A VISION FOR AN ECOSYSTEM-BASED OCEAN MANAGEMENT OF EAST AND SOUTHEAST ASIAN MARINE ECOREGION

INTRODUCTION

At the outset, allow me to express a few points of appreciation in regard to these twin workshops we are having this week here in Cairns. Firstly, coming as I do from a track 1 agency, the practical thrust of these workshops is fully appreciated. Secondly, coming from an archipelagic state, I appreciate these workshops as they address special concerns of the Philippines in regard to biodiversity and governance of the high seas. Thirdly, I appreciate that the venue of our workshops is Australia which, despite sheer distance, is a neighbor close-by as far as biodiversity conservation in the high seas is concerned and to whom we look forward to a close interaction and partnership for this purpose, with the intervention and participation of the University of Wollongong.

THE CHALLENGES OF INTEGRATED OCEAN MANAGEMENT IN THE PHILIPPINES

As an archipelagic State, the importance of ocean governance and management of its resources to the Philippines cannot be overemphasized especially in terms of sustainable economic development. The Philippines having more water jurisdictions than land territory marine resources, will inevitably assume the higher factor for the country's sustainable economic growth in the future. To optimize the benefits derived from its' ocean and marine

resources, both for the present and for the future, the Philippines must plan and implement an integrated ocean management system. Needless to say, in today's circumstances, are multifarious and daunting. They range from bio-physical, socio-economic and institutional issues, among which are:

- competing land-based and ocean-based development programs-more acute in an archipelagic state setting;
- conflicting short term, medium term and long term sustainable economic development goals;
- overlapping institutional mandates;
- lack of vertical integration of coastal and ocean related programs;
- underemphasized grassroots participation and support;
- controversies arising from political jurisdictions hindering integrated management of a natural marine ecosystem;
- absence of seamless maritime transit infrastructure;
- absence of integrated oceans MCS governance/management system that contributes to overexploitation of most ocean and resources
- insufficient human resources capability in integrated ocean management
- shortage of economic development opportunities in coastal areas increases pressure on fisheries, including market failures in the coastal resource economy that perpetuate poverty and result in overfishing and inappropriate use of coastal habitats such as conversion of mangrove forests

EARLY INITIATIVES IN MANAGEMENT OF OCEANS AND MARINE RESOURCES IN THE PHILIPPINES

The ecosystem-based approach to resource management is an emerging concept in the field of conservation. As a new concept, its' definition is as yet not fully developed or uniform among conservationists. I would like to adopt, however, the definition and concept of ecosystem-based approach from the Ocean Policy of Australia (1998) wherein an ecosystem-based oceans planning and management is aimed at ensuring the **maintenance** of:

- Ecological processes in all ocean areas, including, for example, water and nutrient flows, community structures and food webs, and ecosystem links;
- Marine biological diversity, including the capacity for evolutionary change; and
- Viable populations of all native marine species in functioning biological communities.

With the fundamental objective of maintaining ecosystem integrity, Australia's Ocean Policy further described ecosystem-based ocean management as consisting of representation within protected areas of marine ecosystem types across their natural range of variation and the development beyond the strictly sectoral focus of some management approaches with the aim of **ensuring** that:

1. Connections across ecological dimensions (populations, species, habitats, regions) are taken into account, and not just effects at one level.

2. Planning and management boundaries recognize ecological entities, integrating across other administrative, sectoral and jurisdictional boundaries.
3. Data are collected for ecosystem-based management, to provide the basis for sectoral and cross-sectoral integration.
4. Management is monitored for maintenance of ecosystem health, against ecosystem-based performance indicators of change.
5. Management decisions are planned and precautionary, based on assessments of the consequences of use, rather than solely reactive.
6. There is recognition that human activity is a fundamental influence in many marine ecological patterns and will be the focus for planning and management action.
7. Natural and human values should be integrated taking into account that, while biological diversity values must be recognized and incorporated as a key part of planning and management processes, human values will play a dominant role in decisions about ocean uses.

Heretofore, the Philippines had been managing its ocean and marine resources with a sectoral approach, that is, fisheries, marine transport, marine tourism, marine scientific research, seabed mining, ocean energy, defense, etc. In this regard, there continues to be difficulties in integrating and coordinating the multiple uses of the oceans and marine resources. The Philippines is still in the process of adopting the ecosystem-based management approach, in its entirety,

to its oceans and marine waters and with conservation values having a priority over developmental values.

This is not to say, however, that the Philippines has had no experience, or have not attempted ecosystem-based management of oceans and marine waters. As early as the decade of the 60s, the Philippines had embarked on development programs that can be considered precursors to ecosystem-based management, albeit more biased toward developmental goals over conservation goals. At that time, it created the Laguna Lake Development Authority (LLDA). Section 1 of Republic Act 4850 (An Act Creating the Laguna Lake Development Authority), enacted in 1966, narrates the policy of the State pertaining to Laguna Lake, to wit:

> "…to carry out the development of the Laguna Lake region with due regard and adequate provisions for environmental management and control, preservation of the quality of human life and ecological systems, and the prevention of undue ecological disturbances, deterioration and pollution."

The boost in marine related programs in the Philippines came during the incumbency of President Fidel V. Ramos, when he named a marine scientist, Dr. Angel C. Alcala, to head the Department of Environment and Natural Resources (DENR). Dr. Alcala strengthened the marine environment management aspect of DENR by launching several marine based projects, among these are the Coastal Environment Program (CEP), Coastal Resources Management Program (CRMP) and the Partnership for Environmental Management of Seas in East Asia (PEMSEA) project.

The CEP was established in 1993 to promote management of selected coastal areas throughout the archipelago. In 2002, the CEP was transformed into the Coastal and Marine Management Office (CMMO) to coordinate all coastal and marine environment activities of the DENR. At present, the CMMO oversees the implementation of the following marine based management related projects in Philippine territorial waters:

- Visayan Sea Coastal Resources and Fisheries Management Program (VisSea)
- Southern Mindanao Integrated Coastal Zone Management Project (SMICZMP)
- Integrated Coastal Resources Management Project – Project Preparation Technical Assistance
- Support to the Formulation and Development of an Integrated Coastal and Marine Management Policy Framework for the Philippines
- Northern Mindanao Community Initiatives and Resource Management Project
- Mindanao Rural Development Project – Coastal and Marine Biodiversity Component (MRDP-CMBC)

The CRMP, on the other hand, was created to address a variety of basic issues which have resulted in the overuse and degradation of Philippine coastal resources. The CRMP approach is to work at both local and national levels to improve formulation and implementation of national and local laws and policies

relating to coastal resource management (CRMP 1st Quarter Progress Report, 2003).

PEMSEA is a regional programme under the IMO which aims to protect the seas' life support systems and enable the sustainable use and management of coastal and marine resources through intergovernmental, interagency and intersectoral partnership for an improved quality of life (PEMSEA brochure).

Certain other initiatives of the national Government were likewise undertaken at the local (multi-provincial and multi-municipal) level such as the Lingayen Gulf Coastal Management Commission (LGCMC).

In a way, the above listed projects contain aspects of ecosystem-based management of the marine environment, starting with small ecosystems. In 1994, upon direct instructions of President Ramos, the Department of Foreign Affairs (DFA) headed an interagency group in the preparation of a National Marine Policy (NMP) intended to provide general guidelines for the different sectors and stakeholders of society, especially the Government, as regard activities relating to marine resources of the country. It is presently undergoing revision and updating to be more responsive to current developments.

THE SULU-SULAWESI MARINE ECOREGION CONSERVATION PROGRAM DEVELOPMENT (SSMECPD) – A GLIMPSE AT ECOSYSTEM-BASED MANAGEMENT FOR THE EAST AND SOUTHEAST ASIA MARINE ECOREGION

Among the marine management programs being undertaken in Philippine territorial waters at present, one that closely approximates an ecosystem-based management model for the marine environment, is the Sulu-Sulawesi Marine Ecoregion Conservation Program Development (SSMECPD) of the World Wildlife Fund (WWF). A striking feature of SSMECPD is that the marine area that the project targets to manage does not lie entirely in the maritime territory of the Philippines but encompasses three countries, the Philippines, Indonesia and Malaysia. The Sulu-Sulawesi Marine Ecoregion is located in the Indo-West Pacific Region, within the Coral Triangle, where marine biodiversity is highest in the world. Geographically, it IS subdivided into the Sulu Sea, Sulawesi Sea and inland seas of the Philippines. Of its approximate size of 950,000 square kilometers, nearly 70% is Philippine Territory (Figure 1) (Miclat, 2000). At this very moment, the project is holding a tri-national workshop (from June 16 to 18, 2003) the objective of which is to solicit the endorsement of the biodiversity vision and plans, derived through the series of consultations, by the three governments involved. As an ocean project involving three countries, the SSMECPD offers a concrete example of a regional or sub-regional cooperation on marine environmental management. The initial success that SSMECPD is reaping gives hope for the vision of East and Southeast Asian maritime cooperation that is being advocated in this paper.

LESSONS LEARNED IN ECOREGION CONSERVATION PLANNING FOR THE SULU-SULAWESI SEAS

A major component of the any integrated coastal program, including ecoregion and ecosystem-based approaches, is coming up with an integrated coastal plan or a marine or ocean policy. In the Philippines, nothing much can be said about the implementation aspect of integrated coastal management as almost all efforts are still at the planning stage. The lessons learned in the SSMECPD program of WWF are important inputs for any attempt to put up regional maritime cooperation, especially as regard biodiversity conservation. The critical lessons learned in the SSMECPD are as follows: (in press- E. Miclat and R. Trono, 2003):

1. Broad involvement of key stakeholders, both high-level and the grassroots level;
2. Orchestrated planning and implementation at all levels of management. The creation of a regional center for transboundary maritime cooperation programs can facilitate coordination at regional level.
3. Sub-level assessment of maritime scenario (biophysical and socio-economic) helps build the over-all picture of the situation of the marine ecoregion. Although a single and comprehensive management plan is the essence of ecoregion and ecosystem-based management this does not discount an iterative planning and implementation of conservation programs.
4. Engaging consultants who are based in the area facilitates access to information and are helpful in the priming process.

5. On the technical aspect of the ecoregion management, the establishment of a combination of small priority conservation areas (PCAs), large PCAs and corridors hopes to ensure the representation of the fullest possible range of biodiversity in the ecoregion, including the ecological and evolutionary processes.'

CONCLUSION

From the foregoing, it is clear that ecoregion and ecosystem-based Management is not only the wave of the future, but is the next step of a continuous development of the marine conservation and protection process that has been evolving over time. We are now talking about a second-phase from coastal management and conservation, which means the territorial sea, internal waters and archipelagic waters, to the high seas. Adopting an ecoregional and ecosystems-based protection and conservation mechanism should not be all that difficult, at least to initiate, as there are already lessons to be learned from earlier stages of marine environmental protection and marine scientific research that can be adapted or adopted in a wider scale. Thus was cited the Sulu-Sulawesi project of the WWF, which should be a quantum leap towards the ecoregion and ecosystem-based approach we are contemplating. As a practical matter, it might indeed be worthwhile considering giving the lead in this effort to a wider-ecoregion and ecosystem that shall be proposed later. A partnership between WWF and the Intergovernmental Oceanographic Commission (IOC) of UNESCO would be ideal, as the latter is known to be starting out on high seas studies relating to the marine environmental protection and marine scientific research.

For the ecoregion that I shall be proposing later, the work of biodiversity research of the Informal Workshop on Managing Potential Conflicts in the South China Sea (MPC-SCS) under the leadership of Indonesia should also be considered and brought into the picture in any future project that may be contemplated by this body, inasmuch as its eventual goal is the South China Sea which consists of adjacent or opposite enclosed or semi-enclosed sea seas.

Also from the foregoing, it is clear that since 1966, at a time when alarm over the marine environment was not as acutely felt as now, the Philippines was already putting together what can now be seen on hindsight, as the initial building blocks for ecosystem-based management, and the early concept of an ecoregion. It has continued to do so within the limits of its resources and developed knowledge and expertise, and it now feels ready to graduate to the kind of ecosystem-based management in ecoregion, venturing into the high seas, that we are contemplating now. It has engaged all relevant governmental, non-government and private agencies/entities in this endeavor, and has formed an active partnership with WWF. The principal constraint shall still be with resources and institutional aspects. But with help and guidance from these seminars, it hopefully could maximize efforts and resources, and achieve a more coherent form of ecosystem-based and ecoregional ocean management.

I wish to end, however, by reviewing the maritime scenario of the Philippines and the region it belongs as well as the vulnerability and therefore compelling necessity for addressing ocean management, including biodiversity conservation, in this part of our ocean planet.

The Philippines is not any ordinary coastal State; it is an archipelagic State. Moreover, it is unique in its geological configuration as being comprised of very closely-grouped islands. It straddles maritime transit routes that connects the Pacific Ocean with the South China Sea and the Indian Ocean/Andaman Sea, traversed by more than 50% of the world's maritime commercial traffic of all sorts of commodities, including petroleum products and hazardous cargoes. In addition to usual human activity, it is the volume of maritime traffic and character of the goods carried that presents the dramatic threat to the marine biodiversity not just of the Philippines, but the entire East and Southeast Asian region. Yet, the Philippines is but a part of a much larger ecoregion earlier ascribed to. The oceans program of the Philippines, arising from the very nature of oceans management and for truly meaningful effectiveness, and this is especially in regard to protection of marine biodiversity, addresses the subject in this wider maritime coverage and perspective. It cannot be otherwise and I wish to drive home the point in the following manner.

Much has been said about the Great Barrier Reef just offshore from here – what it is, what it means to the Australian land mass, and why it justifies and deserves all the nurturing care and protection of Australia. We are impressed by its size and the richness of its marine biodiversity, and its vulnerability to human activity. But what the Philippines calls for is cooperation in the management of a much larger ecoregion and ecosystem, that is, the "great barrier reef" of the Asian continent – that string of islands very large and very small, islets and rocks that encompass and stretches from the Korean peninsula and Japan, down to

the Philippines, Indonesia, East Timor and Papua New Guinea. Needless to say, this is an arbitrary regional spread encompassing East and Southeast Asia, and Oceania, if we may refer to political lines, for effective ocean governance. At this point, there may not be any scientific study to prove the connectivity of the marine environment outlined and hence the lack of concrete proof for classifying the area as one large ecoregion or ecosystem. Yet the rationale for proposing the extent of the East and Southeast Asian Marine Ecoregion is based on the common threat that these marine environment face, that is from intensive maritime transport activities in the area (50% of world's maritime traffic passes through the area) and other human activities.

The mention of the Great Barrier Reef of Australia was not to create an analogy or even a microcosm. No manner of comparison, except the graphic one in the foregoing can be applied in these two settings. In the Great Barrier Reef, there could be some human activity but no human habitation. The coasts of East and Southeast Asia, and the archipelagoes in its periphery including that of Papua New Guinea, is heavily populated by humans with all concomitant human activity including, as mentioned earlier, commerce and trading. In terms of richness of biodiversity, WWF data ranks the Great Barrier Reef as number 3 in an ascending scale of 5; whereas the Sulu-Sulawesi ecoregion alone, all the way to the Spratlys, ranks number 5 and among the very few in that scale around the world. It is hoped that the foregoing scenario has created a desired "shock and awe", for us to better appreciate the challenge and magnitude of work that

needs to be done in regard to ocean governance in this highly critical part of the world marine environment.

With such an expansive vision, it would naturally be expected that there must be some national policy, and budget, to underpin and support the program. The Philippines, however, has no coherent one at this time. Some attempt was made as early as 1994 to craft what has come to called as the National Marine Policy (NMP) for the country. This early attempt, however, not only lacked vision but also deemed altogether lacking in direction. Biodiversity conservation was hardly even mentioned, much more so that in the high seas. The NMP is currently in the process of updating. In the meantime, the track of pursuing and implementing a work program relating to the Law of the Sea issues and concerns affecting the country has devolved upon the Center for Maritime and Ocean Concerns in the Department of Foreign Affairs (DFA-MOAC). The Center is mainly charged with an integrating and coordinating role among the other agencies of the Government in regard to maritime and ocean concerns.

Biodiversity is very much among the concerns being addressed by the Center under its over-all mandate, whether within the maritime territorial and archipelagic jurisdictions of the country or in the high seas. It is, however, not a stand-alone concern. At this time, it is addressed in either of two ways: (1) as accompanying protective measures to archipelagic sealanes or domestic ship routeing, including Sea Lanes of Communications (SLOCs) in the Western Pacific and South China Sea; or (2) implementing Part IX of the 1982 Law of the Sea Convention (1982 LOSC) on Enclosed and Semi-enclosed Seas. In

addition, it tries to address the issue through participation in international and regional arrangements such as under the IMO, IOC and joint international programs such as the IMO/UNDP PEMSEA project, and the Informal Workshop on MPC-SCS. It is for this reason that the Philippines hopes to see added to its own nascent programs for a wider scenario of biodiversity conservation; beyond its national, territorial and archipelagic jurisdictions and into the high seas and seabed, these twin seminars. It is further hoped that these seminars could come up with a specific modality to concretize its aim at biodiversity conservation, as well as other aspects of ocean management, in the high seas and the seabed.

Finally, a few points on the practical aspect of the proposed project, for consideration:

1) As regards to the scope of the proposed ecoregion, from the Philippines' point of view, it should cover all enclosed and semi-enclosed seas including the South China and stretching from the Korean Peninsula down to the Papua New Guinea; and bounded on the eastern Pacific by the outer limits of the Exclusive Economic Zones (EEZ) of the States concerned.

2) As far as ecosystem-based management is concerned, a good starting point should be the implementation of the Part IX of the 1982 Law of the Sea Convention on Enclosed and Semi-Enclosed Seas and, aside from biodiversity, be as broadly encompassing as possible to cover all aspects of marine scientific research and marine environmental protection,

3) Research Stations must be established at strategic points in the ecoregion – the Philippines would be an ideal site for at least two … one in an outlying island in the Eastern Pacific limits of the ecoregion, and another in an island claimed by the Philippines in the South China Sea. In this regard to the latter, the Mischief Reef structures built by China could be equally convenient.

4) A Monitoring, Control and Surveillance System (MCS) must also be established after a comprehensive ocean policy of an ecoregion has been crafted, in order to ensure the implementation of the ocean policy or adjust actions as necessary; it is a prerequisite for an adoptive and precautionary management that characterizes ecosystem-based management.

5) Attention should be given to a careful crafting of a regime for biodiversity governance of areas of the high seas within the Exclusive Economic Zone of States concerned; how to accommodate national jurisdiction with freedom of the high seas.