conventions relating either to the prevention or control of marine pollution. These includes:


5. International Convention Relating to Civil Liabili-
lity in the Field of Maritime Carriage of Nuclear Material 1971;


Unfortunately Malaysia has not adopted any of the above mentioned Conventions(12). MARPOL Convention, however, is under serious study by the government with a view for adoption. Malaysia has ratified the Collision Regulation Convention of 1972 and two sets of Orders were introduced namely;

1. Merchant Shipping (Collision Regulation) Order 1984; and


Both Orders attempt to regulate the traffic and reduce marine accidents which would lead to marine pollution. The marine pollution conventions and compensation scheme are particularly significant and relevant to Malaysia as the Straits of Malacca has heavy tanker traffic to bear. The CLC convention is the most significant factor of changing the traditional damage liability base from one of proven fault or negligence to one of strict
liability. The convention also introduced a system of certification, making pollution damage insurance basically compulsory and giving a right of direct action against the insurer if the shipowner did not pay(13).

The intervention convention allows the coastal states to take early action on the high seas against vessels which pose a threat to their coastline. Since these conventions would take a number of years to enter into force and to be fully enacted in national legislation, the alternative interim compensatory regime—Tanker Owner’s Voluntary Agreement Concerning Liability for Oil Pollution (TOVALOP) was established in 1969 and administered by the International Tanker Owners’ Pollution Federation (ITOPF). This scheme was brought forward by the industry itself, illustrates the high visibility which the environment questions were enjoying public eye at that time(14). In the incident of Showa Maru in 1975 Malaysia was compensated $1.25 million as operating costs for removing oil spilled (15) under this scheme.

The fund convention 1971, is a supplementary convention to CLC, concluded to provide cover for catastrophic pollution accidents. It consists of a fund financed from levies on the import and export of oil in contracting states. Parties to fund convention must also be parties to CLC and the flag state of the vessel must also be parties to the fund convention if the shipowners is seeking compensation. In approximate terms the Fund allows cover of about US$54 million maximum aggregate with any available CLC cover. Compensation for oil pollution damage has been revised to cope with increasing risk to the marine environment. Exhibit IV shows the changes in compensation schemes as revised by various protocols.
Exhibit IV

LIABILITY FOR OIL POLLUTION
Comparison of Proposals

[Graph showing various proposals for liability for oil pollution, with lines labeled FUND PROT., CRISTAL (1), CRISTAL REV.(2), CLC PROT., TOVALOP REV., FUND B7, FUND B6, PLATO, PRESENT CRISTAL, and CLC (1969).]
The MARPOL convention addressed the total problem of marine pollution and thus is not restricted only to oil pollution. It attempts to regulate other polluting sources such as sewage and garbage from ships. Its annexes deals with noxious liquid substances in bulk, and harmful substances carried in package form or in containers.

A global regime to preserve and protect the marine environment was debated at the 8th session of the third United Nation Conference on the Law of the Sea (UNCLOS III) held in Geneva, 19th March-27th April 1979. The 1982 Convention on LOS provides for Coastal States to have jurisdiction over conservation and protection of the marine environment in the EEZ. Obligation regarding environmental protection are specified in Part XII. Article 194(2) provides that "States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention". However, the enforcement of rules and regulation with regard to pollution control within the EEZ must not be lower than the international standard.

UNCLOS provides a general legal framework within which to address operational pollution but leaves the specifics to "generally accepted international rules and standards for the prevention, reduction and control of pollution from vessels". This refers especially to the discharge requirements in MARPOL. The UNCLOS provides for
specific rights and obligations of flag, coastal and port states regarding-

i. the jurisdiction to set further standards; and

ii. the powers of enforcement.

With respect to the Intervention Convention on the High Seas in the event of pollution casualty, UNCLOS makes some addition to this Convention. Article 198 provides that a State must notify other States if pollution from a maritime casualty is likely to affect them. Similarly, ship's masters should be obliged to notify if they are involved in or become aware of such pollution. Article 211 provides that State should enact legislation to that effect.

As indicated earlier Malaysia has not ratified any of those conventions so far. By looking at the potential hazard to marine environment in the Straits of Malacca in particular, it is time for Malaysia to review her position and seriously consider for adoption of international conventions relating to the prevention of pollution and also the compensation schemes as mentioned earlier.

As stated earlier it is also important for Malaysia to resolve the problems of overlapping responsibilities with regard to marine pollution. Recently it was agreed that the ships' source pollution would be regulated under the MSA(16) and therefore be under the jurisdiction of the MOT with consultation with the Environment Division. The MSA, however, will take a number of years to come into force. This is because the Act still in drafting phase.
4.7. Conclusion

Though the marine pollution is a major concern in Malaysia, there is inadequate legal framework to cover the risk of pollution in Malaysian waters. Malaysia has to consider thoroughly to accede to various related marine pollution conventions such as MARPOL 73/78 and Fund Convention. This will enable Malaysia to safeguard marine environment from the risk of pollution and thus ensure there is a mechanism to recover the cost of clean up operation if pollution happen. Since the shorebased sources are well covered by legislation, the next step is to ensure the extension of those responsibility with regard to pollution matters covering the marine based pollution sources through comprehensive legislation. There is also a need for more coordinated efforts in aspects of pollution control where jurisdiction is shared between both State and Federal level.
Notes

1. Marine pollution has been defined as the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such detrimental effects as harm to living resources, hazard to human health, hindrance to marine activities, including fishery, impairing the quality and use of sea water and reduction of amenities. This is the definition accepted by IMO/FAO, UNESCO/World Meteorological Organization.


6. The Federal Constitution provides for different legislative powers both at State and Federal level. Where powers are shared there are in the concurrent list. These powers are laid down in the 9th Schedule of the Malaysian Constitution.


10. The Port State Control is laid down in the Regulations and Articles of various international Conventions as follows:

   i. Loadline Con. 1966 - Art. 21;
   
   ii. MARPOL 73/78 - Art. 4, 5 and 6;
   
   iii. SOLAS 74 - Chap. 1, Reg. 19;
   
   iv. STCW - Art. X;
   

Article 217, 218 and 220 of the UNCLOS set out the rights and obligations of enforcement by flag, port and coastal state with regard to the control of pollution from ships. An interesting and potentially very effective mechanism for enforcement is Article 218, dealing with enforcement by port state. This article allows a state
where a vessel is in port to investigate and proceed against that vessel for discharge violations which have occurred outside territorial sea or EEZ of any state, upon request by the coastal state damaged (or where the violation occurred) or by the flag state.


12. Malaysia ratified 4 international conventions at the moment:
   i. SOLAS 74;
   ii. Loadlines 66;
   iii. Tonnage Measurement of Ships 69; and
   iv. COLREG 72.


15. Plant G., ibid.

16. MSA—A new Merchant Shipping Act currently being drafted to replace the present Merchant Shipping Ordinance which is outdated.
5.1. Introduction

Marine resource development and other marine related activities encompass a particularly large spectrum of interests which are inter-linked and often conflicting. It comprises a complex agenda of interdependent activities that fall within the jurisdiction of various agencies. Sometimes they exert their influence and capabilities according to criteria of relevance and opportunity that might place them in better position to exercise what they may think economically fit.

The conflict and overlapping jurisdiction in marine activities exist as an almost unavoidable situation depending on the interest each agency may have within their capacity and financial allocation given. These interests may arise from those agencies interested in renewable living resources and those interested in non-renewable mineral resources and also those related in the conservation of the marine environment.
In both developed and developing countries, there is an intense pressure to develop the coastal areas for tourism and recreational purposes, mineral extraction, fishing, agriculture, urbanization, ports and industrial development. These developments are then faced with increased pressure to safeguard the ecosystems and to prevent the destruction of the marine environment. This chapter attempts to discuss the various sectoral developments, inter-linkages and conflicts with regards to the coastal areas and jurisdictional approaches as regard to the management of the EEZ.

5.2. Infrastructure Support And Socio-Economic Linkages In Maritime Sectoral Development

5.2.1. Supporting System

The exploration and exploitation of marine resources and other economic development, by its very nature, demands supporting systems. In this connection port infrastructure plays a key role providing the supportive input to marine development.

In Malaysia, existing ports and particularly specialised ones play a key role to support the heavy industries programmes launched in the 80s. The urea and LNG plants in Bintulu led to the establishment of the Bintulu Port in East Malaysia. Kedah Cement in Kedah demanded the establishment of special terminal to cater for the need of this cement plant. The same also applies to the establishment of Trengganu Supply Base in the east coast of Peninsular Malaysia as a result of the expansion of offshore oil exploration activities in that area.
Consequently these developments require arrangements for traffic routeing, provision of navigational aids, emergency services, port and storage facilities and the links with port hinterlands and associated markets.

5.2.2. Interaction Between Different Marine Activities

The growth of ocean activities and the entering of new users into the marine scene, results in two major areas of potential conflict as follows;

i. the intensive uses of traditional marine activities such as fisheries exploitation and shipping;

ii. the introduction of the offshore oil industry and its related activities and the growing interest on conservation.

Traditional as well as new actors in marine activities require constant accommodation of interests and adjustment of spatial and environmental requirements in the form of concrete measures related to fish stock conservation, environmental management, allocation of fishery resources, navigation safety measures, traffic regulations, pollution control etc. The impact of offshore oil and gas exploration has been recognized as giving serious consequences to the environment. Oil and gas related activities has been the main source of conflict with fishing industries. Eventhough Malaysia offshore platform shows a good record with regard to pollution, precautionary measures need to be strengthen at an early stage and continous measures should be maintained. However, other disputes have arisen over the use of shipping lanes, military uses and dumping areas, and the impact of waste
disposal at sea over fisheries and conservation interests.

The Langkawi Islands' development programmes to take advantage of the tropical island long sandy beaches/tourist destination has conflicting interest with newly build cement industrial plant. As a result of heavy industry constructed on the island, special terminal has to be build on the island, and is incompatible with the needs of the tourist industry and the preservation of fishing grounds in that area. The Langkawi Islands development project is a classic case where the inter-linkages and conflict of ocean uses are evidently seen.

Another example of an attempt to promote marine resource development which proved catastrophic was the creation of Free Trade Zone in Malaysia in 1960s, aiming at attracting foreign capital and technology, jobs creation. By 1975, the free trade zone of Prai in north west Malaysia had become one of the largest in the world. During this period the Government embarked on a policy of modernization of the fishing industry by issuing trawler licenses. The large fishing fleet used efficient but destructive mechanized equipment to harvest the Malaysian seas and encroached the traditional fishing grounds. As a result, fishing catches eventually dwindled. Added to this was the indiscriminate dumping of the factory effluents from the free trade zone into the shallow sea of Prai area, polluting the waters and damaging large number of living species. Affected traditional fishermen deprived of steady income had to turn to the industrial sector for jobs (1).
It is foreseen that the new conflict may arise in the future with the growth of offshore industries with increasing demands upon the ocean environment. The parties involved will be many more and the resource development goals will continue to clash with environment protection goals, creating constant tensions among the interested parties. For Malaysian fisheries, exhibit VI shows the relationship/conflicts between fisheries sector and and other uses of the sea.

5.2.3. The Impact Of EEZ Development On The Coastal Areas

The extension of jurisdiction over EEZ has resulted in a rapid exploration and exploitation of the ocean resources. The most important ocean industry that has created controversy surrounding the onshore impact are the offshore oil and gas and offshore mining industries.

Pollution problems, with regard to fishing industry normally lead to damage of fishing ground and species. The effect of pollution on fisheries may range from the immediate, such as the sudden death of a substantial number of fish, to the more prolonged eg. defective development or reproduction. Effects may be directly on individual fish (eggs, larvae or adult) or indirectly through food.

The mining industry has more immediate and tangible environmental impacts in the form of erosion to beaches, the loss or decrease of aesthetic value of the beach, sediments released to the sea and undesirable consequences.
Exhibit VI: Relationship/Conflicts between fisheries and other uses of the sea

- Coastal Activities
  - Recreation
  - Land Reclamation
  - Mining
  - Aquaculture
  - Mangrove Exploitation
  - Input of Pollutants
  - Port Development
  - Shipbuilding

- Fisheries

- Offshore Activities
  - Oil and Gas
    - Shipping
  - Mining
  - Discharges
Present and foreseen trends in the use of the coastal and marine space indicate a clear increase and intensification in the variety, degree and complexity of the conflicts. Among others, a growth of population density in the coastal areas, increasing competition among users of the coastal space and between the alternate, and sometimes equally necessary users such as urbanization, transport networks, recreational space, industrialization etc. The relationship between human activities and the marine environment of the EEZ can be seen in exhibit VII. Exhibit VIII illustrates further details on the potential global interaction of various marine activities.

The vast oceanic jurisdiction under the Malaysia’s EEZ, has prompted rapid development of the marine resources, living and non-living. As development increases, the conservation and management tasks becomes prominent responsibility of the government. The increase uses of the sea has lead to multiple use conflicts. The nature of conflicts are of socio-cultural, environmental, international-institutional, economical and spatial. Almost all the activities in Malaysia’s EEZ are conflicting with the conservation needs. Annex III shows these conflicts within the EEZ.
Exh.VII: Environment/socio-economic trade in the EEZ.
Exhibit VIII: Potential global interaction in marine activities

The matrix shows the patterns of interaction between major groups of sea use, while environmental relationships are illustrated on the opposite page. The range of possible interactions is in theory large, so attention is focussed upon conflicts and benefits which occur on a notable scale, and upon potentially hazardous interactions with a relatively high probability of occurrence. Conservation efforts may be regarded as a buffer between the uses and the environment, designed especially to mitigate the effects of waste disposal and those extractive uses which have adverse environmental consequences.

The major groups of sea use are illustrated according to four ocean zones: coast, coastal waters, continental shelf and deep ocean. These uses are juxtaposed in the matrix with the two other important themes of sea use management: conservation of the ocean resource and preservation of the environment. Land colours reflect those of related subsections within the Atlas.

Source: The Time Atlas of the Ocean pp. 208
5.3. Major Issues in National Maritime Industry

5.3.1. Institutional Jurisdiction Over Marine Resource and Other Sectoral Developments

The development of marine sector in Malaysia is quite recent. The development are sectoral in nature and based on project by project basis according to national economic priority. The major setback in national marine development in Malaysia is the diversified roles of various government agencies (Federal and State level).

In Malaysia, almost all the economic activities at the national level are under the management of two pivotal agencies namely the Prime Minister’s Department and the Treasury. The Economic Planning Unit (EPU) of the Prime Minister’s Department determine the sectoral planning and the allocation of resources. This is carried out in an integrated sectoral planning approach and thus control the budget in term of annual and five years plan. From the forecast growth within one or five years, the EPU allocates the resources available according with the need of each sector of the economy. These efforts are then translated into specific projects. In the Prime Minister’s Department, the coordination of various project is done by the Implementation and Coordination Unit (ICU). Besides coordination it is also responsible for overseeing the implementation of projects and smooth inter departmental projects implementation and thus acting relationship between Federal and State functions.
The main governmental institutions with responsibility in the uses of Malaysian sea are as follows:

i. Ministry of Agriculture
   Department of Fishery
   MAJUIKAN

ii. Ministry of Transport
   Marine Department
   Light Dues Board

iii. Ministry of Tourism and Culture
    Tourist Development Corporation

iv. Ministry of Science, Technology and Environment
    Department of Environment

v. Ministry of Primary Industry
    Department of Forestry

vi. Ministry of Defence

vii. PETRONAS

viii. Ministry of Public Enterprise

Beside the above ministries and departments, there are several other institutions complimentarily involved with overall marine development in Malaysia. These include the following:
i. Ministry of Foreign Affairs (international matters)

ii. Public Service Department (education/training)

iii. Attorney General Department (legal)

iv. National Maritime Coordination Centre (enforcement)

v. Department of Public Work (minor port)

vi. Prime Minister's Department

vii. Ministry of Trade

viii. Ministry of Energy, Telecom and Post

The roles and functions of various government institutions with direct and indirect responsibility can be summarised further as follows;

i. Fisheries

The Fisheries Department and the MAJUIKAN are the main bodies responsible for the management and development of fisheries. Within the department at the Federal level, there is a section of resource management which is responsible for conservation and management of marine fisheries. MAJUIKAN was established aiming at upgrading the socio-economic status of the fishermen and to develop fisheries industry. MAJUIKAN is responsible for marketing, credits and organising fisheries project. (see chapter II)
ii. Coastal Resources

The State Forest Department (under the Ministry of Primary Industry) is responsible for the exploitation and management of forest reserves. For coastal protection and land reclamation, the Drainage and Irrigation Department is the responsible agency. Reclamation of the mangrove areas for aquaculture purposes is under the jurisdiction of fisheries Department.

iii. Research

The main established research centres for marine related activities in Malaysia are:

i. Forest Research Institute - research relating to mangrove forests;

ii. Fisheries Research Institute - aquaculture;

iii. University of Agriculture - aquaculture; and

iv. Other local universities - research on the toxicity levels of various organisms in coastal waters.

By next year, all research activities in Malaysia would be coordinated by the National Council for Scientific Research and Development of Malaysia.
iv. Shipping and Navigation

Ministry of Transport is the Ministry which has a direct legislative power and responsibility for all matters concerning shipping and navigation. The Maritime Division in the Ministry of Transport was established in 1982 and consists of four units - Port, shipping, maritime safety and Domestic Shipping Licensing Board unit. Besides the Ministry of Transport, shipping related functions are also undertaken by the Ministry of Trade and Industry (UNCTAD and other maritime trade arrangements), Prime Minister's Department (control of national shipping line), Public Service Department and Attorney General office.

v. Petroleum Exploitation

PETRONAS is the agency which has the entire ownership in, and the exclusive rights, powers, liberties and privileges of exploiting petroleum, whether onshore or offshore in Malaysia. However, the activities are subjected to the advice from the National Petroleum Advisory Council appointed by the Prime Minister's Department. The Council is responsible to provide advice on national policy, interests and matters pertaining to petroleum, petroleum related industries, energy reserves and their utilization. (see chapter II)

vi. Recreation and Tourism

The development of recreational area is within the responsibility of the Ministry of Tourism and Culture implemented through the Tourist Development Corporation.
vii. Enforcement

There are various government agencies involved with various aspects of marine enforcement in Malaysia. Among the most important are:

i. National Maritime Coordination Centre;

ii. Marine Department;

iii. Department of Environment;

iv. Marine Police;

v. Malaysian Navy; and

vi. Royal Custom.

From the brief description above, it is evident that marine related functions are dispersed with many government bodies in Malaysia. The significant of such situation is that with competing uses of the sea, the need for holistic approach to sea development is fundamental in order to avoid conflicts and constraints in the use of Malaysian seas.

5.3.2. Maritime Manpower/Expertise

The development of trained manpower is crucial in the marine sector. This is because the marine industry in the country is still in the infant stage. Since the marine sector requires well trained personnel, these are not readily available in the market. Malaysian Flag vessels presently are manned by foreign personnel, particularly at
officers level(2).

The same situation is also in other sectors of marine development. Among needed resources are people trained in marine economics, law, research and development, technical etc. It is important to establish an institution which is geared toward producing locally trained expertise in these areas(3). It is through training then that proper recognition can be made to identify sea uses with its inherent problems of conflicts and constraints.

With the evolution of Malaysia's EEZ there is now a need for Malaysia in finding sufficient administrative resources to cope with the continuing seaward extension of marine jurisdiction. This development has added further demand for scarce trained manpower.

For a coherent strategy to develop Malaysia's human resources it would require well designed manpower training programs in varied areas. However, the existing policy making institution out of limited knowledge is paying very little attention to the development of marine expertise and personnel. Moreover, manpower planners faced with different manpower requirements from many different quarters have difficulty to know precisely where their priorities should lie. There is a need to focus attention on this problem.

5.3.3. Maritime Laws

Most of the marine laws in Malaysia are outdated. This is true of the shipping laws where the Merchant Shipping Ordinance was formulated in 1952. The amendments to the ordinance is done from time to time according to
the requirements of the industry. It is recognized that the legal marine system practice in Malaysia are based on British maritime law. This is the result of series of Acts passed by Britain in the nineteenth century. English shipping law for eg. were introduced into the Strait Settlements including Singapore, Malacca and Penang, and the Supreme Court of Strait Settlements was established as a Court of Admiralty. Like in most developing countries, each colonial maritime systems bears a unique imprint of the historical legal relationship between its European ancestor and the emerging states: The Commonwealth... The UK; The Francophone State-France; Latin American-Spain; Brazil, Angola, Mozambique.... Portugal; The Arab States France and or the UK; and Asia/Southeast Asia. . . . France and The Netherlands.

During the colonial period too as far as shipping is concerned, the emerging states has been entirely dependent on the supply of shipping transportation by the metropolitan power. The dependence had often been part and parcel of the colonial master's overall marine policy. Since the colonial period, there was really very little progress of what we might remotely call the national law of the sea in Malaysia.

The lack of marine legal expert solely responsible for marine legal matters is crucial in Malaysia. The problem of marine legal expertise is not only realised in the public sector and private but also to introduce legal control over the EEZ and other economic activities of the sea. This has contributed to a need for institutional competence to manage and control the ocean resources and consequently a need for legal expertise to deal with legal problems of marine jurisdictional issues.
The term "competent marine authority" for Malaysia is not clear so far. The development depends on the existing administrative framework and legal procedure. The introduction of new marine law for eg. EEZ Act 1984 and Fisheries Act 1985 has prompted the government to establish an authority for surveillance and control agency that is the establishment of NMCC based in Lumut, Perak. However, the question has always been raised, how far this agency could cover the whole uses of the sea or whether the jurisdiction is limited to fishing, or shipping, or pollution control or other strategic reasons. The need for a coordinated responsibility and competent authority is due to the fact that once a claim for a territorial sea or a fishing zone or economic zone has been made, it is assumed that the claim is based on the best available knowledge, that there is a desire to protect it. Enforcement of marine pollution for eg. must reach whatever zones that are established.

The proposed MSA, a proposal to update shipping law in Malaysia for eg. need a competent authority to be set up before the Act come into force. This proposed Act has already taken more than ten years to be prepared and would take a number of years before it could be tabled before the House of Parliament.

This is also true to the environmental policy in Malaysia. The control of marine pollution is inadequate to control and preserve the marine environment. Marine legal framework with regard to marine pollution should be formulated in a comprehensive manner so as to cover the whole activities in the sea as well as the shore based pollution sources.
Today, a general knowledge of the basic principals and procedures of marine law is no longer the prerogative of lawyers alone. The shipping and marine resource development is now a highly regulated, complex system with legal implications at all levels. As a result, any marine administrator, shipping executive, technical officer or mariner needs to have some knowledge of marine law. The exposure of marine law to marine personnel is essential. This will help Malaysia to develop a systematic legal approach in implementing marine policies in the future.

5.3.4. Capital Endowment

Unlike traditional maritime nation, banking institution in developing countries is rather conservative in providing local loans for the development of national marine industry. The banking institution lacks marine expertise to evaluate the marine loans especially for shipping where private participation in the industry is encouraged. The local financial institutions tend to shy away from providing funds for the development of marine sector.

It is clearly shown in many countries that local financial institutions have far-reaching effect on the progress of the national marine industry. The most important issue in overall development of marine activities lies very much with the government financial support. Because of this the shaping up of the national marine policy, the Ministry of Finance should play a bigger role as this is a costly process.
5.4. Conclusion

It is necessary and a pre-requisite for Malaysia to establish a focal point for national marine resource exploitation and the control of other uses of the sea. The management and preservation activities should be coordinated. The government has progressed in some ways in this area by establishing Cabinet Committees. However, for a more coordinated approach of ocean management, an institutional arrangement is necessary. Possibly as a first measure it may be necessary to establish a Cabinet Committee on marine matters and to have an integrated look on overall matter. Upon this deliberation may be the requirement to form a single maritime body can be seriously considered.
Notes


2. Most of Malaysian shipowners, manned their vessels with foreign personnel especially from UK, Canada, US, India, Pakistan, Burma, Sri Lanka, Indonesia, Philippines, Ghana, Australia, New Zealand, Singapore, Korea, Japan, Netherlands and Ireland. All these personnel were exempted under the MSO 1952. Malaysian legislation recognizes certificates of competency issued by the Governments of Singapore, Brunei and those issued under the Merchant Shipping Act which is from time to time enforced in the UK. It further provides for the recognition of a certificate of corresponding value issued by a competent authority in the UK or in any British Dominion or possession, the certificate of which have been declared in Order of Council made under section 102 of Merchant Shipping Act (UK) 1894. See Mohd. Zulkifly Abdullah, Utilization of Maritime Manpower Sources in Public Service For National Shipping Industry, a paper delivered at World Maritime Day’s Seminar, KL, Sept. 1984. See also Present and Future Certification System, Proceeding of Seminar on Seafarers’ Training an Certificate, Oct. 1983, Kobe/Tokyo----ST/ESCAP/278, pp. 192.

3. A Training programme for Transport Canada in Cornwall is a good eg. of a roof concept of training where various aspect of training for transport is done in
one centre equipped with the most updated training
aids. The Government of Canada, through Transport Cana-
da is controlling the centre. It is necessary for such
a centre to be establish in Malaysia where expertise
in maritime field could collectively contributed to
the training needs.

4. James Wong C.K.K., Shipping Law in Singapore and
Malaysia, Quins Ptd., Singapore, 1979, pp. 6-7.

5. Gold E., The Anatomy of International Maritime
Transportation Law, Basic Principles, (Unpublished
Document), International Maritime Law Course, World
Maritime University, Malmo, Sweden, June 30th-July
4th, 1986.

6. ........, Maritime Transport-The Evolution of
International Maritime Policy and Shipping Law, Lex-

7. The maritime legal development in Malaysia started
in the 15th century where the Malacca Maritime Code
served as the basic rules for the maritime activi-
ties. The Malaccan Code contains interesting rules
about the right of the captain of the ship, who was
considered as the sovereign at sea and those of sai-
lors, as well as about the maintenance of law and
order on the high seas, and the organization of trade
on a ship. While it was the task of the ship's captain
to settle disputes on the ships and to punish offen-
ders, the pilot (maalim) was charged with the direc-
tion of the vessels and with all technical details of
its navigation, other rules related to fishing, ship in
distress and shipwreck. The legal status of the ship
Chapter VI

The Evolution Of The Law of The Sea And Malaysian Policy Direction

6.1. Introduction

The adoption of comprehensive CLOS was the culmination of long,arduous negotiations on all problems relating to the control of ocean space. These negotiations, emerging from the evolutionary process of consensus, reflect a collective effort to harmonize the multiple uses of the seas and to accommodate different national exigencies and interests, placing them in a proper global perspective. It took 14 years to produce the Convention. In the last 8 years there were difficult, almost non-stop negotiations and reported threat of failure, ultimately overcome by a combination of creative compromise and stubborn determination — indeed, some call it unprecedented determination to succeed.

The CLOS offered the government an opportunity to take an integrated look at its political and legal involvement in marine affairs. The basic aims of this convention is to provide a legal order for the seas and oceans which will facilitate international communication, and will promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and
the study, protection and preservation of the marine environment (4). The creation of this new legal maritime regime was also to curtail the trend of national claims to broader territorial seas, to preserve as many high seas as possible, while at the same time giving to coastal states increased rights over the resources off their coasts (5). In other words, these new marine areas will add vast oceanic space to the resource jurisdiction of Coastal States.

Malaysia, like other Southeast Asian countries, except Philippines and Indonesia, has not ratified the CLOS but observe the evolutionary and revolutionary process of the Convention. Philippines and Indonesia were instrumental in securing the acceptance by UNCLOS III of the archipelagic regime now found in Part IV of CLOS, and the ratification of CLOS by these two states was motivated by the need to consolidate their long standing archipelagic claims. Malaysia, although not an archipelagic state, also took an interest in archipelagic state developments at UNCLOS III, because of its unique characteristic, being composed of insular and peninsular states separated by waters that would come under Indonesian archipelagic jurisdiction (6).

In adjusting to the new legal regime imposed by CLOS, States may have to redefine overall objectives, formulate general and specific policies and develop the requisite legal framework and the administrative and organisational mechanisms to implement those policies. These, of course has to be assessed by the states by taking into account many factors involving economic and social development, which essentially is outside of the ambit of the Convention. Malaysia's primary marine interests would include furtherance of the concept of a zone
of peace and neutrality, resolution of boundary disputes, guaranteed passage through Indonesian waters separating West and East Malaysia, and recognition and respect for her control of fisheries resources. Malaysia is continuing the process of appraising the provisions of the convention with two fold objective namely:

1. to identify national priorities; and

2. to attain a framework of implementation which is coordinated (7).

6.2 - The Extension Of Maritime Jurisdiction

Major concepts evolving from UNCLOS III that would have great impact on national jurisdiction over ocean resources are those of the archipelagic states, territorial sea, EEZ and continental shelf. Of the 139 maritime nations, 103 have declared their EEZs unilaterally and this makes about 30% of the total area of the ocean within the EEZ. It is estimated that EEZs worldwide account for about 90% of the present commercially exploitable fish stocks, 87% of known submarine oil and gas deposits, and about 10% known polymetallic sulphide deposits, as well as large deposits of sand, gravel and other useful elements (8). In establishing national EEZ the Coastal States is grasping important opportunities and, at the same time, accepting significant responsibilities and obligations. The opportunities allow for more centralized system of resource management and environmental protection which, hopefully, will contribute to an increasingly rational and conservation-minded management system. The Coastal State now has the incentive to manage and conserve the resources in the national EEZ because it is the
Coastal State which determines who is allowed to exploit the resources of that zone and it is, by far, the Coastal State which stand to be the major beneficiary of rational management. Thus, in improving resource management and executing its jurisdictional rights in the EEZ, the Coastal State is furthering its own national interest.

The development of the law on coastal jurisdiction in Malaysia really started when two legislations successively enacted with regard to continental shelf and the exploitation of its resources namely;


In this Act, unless the context otherwise requires, Continental Shelf means the seabed and subsoil of submarine areas adjacent to the coast of Malaysia but beyond the limits of the territorial waters of the States, the surface of which lies at a depth no greater than two hundred metres below the surface of the sea, or, where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas, at any greater depth. All right with respect to the exploration of the continental shelf and the exploitation of its natural resources are hereby vested in Malaysia and shall be exercisable by the Federal Government.


Malaysia, as a former British colony, followed English State Practice in international law and this included the Anglo-Saxon concept of three miles territo-
This limit was extended to twelve nautical miles, measured from a straight baselines by virtue of Emergency (Essential Powers) Ordinance, 1969, No.7, as amended on 2nd of August 1969. Under this Ordinance the breadth of the territorial waters of Malaysia shall be twelve nautical miles and such breadth shall except in the Straits of Malacca, the Sulu Sea and the Celebes Sea be measured in accordance with Articles 3, 4, 6, 7, 8, 9, 10, 11, 12 and 13 of the Geneva Convention on the Territorial Sea and Contiguous Zone 1958. In applying the aforesaid Articles, the expression "territorial sea" occurring there in shall construed as "territorial waters".

On the 21st April 1980, the Yang Di-Pertuan Agong (10) had finally proclaimed Malaysia's EEZ of 200 nm.; thus the water column above the continental shelf within the EEZ came under the jurisdiction of Malaysia. The area of economic zone is 138,700 sq.km. (11).

The proclamation of the Act states that the Federation of Malaysia shall have the following:

1. sovereign rights, for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the seabed and subsoil and the superjacent waters, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;
2. jurisdiction with regard to—

i. the establishment and use of artificial islands, installations and structures;

ii. maritime scientific research;

iii. the preservation of the marine environment in the EEZ shall extend to 200 nm. from the baselines from which the breadth of the territorial waters is measured.

The EEZ Act 1984 (Part II) which deals with the EEZ in general terms provides the following;

i. a provision that states that the EEZ as proclaimed extends to a distance of 200 nm. from the baseline from which the breadth of the territorial sea is measured;

ii. a provision regarding delimitation agreements and the limits of EEZ;

iii. a prohibition of activities to the effect that no person shall, in the EEZ or on the continental shelf, explore or exploit natural resources whether living or non-living unless authorised under the Act or any other written law.

In Southeast Asia, there are three marine boundaries drawn during the colonial period which concerns Malaysia directly. These marine boundaries are as follows;
i. Britain drew a boundary on 3rd August 1924 through Johore Strait and allocated islands to either Malaysia or Singapore;

ii. Britain and United States drew a boundary on 2nd Jan. 1930 to separate their possession in Sabah and The Philippines respectively;

iii. Malaysia was also involved by the boundary drawn in September 1958. Under this boundary, Britain defined continental shelf boundaries separating the shelf appertaining to Sabah and Sarawak from the shelf belonging to Brunei.

Since the end of the colonial period there are four maritime boundaries being agreed in the region. On 7 Nov. 1969 an agreement was ratified by Indonesia and Malaysia defining the continental shelf boundaries in Malacca Strait, in the seas between Peninsular Malaysia and Indonesia’s Natuna Islands, and northward from Tanjung Datu, where the land boundary between Indonesia and Sarawak terminates. The first two segments are lines of equidistance and therefore favours Malaysia. On 10 March 1971 a boundary separating the territorial seas of Malaysia and Indonesia became effective. The treaty stipulates that the boundary shall be the line at the center drawn from the baseline of both countries. Indonesia and Singapore ratified a territorial sea boundary on 29th August 1974. This boundary which extends for 25 nm. is defined by six points. While the three eastern points are equidistant from Singapore and Indonesia.
On 21 Feb. 1979 Malaysia and Thailand agreed on a joint zone off the terminus of the land boundary on the coast of the Gulf of Thailand. This joint zone, which is a pentagon enclosing about 2100 square nm., has been divided by a single line to distinguish areas of jurisdiction over criminal offences.

6.3-Areas In Dispute

The CLOS does not require states to draw any maritime boundaries, but most of the states find it convenient to do so. If the marine claims of the states are known and a chart of their coasts is available, it is possible to identify the specific marine boundaries that each state needs to draw with its neighbours. Since the CLOS codifies states' rights concerning resource management under several marine jurisdictional regimes, each state in Southeast Asia desires to have maximum use of the resources available in their offshore jurisdiction. The declaration of marine boundaries are normally made unilaterally, and many of these unilateral claims overlapped each other. Exhibit XI below illustrates the maritime boundary of ASEAN states.
6.3.1 - Malaysia-Indonesia

On the 25th July 1982 Malaysia and Indonesia signed an important treaty relating to Malaysia's new rights and privileges in the Indonesian archipelagic territory (12). The Memorandum of Understanding (MOU) between the two countries was signed earlier in 1974. This MOU provides the basis for more extensive discussion of the archipelagic doctrine on a bilateral basis and in international fora (13).
The 1974 MOU revolved around two major issues as follows:

i. Malaysia's conditional support of the Indonesian archipelagic concept;

ii. Malaysia's request for a special corridor of passage.

At the Caracas meeting of UNCLOS, Malaysia proposed a resolution into the CLOS with regard to special corridor of passage. This is to safeguard the free communication flow between Peninsular Malaysia, Sabah and Sarawak. At the UNCLOS meeting in Geneva May 1975, Malaysia submitted another proposal to include inter alia all rights, freedoms and liberties in navigation, overflight, fishing, the laying of submarine cables and pipelines. Malaysia also sought the preservation of rights and freedoms of marine research and the conduct of naval and manoeuvres as well as other legitimate interests (14).

Another MOU was signed in 1976 and agreed upon that the general provision of this matter be included in CLOS. Article 47(6) of the CLOS has adopted the New York provision, which is actually the formulation of the MOU 1976 (15). The two countries agreed on the following issues:

i. Malaysian recognition and support of the Indonesian archipelagic state regime;

ii. Indonesian recognition of the rights of access and communication through Indonesian territorial waters and archipelagic waters between East and
West Malaysia by sea or air for civil or military purposes including naval and aerial manoeuvres, excluding third parties;

iii. the continuation of traditional fishing in existing areas before the application of the archipelagic regime;

iv. protection of the existing cables and pipelines between East and West Malaysia and the laying of the new ones after due notice;

v. protection of other legitimate interests; and

vi. the conclusion of a bilateral treaty before the final adoption of an international convention.

The signing of the bilateral treaty in 1982 appreciated the fact that its recognition of the Indonesian archipelagic concept meant an acceptance of Indonesian sovereignty over the area in question. The treaty provides the recognition of Malaysian legitimate interest related to the following:

i. right of access and communication of Malaysia ships and aircraft;

ii. the traditional fishing rights of fishermen in the designated area;

iii. legitimate interests relating to protection, maintenance and replacement of submarine cables and pipelines, including the laying of the new one after notification;
iv. legitimate interests in maintaining law and order by cooperating with the appropriate authorities of the Government of Indonesia;

v. search and rescue operations with the cooperation of Indonesia. The same also applies to marine research activities.

6.3.2-Malaysia-Thailand

Malaysia had settled the seabed boundary problems a few years ago with Thailand by adopting a joint exploitation zone roughly covering the area of dispute, obviating the need for a precise delineation of an exact boundary line. The disputed area between the two countries comprises about 2700 square nm. with substantial known gas deposits.

In fact two agreements were concluded between Malaysia and Thailand in the form of MOU. These agreements are:

i. the MOU between Malaysia and the Kingdom of Thailand on the Delimitation of the Continental Shelf Boundary Between the Two Countries in the Gulf of Thailand, signed on 24th Oct. 1979 and entered into force on 15th July 1982.

By this MOU, a short continental shelf boundary was settled between the two countries in the Gulf of Thailand comprising straight lines joining three points whose geographical coordinates were specified therein. This boundary followed the equidistant-
ce line, although the principle followed was not stated in the Agreement (16).

ii. the MOU between the Kingdom of Thailand and Malaysia on the Establishment of Joint Authority for the exploitation of the Reserves of the Seabed in a Defined Area of the Continental Shelf of the Two Countries in the Gulf of Thailand, signed on 21st Feb. 1979 and enter into force on 15th July 1982.

The second MOU led the two governments recognized that it is the best interest of the two contries to exploit the resources of the seabed in the overlapping area as soon as possible, and that, such activities can be carried out jointly through mutual cooperation. The Agreement also stipulate that for the exploration of the non-living resources of the seabed and subsoil in the overlapping area, a Malaysia-Thailand Joint Authority was established for a period of 50 years from the date the Agreement came into force in the absence of any agreement about the final division of the zone. There is also a provision that the treaty will continue if no boundary has been negotiated in those 50 years.

The Joint Authority is responsible for the planning, development, supervision and the control of all petroleum operation in the Joint Development Areas. The major issues that currently being discussed between Malaysia and Thailand includes (17);

i. the Constitution for Joint Development Authority;

ii. the legal system;
iii. the production sharing contract to be adopted; and

iv. tax matters.

6.4-The Managing Of Resources From The Sea

The declaration of 200 nm EEZ by Malaysia in 1980 means, beside the sovereign rights on exploration and exploitation, an added responsibility of managing and conserving the natural resources, whether living or nonliving. Article 56(1) of the CLOS states that the coastal state in EEZ has sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil. In addition it allows economic exploitation and exploration of the zone, such as for the production of energy from the water, currents and winds.

6.4.1-Living Resources

The CLOS does not provide for specific regulations for the management of fisheries as it was certainly felt that the taking of detailed regulatory measures was best left to the competent authority, whether it be the coastal state or international fishery organisations. It provides however, for a general duty to cooperate in the exploitation of shared stocks or the living resources of the high seas (18) but it introduces various new regimes with respect to fisheries (19).

With regard to fisheries, the management and conser-
vation programme was implemented and involves the classification of fishing areas into four zones: Zones A, B, C and D. The zoning was initiated mainly to curtail trawling activities in the inshore areas. Generally, this programme is aimed to achieve the following objectives:

i. to prevent excessive trawling in the inshore areas and to protect fish breeding grounds and nurseries;

ii. to minimize the destruction of young fish;

iii. to protect traditional fishermen from unfair competition from the industrial or commercial fishing fleet; and

iv. to achieve an equitable allocation of fishery resources.

Zone A is defined to include areas from the shoreline up to 5 nm. and this zone is exclusively allocated to fishermen operating traditional fishing gear and is restricted to owner operators, i.e., fishermen operating their own boats. Zone B lies next to Zone A covering from 5 nm. to 12 nm. offshore. This zone is reserved for fishing boat of less than 40 grt. Priority is also given to owner operators to fish in this zone. Zone C extends from 12 nm. to 30 nm. offshore. Fishing operation within this zone is reserved for boats owned by Malaysian interests. Zone D stretches from 30 nm. to the limits of the declared Malaysian EEZ and this zone is available to foreign fishing through licensing or joint venture arrangements (20).
Part III of the EEZ Act 1984 relates to fisheries activities. Clause 6 states that the seas comprised in the EEZ shall be part of Malaysian fisheries waters. However, Clause 8 of the Act mentions that with regard to fisheries, the Act should be read with other fishery legislations, namely the Fisheries Act 1985 which replaced 1963 fishery law.

The CLOS (Article 61) stipulates that the coastal states shall ensure through proper conservation and management measures that the maintenance of the living resources in the EEZ is not endangered by over exploitation.

When the Fisheries Act 1985 is brought into force, fisheries matters in Malaysian EEZ will therefore be regulated by the Act. Section 6 of the Fisheries Act 1985 translated the concept of conservation and managing the living resources as provided in the convention (21). This section states the following:

i. the Director General shall prepare and keep under continual review fisheries plan based on the best scientific information available and designed to ensure optimum utilization of fishery resources, consistent with sound conservation and management principles and with the accordance with the overall national policies, developments plans, and programmes;

ii. each plan and each modification and revision thereof shall be implemented after the approval by the Minister;
all development within the fisheries industry shall conform generally with the management and conservation policies described in the fisheries plan.

Allocation and control of living resources in Malaysia are assumed to be achieved largely by the regulatory mechanism of licenses(22) provided in the Act. A fishing license is required not only for local fishing vessels but covers the use of fishing appliances, fish aggregation devices and marine culture systems. The Act also regulates various aspects of fishing activities through various legislation to be introduced pertaining to condition for local fishing vessels; limitation on quantity, size and of fish caught and retained or traded; method of fishing, collection of statistics; and licensing, regulation and management of particular fishery.

In the Fisheries Act 1985 allocation and control of EEZ resources in relation to foreign fishing is assumed to be achieved by prohibiting foreign fishing vessels from fishing or attempting to fish in Malaysia's EEZ or to conduct any techno-economic research or survey of any fishery, unless authorised so to do under an international fishery agreement of Malaysia and international organisation to which such vessel belongs or in which such vessel is registered. This is in line with the provision that gives coastal states an exclusive jurisdiction to regulate fishing in their national waters, territorial seas and EEZ, and to adopt and enforce conservation measures in respect not only to their nationals but also to nationals of any states that may have authorized to exploit living resources. With regard to the EEZ, Article 62 of the convention gives a long and non-exhaustive list of the types
of regulatory measures coastal states are entitled to apply to foreign nationals fishing for unharvested surplus (23).

The extension of fisheries jurisdiction in Malaysia has generally increased responsibilities from the point of view enforcement. The NMCC based in Lumut, Perak has been established with a view to coordinate the surveillance in relation to the enforcement of EEZ legislations.

Comparing with environmental issues, regional cooperation in fishing within the ASEAN has not been very active. In Dec. 1980 an agreement in principal was reached to establish a group to evaluate the possibilities of internal and external joint-ventures arrangements. More constructive was the agreement reached in Oct. 1983 by the ASEAN agricultural and forestry ministry called the ASEAN Ministerial Understanding on Fisheries Cooperation. The accord calls for a sharing and transfer of technology, and marketing as well as providing in general principal for the management and conservation of fisheries resources (24).

6.4.2-Non-Living Resources

In Malaysia, marine awareness gain significant interest due to the discoveries of significant oil and gas in the offshore of Peninsular Malaysia, Sabah and Sarawak. Marine regionalism in ocean resource development is an important tool to avoid dispute over the overlapping claims arisen from the extension of the EEZ.
In the past Malaysia has had a history of close collaboration with Brunei in petroleum development operation. Malaysia also cooperates closely with Thailand in an effort to develop the disputed offshore territory between the two countries. Two MOUs as discussed earlier were signed in 1979. This led to the establishment of Joint Development Authority for the purpose of exploring and exploiting the non-living natural resources of the seabed.

6.5-Protection And Preservation Of The Marine Environment

Under CLOS states have the obligation to protect and preserve the marine environment (Article 192) and exercise sovereign right to exploit natural resources pursuant to their environmental policies and in accordance with their duty to protect and preserve the marine environment (Article 193).

The most notable legal measures to protect and preserve marine environment in Malaysia is the EQA 1974. However, the application is limited to territorial waters. The EEZ Act provides the provisions with regard to protection and preservation of marine environment (Part X of the Act). Clause 10 states that if any oil, mixture containing oil or pollutant is discharge or escapes into the EEZ from any vessel, land-based source, installation, devise or aircraft, from or through the atmosphere or by dumping, the pollutant is liable to a fine not exceeding one million ringgit.

The steps to protect and preserve the marine environment therefore lies on the effective implementation of the environmental policy.
6.6-Conclusion

The CLOS has both direct and indirect effect in shaping up of marine policy of Malaysia. The CLOS has provided the most crucial rights for Malaysia to harvest the marine resources in its extended jurisdiction. The EEZ should not only be seen to provide economic benefits but also added responsibilities to the country. An effective surveillance and control system would be an important factor to ensure the full utilization of marine resources. The concept of marine regionalism is also an important factor to be realised. The CLOS is truly an umbrella Convention of the sea.
4. Preamble to CLOS. Hugo Grotius, a Dutch lawyer of the seventeenth century, is usually credited with producing the first major statement regarding the legal uses of the oceans. In 1609 he published Mare Liberum, a dissertation of the concepts of the freedom of the seas. In it Grotius wrote that the countries were free to use the sea for whatever purpose they wanted as long as it did not interfere with another country's use of the area. Grotius also realized that a coastal state should have some control over the ocean immediately adjoining its coast. This led the definition of the zone called the territorial sea. In this zone the coastal state had complete sovereignty. Another Dutch man (Cornelius Van Bynkershoek (1673-1743)), proposed that the width of this zone should be the distance from shore a cannon could-fire, which was about three miles at that time. The LOS Convention call for twelve miles. One of the first major challenges to the three miles territorial sea concept was made by President Harry S. Truman of the United States in 1945. He established a new national policy on the natural resources of the subsoil and seabed (Truman
Proclamation). In 1967 Ambassador Pardo issued a call to action on the seabed beyond national jurisdiction should be considered the common heritage of mankind and the wealth obtained from it should benefit both developed and developing nations. A year after that, the Permanent Committee on the Peaceful Uses of the Seabed and the Ocean Floor Beyond the Limit of National Jurisdiction (the Seabed Committee) was established. The Seabed Committee continued its preparatory work for UNCLOS III in 1971 and 1972. UNCLOS III met for the first time in New York in 1973, in Caracas 1974. The LOS was adopted in 1982, bearing the concept of the management of the ocean and conservation measures. See for eg. Shusterish K.M., Resource Management and the Oceans: the political Economy of Deep Seabed Mining, Westview Press, 1982, pp. 5-13.


9. Juda L., The Exclusive Economic Zone and Ocean Manage-
10. The Constitutional Monarch of Malaysia.


12. Indonesia had been promoting the archipelagic idea as early as 1928, made a unilateral proclamation as an archipelagic state on 13th Dec. 1957. This was the Djuanda Declaration, which became law in 1960.


14. Ibid.

15. Ibid.


19. Shigeru Oda, Fisheries Under Law of the Sea Convention...

20. see Sabri Ahmad, op. cit.


22. ibid.


Chapter VII

Shaping Marine Policy
In Malaysia—A Need For
Integrated Approach and
Institutional Arrangements

7.1. Introduction

As the ocean uses are increasingly important and multiple use could no longer be treated as a distinct and isolated policy area, a new approach of ocean development and conservation has gained its place in the overall national marine affairs. This is because within the area of the ocean are habitats containing a mass of life forms. Many of them are highly mobile and all of them have complex ecological relationships. Also, each sea area has its own identity in terms of its biology, its climatic conditions and its geographical and political situation. Some of this marine activities seriously deplete ocean life; others threaten fragile habitats; and many activities are in conflict with one another. The sectoral development which normally been treated as a case by case project could no longer bear the increasing impacts of various marine use conflicts upon other sensitive resources particularly fishery, threat to coastal community etc. Pollu-
tion which has been recognized as the most important destructive agent are often resulted from the lack of coordination and awareness of these development projects.

In developing countries, there is an increase evolution of the importance of having an integrated treatment over the ocean development and the need of coordination among the users of the sea. This awareness has to be followed by an institution building process either reorganizing the existing institutional arrangements or establish a single body to look after the marine affairs. This chapter attempts to discuss the methodology of integrating ocean policies in overall marine development.

7.2. The Concept Of Ocean Management

Ocean management implies some ordered approach to the utilization of ocean space and it need logically follows from the realization that the ocean cannot be everything for everybody, available to everyone for every purpose at all time. The concept of multi-use management in ocean areas is relatively new but likely to become an important tool for securing the ocean wealth. Earlier attempts at management consisted, for the most part, in formulation of laws to govern marine activities such as navigation and coastal fisheries. Ocean management involves the extension of control over ocean space, resources, as well as individual government efforts to exert control. It includes various ocean-related management functions such as:
i. research;

ii. information collection etc.;

iii. financial assistance;

iv. revenue collection;

v. monitoring;

vi. enforcement;

vii. policy setting;

viii. Regulation; and

ix. standard setting etc.

It is this combination of functions and the degree of control which constitutes management(1).

Ocean management is needed for several reasons. First, the living resources of the ocean, often referred to as renewable resources, are in fact renewable only under certain circumstances. Overfishing, for example, may ultimately result in fish stocks being made commercially, if not biologically, extinct. Second, some ocean uses may have important implications or even exclude the use of an area of the oceans for other purposes. Fundamentally, the world’s oceans and seas constitute natural systems and subsystems in which actions taken in one functional area, such as oil exploitation, may have significant ramifications in other areas, such as navigation and fishing.
The most fundamental aims of sea use management include; the reconciliation of conflicting uses, the maximising of yields from living resources commensurate with their conservation, the preservation of endangered marine species, and the protection of fragile ecosystems. Sea use management may also include the social dimensions of ensuring improvements in the livelihoods of those dependent on the sea in certain sea regions. The concept of sea use management is not, however, widely adopted due to the difficulties of coordinating activities between opposite and adjacent States. Even within the national sea areas, problem of cooperation between the various government departments dealing with the sea may prove difficult.

Accordingly, modern ocean management must be multi-use in perspective, taking into account the interplay of different uses rather than focusing upon each category of ocean use without sufficient reference to other uses. It also requires clear objectives, good research and usually some structural changes in administration, or at least good methods of accessing diverse data under a strong coordinating team. The skills involved vary from biology to diplomacy. The EEZ, with its spatially defined boundaries in which the coastal state has a package of exclusive rights, management authority, and limited jurisdiction may provide a framework for the development of a system of multi-use management over some ocean areas of greatest significance to mankind. The UNCLOS provides the basis for ocean management for eg. the conservation of the living resources (Art. 61) and utilization of this resources (Art. 62). Extension of national marine jurisdiction over fisheries resources in waters within 200 miles of a State's coasts requires the adoption of policy
regarding management of its living resources and creation of appropriate mechanisms for ensuring this policy. In fact, this extension of the Coastal States jurisdiction has given many countries the opportunity, for the first time, to determine a clear fisheries policy and create a specific mechanism for enforcing such a policy.

EEZs may provide a step forward in ocean management because of the direct national interest which they create for the coastal states in the resources and uses of those zones. They may also lead to a better understanding of the limitation of management systems which do not coincide with natural ecological system. The fisheries regime in the EEZ offers new opportunities for developing Coastal States, but at the same time it also makes them responsible for rational management of a large part of the living resources of the sea.

Malaysia, in its aim toward harvesting marine resource and managing the ocean, recently requested France to assist the University of Agriculture of Malaysia to embark on a study on coastal resource management. This is one of the request made by the government to set the technical cooperation programme between the two countries (2).
7.3. Integrated Marine Policy

An integrated marine policy means a policy where the constituent elements are brought together. This reflects a need to have an approach where no longer a single treatment over a sectoral development which evolved in its own distinct and independent policy course (3). The 1982 LOS Convention does note that the problems of ocean space "are closely inter-related and need to be considered as a whole" (4). Part V of the CLOS leaves to the discretion of each party state with an EEZ the choice of national mechanisms, approach, and institutions of management. Normally a suggestion to have an integrated marine policy arise with multiple conflicts in ocean development which demands a comprehensive policy decision. This could be explained in Exhibit IX.

The most salient problem in policy making over the marine resource development is the absence of an overall marine policy framework in the majority of the developing countries: policy making is done on the basis of limited information, and in the absence or very limited inter-agency consultation and reassessment of policy objectives as technical, managerial and economic circumstances change. It is no doubt that the developing countries have a long standing planning tradition, but they lack experience in marine and coastal planning. Moreover, even though the central planning bodies might have long been established, the marine component is either one of the least developed or is simply non-existent. At most, input in marine affairs is received only from a few sectors (e.g. fisheries, marine transport and energy; the latter if offshore exploitation plays a role in national energy policy).
Therefore, in most of the developing countries, the marine sectoral planning corresponds to a project by project basis with no adequate inter-sectoral and intra-sectoral coordination. One of the major problems in this area results various deficiencies in the ability to prepare well conceived projects and to integrate them into a coherent marine programme, which otherwise comprises only a summation of individual sectoral projects, with no proper evaluation of the comparative advantages thereof, and the inter-project relationships.

These uncoordinated marine development has been recognized as the reason of several negative feedback to the environment. Subsequently, the pollution problem, as an important issue in the marine environment, generate negative impact over the other coastal economic activities. Furthermore, there is an increased tendency of population growth in the coastal areas and this would of course create the environmental disturbances to human settlements.

The features of competing uses of the sea has demanded the marine development to be guided by an integrated policy approach where the coordinated and comprehensive framework should be adopted. At the same time a comprehensive environmental policy and enforcement strategy need to be formulated to cover every zone which was established. Legislative framework for marine activities has to follow with these trends.
However, an integrated policy in marine affairs demands an institutional building process of whether reorganizing the existing structure or establish an institution on its own solely looking after the marine affairs. In other word this establishment has to be marked with the focal point-function of coordinated marine developments. This is because most of the existing institutional arrangement normally acted in the limited development space, grew in distinct and independent policy area rather than combining them into an ocean industry sector.

The integrated scope of marine policy therefore can be measured in terms of the proportion of interdependent issues or issue aspects that is subsumed under a common policy framework. Thus a nation managing its fisheries, offshore oil and gas production, and marine transport under a common policy conception can be said to have a more comprehensive marine policy than a nation treating each of these activities as a distinct and independent policy area (5).

Considering the problems arised from the uncoordinated marine development, an attempt to integrate the marine affairs, means an approach of coordinating policy areas and introducing the concept of ocean management at national level. Integrated marine industry system is summarised in Exhibit X.

This model of a marine industry system illustrates fisheries, tourism shipbuilding, port development and sea transport all constitute an inter-related system, since the linkages between them are strong. Thus the development strategy for marine industries should be to ensure these linkages operate in such a manner that growth and deve-
lopment in all these industries compliment each other.

7.3. Institution Building Process

Marine resource development and other uses of the sea is a subject of considerable interest of the country. Realizing the added responsibilities after the declaration of the EEZ, poses new requirements and management procedures, a focal point is required in order to provide the government with a capacity to plan, to manage the entire chain of functions needed to incorporate the marine sector into the national development process.

Institutions are the instruments with which to accomplish policy. It is by firm policy commitment that institution should be established and maintained; what is required then is the initial stages, much more than new institutions, are articulating mechanisms among existing institutions. These mechanisms and instruments should promote effective coordination at all levels. The following are the most salient:

i. consultation at all levels, from policy making to implementation;

ii. development of common goals toward which concerted efforts should be directed;

iii. joint planning; and

iv. exchange of information.
Exhibit X: A Model of an Integrated Marine Industry System

Other Sector

Construction
Building
Material

Manufacturing

Tourist
Industry

Fishery

Agriculture
and Forestry

Sand
and Gravel

Oil and Gas

Shipping
Port
Shipbuilding

Recreation
These mechanisms could gear the existing institutional machinery to the new development policy which they, as a whole should serve.

The prevailing institutional problems confronting development of marine affairs in developing countries could be grouped into four categories—policy making, planning, implementation, and legislative and regulatory aspect.

i. Policy making

a. The non-existence of an overall policy framework and the dependence on sectoral policies that might poorly defined;

b. Inconsistencies and conflicting aims may appear when several sectoral policies come together, frequently resulting in environmental damage;

c. Policy making is done on the basis of limited information, lack of interagency consultation and of re-evaluation of policy objectives in light of changing technical, managerial and economic circumstances.

ii. Planning

a. Current institutional arrangements rarely correspond either to the dynamic nature of ocean resources and ocean uses or to the reality of the biophysical characteristics of ocean and coastal systems and their associated processes;
b. traditional institutional approaches have limitations in handling multiple and simultaneous use of the ocean resources and space, and in managing the variety of externalities that are played out through cause-effect networks and culminate in negative impacts upon other sectors;

c. there is a lack of experience in marine and coastal planning as well as in the establishment of new procedures to ensure intersectoral and intrasectoral coordination within existing sectoral plans relevant to marine and coastal development, and the introduction of the "marine dimension" within development planning;

d. at the resource allocation and budget level, the input of all sectors merge and pull in different directions while traditional economic sectors with longstanding support compete for funding, resources and authority. In this process, the marine component, which is dispersed among many ministries, becomes further diluted and fragmented by forces that weaken the already isolated efforts of individual agencies.

iii. implementation

a. management responsibilities fall under a number of ministries and level of government that have control over one or more facets of ocean resources and space. These sectoral and hierarchical differentiations are further complicated by functional divisions which may also create separate agencies or bureaus, creating more possibilities for frag-
b. the fragmentation of government responsibility does not contemplate the intersectoral and interdependent nature of coastal and ocean activities that fall within the jurisdiction of various governmental and non-governmental agencies;

c. there is an absence of coordination between the planning and operational levels. This coupled with the limited roles assigned to regional and local governmental agencies makes very difficult the proper allocation of the chain of functions necessary for the implementation of programmes and projects;

d. mechanisms to deal with ocean use decisions having cross-resources implications are inadequate; few opportunities exist for examining the ramifications of decisions in one sector upon other sectors and there are no public mechanisms for resolving the many conflicts that arise among users and agencies.

iv. legislative and regulatory

a. current institutional arrangements do not span the land-sea interface, instead, multiple jurisdiction and laws applies to various geographical limits;

b. the lack of continuity in jurisdiction across the coastal and offshore areas, added to the division of authority among different governmental
levels creates difficulties in decision making, widening of institutional gaps and overlapping and confusion in applying regulations:

c. there is a lack of adjustment in the regulatory framework and an absence of coordination in the application of fragmentary norms and rules that regulate resources and uses.

A number of countries has taken steps to address the above problems and managing the oceans (see Exh.XI) and some established a permanent body or an ad hoc arrangements (see exhibit XII).

Sri Lanka, a country lacked a strong maritime tradition and for a long time the expertise are only available in the field of fisheries, established a single institutional agency for marine resource development. The country faced two needs: to set up a national policy forum for marine resource development and to develop capabilities for action in that sphere. The single agency known as National Aquatic Resource Agency (NARA) was thus established with the mandate to engage in the research, development and management of all aquatic resources (living or non-living). The French Government established the Ministry of the Sea, as a sectoral administration dealing with ocean affairs as a whole. The government of India also established the Department of Ocean Development, based on the use of existing sectoral administration operating under this department which has the power to formulate national policy in ocean affairs and to coordinate its implementation.
Exhibit XI: Coastal and Ocean Initiatives

<table>
<thead>
<tr>
<th>Development of a Conceptual, Institutional and Legislative Base</th>
<th>Formulation of Coastal Area Management Programmes</th>
<th>Implementation of Coastal Area Management Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td></td>
<td>Australia</td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>United States</td>
</tr>
<tr>
<td>75</td>
<td></td>
<td>United States</td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>United States</td>
</tr>
<tr>
<td>85</td>
<td></td>
<td>Brazil</td>
</tr>
</tbody>
</table>

Source: Vallejo (1987)
### Permanent Arrangements

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>New centralised Agency</td>
<td>India: Department of Ocean Development</td>
</tr>
<tr>
<td>Expansion of duties of an existing agency</td>
<td>Colombia: Navy's Maritime and Ports Directorate</td>
</tr>
<tr>
<td>New permanent interagency council</td>
<td>Philippines: Coastal Zone Management Committee</td>
</tr>
<tr>
<td>New interagency council as a supplement to a central agency</td>
<td>Sri Lanka: Coast Conservation Advisory Council</td>
</tr>
</tbody>
</table>

### AD HOC Arrangements

<table>
<thead>
<tr>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>One agency and no adjunct interagency unit</td>
<td>Brazil: Sao Paulo Resources and Environment Agency (CONSEMA)</td>
</tr>
<tr>
<td>Lead agency and an adjunct interagency unit</td>
<td>Ecuador: Interagency Commission chaired by Navy's Directorate of Maritime Affairs</td>
</tr>
<tr>
<td>Panel or council to guide policy or clarify technical issues</td>
<td>International Union for the Conservation of Nature: Workshops on management of protected areas</td>
</tr>
<tr>
<td>Interagency task force</td>
<td>Argentina: Interdisciplinary Commission on Coastal Management</td>
</tr>
<tr>
<td>Interagency commission or panel</td>
<td>Ecuador: High Level Commission (Master Plan for the Galapagos Archipelago)</td>
</tr>
</tbody>
</table>

In Sweden, the government had decided to create a small, rather flexible coordinating agency, known as Swedish National Marine Resources Commission. The Commission had no power over other governmental agencies; it could only advise governmental agencies, upon request and suggest courses of actions to non-governmental bodies engaged in marine resource development. However, this Commission had no responsibilities in the domain of fishing, shipping and shipbuilding because other governmental agencies were sufficiently well equipped and competent to handle those sectors.

In Malaysia, the institution building process, of establishing the focal point for the ocean management is rather slow. The industries developed in the existing institutional sectoral framework where a number of agencies involved. These agencies correspond to the national economic planning instructed by the government particularly through Economic Planning Unit, Prime Minister's Department. However, the coordination among the ocean development seem to be very minimum.

7.4. Institutional Structuring For Marine Resource Development

7.4.1. Basic Institution-Building Strategy

The decision to establish or reorganize any institution should be the result of a judgement involving two sets of criteria- external and internal.
i. External Criteria.

This refers to the assessment of the value related to the way in which the institution will or is to perform a function or serve a purpose in the process within which it is to be inserted. This is involving the revaluation of the real need for the institution, present or foreseen, and of its effective insertion into the existing institutional structure. In other word a new institution should be created only if such an assessment indicates that what it is supposed to do cannot be done otherwise, in an acceptable way and that it will be able to interact properly with the existing institutions in performing the task.

ii. Internal Criteria.

This is related to those measures of value related to the adequacy of means (personnel, procedures, funds, etc.) to be provided to the new institution so that it capable of performing what is demanded. The decision to create the new institution should be made only if it is concluded that, indeed, this provision applies and its in a more efficient use of such means.

7.5. National Marine Policy

Although there is no single model of institutional arrangements for marine resource development that is applicable to all countries, there are certain basic, recurring features of all such development. Realizing that the marine resource development are multi-discipline and that the interdependence of activities and ecological aspects associated with these activities should normally
be reflected in the planning, managerial and institutional arrangements for marine resource development, there is often a need for improved communication and coordination among the various ministries and departments involved in such development.

Taking into account the need to integrate ocean development strategy into one policy framework, the following are among the most important issues for Malaysian policy direction:

i. An agency should be established and assigned to take the responsibilities of the ocean development. It should also be a focal point with coordination function with regard to relevant activities in other parts of the government;

ii. The improved communication and coordination instrument should be set within this agency;

iii. Such institution need a continuous feedback from

a. Other governmental agencies;

b. Private firms;

c. Research institutes;

d. Universities;

e. Local coastal communities; and

f. Fishing communities.
The supportive function performed by institutional arrangement requires:

a. the development of manpower and technological capabilities;

b. the generation, collection, storage and dissemination of information at all levels; and

c. more comprehensive and better coordinated marine scientific research.

In Malaysia, therefore, the ocean development should be multi-discipline and the concept of management with the integrated policy approach treating those development as an ocean industry sector, should be employed. Taking into consideration the interplay of different developments as shown in exhibit X, it is a need to have an integrated policy framework. In Malaysia, because of a number of ministries and departments are involves with the marine resource development, and the complexities of the division of powers between the Federal and State government’s agencies, therefore, prerequisite to establish a focal point for marine resource developments.

The national ocean development, therefore, need to be integrated due to the fact that the existing sectoral developments expand within the limited inter agency coordination and consultation, and sometimes ignore the fact that the ecological implication from these developments are serious enough. The comprehensive environmental policy should follow this trend and the enforcement of law should cover every zones that already been estab-
7.6. Conclusion

The course of developing Malaysian marine policy encounter various deficiencies due to the lack of communication between the government agencies, which treating each sector on its own policy area. A need to have an integrated marine policy is growing urgent in Malaysia. In the process, an institutional arrangement is necessary in the course of treating the whole marine development in an integrated policy framework.
Notes


3. The integrated marine policy need comprehensiveness, aggregation and consistency. Suggestion for an integrated marine policies seem to imply some notion of a proper or ideal policy scope. However, this policy scope might be in better position to employ a common policy area which better result to environment and living resources. see Arild Underdal, Integrated Marine Policy - what? why? How?, Marine Policy, July 1980.

4. Preamble to UNCLOS.

5. Underdal, ibid


Chapter VIII

National Maritime Council

8.1. Introduction

By the time this study is nearly to be concluded, the Government of Malaysia, has established a National Maritime Council (NMC) and convened its first meeting in June 1987(1). However, to date no firm decisions were made with regard to its composition, task and priorities. This study therefore, attempts to suggest various steps that might contribute to the NMC. The formation of the NMC is a testimony of greater government interest in ocean development and the realization of various deficiencies in the overall marine sectoral policies and the importance of the sector to the national economy.

8.2. Roles and Responsibilities

The formation of the NMC could be considered as a big step for Malaysia to harmonize its marine policies into a comprehensive marine policy framework, thus treating marine sectoral activities under a common policy scope. Even though there is very little evidence of success in various countries to fully harmonize marine policy, the aims, however, contributes for a more comprehensive attempt to manage the marine environment and other uses of the sea. The NMC taking this consideration into account should focus attention to the following areas:
i. provide more effective policy coordination by facilitating a more coherent definition of the national priorities over the ocean resources;

ii. provide an increased efficiency by reducing duplication, conflicts and waste within the various marine sectoral development;

iii. facilitate increased effectiveness in task performance; and

iv. provide access to centers of decision-making for constituencies.

Based on the functions described above, the NMC, therefore, needs to set various policy objectives for ocean management. These include the following:

i. economic

From the economic point of view, the NMC efforts are to be directed towards the safe and efficient use of various opportunities offered by Malaysian seas. Marine resource development encompasses a particular large spectrum of interested actors—both governmental and non-governmental—which often compete for common resource base and for the use of space. This gives place to conflicts in the allocation of the scarce resources, conflicts in the use of space, and multiple use conflicts that impinge among the quality of the marine environment. A careful balancing of potentially conflicting interests is particularly important in connection with permanent and localized uses of space (submarine pipe
lines and cables, extraction platforms and coastal and offshore land reclamation. The policy shall be to promote the development and expansion of the ocean area in accordance with its best potential, and to achieve and maintain an optimal level of utilization in harmony with the requirement of balanced economic growth.

iii. Environment

Environmental problems should be addressed seriously by the NMC. The unique features of the marine environment need necessitate great caution in policy and action: the consequences of proposed activities must wherever possible be identified in advance so that measures can be taken to minimize marine pollution and damage to marine environment. In achieving the optimal level of utilization of ocean resources, it should also be in harmony with a sound protection of environment. In other words, an environmental impact assessment should be put forward before the proposed project proceed. Malaysia should also promote the rights of the international community in the conservation of the ocean areas through cooperative endeavours within the limits of the national interest.

iv. Social, Cultural and Scientific

In the process of seeking maximum contribution from the sea to the national economy, the scientific knowledge of the sea should be increased by promoting more marine scientific research in Malaysian seas and thus to assess its potential. It is the
responsibility of the NMC to increase marine awareness to the people, industry and interest groups. It is therefore important to insert national ocean studies within the educational system and thus provide a better chance to increase awareness of the sea, and its resources. Only a limited aspects of marine education are currently being conducted in local universities and very little at school level.

Having discussed the broad policy objectives that fall within the NMC, the policy elements can be summarised as follows:

i. policy framework

Description of current status of marine sectoral activities is an important component for the policy framework of marine development. These may include the following:

a. the natural system and its characteristic features and processes;

b. the multiple sea uses and potential problems area; and

c. the available statutory and regulatory instruments and means of enforcement.

The policy framework also includes an evaluation of existing national marine policies included in the international conventions, national legislation and government instruments.
The action programme is a crucial element in the process of harmonizing marine policy in Malaysia. It comprises specific goals the government propose to take in order to achieve a coordinated approach towards giving priority to problem areas. The problem areas therefore should be identified and evaluated by the NMC as a basis for policy framework. From the problem areas, the priorities to be selected may include the following:

a. their importance as regard to the general objectives set out by the government;

b. the question whether the problem area actually give rise to conflicts of interest;

c. the frequency of conflicts of interests in the problem areas; and

d. the seriousness of the consequences of such conflicts of interest for example the scale, duration and interest at stake.

The selected priorities should be collected through various proposals from lead ministries/departments concern with sectoral development, the industries and the input from local/fishing communities and research institutes. The proposals put forward has to be subjected to an environmental impact analysis.
A simple but effective concept is the construction of overlays of living, non-living resources and uses of the sea into atlases for critical areas or entire coastline (3). Some atlases designed for policy development or management purposes while others have very specific uses as aids for contingency planning in the case of oil spills. This atlas system developed by Coastal Zone Management in the United States is a good example. The content of these atlases have been designed with the following needs in mind:

a. environmental impact assessments of major development projects;

b. assessment of alternative locations for onshore and offshore activities;

c. identification of areas that may require special protection;

d. oilspill contingency planning;

e. identification of the spatial dimension of resource management programs; and

f. identification of data groups and research needs.
8.3. Composition

Taking into account various governmental and non-governmental institutions with involvement with marine uses and sectoral development in Malaysia, the following major institutions may be appropriate members of the Council:

i. Ministry of Finance;

ii. Prime Minister’s Department;

iii. Attorney General Department;

iv. Ministry of Science, Technology and Environment;

v. Ministry of Agriculture;

vi. Ministry of Primary Industry;

vii. Ministry of Public Enterprise;

viii. Ministry of Defence;

ix. PETRONAS;

x. Ministry of Works;

xi. State Governments;

xii. Ministry of Tourism and Culture;

xiii. Ministry of Transport; and
In such a Council, the Ministry of Finance should play a major role in the overall marine policy development. Each member is a lead institution for the individual actor and thus giving proposals to the NMC. It is important to note that in formulating and implementing marine policy, the input from the coastal communities and academic are essential.

8.4. Major Strategies in Ocean Development and Management

It is the responsibility of the NMC to draw up strategy and management target for the marine sector from various proposal put forward by lead ministries or department. The major strategies that can be considered for Malaysia are as follows;

i. develop system for surveying, investigating and monitoring the ocean area. This will include accelerate inventory and assessment activities; improve and expand existing capabilities for ocean resource exploration; establish standard measures in the evaluation and monitoring of research activities; and pursue effective planning and coordination in research activities by both governmental and non governmental institutions;

ii. establish and implement proper conservation, management and protection measures. This will include activities such as projection studies on the expansion of the ocean area; regulate activities to ensu-
re future utilization of the ocean area; develop methodologies and criteria for evaluating programs related to ocean area utilization; and strengthen enforcement capabilities for the maintenance of national security;

iii. evolve and pursue a diplomatic programme consistent with national interests. This will include accelerate the flow among nations of information, technology, funds, expertise and other resources related to ocean area management; strengthen regional ties in order to pursue common interests; and reviewing existing agreements affecting the ocean area;

iv. safeguard investments and provide attractive terms for the return of investments. This will include granting incentives to encourage the participation of local and foreign investment; and

v. accelerate the development of the ocean by developing new, adaptive and appropriate technology and provide financial and technical assistance to the local.

8.5. The legal framework

It was explained in the earlier part of this study that most of maritime legislation in Malaysia are outdated. Efforts to update marine legislation are now underway but it is a slow process. With the increasing actors in the marine affairs and increased marine interest by the government, a need for more comprehensive legal framework is crucial.
A proper legal framework will facilitate the implementation of policies in three areas namely the national legal system, national legal process and international legal process.

i. National legal System

a. Sovereignty and Jurisdiction

Though Malaysia has basic provisions setting out national territorial sovereignty, it has to be restated. This restatement would provide legislative umbrella and in the process notify global community of the country's jurisdictional parameters where the administrative and juridical limit are placed.

b. Marine Legislation

In implementing national sectoral sea use activities, it is essential for Malaysia to have currently viable national legislative instruments covering all ocean uses, resources and the protection of the marine environment where the country expresses its "legislative intent". However, Malaysia needs to identify the activities which need to be regulated and what are the impacts or implications on laws relating to other sea use and development. In other words, a legislation must take into account the multiple use conflicts. A multipurpose piece of legislation seems to be a good solution but this will take time and energy to produce. This is true in Malaysia because of various existing rules and regulations with varying jurisdiction governing marine activities.
c. International Aspects

The national legislation should not conflict with international conventions such as CLOS, IMO, UNCTAD and others. This also applies to those of bilateral and multilateral treaties and agreements.

ii. National Legal Process

a. Administrative Responsibility

It may not be appropriate to give legislative responsibility of ocean management to one agency (among the actors of ocean uses and development). Nor it is viable to specify legislative responsibility to each of the agency concern with marine use. The NMC as a central coordinating body would be the most appropriate step for Malaysia, which could review both legislative needs and administrative responsibility.

b. Regulatory System

Regulatory system is the enforcing arm of any law which provides the day-to-day operational guidelines for those charged with enforcement, as well as those whose actions on sound knowledge of what is to be regulated and what the purpose of such regulations. Therefore in drafting legal matters it should involve people who know the day-to-day work. This will avoid conflicts in the normal enforcement function of such laws.

c. Dispute Resolution
In creating acceptable environment which encourages ocean development and also protect the marine environment of Malaysia, the legal framework must contain a predictable dispute resolution system. This system must be capable of dispensing equitable justice regardless of the litigant.

iii. International Legal Process

With regard to multilateral treaty obligation (global and regional) through a formal mechanism, Malaysia is obliged to transpose such treaty provisions into domestic law. This is not an easy task for Malaysia since all laws are required to be translated to the National Language. The bilateral agreements with regard to marine resource exploitation is also to be part of the legal framework which has to be taken into account in the planning and management process. It is therefore essential for NMC to be aware of all public and private bilateral agreements in existence.
8.6. Conclusion

The formation of NMC is a step forward to cope with ocean management and sea use in Malaysia. In order to coordinate proper and sound management of ocean resources, various input has to take into account by NMC, not only among the actors of the ocean development but also to consider the socio-cultural aspect. The first task of the NMC is to review the overall ocean development, the legal framework and the overall needs of ocean related manpower problems. The future goal or a common strategy of Malaysian seas development thus lies within the effectiveness of this Council.
Notes


2. Although marine areas under national jurisdiction comprise a single geographical area encompassing all types of resources, the marine environment does not lend itself to the establishment of well-defined boundaries, either natural or man-made, for delimiting properties or uses, which tends to be defined in terms of the marine phenomena involved or a flexible use area. This will naturally engender overlapping and imprecision in geographical boundaries.

Chapter IX

Summary and Conclusion

Marine activities in Malaysia are sectoral in nature and the control of those activities scattered into various fraction of government agencies. Though there is no proper marine policy and does not have strong maritime tradition, the development are expanding satisfactorily. However, the rapid growth of the ocean development is faced with several difficulties in connection with the management aspect, conservation, coordination, legal framework and manpower.

The proclamation of the EEZ by Malaysia in 1980 and the promulgation of the EEZ Act 1984 means an added responsibilities of management and conservation in the new zone. Furthermore, the Fisheries Act 1985 declared the zone as fisheries zone for Malaysia. Therefore, the marine area subject to the jurisdiction of Malaysia provide a wide range of values to the public— including oil and gas and other minerals, renewable resources such as fisheries, aesthetic enjoyment and scientific research.

All those items has been concluded in the LOS. Even though Malaysia is not the member of this Convention, but observed closely its development and thus the national marine policy direction, tend to follow the trend concluded in that Convention.

As the national marine development grew, there is an increasing demand for Malaysia to have a proper marine policy and a national marine agency looking after the
development of the marine sector. Simultaneously a demand for comprehensive environmental policy has grew fast. This trend demanded an integrated policy approach considering marine sectoral development as a whole.

In the course of shaping a national marine policy in Malaysia, the salient features that might create difficulties are:

i. Absence of overall marine policy as well as policies set for various sectors

There is no proper marine sectoral policies in the overall marine development in Malaysia. Most of the project are sectoral in nature. Lack of interlinkages among the various component of these sectoral development create further conflicts among users of the sea. Various ministries as well as departments involve, not to mention the division of responsibilities between Federal and State agencies in overall marine development projects. The marine awareness developed within specific activities rather than developed in a common space of ocean industry sector in harmonised form.

ii. Shipping and Port policies

The most important issues with regard to shipping and port is the lack of firm policy framework. This sector has attracted public attention because of the involvement of individual and private companies. Though the policy objective to achieve the status of a "maritime nation" has been publicly announced, but there is no serious attempt to define this objective nor an agency assigned to carry the task. However, should a national shipping and port policies
be promulgated in Malaysia, a whole range of shipping and port activities should be considered.

iii. Conflicts in jurisdiction among the various government agencies

The growth of ocean development in separate set of policy area has resulted various deficiencies with regard to overlapping jurisdiction and individual roles of these agencies. Even in the same sectoral development projects, for eg. shipping, there is no proper coordinating mechanism to resolve these overlapping functions. The formation of NMC would reduce the conflicting roles of various actors in marine uses.

iv. Imbalances of economic priorities in ocean resource development

The rapid growth of ocean resource development, followed by various incentives to certain sectors may hamper (directly or indirectly) the development of other sectors. Fishing, the oldest ocean tradition in Malaysia, is the most poorest sector in the country. Emphasis of development in some sectors of the marine activities, without considering the impact on the other sector especially fishing may in the long run lead to the deterioration of fisheries activities. It is important to note that fisheries activities comprises small scale fishermen with limited technology and capacities and those of big entreprises, the proper management should be established and of course the comprehensive enforcement strategy should be adopted. As poverty still exist in fisheries sector, an aim to eradicate poverty means to control the multiple ocean exploitation and to minimise their impact on the local fishing industries.
v. Management of the ocean

The meaning of ocean resource development in Malaysia could be realised in the EEZ Act 1984 and the Fisheries Act 1985. However, there is a question of how to implement those measures. The term ocean management is a new phenomenon in this country. The management and conservation measures are, however, scattered in other various Acts.

The environmental policy which is governing the aims of maintaining the ecological balances is still insufficient to cover the whole development process. The marine environment issues are managed mostly upon the onshore sources of pollution but the marine generated pollution is neglected. The concept of managing the ocean in Malaysia should be extended to every sector of the ocean development projects. Even though legal mechanism is the most effective method, it is necessary to have a full enforcement task to cater the jurisdictional issues of ocean management and the control of pollution. Although oil and gas development and transportation are currently at the center of public concern with the conservation of the values of coastal and marine areas, a wide range of other activities are also significant because they may create adverse environmental or socio-economic effects and conflicts with other beneficial uses. These activities include increased maritime transportation of hazardous and toxic substances and several forms of dumping at sea.

vi. Institutional Arrangements

The formulation of marine policy has to be followed by the institutional arrangement of which to function as a
coordinating agency for ocean resource development. Institutional arrangement may be involved with the restructuring of existing sectoral agencies or establishing a single agency which is based on the existing institutional framework to carry out the policy task. This needs to be followed by an effective enforcement to ensure the proper management mechanism in Malaysian ocean. The establishment of the NMC is a big step towards managing the ocean. However, the task, composition and priorities has yet to be formulated.

vii. Improvement of management/technical/legal expertise

The development of technical/legal and managerial expertise necessary for the effective exploitation and regulation of the oceans is a crucial component of any activity for all sectors. This includes the need to have a broad-based managers for public service, sufficiently skilled in a number of ocean-related disciplines to regulate and manage with an awareness of the multi-sectoral of the ocean development, and of the interconnected and often conflicting requirements of different ocean uses. At the same time, more technical and unisectoral specialists will be needed both in government service (as the field personnel in management systems) and for private parastatal enterprises as they expand their roles in ocean resource development. Therefore, the manpower planning should emphasis of all types of training needed in every sector of ocean industry.

vii. International Evolution of Marine Affairs

Eventhough Malaysia observed the international evo-
olution of marine affairs and realised its impact on national marine development, but very little attention has been done to ratify international conventions. Malaysia is not a party to CL05 though follow closely that convention in shaping up national marine policies. The same also applies to the ratification of international shipping conventions, mainly by IMO. So far only four of these conventions ratified by Malaysia. None of the convention with regard to pollution control and compensation schemes ratified by Malaysia. These conventions are among the very important international resolutions that would benefited Malaysia especially those of compensation schemes for pollution generated by ships. One of the crucial problem with regard to this issue is the determination of which agency should be responsible to ratify and implement the rules and regulations which are suggested by those conventions.

ix. Scientific Information Base

All activities in the ocean, both developmental and managerial, are dependent upon knowledge of the natural phenomena which govern the environment. Beyond provision of straightforward information such as the location of fish stocks and petroleum reserves, scientific research is required to establish the data bases and managerial models to allow for rational control of fishing quotas, pollution contingency plans, maricultural development and any number of other activities.

The future of a prosperous marine affairs in Malaysia depends largely on the management and conservation measures, meaning Malaysia should formulate an integrated marine policy, treating all marine sectoral developments as a marine industry sector a whole. At the same time
the surveillance and the control procedures should be effectively enforced. The factors discussed above are the most important issues that must be solved by Malaysia. The formation of NMC bears those answers. It is the NMC who could shape the proper marine policy in the future.
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### Annex II

#### CONFLICT MATRIX

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<th>RESOLUTION</th>
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<th>CONSERVATION</th>
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<td>Competing use of space 1 E</td>
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<td>Landscape pollution V</td>
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</tr>
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<td>Desintegration of building and service plans for site 2 V</td>
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<td>User group damage to space and other assets V</td>
<td>Conductivity of Space 3 V</td>
<td>Pollution V</td>
<td>Inspection V</td>
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</tr>
</tbody>
</table>

**EXPLANATION**

- C = socio-cultural conflict
- E = economical conflict
- I = international-institutional conflict
- S = spatial conflict
- V = environmental conflict

- : conflict not too urgent
- !: conflict urgent
- !!: conflict very urgent