

## **Institutional Framework for Eco-system Based Management In the Asia-Pacific Region**

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1. It is generally understood that there are a number of Large Marine Ecosystems (LME) including a number of enclosed and semi-enclosed seas in the APEC region in accordance with articles 122 and 123 of UNCLOS.
2. They are among others, the South China Sea, East China Sea, Yellow Sea, Japan sea, the Okhotsk Sea, the Beijing Sea, Sulawesi Sea, the Central and Western Pacific Oceans, and the Southern Ocean.

Some of these seas are also related ecologically to the Indonesian and the Philippine's archipelagic waters.

3. In many cases these LMEs and semi-enclosed seas transcends political boundaries or national maritime zones that in many cases require bilateral and regional cooperation in order to manage the seas and their resources and environment appropriately, including the biodiversity, especially if they are beyond the national jurisdiction of each surrounding coastal state.
4. With regard to the semi-enclosed seas, whether or not there are high seas in the middle, article 123 of UNCLOS has already provided a framework for cooperation. The article in fact obliged the coastal states to:  
“a. to coordinate the management, conservation, exploration and exploitation of the living resources of the sea;  
b. to coordinate the implementation of their rights and duties with regard to the protection and preservation of the marine environment;  
c. to coordinate their scientific research policies and undertake where appropriate join programmes of scientific research in the area;  
d. to invite, as appropriate, other interested states or international organisations to cooperate with them in furtherance of the provisions of this article.”
5. Even in a relatively small body of water, such as in straits used for international navigation, there is a provision in UNCLOS obliging cooperation between the coastal states and the user states in promoting safety of navigation and in protecting and preserving marine environments. For instance, Article 43 of UNCLOS states that “User states and states bordering a strait should by agreement: a.) in the establishment and maintenance in a strait of necessary navigational and safety aids, or other improvements in aid of international navigation, and b.) for the prevention, reduction and control of

pollution from ships". So far, not much implementation of this provision, particularly in the Straits of Malacca and Singapore, has been exerted.

6. With regard to the South China Sea there is still uncertainty at this moment whether there is or not high seas in the middle, due to the various conflicting territorial and jurisdictional claims between and among some of its littoral states. At the same time, there are still states in the area that have not ratified the UNCLOS 1982, particularly Thailand, while Chinese Taipei is not generally recognised as a "state", but as an "entity" or "authority", be it economic entity, fishing entity, or customs entity. These situations have made it difficult to form a formal organisation to manage and conserve the biodiversity in the South China Sea area, including in its "high seas" part.
7. Despite the difficulty to take a formal approach to manage the biodiversity in the South China Sea, however, we have been able to organise the informal workshop process to manage the potential conflicts in the South China Sea within the last 13 years, 10 years of them with the support of Canada. In the process, we have concentrated on 3 efforts, namely to promote dialogue among the littoral participants, to develop confidence building process among the relevant authorities, and to devise and implement cooperative efforts. As a result of these efforts, the ASEAN members and China had signed a code of conduct for the South China Sea last year.
8. In fact, we had just finished conducting a two week biodiversity expedition in the South China Sea around the Indonesian Anambas Islands, participated by all the littoral participants, voluntarily financed by their respective contribution, and have collected more than 1000 samples. The results of the scientific expedition will be published shortly by the Raffles Museum in Singapore. At this moment, we are planning and preparing a second trench of the expedition near the Philippines island of Palawan in the South China Sea. In the meantime, we have also agreed to carry out other cooperative efforts such as cooperation to study sea-level rise within the context of climatic change as well as to conduct a joint fisheries stock assessment in the area, and other cooperative efforts dealing with environmental protection and safety of navigation.
9. Although the Sulawesi Sea is also a semi-enclosed sea surrounded by Indonesia, the Philippines, and Malaysia, however there are no more high seas in the middle. Unfortunately, however, there has not been much cooperation among the three coastal countries to manage the resources, the environment, as well as the marine scientific research in the area as stated by article 123 of UNCLOS. I would hope that the three coastal countries would come around to this in the near future.

10. I also understand that many efforts need to be exerted to develop cooperative efforts in other semi-enclosed seas in the Asia Pacific region, whether or not high seas still exist in the relevant seas. I understand, however, that indeed there are still high seas in the middle of the Okhotsk Sea and the Beijing Sea.
11. Even in the crowded economic zones in the South Pacific, I understand there are still a number of “pockets” of the high seas in the area surrounded by the various EEZ. This fact would necessitate cooperative efforts among the littoral countries to manage those resources in the pocket area, together with other nations that fish in the seas.
12. Cooperative relations should also be developed between the coastal state and the distant fishing water nations (DWFN), who fish in the high seas beyond the EEZ on the basis of Article 63 and 64 of UNCLOS.
13. Article 63 of UNCLOS with regard to straddling stocks stated:
  - “1. Where the same stock or stocks of associated species occur within the EEZs of two or more coastal states, these states shall seek, either directly or through appropriate sub-regional or regional organisations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks ...
  2. Where the same stock or stocks of associated species occur both within the EEZ and in an area beyond and adjacent to the zone (namely on the high seas), the coastal states and the states fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organisation, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.”

It is very clear that these provisions obliged the states to cooperate to manage the resources, including the high seas resources using ecosystem-based management.

14. Article 64, with regard to highly migratory species, stated:

“The coastal states and other states whose nations fish in the region for the highly migratory species ... shall cooperate directly or through appropriate international organisations with a view to ensuring conservation and promoting the objective of optimum utilisation of such species throughout the region, both within and beyond the EEZ”. It is also clear that the management of highly migratory species, including in the high seas, should also be based on an ecosystem approach to management.

15. It was particularly within the context of implementing Article 64 of UNCLOS and based on the UNIA 1995 dealing with fish stocks that negotiation had taken place among the Pacific countries that culminated in the adoption of the Western and Central Pacific Fisheries Convention in

Honolulu in September 2000. At this moment we are in the process of establishing the commission to administer and implement the convention that would hopefully assure the conservation and sustainable development of the fishery resources in the area, taking into account the ecosystem based requirement.

16. In fact, there are other instruments that relate to the ecosystem-based management of fisheries resources in the high seas in the Pacific region.
- i. As indicated above the UNCLOS 1982 is replete with the provisions that in fact encouraged the ecosystem based management, including the provisions that deal with “interdependent fish stocks”, the effects of fishing on species associated with or dependent on harvested species, as well as the conviction that “the problems of ocean space are closely interrelated and need to be considered as a whole” as indicated in the preamble to UNCLOS.
  - ii. RIO Declaration in Chapter 17 of Agenda 21 also in one form or another refer to the need of ecosystem-based management, including in areas under national jurisdiction. States are encouraged to take into account the relationship among the species and the relevant environmental and economic factors.
  - iii. FAO Code of Conduct for responsible fisheries, also encouraged states to ensure that conservation measures are not applied only to target species but also to species belonging to the same ecosystem or associated with or dependent upon the target species. This is basically ecosystem-based management of fisheries conservation. Similarly, the FAO compliance agreement also in some respects serves this purpose.
  - iv. The UN fish stock agreement (UNIA 1995) also urged states in developing conservation and management measure to take into account the biological unity and other biological characteristics of the stocks and the relationship between the distribution of the stocks. With regard to the international seabed area, the UNIA 1994 on seabed mining could also be used to deal with the environmental aspects of the seabed mining in the international seabed area.
  - v. Similar provisions could also be found in other instruments, such as in the convention on biological diversity, in the Jakarta Mandate on the conservation and sustainable use of marine and coastal biological diversity, in various IMO conventions and others.

17. It is therefore clear to me that Ecosystem Based Management, including for biodiversity in the high seas, is essential in the Asia-Pacific Region.

Several institutions, either bilateral, subregional, or regional, either formal or informal, already exist in some part of the Asia-Pacific region, although with different emphasis and area of jurisdiction, such as:

- i. Coordinating body on the Seas of SE Asia (COBSEA), sponsored by UNEP which mainly deals with research on the prevention and control of marine environment in the seas of east Asia.
- ii. The south pacific regional environment program (SPREP) which looks into resolving environmental concerns and promoting the sustainability of the natural resources of the region.
- iii. The northwest pacific action plans regional coordinating unit, which focuses on the wise use, development and management of coastal and marine environment for the economic development of the region, and has adopted the ecosystem based management approach as a strategy in achieving sustainable development in the area.
- iv. Partnership in environmental management for seas of east Asia (PEMSEA) established under the auspices of UNDP, IMO and GEF, which aims to protect the life support system of seas in east Asia and to enable the sustainable use of their renewable resources through intergovernmental, interagency and inter-sectoral partnership.
- v. LME management approach sponsored by IUCN and the NOAA of the USA as an EBM strategy. As indicated above, there are a number of LMEs in the AP region, such South China Sea, East China Sea, etc.
- vi. In addition, various international and regional organisation dealing with fisheries are also active in the region that will promote EBM, such as the FAO, CCAMLR, FFA, IOTC, CCSBT, WCPFC, and ATSEF for Timor and Arafura Seas.

17. There are a number of challenges to develop the ecosystem based management approach in the AP region, such as:

- a. not all marine ecosystems have governing institutions, formally or informally, such as the Sulawesi Sea.
- b. The areas under management of the existing regional institution do not fully coincide with identified marine ecosystems in the region.
- c. Asia pacific countries subscribe to different international conventions, thus may have inconsistent laws, policies and measures which may not be consistent across similar ecosystems in other parts in the AP region.
- d. UNCLOS division of ocean space into national sovereignty and jurisdictions do not correspond to specific ecosystem, and therefore the management of ocean or sea space and their resources and environment are not related to the ecosystem.

- e. Lack of understanding, especially in developing countries of marine ecosystem and interdependence of fishery resources in the ocean areas of the region, as well as lack of capacity to implement existing measures.

18. Suggestions:

- a. Regional organisation or cooperation should be established to manage the LMEs, including semi-enclosed seas in the AP region, formally if possible, at least informally if political condition does not permit. Otherwise the resources may be in danger of being damaged and exhausted.
- b. The existing regional bodies or organisations should adopt as far as possible, EBM measures in their policies and programmes. Otherwise, there may not be effective or relevant in the long-run.
- c. States in the Asia Pacific region should become parties to the relevant international conventions emphasising the ecosystem based management approach. Otherwise, they are endangering the future of their natural resources.
- d. EBM measures should respond to the problems of coastal degradation, loss of biodiversity, depletion of fisheries resources, destruction of fish habitats, mangroves and coral reefs, particularly in the developing countries.
- e. The various regional environment and fisheries organisations should increase and intensify cooperation and coordination among themselves relating to the protection of biodiversity, preservation and rehabilitation of rare and fragile ecosystems, conservation of fisheries habitats, management of pollution from land-based and seabed activities, establishment of a system of marine protected areas, and management of freshwater basins and catchment areas.
- f. Capacity building, particularly in developing countries, should be encouraged and supported, including their participation in developing ecosystem based maritime regimes and in adopting ecosystem based management in protecting and conserving the natural resources in the marine environment, as well as their ability to implement the existing arrangements.