

Coastal Zone Management In Malaysia – Pollution Control

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INTRODUCTION

The vast coastal areas in Malaysia is attributable to the fact that Malaysia has a long coastline. This area is a valuable national asset because of its bio-productive area that provides for marine ecosystems and its natural resources. In addition, it provides for opportunities in international commerce and inland trade, industry, oil wells, and port facilities. The coastal zone also contributes to commercial and recreational sectors. These activities result in a high monetary value being attached to the coastal zone. Thus, it plays an important role in Malaysia's economy by providing employment, source of basic necessity and generating natural income for Malaysia. However, in view of its multi faceted uses, management in the coastal area is crucial and would involve many disciplinary and interests. The purpose of this paper is to examine the relevant legislation on the management and control of the coastal areas in Malaysia and to identify issues and problems associated with it.

The writer will seek to review the present laws associated with pollution control in the coastal areas of Malaysia. Where appropriate, some comparisons will be made with England and the United States on its pollution mechanism in their coastal areas. As far as England is concerned, this is done because of its continuous modification and extension of its laws to achieve new purposes in regulating activities in its coastal areas. United States, on the other hand, has implemented the Integrated Coastal Zone Management (ICZM) and even has its own United States Coastal Zone Management Act 1972. Both of these countries experiences may well benefit Malaysia in its objectives of conserving and protecting coastal areas from pollution.

GENERAL BACKGROUND

The term "coastal zone" has yet to be conclusively defined in Malaysia's legal context. The definition seemed to vary from one literature to another and hence, resulting to many meaning with some variations. Ketchum stated that the coastal zone consisted of three major inter-dependant zones namely inland, bay-estuary and marine. There exists a broad inter-face between land and water where production, consumption and exchange processes occur within these three zones¹. Inman and Brush divided the coastal zone into the coastal plain, shore zone and near zone². The common law definition of "coastal zone" is the "foreshore which denotes a specific region between the high and low water mark of ordinary tides"³. However, in the United States, the definition of "coastal zone" is considered to be fully encompassing because it reflects the natural biosystem within the boundary

of the shorelands and its coastal waters. Section 1453 of the United States Coastal Zone Management Act 1972, the term “coastal zone” is defined as “...the coastal waters and the adjacent shore lands strongly influenced by each other and in proximity to the shore lands of the several coastal states and includes island, transitional and intertidal areas, salt marshes, wetlands and beaches”. In Malaysia, however, there is no legal definition of the “coastal zone” but with the increase interest in the area, an attempt has been made to define the latter. Hence, a proposal by the Economic Planning Unit in 1992 had defined it as below;⁴

“ ...being a strip of land extending 5 km inland from the coastline / shoreline, or if the coastal zone is lined with mangrove/nipah swamps, the zone extends 5 km from the inner boundary of the swamp and the cases of peat swamps the coastal zone starts from the shoreline to the inner limit of the swamp that could be more than 5 km in width. The seaward limit is 200 n.m. from the coastline covering the Exclusive Economic Zone (EEZ).”

This definition would mean that the coastal zone in Malaysia covers 5 km in width at the coastal areas of all states in Malaysia except for Federal Territory which has no coastline. In addition, the term “coastal zone” would include all islands within the Malaysia’s Exclusive Economic Zone (EEZ).

COASTAL ZONE RESOURCES

Coastal zone resources in Malaysia can be divided into two categories namely land based resources and water based resources. The writer shall discuss only the latter category in relation to the legal management and control of its resources in the coastal waters of Peninsular Malaysia. The Straits of Malacca, the South China Sea, fishing grounds, islands, estuarines, coral reefs, mangrove swamps and lagoons. It is within these areas that activities such as fishing, wildlife preservation, aquaculture, trade and commerce flourish. By being a country which lies within it a rich source of flora and fauna, Malaysia is not excluded from the tourist industry where it also contributes as a source of income to the country and also towards investment and employment opportunities. Fisheries has also become an important sector in the exploitation of the coastal area where the resource potential in fisheries **have been restricted within the territorial waters of Malaysia**. Apart from these two industries, the coastal zone in Malaysia has also participated in the expansion of fishery related activity namely aquaculture. The coastal areas are also vital for conservation purposes in Malaysia as numerous mangrove areas in Peninsular Malaysia **have been conserved as national parks and wildlife sanctuaries**.

Owing to these many activities taking place and developed within the coastal areas, **conflicts situation have arisen** due to these developments especially in regard to pollution. Among the sources of pollution are derived from rapid industrialisation, urban development, plantation agriculture, navigation and mineral exploitation. The introduction and expansion of aquaculture and the tourism

industry have also given rise to land use conflicts. Naturally, these problems have a direct link with the management and control of activities within the coastal zones.

The status of jurisdiction over the coastal zone could not be clearly stated as the Federal Constitution has apportioned various subject matters which have connections with the coastal zone between the State and the Federal governments. Each legislative arm of government is authorized by the Constitution to make laws governing these subjects matters enumerated in the respective lists of the Ninth Schedule thereto. Whilst the State authority is empowered to make laws in respect to:

- (i) Item 2 List II : "Land" ;
- (ii) Item 3 List II: Agriculture and Forestry;
- (iii) Item 6 List II: State works and water;
- (iv) Item 12 List II: Turtle and riverine fishing
- (v) Item 12A List II:archaeological sites and remains; and
- (vi) Item 15 List 2A : Ports and Harbours.

The items in the Ninth Schedule which specifies certain subject matters under the jurisdiction of the Federal government are ;

- (i) Item 6 List 1 : Purchase, acquisition and holding of property for federal purposes;
- (ii) Item 9 List I: Shipping , navigation and fisheries;
- (iii) Item 10 List I : Transport;
- (iv) Item 11 List I : Federal works and power ; and
- (v) Item 25A List I : Tourism.

In addition to these Federal and State Lists, there is also an additional list which is known as List III or the Concurrent List. The relevant items therein are as follows:

- (i) Item 3 List 3 :Protection of wild animals and wild lives, national parks;
- (ii) Item 5 List 3 : Town and Country Planning.

Therefore, it is reasonably clear that the State legislative may make laws with respect to matters enumerated in the State List or the Concurrent list while the Federal government may do the same with respects to matters enumerated in Federal and Concurrent Lists.

Having said that , it can certainly be seen that the laws and jurisdiction over the coastal zone cover a whole range of areas which is dependant upon an activity within the coastal zone. Therefore, there may be an overlapping of jurisdictions between the State and the Federal governments.

LEGAL MECHANISMS

It must be emphasized that there is not a single comprehensive legal legislation that governs, manages or control an activity and its effect such as pollution in the coastal areas of Malaysia. Pollution, as an example, could occur in the atmosphere, water and soil. Being an area which involves land and water, the coastal areas may suffer from pollution from many sources such as oil pollution, siltation and erosion.

Many of the legislation in Malaysia are not designed or equipped to address specific problems in managing and control pollution in the coastal zones. They were basically enacted to promote sound practices in line with government's policies. Unfortunately, these extensive legislation did not encourage an integrated approach towards implementations in managing and controlling pollution in the coastal areas.

The earliest legislation related to the management of coastal zone is the Water Enactment 1920. This was followed by the Mining Enactment 1929, Forest Enactment 1935, Natural Resources Ordinances 1949, Irrigation Areas Ordinance 1953 and the Drainage Work Ordinance 1954. During that time, it was deemed that the legislation was sufficient to address a specific problem in the coastal areas. However, rapid changes in the development of coastal zone have further creates complex problems. It was found that the earlier legislation could not cope or were sufficient enough to address current problems. The main concern is that these pre-Independence laws were still in use.

However, there was a renewed sense of awareness regarding the environment after 1957. It was realised that without any control over rapid development would bring about grave consequences. Any legislation would provide for the preservation of the environment even though such legislation emphasised on a more sectoral basis. In relation to the protection of the coastal areas from pollution, there seemed to be no direct application of laws on the matter. Nevertheless, there are indirect provision on the management and control of pollution on the coastal areas in Malaysia. The relevant provisions can be seen in the following legislation;

a) Environmental Quality Act 1974

This Act was implemented to prevent, abate and control pollution in Malaysia. It contains specific Part or provisions in respect to prohibitions and control of pollution of the soil, inland waters, discharge of oil into Malaysian waters, discharge of wastes into Malaysian waters. "Malaysian waters" for the purpose of this Act is defined as "the territorial waters of Malaysia as determined in accordance with the Emergency (Essential Powers) Ordinance No 7 1969. The relevant provisions related to pollution in these areas are:

- Section 24: Restrictions on pollution of the soil;
- Section 25: Restrictions on pollution of inland waters;

- Section 27 : Restrictions and Prohibition of discharge of oil into Malaysian waters ; and
- Section 29: Prohibition of discharge of wastes into Malaysian waters.

Other related provisions can be seen in other Environmental Quality Regulations gazetted under the Environmental Quality Act 1974 where restrictions and prohibitions are imposed on other types of pollutants. For example, pollution by sewage and industrial effluents⁵ and scheduled wastes⁶. Another piece of legislation which is crucial to any proposed development within the coastal areas is the Environmental Quality (Prescribed Activities) (EIA) Order 1987 which requires a study to be undertaken to assess the probable impacts an environment that may occur from the proposed activity. Furthermore, it imposes upon the project proponent to circumvent any instances of pollution by mitigating measures that are needed to overcome such problems. The Director General is given the power to approve any EIA report of a proposed project before the project can be carried out⁷. The proposed activities in any coastal areas would be subjected to EIA as listed in the 1987 Order. However, this requirement on EIA is subjected to any State regulation in respect to matters enumerated under State Lists of the Federal Constitution.

b) Local Government Act 1976

This Act governs and control pollution of water courses such as in streams, channels and public drains. It also imposes preventive and mitigating measures to curb pollution. Where any person constructs nuisance or deposits any filth in the bank of any stream channel or other water courses within the area of a local authority, that person is guilty of an offence and liable to a fine and/or a term of imprisonment⁸. Section 70 covers offences by any person who is found polluting streams by trade refuse⁹ or liquid sewage matter. This Act empowers the local authority to make by-laws in connection with the provisions of the Act inter alia to keep public places clean and free from litter, filth or refuse and prohibiting any throwing, depositing of any filth, rubbish, wastes or other refuse, liquid or solid in any stream, channels or other water courses.

c) Town and Country Planning Act 1976

This legislation was devised for the control and regulation of town and country planning in local authority areas. Any general planning policy shall be the responsibility of the State Authority and the State Planning Committee¹⁰. Basically, any development to be carried out within a local authority area must be examined and reviewed and most importantly to be in conformity with the local plans¹¹. This Act also empowers the local planning authority to revoke or modify planning permission granted under this Act or any other local government law.¹²

d) Street, Drainage and Building Act 1974

This Act concerns the laws relating to street, drainage and building in local authority areas. The local authority is given the power to construct, maintain and repair drains and watercourses. It also controls any trade effluents that communicate with river or sea which is provided by Section 55(2).

e) Land Conservation Act 1960

The main emphasis in this Act is the conservation of hill land and the protection of soil from erosion and the inward of silt effecting, estuarine, land and land with rivers flowing to the foreshore and eventually to the sea.¹³ Mitigating measures are also provided to prevent passage of soil or silt to any river, canal or drains.

f) Merchant Shipping Ordinance 1952

A discharge of oil or harmful substances from a ship whether intentionally or otherwise is deemed in this Act as an escape from the ship¹⁴. An act of dumping is however not a discharge as determined by the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972.¹⁵ By virtue of Section 306F, the owner or master shall be guilty of an offence and liable on conviction to a fine. This Act provides for mitigation and preventive measures to be taken by the Director of Marine in cases of discharge of oil or harmful substances¹⁶ or even in cases of an escape of oil or harmful substances as a result of maritime casualty.¹⁷

OVERALL EVALUATION ON EXISTING LAWS

Throughout reviewing the laws that indirectly govern and control pollution in the coastal areas, the writer observed that there were multitude or an abstraction from a wide variety of legal categories that are assimilated under a subject matter which is the coastal zone. The search for relevant information under such heading as admiralty, local government, public health, shipping, planning and water is inevitable because of the inter-action of land and water within the coastal areas. However, it is rather obvious that there is not a single legal interpretation on the term coastal zone in any of the Acts mentioned above. Perhaps the difficulty lies within a definition that would sufficiently or is broad enough to cover the areas of coastal zones, its influence and interaction. As mentioned earlier, the United States have defined the term, "coastal zone" in their Coastal Zone Management Act 1972¹⁸. This definition covers a whole lot of areas that are within or connected closely to the boundaries of coastal areas. In Florida, the whole of that state is defined as "coastal zone"¹⁹. On the other hand, the United Kingdom suffers from the lack of legal definition and the concept of the coastal zone.

By further observation, there also seems to be a fundamental issue of overlapping jurisdiction and authority in enforcing the relevant Acts mentioned

earlier in Malaysia. A multiplicity of central governments departments, local authorities and State authorities and bodies that emerge with its own responsibilities and duties are distinguished only by those who are essentially land based and those in the sea. An illustration may be found in the Merchant Shipping Ordinance (1952), where the Director of Marine has conferred powers to take action in cases of discharge of oil or harmful substances from a ship or cargo. However, section 44 of Environmental Quality Act 1974 confers power on the Director General to prosecute in respect of any offences committed under this Act and that would include acts of discharge or spill of any oil mixture containing oil into Malaysian waters. The question is whose powers would prevail over such matters?

Any activities which are proposed to be developed is subjected to the prescribed activities listed under the Environmental Quality (Prescribed Activities) Order 1987 that must undergo an EIA procedure by virtue of Section 34A Environmental Quality (Amendment) Act 1987. With land and water being subjects enumerated under the State list and with the current decision by the Court of Appeal in the case of *Ketua Pengarah Jabatan Alam Sekitar & Anor v. Kajing Tubek & Ors. & Other Appeals*²⁰, any activities which involve land development and water are not subjected to EIA provided that the State concerned has its own legislation to deal with such matters. The impact of this decision would undermine the effectiveness of dual cooperation between the Federal and State authorities in preventing and controlling pollution in coastal areas. Activities such as land development, commercial housing at mangrove swamp or logging operation which involve coastal land may not be subjected to the EIA processes if there is already a State legislation which prevails over the Environmental Quality Act 1974 which is a federal law.

Many enforcement agencies find difficulty in enforcing laws due to unclear standards criteria and guidelines. Reportedly²¹, there are no specific guidelines or legislation that could be adhered to by the enforcement officers. This weakness contradicts with the essence of preventing and controlling pollution in the coastal areas. Furthermore, the law in itself is not flexible enough to cover all the important land and sea areas of the coastal zone since its existence is usually sectoral and operate independently of each other without any mutual consultation with all authorities responsible for each sector. In England, the Wildlife and Countryside Act 1981 which is intended to facilitate the establishment of marine nature reserves seeks to enlist the support of all authorities exercising jurisdiction in coastal waters by providing that each may use its existing powers to make bye-laws for the protection of reserves. However, it proved almost impossible to persuade authorities to take advantage of the provision since each argued that it was statutorily limited to serving objectives other than conservation²². The Environmental Quality Act 1974 which is the principal legislation in curbing pollution has no similar provision but the Director General may either seek assistance²³ or delegate²⁴ his powers, duties and functions conferred under the Act to any public officer, any government officer, any local authority or any committees or persons appointed by him. In other legislation mentioned herein, a provision similar to that remains non existent.

APPROACHES TO COASTAL ZONE MANAGEMENT

The need for statutory instruments in the development of coastal zone is inherently desirable for Malaysia. Eventhough some problems may deal with complex issues but the urgency to protect these areas from pollution of any kind must remain as one of Malaysia's priorities. Perhaps an integrated approach is warranted whereby planning, management plans and mechanisms whether institutional or legal, organisational arrangements, incentives and regulations, public involvement and investments should be taken into account. Furthermore, the rate of efficiency in which they are implemented is crucial too. Any approach would need the cooperation of the Federal government, State government and the local authorities to act in consensus over commonly basic objectives.

There are various legal methods that could be adopted to implement integrated coastal zone management that can only provide as alternatives. This concept is known as integrated coastal zone management (ICZM) which was pioneered by the United States which had set the objectives in their United States Coastal Zone Management Act 1972²⁵. However, an application of ICZM would depend on each State's method of work and the benefits that can be derived from operating the methods for the preservation and conservation of the coastal zone.

There are three main approaches to ICZM where they are summarised as below²⁶:-

(1) *Coordination of existing laws*

Currently adopted by the United Kingdom where to coordinate the decisions of all the authorities responsible for every sector so that act in accordance with commonly agreed objectives.

(2) *Legislative framework for coordination of existing laws*

Basically setting out a framework within which existing laws can be coordinated where it creates legal duties and creates minimum disruption to existing laws and procedures.

(3) *New legal procedure for authorising developments in the coastal zone*

This approach involves similar ways as the previous model except that there would be new procedure for authorising developments in the coastal zone. This Act should identify an authority responsible for giving permissions for development and should specify the type of projects or activities which must be submitted to the authority.

It is crucial to choose a method that is suited to the local circumstances of the individual country. Perhaps, Malaysia could enact a coastal zone management legislation to achieve an overcome objectives in accordance to either one of these methods. It is pertinent to note that there is a measure²⁷ to be made available in Malaysia in regard to ensure proper planning in developing and managing activities to attain sustainable development in the coastal areas. However, law is

simply a tool to achieve policy objectives and good laws are crucial in the implementation of policy and objectives but the success would also depend on political will.

NOTES

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 3. Gibson, J, 1977. "Foreshore: A Concept Built On Sand", Journal of Planning Law, p.762
 4. National Coastal Resources Report(Draft), Kuala Lumpur, 1992. Economic Planning Unit, Prime Ministers Department.
 5. Environmental Quality (Sewage & Industrial Effluents) Regulations 1979.
 6. Environmental Quality (Scheduled Wastes) Regulations 1989.
 7. Section 34A of Environmental Quality Act 1974
 8. Part VII Local Government Act 1976
 9. "Trade refuse" is defined as "...solid or liquid refuse of any manufacturing process or quarry or any rubbish or cinders or any wastes or putrid matters".
 10. Section 3 of Town and Planning Act 1976
 11. *ibid*, Section 18
 12. Section 25 Town and Country Planning Act 1976
 13. Part III Land Conservation Act 1960
 14. Section 306 Merchant Shipping Ordinance 1952
 15. *ibid*, Section 306C
 16. *ibid*, Section 306D
 17. *ibid*, Section 306I
 18. United States Code Annotated 16 s.1453
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 25. *supra*, Gibson, J. (1993).
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