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GEF/UNDP/IMO Regional Programme on
Partnerships in Environmental Management
for the Seas of East Asia

Proceedings of the 2nd Forum of the Regional Network of Local Governments Implementing Integrated Coastal Management (RNLG)

20-21 September 2002
Xiamen, PR China

PEMSEA/WP/2002/08

PROCEEDINGS OF THE 2ND FORUM OF THE REGIONAL NETWORK OF LOCAL GOVERNMENTS IMPLEMENTING INTEGRATED COASTAL MANAGEMENT (RNLG)

GEF/UNDP/IMO Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)
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Coastal Management Center (CMC)

Sida Marine Science Programme

Xiamen, PR China
20–21 September 2002

MISSION STATEMENT

The Global Environment Facility/United Nations Development Programme/International Maritime Organization Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) aims to promote a shared vision for the Seas of East Asia:

> "The resource systems of the Seas of East Asia are a natural heritage, safeguarding sustainable and healthy food supplies, livelihood, properties and investments, and social, cultural and ecological values for the people of the region, while contributing to economic prosperity and global markets through safe and efficient maritime trade, thereby promoting a peaceful and harmonious co-existence for present and future generations."

PEMSEA focuses on building intergovernmental, interagency and intersectoral partnerships to strengthen environmental management capabilities at the local, national and regional levels, and develop the collective capacity to implement appropriate strategies and environmental action programs on self-reliant basis. Specifically, PEMSEA will carry out the following:

- build national and regional capacity to implement integrated coastal management programs;
- promote multi-country initiatives in addressing priority transboundary environment issues in sub-regional sea areas and pollution hotspots;
- reinforce and establish a range of functional networks to support environmental management;
- identify environmental investment and financing opportunities and promote mechanisms, such as public-private partnerships, environmental projects for financing and other forms of developmental assistance;
- advance scientific and technical inputs to support decision-making;
- develop integrated information management systems linking selected sites into a regional network for data sharing and technical support;
- establish the enabling environment to reinforce delivery capabilities and advance the concerns of non-government and community-based organizations, environmental journalists, religious groups and other stakeholders;
- strengthen national capacities for developing integrated coastal and marine policies as part of state policies for sustainable socio-economic development; and
- promote regional commitment for implementing international conventions, and strengthening regional and sub-regional cooperation and collaboration using a sustainable regional mechanism.

The twelve participating countries are: Brunei Darussalam, Cambodia, Democratic People's Republic of Korea, Indonesia, Japan, Malaysia, People's Republic of China, Philippines, Republic of Korea, Singapore, Thailand and Vietnam. The collective efforts of these countries in implementing the strategies and activities will result in effective policy and management interventions, and in cumulative global environmental benefits, thereby contributing towards the achievement of the ultimate goal of protecting and sustaining the life support systems in the coastal and international waters over the long term.

Dr. Chua Thia-Eng
Regional Programme Director
PEMSEA

GEF/UNDP/IMO Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia

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A. INTRODUCTION

i. The Second Forum of the Regional Network of Local Governments Implementing Integrated Coastal Management (RNLG) was organized by the GEF/UNDP/IMO Regional Programme for Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), jointly with the State Oceanic Administration (SOA) of PR China, and hosted by the Xiamen Municipal Government of PR China.

ii. The Forum was designed to provide a venue to the respective local governments of participating countries for evaluating progress, achievements, constraints and lessons learned in ICM program development and implementation in their respective demonstration and parallel sites; sharing the experience, lessons and good practices of Xiamen ICM demonstration site; and discussing network operational modality and future activities.

iii. The Forum program is provided in Annex 1.

iv. Fifty-seven participants from ten countries of the East Asian Seas region as well as three countries outside of the Region and four international/UN agencies, such as GEF, UNDP Manila, World Bank and UNIDO, attended the Forum. Annex 2 contains the list of Forum participants.

B. OPENING CEREMONY

i. Welcome remarks were delivered by the Hon. Pan Shijian, Deputy-Mayor of Xiamen, Mr. Li Haiqing, Administrator of the State Oceanic Administration, PR China, and Dr. Chua Thia-Eng, Regional Programme Director, PEMSEA.

ii. Highlights of the opening and welcome remarks include:

iii. **Mr. Pan Shijian**

Today, as the host, I am very honoured to welcome your presence. First of all, on behalf of Xiamen Municipal People's Government, I'd like to extend my warm congratulations on the opening of the Second RNLG Annual Meeting. I also wish

to welcome the officials from East Asian local governments, representatives of PEMSEA as well as experts in ICM. I wish the meeting a full success.

Through the past years Xiamen has enjoyed a smooth cooperation with PEMSEA in establishing and running ICM. Based on these experiences and practices we have worked out our own path toward efficient ICM which can be best interpreted as "legislation in advance, centralized coordination, science backup, united law enforcement and harmonized institutional activities". We have successfully built a coordination mechanism among government departments and between government departments and research institutions, thus creating a basis for the application of science and participation of the public in ICM practices. Our efforts have been proven to be effective. We learn from this fact that the protection of marine environment and the development of ocean and coastal industries can be mutually beneficial and supportive. As the sustainability of our future growth depends on factors including ICM, we will continue our effort in ICM and speed up to build Xiamen into an environment-friendly Bay City in accordance with the principle of sustainability.

In the coming two days of the Second RNLG Annual Meeting, officials from East Asian local governments, representatives of PEMSEA and ICM experts will meet to exchange lessons and experiences in ICM and propose ways which could tap as much as possible the potential of the regional network, aiming to strengthen the cooperation of organizations and countries to raise their capacity in ICM. I believe that this meeting will play a significant role in advancing ICM for East Asia and building sustainability for our respective countries.

We are willing to broaden exchanges and cooperation with international organizations and programmes such as PEMSEA, East Asia governments and ICM experts. We will share experiences and help each other to build strength in ICM. We expect your valuable suggestions and proposals for Xiamen's ICM.

iv. **Mr. Li Haiqing**

The Chinese government attaches great importance to sustainable development called for by the UNCED in 1992 and WSSD this year. In 1992, the China Agenda 21 was declared, and in 1996, the China Ocean Agenda 21 was promulgated. It has been making efforts to duplicate the Xiamen ICM experience in other parts of the country. From 1998-2000, the State Oceanic Administration (SOA), together with UNDP, launched a project on ICM capacity building in the coastal provinces of Guandong, Hainan and Guanxi Zhuang autonomous region. The ICM concept is likewise being applied in Bohai Sea, which is one of the pollution hotspots of PEMSEA. The Xiamen experience has clearly demonstrated that developing countries do not have to repeat the failure story of "pollution first and management comes after" of the developed countries. Despite the success, there is still a room for improvement, and the forum provides an opportunity where Xiamen and all participants could share their experiences and learn from each other particularly in the field of integrated ocean and coastal management.

v. **Dr. Chua Thia-Eng**

One of PEMSEA's major objectives is to build multi-stakeholder partnerships for sustainable coastal development through the development of coastal strategies and implementation of ICM programs. Through the experiences of Xiamen and Batangas, we have expanded the coverage of demonstration projects to include six other countries – Cambodia, DPR Korea, Malaysia, Indonesia, Thailand, and Vietnam. The achievements of the eight demonstration sites promoted the development of two new ICM programs in Bataan, Philippines and Shihwa, RO Korea. We are now considering the request of the local government of Sukabumi, Indonesia and hopefully, Sukabumi will soon be our third parallel site.

The RNLG was formally established two years ago in Seoul, RO Korea, hosted by the Ministry of Maritime Affairs and Fisheries and city government of Ansan. It was during that event that an agreement was made to hold regular meetings to enable the concerned governments to share approaches, methodologies, experiences, lessons and other insights pertaining to the implementation of ICM programs.

This workshop provides a good opportunity to consolidate good practices and lessons that could be replicated in other coastal areas in the region and the world, in general. ICM is the blueprint for achieving sustainable coastal development and for implementing UNDP's Capacity 2015. ICM is a recommended approach for integrated ecosystem management and is a valuable tool for the implementation of Agenda 21. The challenge ahead of us is to build on the foundation that each ICM site has already achieved and strengthen it with political will and resources. Let us also mobilize public support to protect our coastal resources and ensure their sustainable use. PEMSEA will work with you toward the achievement of this noble objective.

THE FORUM SESSION

SESSION 1: Evaluation of Progress, Achievements, Constraints and Lessons Learned in ICM Program Development and Implementation

Chairperson: Mr. Haiqing Li
Director General of Department of International Cooperation
State Oceanic Administration, PR China

1.0 The Chair gave a brief introduction of the Session's theme. This session discussed progress and achievements, constraints and opportunities, lessons learned and other valuable experiences of ICM program development and implementation in PEMSEA ICM national demonstration/parallel sites. Presentations were made by representatives from nine sites, namely: (1) Bali (Indonesia); (2) Bataan (Philippines); (3) Batangas (Philippines); (4) Chonburi (Thailand); (5) Danang (Vietnam); (6) Klang (Malaysia); (7) Nampo (DPR Korea); (8) Shihwa (RO Korea); and (9) Sihanoukville (Cambodia). The Xiamen experiences were discussed separately in the second session.

2.0 The Chair introduced the Heads of delegation and/or PMO directors of PEMSEA ICM national demonstration/parallel sites, as follows:

- *Bali, Indonesia*: Ms. Ni Wayan Sudji : PMO Director, Head of Environmental Impact Control Agency;
- *Bataan, Philippines*: Honorable Leonardo Roman : Governor, Province of Bataan;
- *Batangas, Philippines*: Ms. Evelyn Estigoy: Director, Environmental and Natural Resources Office;
- *Chonburi, Thailand*: Mr. Chathai Thimkrajang : Mayor, Municipality of Sri Racha;
- *Danang, Vietnam*: Mr. Hong Tuan Anh : Vice Chairman, People's Committee of Danang City, PCC Chairman; Dr. Nong Thi Ngoc Minh: PMO Director, Director of Department of Science, Technology and Environment;
- *Klang, Malaysia*: Haji Rahmat Mohd.Sharif : PMO Director, Director of Selangor Waters Management Authority;
- *Nampo, DPR Korea*: Mr. Kim Jae Won : Director, General Bureau for Cooperation with International Organizations; Mr. Mun Ho : Deputy Director, People's Committee of Nampo City;
- *Sihanoukville, Cambodia*; Mr. Prak Sihara : PMO Director, 2nd Vice Governor, Municipality of Sihanoukville;
- *Xiamen, PR China*: Mr. Wang Chunsheng : PMO Director, Deputy Director General, Ocean and Fisheries Bureau.
- The representative of local government in Shihwa ICM parallel site did not attend the first day of the RNLG forum.

3.0 Before the presentation of each site, Dr. Jihyun Lee gave a brief report of the overall progress and achievements. Dr. Lee emphasized the progress made in the ICM sites and their contributions to sustainable development. These contributions include: improvement in local governance; demonstration of corporate responsibility and the contribution by private sector; continued dialogue

and cooperation among various sectors and stakeholders; affirmation of the replication and sustainability of ICM working models; and building local partnerships.

4.0 Following is the summary of site presentation:

4.1 **"Tri Hita Karana" as a Guiding Philosophy for Coastal Strategy Development in Bali** by Ms. Ni Wayan Sudji, PMO Director, Bali, Indonesia

Tri Hita Karana is a crystallized Hindu philosophy among the Balinese, which balances spiritual enrichment, economic growth, cultural preservation, and environmental protection. This has influenced Balinese people, even in light of rapid growth and development occurring in the Province of Bali, Indonesia. In developing the coastal strategy for the Southeastern Coast of Bali, the Balinese stakeholders used the same guiding philosophy. The resulting document is an instrument that will therefore serve to provide a platform for harmonizing relationships between the economy and the environment, forging operational linkages across various policies and programs, and promoting intersectoral, interagency, and intergovernmental partnerships in the pursuit of sustainable development. This unique experience showcases the advantages and effectiveness of incorporating local customs and beliefs – and enhancing these in the process - in preserving revered traditions, protecting coastal and marine environment and resources, and mitigating adverse consequences of development.

4.2 **Demonstration of Corporate Responsibility in Sustainable Coastal Development of Bataan** by Ms. Marilou Ernie, Executive Director, Petron Foundation and Mr. Orlando C. Alparce Jr., Vice President, General Affairs, Philippine Resins Industries, Inc. [Bataan Coastal Care Foundation, Inc. Bataan, Philippines]

The presence of a socially conscious business community and a very willing provincial local government institution as partners paved the way for the development of concrete strategies in the pursuit of sustainable coastal development in the Province of Bataan, Philippines. The International Coastal Cleanup Day and the conduct of an industry-led volunteer program called the Kontra Kalat sa Dagat or "Movement Against Sea Littering" catalyzed the institutionalization of a long-term ICM program in the province to which the key partners – the private sector as represented by the industries in the province, and the Provincial Government of Bataan, as well as the civil society and various stakeholders of the province – have committed their support. The industries formed the Bataan Coastal Care Foundation, Inc. contributing to the partnership the business community's rich experience in organizational management, including logistics support. Bataan ICM Project, more locally known as BIGKIS-Bataan, has yielded success in the province as evidenced by the various accomplishments and achievements gained so far, including national and international awards, and most notable are empowered stakeholders, active community participation, and strengthened local governance which have all benefited Bataan and the Bataeños as a whole. Thus, it is through the partnership forged and mechanisms established that the project is sustained – for now and in the future. The Bataan model provides an example where the

private sector can be an effective partner in promoting and pursuing sustainable development.

4.3 **Successes, Failures and Lessons Learned from PPP Efforts in Integrated Waste Management** by Ms. Evelyn Estigoy, Director, Environmental and Natural Resources Office, Batangas, Philippines

In the Philippines, local governments have been designated by law to address waste management concerns. In the Province of Batangas, PPP (Public-Private Partnerships) has been explored as a mechanism to address solid waste management on a sustainable basis, provide institutional arrangements, law and control mechanisms, and financial economic instruments. The approach has resulted in a mix of successes, failures, and lessons learned. Successes gained include the completion of project studies on solid waste generation and characterization, development, packaging, and promotion of opportunities, implementation of public awareness and education on environmental management, mobilization of public participation, and the formation of a public sector corporation (Batangas Environmental Services, Inc.) composed of local government units (as public partner to the PPP). Failures have been the non-attainment of security over land tenure and land use for the proposed sanitary landfill due to political reasons and the lack of agreement among individual local government units in terms of wastes reception. The lessons learned include the need for strong political will and leadership, public accountability, transparency, and commitment to overcome the popular "not-in-my-backyard" (NIMBY) syndrome – and its new offshoot – the "not-in-my-term-of-office" (NIMTO). There is also a need for the partners to realize basic differences, including culture, awareness, management schemes, actual knowledge, and technology, when beset with setbacks and constraints and the need to capitalize on each other's strength. The setting up of a demonstration site for a sanitary landfill facility in one of the local government units found in the province is being explored and this is expected to spur fulfillment of the original solid waste management plan for the whole province. The experience in Batangas provides useful insights, particularly for local government units intending to pursue PPP as an approach for addressing concerns like waste management – not only in the Philippines – but also in other countries in the East Asian Seas Region.

4.4 **Enhancing Local Governance Through ICM Practices in Response to National Policy on Decentralization** by Ms. Apiradee Sujarae, Project Coordinator, Chonburi National ICM demonstration Project, Thailand

Chonburi province is fast becoming a tourism and industrial hub in Thailand, owing to the overflow of development from the nearby City of Bangkok, and a well-developed transportation system. With the unprecedented growth over the years, adverse environmental impacts ensuing from various economic activities have become apparent. With the decentralization in the late 90's and increased popular participation in resource management, authority and decision-making power has been delegated to local authorities – including addressing environmental concerns. The implementation of the ICM framework in the province was a welcome opportunity as it complemented existing efforts and initiatives of local governments. It is perceived to address present and future concerns in environmental management in an integrated manner and empower

local stakeholders in the process, thereby enhancing local governance. The case of Chonburi Province, Thailand highlights the opportunity that ICM presents to local governments responding to national policies – particularly in terms of environmental and resource management and meeting challenges of decentralization in a proactive manner.

4.5 **Lessons Learned and Insights from Coastal Strategy Development and the Danang Declaration** by Dr. Nong Thi Ngoc Minh, PMO Director, Danang, Vietnam

Development of the Coastal Strategy for Danang has been a long consultative process among its different stakeholders. With the support of policymakers, resource and environmental managers, scientists, civil society representatives of the coastal communities, the Coastal Strategy came into being, leading to its approval by the People's Committee – and later affirmed further by the people during a Declaration Workshop in July 2002. The process has resulted in greater awareness among policymakers and the public concerning the importance of consensus building in developing appropriate action programs to address urgent environmental issues. It also enhanced the cooperation, willingness, and commitment of the stakeholders to participate and promote related activities in Danang. Capping the success in developing the strategy is its recognition and citation as a good example for other coastal provinces and cities to follow in Vietnam. The experience in Danang highlights the potential gains of consultation – not only for consensus building, but also for creating awareness and forging links/cooperation among stakeholders, and easier coordination and implementation of subsequent related and relevant activities.

4.6 **ICM Initiatives and Clean-up of Pulau Ketam (Crab Island)** by Haji Rahmat Mohd. Sharif, PMO Director, Klang, Malaysia

The Port Klang ICM Project is distinguished by its focus on ecosystem restoration as well as eco-tourism promotion, especially in Pulau Ketam – which is hoped to become a future showcase of successful eco-tourism and small island development. Already an attraction for local tourists, small-scale fishing and cage-culture site, amidst a most unique setting, Pulau Ketam is confluent to the effects of activities in and around it. Impact sources include – Port Klang (a designated hub of sea communication and ports of Peninsular Malaysia), Straits of Malacca (the world's busiest navigational waterways, which lies just a few kilometers off), and the estuaries of two highly polluted rivers in Malaysia, namely Sungai Klang and Sungai Langat. This situation requires management of environmental impacts in an integrated approach. With the adoption of the ICM framework and its implementation in Port Klang, it is foreseen to address the multifarious issues, especially those unique to the Pulau Ketam area, together with existing national and local government initiatives – particularly endeavored towards eco-tourism.

4.7 **Capacity Building in Coastal Management** by Mr. Ri Ki Ho, Senior Researcher, Land Planning & Designing Center, DPR Korea

Capacity building at the national integrated coastal management (ICM) demonstration project in Nampo, DPR Korea, is being undertaken under two levels. First, selected

government officials participated in regional training programs organized by PEMSEA. Second, project activities were developed and implemented at the local level, providing on-site and hands-on capacity-building opportunities for local stakeholders, applying skills and experiences acquired from the regional training. Some of the benefits accruing from PEMSEA's on-site training include increased public awareness on ICM and the urgency to protect the coastal and marine environment, extensive involvement of stakeholders in the development, implementation and management of the ICM project as well as in consultation activities on environmental issues and the dissemination of skills and experiences acquired from the regional training courses to more stakeholders involved in the Nampo ICM demonstration project in a cost-effective way. On the other hand, trainers who participated in the regional training courses played an important role in the development and management of the national ICM demonstration project in Nampo, based on its actual conditions.

4.8 **Comprehensive Management Plan for Lake Shihwa Special Management Area** by Dr. Pae Seoung Hwan, Senior Researcher, Korea Ocean Research & Development Institute, RO Korea

Lake Shiwa is a designated special management area under the Marine Pollution Prevention Act. The Ministry of Maritime Affairs and Fisheries (MOMAF), in collaboration with provincial government, city governments and local representatives, and central government agencies, such as Ministry of Construction and Transportation (MOCT), the Ministry of Environment (MOE) and the Ministry of Agriculture and Forestry (MOF), has formulated the comprehensive management Plan for Lake Shihwa. The plan incorporated actions required to address the following environmental problems: improvement of water and sediment qualities, management of ecosystems and natural resources, management of coastal uses and spaces, improvement of management system and institutional arrangements. The plan aims to establish a marine complex for Citizens in the Seoul Metropolitan Area, use the lake area as a natural living laboratory for marine and fishery researches, and transform Lake Shihwa from a typical case in marine environment degradation to an international model case for successful coastal environment management. Plan implementation will be spearheaded by MOMAF, which will serve as the Executive Secretariat of the Watershed Management Committee.

4.9 **Sihanoukville Initiatives Toward Sustainable Coastal Tourism Development** by Mr. Prak Sihara, PMO Director, Sihanoukville, Cambodia and Mr. Kim Jong Deog, Member of Sihanoukville Regional Task Force, Invited Researcher, Ship and Ocean Foundation, Japan

Sihanoukville has vast tourism potential because of its natural endowments, beautiful beaches, islands and the only national park in Cambodia. The rapid increase of visitors along with the expansion of port functions brought about by increasing human settlements, however, are imposing threats to the coastal environment, which is the source of more than three industries in Sihanoukville. A survey conducted by the PEMSEA regional task force (RTF) among international and domestic tourists as well as operators of tourist facilities analyzed the trends in Sihanoukville's tourism industry and came up with guiding principles for sustainable coastal tourism development using the ICM approach. Survey results showed that more than 80 percent of facility operators were willing

to expand their facilities by more than 30 percent. They were also optimistic about the future of tourism. Tourists were satisfied with their experience in Sihanoukville, although international tourists could not differentiate Sihanoukville with other destinations in the tropical region. Many tourists pointed out issues about the environment, particularly solid wastes. Moreover, an analysis of the main coastal tourism resources of the area – beaches, islands and the Ream National Park – was also conducted through collection of secondary data from national governments and concerned line agencies, as well as from the city of Sihanoukville. As a development concept for Sihanoukville's future tourism, tourists suggested a "beach-oriented sustainable and environment-friendly development", "harmonized with nature, maintaining at low impact, linking with current main destinations in and near Cambodia."

5.0 Followings are the summary of discussions:

5.1 **Bali, Indonesia**

Religion plays a very critical role in managing the environment. This was clearly demonstrated in Bali and in other countries such as the Philippines, where church-based organizations play an active role. In Bali, the beliefs, culture and traditions of the indigenous people are brought into higher level of recognition and integration into the decision-making process.

The *Tri Hita Karana* philosophy in Bali provided a framework for land-use planning and zoning policies, for example, in regulating the construction of high-rise buildings. It has been recognized, however, that this is not an easy task for the Balinese Government to undertake, especially as the legislation process has to go through the Parliament.

A similar application was noted, as being practiced by the Eskimo people in Canada, where strong culture and traditions influence environmental management processes. For example, indigenous people have lobbied the cause for environment against gas exploration and development in the region. This parallel practice in Canada clearly demonstrates the strength of the role of religion in environmental management.

5.2 **Bataan, Philippines**

The Bataan ICM experience is a very good example of private-public partnership, where the private sector takes a leading and active role. The ICM project started with a coastal clean-up activity, which has now become a regular activity of the local government units with the participation of government and private sector employees, school children, NGOs and communities. The private sector provides equipment and resources to mobilize and sustain such activities. People now look forward for the schedule of the clean-up and mangrove planting activities – with a 'fiesta' and celebratory mood.

The ICM is a long process and impacts are not evident and measurable in the short-term. In Bataan, while there were indications of reduced red tide occurrence as a result of clean-up efforts, other parameters to ascertain

environmental changes as a result of various ICM interventions could only be measured in the longer-term.

There were also political benefits derived from ICM experiences in Bataan. As a function of increased environmental awareness and benefits derived from ICM activities, political leaders gain positive support in the process. As such, the governor has been inspired to undertake environmental projects with far-reaching and long-term effects.

To sustain ICM, Bataan PMO, together with the local government and the partners from private sector and civil society, conduct regular consultations and public awareness activities. In receiving awards – international and national – communities learn to appreciate environmental management efforts and cooperate with the government. They are currently working on alternative livelihood projects.

5.3 **Batangas, Philippines**

The Batangas experience in public-private partnership for environmental investment was noted to be the first in the region, and this experience has charted new directions in ICM and PPP initiatives in other areas. Private sector participation, in the case of Batangas, was noted to be a challenging task. Several factors have to be hurdled in the process. This is primarily due to hesitancy on the part of private sector to participate, as a result of lack of trust in capacity of the Government in such undertaking. Building public-private relationship is a time consuming process as it takes into account complications among government institutions involved as well as challenges between the government and the private sector. Among the factors that need to be carefully considered at the very start of the partnership are: community participation; technical and financial viability; and local government needs and capacity.

5.4 **Chonburi, Thailand**

The need to delegate power and functions (including budget) from national government to local government authorities was clearly demonstrated in the Chonburi ICM experience. Local planning processes have to be consistent with the national plans. Such decentralization efforts were noted to have taken place as well in the Philippines and Indonesia, where local governments were given increased authority and budget. However, in many of these cases, the local authorities lack the capacity to undertake the delegated functions.

5.5 **Danang, Vietnam**

The low level of awareness and weak understanding of ICM concept are fundamental issues that need to be addressed. This situation in Danang was also exemplified in Xiamen, but addressing these fundamental issues have contributed much in the progress made so far in many ICM demonstration and parallel sites. Citizen's participation in local and national policy development is also essential. Public participation in short-term but regular efforts, such as coastal clean-up in Bataan, Philippines also provides practical approach to sensitize women, youth and senior citizens in ICM initiatives. Local awards and

international recognition of these efforts, as well as provision of alternative livelihoods also increased enthusiasm and support from the citizenry, in general.

In Danang, regular dialogues and coordination meetings on ICM efforts among various agencies of the Government has strengthened capacity and understanding among local government authorities. It was also noted that public awareness efforts are very critical, both in socialist and capitalist system of governments.

Complementation of local and national efforts enhances the pursuit for sustainable development and therefore increases people's enthusiasm in environmental management efforts.

5.6 Port Klang, Malaysia

Addressing the degraded island ecosystem of Pulau Ketam posed a unique ICM experience in Port Klang as the island has been degraded for over 100 years but still serve as the seafood hub for tourists. These efforts entailed ecosystem restoration through re-planting mangrove, re-landscaping as well as eco-tourism promotion and sustainable fishing practices.

5.7 Nampo, DPR Korea

Like in most other sites, strengthening local capacity to undertake ICM characterized the challenges in the Nampo demonstration site. PEMSEA has addressed the capacity building needs through training of human resources and provision of equipment. Basic survey and analysis equipment and instruments from PEMSEA to monitor primary pollutants has helped Nampo region to enable management of ICM projects.

5.8 Lake Shihwa, RO Korea

This ICM experience exemplifies good planning and effective management action. ICM efforts at the local government level provided a venue for integration of various sectoral plans formulated separately by various agencies. The Lake Shihwa ICM demonstrates the negative consequence of efforts of individual national agencies without proper consultation with various concerned stakeholders.

5.9 Sihanoukville, Cambodia

Sihanoukville demonstrates sustainable tourism as an integral part of ICM efforts. In Honduras, a similar situation exists, where sustainable coastal tourism involves indigenous people, and is beset with similar issues such as lack of local leadership, cultural assets underdeveloped and other factors such as HIV, AIDS and problems with small and medium enterprises. In Cambodia, however, cultural asset is more characterized in Angkor Wat and not in Sihanoukville. There is great demand, however, for local tourists to visit Sihanoukville, as a marine park. The challenge is to look at issues in the long-term, such as possible impacts of big construction boom in the coastal areas.

6.0 **Summary of the Chairperson**

In terms of context and substance, the presentations were all impressive and characterized by: (1) progress in terms of ICM initiatives since the start of PEMSEA, both in parallel and demonstration sites; (2) variety of ICM stories (sustainable tourism, decentralization, religion and culture) including those which have been successful and those in the process of being successful; (3) new ideas and innovation (i.e., public-private partnership); and (4) varied stages of ICM implementation, some are in its very preliminary stage (an impetus for PEMSEA to continue to intervene and provide the needed expertise).

In terms of presentation: (1) there is great enthusiasm among speakers; (2) all presentations were well-prepared both in content and in form and very informative, and there is a lot to learn; and (3) the presentations were all very objective i.e., (not only successes were discussed but lessons from failures as well, and these are more valuable than simply telling successes).

In conclusion, the goal of the Session was fully met, i.e. to share information and ideas on ICM. While there seems to be a lot of questions, and due to limited time, most of them were not asked, the exchange of ideas and information should continue. PEMSEA could organize some visits among the various ICM sites (i.e., brothers and sisters exchange visits).

SESSION 2: Lessons Learned from Xiamen Experiences

Chairperson: Dr. Huming Yu
Senior Programme Officer, PEMSEA

7.0 The Chair opened the session by introducing the topics and respective speakers. This Session focused on highlighting the achievements, successes, impacts and lessons of Xiamen ICM program, with special regard to local leadership, institutional arrangements, inter-agency coordinating mechanism, and scientific support.

8.0 Following is the summary of Xiamen presentation:

8.1 **Development, Achievements and Impacts of the ICM program in Xiamen** by Mr. Wang Chunsheng, Deputy Director General, Ocean and Fisheries Bureau

Through the adoption of an integrated coastal and ocean management approach, Xiamen has developed its marine economy, consisting of four sectors, namely, port and shipping industry, coastal tourism, marine fisheries, and ocean science and technology, in balance with environment conservation and restoration. In particular, Xiamen has established an effective coordination mechanism; built up local legal framework under the state legal system; formed scientific support system; enhanced public education participation and decision-making mechanism; and strengthened law enforcement on the sea in the implementation of sustainable development strategies, marine environmental protection and resource conservation.

8.2 **Harmonizing Highway Construction and Beach Protection** by Mr. Cheng Jianhua, Senior Engineer of the Xiamen Road and Bridge Company

The building of the coastal Round-Island Road would play a crucial role in facilitating the ever increasing traffic flows of the city, promoting the development of the local tourism industry, accelerating the development of the eastern part of Xiamen Island, and improving basic traffic facilities and the investment environment. Construction requirements entailed the undertaking of the following processes: the resolution of related issues, project pre-feasibility study, line type selection, shoreline preservation, sea-beach protection and development, road landscaping and public involvement. With the construction of the Round-Island Road, the shoreline sights of Xiamen's east coast has been protected and developed. It has preserved the island's seashore sand beaches, which are very valuable natural resources for seaside cities, can create a significant amount of wealth for tourism and play an important role in beautifying the city and in enriching the culture of the local community, eventually turning Xiamen into a modern scenic international harbor city.

8.3 **How Scientific and Technical Support Have Contributed to the Achievements to the ICM Program** by Dr. Hong Huasheng, Vice Chairperson of the Fujian Provincial Assembly; Professor, Environmental Science Research Center, Xiamen University

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One of the successful experiences of Xiamen ICM is the effective integration of science and management through a scientific support mechanism that enables close interaction between decision makers and scientists. This mechanism includes a framework, which describes the composition, function and operation of the Xiamen Marine Experts Group (MEG), and the scientific basis for ICM. The scientific support mechanisms applied in Xiamen include: a) the integrated environmental impact assessment (IEIA) for identifying the nature of the cumulative impacts and their consequences, prioritizing the issues and providing the guidance for prevention and mitigation; b) marine functional use and zoning for providing scientific and institutional basis for multiple-use prioritization and coordination, and for effectively minimizing adverse environmental impacts; c) public education and participation, using both 'top-down" and "bottom-up" strategies, and d) evaluation of socioeconomic benefits associated with the implementation of ICM program. Through the application of a variety of scientific management tools, the role of scientists and their contributions have proved to be essential in ICM implementation.

9.0 Followings are the discussions made during each presentation:

Development, Achievements and Impacts of the ICM Program in Xiamen

9.1 A clarification was made on mechanism of law enforcement in Xiamen. It was explained by Mr. Wang that law enforcement before the implementation of ICM project was complicated, diversified and very sectoral. For instance, the sea area and the aquaculture sector have their own enforcement teams and resources. This resulted in duplication of efforts, in some areas, and in some, no enforcement. The municipal government has integrated these efforts through the Marine Management Office (recently transformed into Ocean and Fisheries Bureau), together with a committee consisting of 13 departments. They focus on environmental enforcement, fisheries, etc., although customs is not a part of it. It

was emphasized by Mr. Wang that although they do not cover all areas, at least, environmental issues have been effectively addressed.

9.2 A query was made by Ms. Evelyn Estigoy, Batangas ICM Demonstration Project whether or not consultations with the public, in general, were made relative to the relocation of the fisherfolks from the West Sea, and the development of Yuandang Lake into an engineered landscape. She also asked whether or not public consultation is necessary in Xiamen, considering that the situation in Xiamen is different from the rest of East Asian countries.

9.3 It was clarified by Mr. Wang that the issue was very complicated. The era when everyone had to rely on government intervention is no longer applicable. Several things happened: (1) officials are now regulated to be accountable to the public, (2) public awareness campaigns were made and (3) compensation scheme was developed for those who were relocated, if needed. He also stressed that the government needs a policy to remove poverty and improve people's livelihood.

9.4 Dr. Kenji Hotta expressed his appreciation on the presentation, in particular with the recycling of wastewater management, which is over 80%. He asked if there were legal arrangements or any sort of arrangement made.

9.5 Mr. Wang explained that the local government spent a lot of resources on coastal environment. There is a tradition that people, in general, tend to consider the sea as part of their lives. So, there is a common vision and consensus among communities to allocate resources to resolve issues, particularly to keep Xiamen clean. This is the reason for the high rate of recyling of wastewater. He also emphasized that there were many technical and financial interventions made.

9.6 Haji Rahmat of Klang National ICM Project commented that based on Xiamen's approach, a prerequisite for a successful program is having a legal instrument or arrangements. He appreciated the efforts of the Xiamen government to integrate planning, coastal use zoning, economic development and environmental management. He asked about whether this arrangement has evolved or achieved through a bottom up or top down approach. He further inquired that since the power was vested to the municipal government, if there was any powerful agency to integrate these concerns.

9.7 Mr. Wang explained that various agencies tried to coordinate before but were not very successful. Later, the multiple use conflicts such as the conflict between navigation and aquaculture made them aware that these sectors suffer without effective coordination. It is the awareness of consequences of the existing situation and approaches looking for a change that brought agencies together. On the evolution of the process, Mr. Wang clarified that Xiamen initiative came first before national legislation was made. The Xiamen case provided experiences in the process of developing national legislation.

Harmonizing Highway Construction and Beach Protection

9.8 Dr. Angel Alcala of the Philippines inquired if the study has been published and there is a possibility to get a copy of the paper. He indicated that it is one of the best he saw on restructuring of road, the sea, land and mountain met together in harmony, and more importantly in protecting the sea.

9.9 It was clarified by the Chair that the copies of the presentation for the session have been distributed, including a copy of the paper of Dr. Jianhua.

9.10 Dr. Chua asked if there are statistics to show the increase in number of tourists after the road and landscaping had been completed. Mr. Jianhua clarified that they observed an increase of tourism activities. He clarified, however, that there are no statistics to be shown as these will still be compiled by the Tourist Management Bureau. Mr. Wang cited the fisherfolks engaging into tourism business as an example of increasing tourism activities as a result of the road and landscape project.

9.11 Mr. Jack Mathias of Canada commented that he traveled over the road and observed that it is a fantastic and world-class feature. At the mountain side, he saw some villas or housing projects. He asked clarification whether or not there is access provided for the residents of the villas to cross the road to enjoy the beach environment. Mr. Jianhua explained that there are underground passages along the highway.

9.12 Haji Rahmat asked whether there were economic activities aside from tourism considered to make the project viable. Mr. Jianhua explained that there are extensive prefeasibility and feasibility studies involving the public in determining the values by various standards such as ecological, economic, etc. During the construction, the design of the highway was revised several times to suit to these standards.

How Scientific and Technical Support Have Contributed to the Achievements of the ICM Program

9.13 Dr. Pae Seong Hwan of Shihwa Lake asked about the population and habitat of egret, being identified as an ecological index. Dr. Hong clarified that before, Xiamen was considered as an egret island. When Yuandang Lake's water quality became degraded, there was a decrease in their number. After the rehabilitation of the Lake, the birds came back. She also informed that there is also a preservation site for egret. She further informed that the population of the birds is increasing. A CD on the different kinds of egrets in Xiamen is also available.

9.14 Haji Rahmat commented that the concept of integrated management is very attractive. It is a complete paradigm shift from the sectoral approach, whereby sectors are harmoniously integrated, including identification of indicators. He inquired on the problems that were encountered in coming up with indicators, which are acceptable to the stakeholders in making a common decision.

9.15 Dr. Hong informed that there are a lot of difficulties encountered, but they used scientific information to tell the truth, to educate people, and the government. For

instance, the marine zoning scheme had at least ten versions. The first three versions were not accepted. An example of their rejection is about the West Sea area, where the dominant use is shipping, however conflicting with aquaculture. The understanding/awareness that aquaculture is not the appropriate use because of the quality of the water, and the occurrence of red tide, therefore, there will be losses in the economy made them recognize the usefulness and benefits of applying the zoning scheme. People learned from experience, such as the case of Yuandang Lake. The government was aware of the problems and also the people complained.

9.16 Dr. Chua commented that usually for many countries, the result of ICM can be seen after many years, say 15 years. In Xiamen, however, changes were seen in a shorter period. He asked about the major driving forces that lead to the shortening of the period to achieve the goal that has been set.

9.17 Dr. Hong expressed her gratitude to the Regional Programme for bringing experts to teach them the concept of ICM. She emphasized that first, awareness and education are very important. During the demonstration phase, the government was seeking how to attain sustainable development in Xiamen, where the economy was developing very quickly. The government realized that the best way to sustainable development was through ICM. It was considered as an effective way to attain coastal sustainable development. The demonstration site was important in educating the government officials for them to realize the problems. The Yuandang Lake was a good lesson for them. After cleaning the Lake, they realized the value of the environment. Government awareness is very important. Secondly, the government had already the Marine Management and Coordination Committee to coordinate the various sectors, with the power of the Deputy Mayor as a chair. The Marine Management and Coordination Committee has been a mechanism to discuss and resolve issues. Thirdly, the science and technology support through the Marine Experts Group contributed a lot, having impartial views. The scientific group provided services on monitoring, impact assessment, and public consultation. The group made the linkages among the government, the public and the investment sectors. Fourthly, the public, including the investment sectors such as the bridge and roads, were also helpful.

9.18 Mr. Wang commented that at present, while they have shown results at shorter time than others, there are problems they are facing requiring longer period to resolve issues. These are:

(a) the cumulative impacts to the environment that cannot be addressed in a short time. There are progress being made, however, it requires a huge task. For instance, Xiamen introduced recently the integrated management and restoration of West Sea area such as the assessment of water quality and integrated environmental impact assessment.

(b) harmonizing of zoning scheme. There are coordination issues among sectors that need to be addressed; and

(c) the change of administration is a challenge to Xiamen to consolidate and strengthen ICM. However, Mr. Wang believed that with the increased awareness

and efforts spent with the support of PEMSEA and scientists, they have a way to improve management mechanism.

9.19 Mr. Orlando Alparce of the Bataan Coastal Care Foundation commented that being from the private sector, he is looking for opportunities to increase private sector participation in ICM. He expressed his interest in education. He asked if there are programs being done in school curriculum to integrate environment.

9.20 Dr. Hong informed that there are courses on environment in primary and secondary levels. Even at pre-school, there are also courses on environmental protection. Aside from the school curriculum, there are also activities undertaken to reach out to the youth: (a) in protecting the Eastern Sea coastline, in the middle school course on science and technology, the kids did some work in the seashore and wrote some parts of a paper, which the national government sponsored; (b) there is mini-university sponsored by CIDA that holds summer camps, involving high school students, with the university students as teachers. A CD on this kind of activities is available.

9.21 Dr. Chua commented that environmental education is very important at the school levels. Xiamen plays a very active role on this matter. He informed that in the Philippines, PEMSEA had conducted a summer youth camp. The attendance to the youth camp will be integrated into the curriculum of the Philippine Science High School, meaning the student will be given credit for attending the summer camp. The kids were brought to an island with less destroyed environment for them to see mountains, streams and the sea. This event had been documented and will be shown in knowledge channel with an expected audience of 2 million students. He also informed further that a regional summer camp will be organized next year. He also encouraged other countries to put more efforts in reaching the youth sector.

SESSION 3 : Sustaining ICM Practices

Chairperson : Dr. Angel Alcala
Former Secretary of the Department of Environment and Natural Resources, Philippines

10.0 The panel presentations and discussion showed the importance of establishing institutional arrangements and adoption of coastal policies to sustain ICM. In addition, there is a need for integration among the different levels of government and across various sectors, and broader perspective on governance to balance economic development and environmental management. Political will is essential in developing financing mechanisms and implementing land- and sea-use zoning plans – both key factors to continue ICM efforts and sustain the benefits.

The first panel focused on institutional arrangements, with Dr. Huming Yu of PEMSEA, as facilitator. The panelists were Mr. John Ginivan, Australia; Mr. Hoang Tuan Anh, Vietnam; and Haji Rahmat Mohd. Sharif, Malaysia.

The second panel was concerned with land- and sea-use zoning, and Dr. Jihyun Lee of PEMSEA was the facilitator. The panelists were Dr. Hong Huasheng, PR China; Ms. Evelyn Estigoy, Philippines; and Dr. Jack Mathias, Canada.

The third panel was directed toward sustainable financing, and Mr. Adrian Ross of PEMSEA was the facilitator. The panelists were Mr. Haiquing Li, PR China; and Dr. Marea Hatziolos, World Bank.

Panel 1: Institutional Arrangements

Facilitator: **Dr. Huming Yu, PEMSEA**

11.0 The first panel covered a wide range of institutional arrangements resulting from divergent political and socioeconomic structure in different countries. Building institutions is a long process, and would require a more practical, step-wise approach. There is a need to assess and prioritize issues; harmonize local and national policies and international commitments; integrate economic development and environmental management; formulate, adopt and enforce legal framework to support ICM and related institutional arrangements; understand responsibilities, get the involvement of different sectors and stakeholders; and demonstrate success stories to gain support at both the local and national level, thereby sustain ICM practices.

The following presentations were made:

11.1 **ICM Institutional Arrangements: Some Practical Considerations** by Dr. Huming Yu, Senior Programme Officer, PEMSEA

Dr. Huming Yu commenced the panel discussion with his views on institutional arrangements as a way to sustain ICM practices. ICM shows examples of good practices, and these should be highlighted since good practices support policy-making and provide the framework and rationale for institutionalization. Basic mechanisms incorporate stakeholder consultation and involvement, interface of science with management, operational arm (lead agency, coordinating body/council), and legal instruments. Examples of an operational cross-agency, multi-sectoral and interdisciplinary structure include the Xiamen Marine Management and Coordination Committee, Batangas Bay Region environmental Protection Council, and Lingayen Gulf Coastal Area Management Commission.

11.2 **ICM in Victoria, Australia** by Mr. John Ginivan, Executive Officer, Victorian Coastal Council, Australia

The Victoria Coastal Council is a planning and policy development body with a multi-purpose approach, and was organized following the Coastal Management Act 1995. It consists of a Peak Council and three Regional Coastal Boards. The Victorian institutional arrangement involves the integration of international conventions and agreements on coastal zones and marine areas, national policies (National Oceans Policy, Commonwealth Coastal Policy 1995, Environmental Protection and Biodiversity Conservation Act 1999), and various State, regional and local legislation and plans. The Victoria Coastal Strategy was developed by the Victoria Coastal Council through consultations and participation

of communities and various government agencies – a mixture of interest and perspectives. The Strategy provides the important link among environmental protection, sustainable fisheries, recreational activities, biodiversity strategy, regional catchment strategy, and other regional initiatives, and framework for planning, management, program action monitoring, and regulation.

11.3 **Sustaining ICM in Vietnam** by Mr. Hoang Tuan Anh, Vice-Chairman of the People's Committee of Danang, Vietnam

Mr. Hoang presented the initial achievements of Danang in terms of the ICM process, and how these achievements were gained by understanding the relationship between coastal and marine environment and socioeconomic development, and having clear perception and vision on how to develop the city, political commitment and consensus among various stakeholders. There is also a need to identify the tools that would be appropriate for sustainable management, and ICM is a key policy and management tool being applied in Danang. Another issue is how to sustain financing mechanism, and by applying the PPP model, Danang is addressing ways to resolve environmental priorities and get investors as partners. The most difficult issue is formulating and refining existing institutional arrangements. Both the current ICM structure and the proposed arrangement after the ICM project were presented.

11.4 **Institutional Arrangements To Sustain ICM In Malaysia** by Haji Rahmat Mohd. Sharif, PMO Director, Port Klang ICM Demonstration Site

The Selangor Water Management Authority (SWMA) was established as a pioneering institution and one-stop agency that will manage river basins, coastal zones and water resources. The PMO is implementing ICM under different committees: NCC at the Federal government level, PCC at the State level, and within SWMA. Under the existing arrangement, there is still a problem of harmonizing and integrating concerns, mandates and responsibilities among the Federal, State and Local Authorities.

Panel 2 : Land- and Sea-use Zoning

Facilitator : Dr. Jihyun Lee, PEMSEA

12.0 The second panel focused on the development and implementation of land- and sea-use zoning scheme. The existing sea-water use zoning system in Xiamen and the proposed sea-water use zoning plan for Batangas Bay were shown as examples for the EAS region while the marine zoning system in Canada was presented as an example from outside of the region.

Zoning can be applied to coastal areas for various purposes such as the protection of critical habitats, ecosystems and ecological processes, while allowing a spectrum of reasonable human uses; the reduction of multiple-use conflicts; and the reservation of suitable areas for particular human uses, while minimizing the effects of these uses. The effectiveness of zoning, however, as a tool for managing seawater uses has been subject to controversy due to the interconnectedness and flowing nature of seawater. In this regard, this panel attempted to discuss the strength and limitations of zoning as an approach to

address multiple-use conflicts in coastal zone, share lessons learned from Xiamen and Batangas experiences as well as from other coastal areas, and identify success factors and challenges to the implementation of coastal use zoning plan.

The following presentations were made:

12.1 **PEMSEA' Approach for Developing and Implementing Coastal Use Zoning Plan and Implementation Framework** by Dr. Jihyun Lee, Senior Programme Officer, PEMSEA

Dr. Lee started off with the discussion on the PEMSEA's approach to the development and implementation of coastal use zoning plan and institutional framework. The proposed approach has been developed based on PEMSEA's experiences in Xiamen and Batangas during its pilot phase, as well as on the insights gained from the experiences in other regions, such as the Great Barrier Reef Marine Park in Australia and the State of Rhode Island in the United States. The proposed approach has been recently tested and validated by experts and government officials from within and outside of the region during the 'The Regional Training on the development and implementation of coastal use zoning plan and institutional framework' held in Manila in 19-24 August 2002. Specifically, the approach involves the following activities:

- Development of coastal strategy
- Official endorsement by local governments of the development of coastal use zoning plan
- Formation of multi-disciplinary task team and multisectoral committee for coastal zoning
- Collection and compilation of sectoral use and/or zoning plans and other relevant information/data
- Projection of sectoral use/zoning plans and relevant information/data on the map overlays
- Delineation of geographic coverage of coastal use planning and zoning
- Classification of coastal use zones
- Development of coastal use regulatory system
- Preparation of draft coastal sue zoning plan and packaging of institutional framework for zoning implementation
- Stakeholder's consultation to review and validate draft coastal use zoning plan
- Finalization of coastal use zoning plan

12.2 **Marine Functional Zoning in Xiamen** by Dr. Hong Huasheng, Vice Chairperson of the Fujian Provincial Assembly; Professor, Environmental Science Research Center, Xiamen University

Dr. Hong Huasheng's presentation showed that the marine functional zoning scheme in Xiamen is an important component of ICM, and provides a base for managing multiple use prioritisation and coordination, and for effectively minimising adverse environmental impacts through allocation of sea space based on functional characteristics of a given area. It involves zoning of the coastal

area through an integrated approach, considering ecosystem and socioeconomic factors, natural resource uses and functional uses. She also pointed out that zoning is more than just mapping as it entails a lot of scientific and socioeconomic studies, discussion, consultations and legislative and administrative action as well as putting in place a competent marine management agency to supervise the implementation and enforcement of the zoning scheme.

12.3 **Water Use Zoning for the Sustainable Development of Batangas Bay, Philippines** by Ms. Evelyn Estigoy, Director, Environmental and Natural Resources Office, Batangas, Philippines

Ms. Evelyn Estigoy discussed the water use zoning scheme in Batangas Bay, Philippines. This scheme was developed by studying the existing pattern of utilization in the bay, plans and ordinances. Issues related to the water use include jurisdictional issues, land-use and water-use linkage, and incompatibilities among the various water uses. The water functional zones were delineated according to restricted use, exclusive use, multiple use and waterfront land use. There is still a long process before the adoption of the water use zoning scheme – integration with municipal/city and provincial comprehensive land-use plans, public hearings, approval of the Provincial Development Council and adoption by the Provincial Board. There is also a need to develop the capacity of the local people to develop environmental profile and mark boundaries as well as formulate and adopt local guidelines, legislation and coastal and marine policies to support the implementation of the zoning scheme.

12.4 **Marine Zoning: a Canadian Context** by Dr. Jack Mathias, Scientist - Marine Ecosystem, Arctic Science Division, Freshwater Institute, University Crescent, Winnipeg, Manitoba, Canada

Dr. Jack Mathias presented marine zoning in the Canadian context. Canada's Oceans Act involves vertical integration of the international, bi-lateral, national, provincial and municipal levels. Delineation of maritime zones follows the international definition of exclusive economic zones, high seas, etc. As counterpart of the GPA, Canada has a National Programme for Protection of the Marine Environment from Land-Based Activities (NPA). There are bi-lateral arrangements between the Provincial Government of Vancouver and the State Government of Washington, but these are at the provincial/state levels and not between national governments, although there are collaborating efforts between Environment Canada and US Environment Protection Agency. The Ocean's Act also requires coordination among national and provincial government agencies and multi-sectoral involvement, including NGOs in Canada and the U.S. An integrated management approach is being implemented in the Georgia Basin and Puget Sound eco-regions. There is zoning applied for residential, industrial, aquaculture, commercial, public recreational, and conservation areas, and vessel traffic separation system. This is supported by mapping, GIS and modeling.

Highlights of the open forum:

12.5 Most of the questions raised during the open forum were directed toward Dr. Mathias.

Dr. Hatziolos asked how zoning in Canada deals with existing structures and new developments. According to Dr. Mathias, zoning in Canada is under a tenure system, and existing structures have terms of tenure. At the moment, there is no integration of property rights with new structures. This has resulted in conflicts between cable companies and fishing industry for example.

Haji Rahmat Mohd. Sharif asked how sea-based pollution can be controlled and enforced using the zoning scheme. Dr. Mathias clarified that Canada's Oceans Act does not control sea-based pollution, and there is no authority to enforce. Instead, political negotiation is applied at various levels, such as the bilateral agreements between Vancouver and Washington, and land- and sea-use plans are implemented at the provincial and municipal levels.

Dr. Kenji Hotta inquired about the mapping activities and the corresponding cost entailed. Dr. Mathias explained that there are sensors used for mapping the seabed. The mapping cost is not so much since it costs more to do the analysis part, as well as ground-truthing the backscatter maps, undertaking the geophysical survey, data gathering and sampling activities, and adding the biological information.

In the conservation of wetlands, Canada recognizes international conventions, but the main policy is "no net loss". Industries, for example, can use the wetlands, but usage should not result in damages, such as loss of eel grass beds.

12.6 An important observation regarding zoning in Xiamen and Batangas was made by Dr. Chua: Batangas has a very good zoning plan, but it was not implemented. Xiamen did not have a very good plan, but got into the implementation.

According to Ms. Estigoy, there are existing land-use and municipal water-use ordinances that are being implemented in Batangas. The problem is the integration of these land-use plans with the proposed water-use zoning scheme. Moreover, some municipalities are still at the stage of developing their own land-use plans and ecological profiles. Several meetings and consultations have already been conducted, and the review and refinements are being coordinated through ENRO. The strategies recommended by scientific experts also need approval at the provincial level to fast-track the process.

Dr. Hong explained that there are new conflicts coming up in Xiamen due to new developments, and the process on zoning has to start again. The existing coordinating body has to conduct consultations with different sectors. EIA has to be applied for new projects. To help fisheries and aquaculture (area for this sector is going to be reduced), biotechnology is being applied as well as restoration of mangroves.

Panel 3 : Sustainable Financing

Facilitator : Mr. Adrian Ross, PEMSEA

13.0 The third panel focused on the development of sustainable financing mechanism to carry on ICM efforts, support the development and implementation of

environmental facilities and services, especially at the local level, and achieve goals set during the WSSD summit in Johannesburg.

13.1 **Sustainable Financing Options for Environmental Management: Removing Barriers to Environmental Investments** by Mr. Adrian Ross, Senior Programme Officer, PEMSEA

Mr. Adrian Ross described first the background situation concerning the lack of access to potable water supply, sanitation and sewerage facilities, and the associated incidence of water-related mortality and morbidity cases, and the existing capacity and constraints of both the public and private sectors in undertaking project development and sustainability. A related issue is partnership development. PPP was presented as an alternative delivery mechanism, involving tri-partite arrangement among the government/public sector, private sector and communities/NGOs. The other aspects involve capacity building and community awareness/participation. To address sustainable financing, the following questions were raised to give direction to the ensuing panel discussion:

a. Is there a need for alternative delivery mechanisms at the local government level, or is it just a case of political will and commitment to finance environmental infrastructure and services?
b. Can the public sector commit to long-term sustainable partnerships with the private sector? What are the major concerns?
c. Is there a role for IFIs, donors and international agencies in public-private partnerships? What are they?
d. What are the major limitations of local governments in formulating public-private partnerships?

13.2 **Sustainable Financing for GEF Projects – A Chinese Perspective** by Mr. Li Haiqing, Director General, Department of International Cooperation, State Oceanic Administration

Mr. Li Haiqing described sustainable financing for GEF projects from both the national (China) and regional perspectives. At the national level, he pointed out the following factors that should be considered:

a. co-financing is important: Ratio of GEF funding to government counterpart ranges from 1:1 to 1:4-5, indicating enthusiasm and commitment on the part of the government;
b. financing must be incorporated in the 5-year China national socioeconomic development programme and at the national, provincial and local level;
c. apply sea area use management law, such as the water-use zoning system in Xiamen, and use the licensing fees and user charges as sustainable financing mechanism at the local level;
d. use GEF to leverage large-scale national government funding; and
e. success of give-and-take strategy, which results in long-term vision, political will to undertake management not for funding's sake, and realization of limitation of international funding after the duration of project cycle.

At the regional level, Mr. Li pointed out that although there are international organizations with regional bodies, there is lack of cooperation and no regional mechanism to implement international marine-related conventions. As such,

PEMSEA provides ideal basis to develop a Regional Mechanism because of its coverage, country support and participation, and use the Sustainable Development Strategy to promote the establishment of a sustainable regional mechanism. A sustainable financing mechanism, however, is needed for this purpose.

13.3 **Sustainable Financing of ICM** by Dr. Marea E. Hatziolos, Senior Coastal and Marine Specialist, Leader of Blue Team, Environment Department, The World Bank

Dr. Hatziolos drew attention to the necessity of increasing public sector resources and attracting private sector investment to achieve Millennium Development Goals (MDGs). This will require leveraging official development assistance (ODAs) with public sector counterpart funds, developing partnerships and creating positive climate for foreign direct investment (FDIs), such as being a member of the Multilateral Investment Guarantee Agency (MIGA) to reduce political risk, and fostering public-private partnership, which the International Finance Corporation (IFC) can facilitate. She also presented a 'virtual circle' wherein good governance and creating investment climate as first step, and investing in environmental and social good, such as water, can be seen as investment in human capital, and this can spiral into economic development, which in turn can increase public investment in environmental management/conservation, and attract private sector investment and donor funding.

Highlights of the open forum:

13.4 Dr. Huming Yu noted that the virtual circle of Dr. Hatziolos shows environmental governance as the first step compared to the traditional cycle, which starts with economic growth and environmental management is undertaken at a later stage.

13.5 Mr. Orly Alparce inquired if a province like Bataan can avail of loans from the World Bank. Dr. Hatziolos explained that the World Bank can assist in the preparation of feasibility studies to make it easier for the government to avail World Bank and commercial bank loans, and in the identification of investors. It would require strong support from the national government and relationship/ arrangement between the LGU and national government. GEF, through its medium-sized project, can come in to finance the feasibility studies. Haji Rahmat Mohd. Sharif queried if the World Bank is coming up with new indicators for approval of projects/loans/grants. Dr. Hatziolos expressed that if the World Bank is to increase ODA, then we have to look at the performance indicators, e.g., how money was spent, NGO participation, transparency and accountability. We also have to demonstrate outcomes.

13.6 Haji Rahmat Mohd. Sharif asked how sustainable financing can be developed.

Dr. Hatziolos suggested the use of economic instruments as financing mechanism, but apply 'ability to pay' principle.

Dr. Mathias raised the issue of creating a regional mechanism and building linkages among the countries as a way of developing sustainable financing mechanisms.

Mr. Li Haiqing said that there are two questions we need to answer: (a) Do we need a large amount of money? and (b) Do we really need a regional mechanism?. He suggested that PEMSEA, through its management framework, network of ICM sites and the Sustainable Development Strategy, can start the process. In terms of the political factor, we can look at the cooperation aspect first before the issue of boundaries because it is hard to delineate in the water bodies. The Mediterranean Sea mechanism is one example we can study and follow. Dr. Angel Alcala mentioned also that there is a recommendation to make the South China Sea a replenishment area, like a marine sanctuary to be co-managed by countries in this region.

SESSION 4: Network Operational Modality: Future Activities; Network Sustainability; Regional Collaboration and International Linkages

Chairperson: Dr. Chua Thia-Eng
Regional Programme Director, PEMSEA

14.0 Summary of the session

Linking the ICM sites will create a critical mass of demonstration sites and experts in the region. This will show governments and people something solid, and a case of actual implementation. The region, through ICM sites, can show that we are already doing WSSD goals. The RNLG, as a network of ICM sites, can show benefits, problems and lessons learned. Through the efforts here, we can demonstrate that we are achieving WSSD and millennium goals, and that there is environment improvement when ICM is implemented. Developing political will, however, is necessary among leaders and public officials to initiate, effectively implement and sustain ICM and work with different sectors. Dr. Chua also reiterated about the benefits of information sharing, and IIMS is a good example which the ICM sites can implement.

14.1 Following is the summary of presentations and highlights of discussion:

14.2 **Unique Role and Advantages of RNLG** by Dr. Jihyun Lee, Senior Programme Officer, PEMSEA

RNLG was initiated for foreseen benefits, such as strengthening local governance, increasing opportunities for environmental investments, facilitating the implementation of local agenda 21 and int'l conventions, increasing national support for ICM, facilitating regional cooperation in marine and coastal management, and partnership and collaboration with donors.

There are advantages of being a member of RNLG such as (a) information sharing, (b) access to technical services (e.g., Regional Task Force, IIMS network, Risk Assessment/environmental monitoring network); (c) monitoring and

reporting services; (d) assistance in the implementation of ICM, coastal strategy, international conventions, Agenda 21, etc.; (d) collective policy advocacy; and (e) building alliances. To sustain RNLG, there is a need for political commitment, financial resources and a coordinating mechanism.

14.3 **IIMS Networking as a Technical Support Mechanism for RNLG** by Ms. Bresilda Gervacio, Technical Officer, PEMSEA

She discussed what IIMS is, the categories of data contained in IIMS, the benefits to be derived from IIMS, and the advantages of having the IIMS network.

IIMS is a decision-support tool for environmental management, and has the following unique features, which make it very useful in the PEMSEA sites:

a. IIMS is a comprehensive database containing technical, environmental and management-oriented data organized according to a structure that facilitates storage, retrieval and manipulation for reporting;
b. It is a system that provides services, such as basic statistical analysis, graphical and descriptive outputs. It can also handle spatial and temporal analyses, and link with GIS and ecological models; and
c. IIMS is localized in the region – designed to provide each individual site with its own independent node that can provide services to LGUs, planners, environmental/coastal manager and other stakeholders.

She also presented an action plan for IIMS networking. This involves establishing, testing and refining the physical network facilities; developing the network within and among RNLG network members; and monitoring of progress towards local, national, regional and global environmental targets.

Discussion:

The participants raised the following key issues related to IIMS implementation:
- how do you link existing database with IIMS
- existing data may not be in the same format/unit as those required in IIMS
- hesitance of data-holders to share information (data inaccessibility)
- problem of security (not all information can be shared)
- database in IIMS is not linked with GIS

In response of these concerns, Ms. Gervacio cited the approach used in Nampo, DPR Korea. The PMO conducted public awareness and consultations among data-holders before doing IIMS. In this way, they know the purpose of IIMS and its applications. A sense of ownership was also developed and enabled the sharing of information.

14.4 **Sustainability of RNLG** by Governor Leonardo Roman, Governor of the Province of Bataan, Philippines

RNLG offers the ICM sites opportunities to share lessons, learn from each other's efforts and strengthen capability to manage natural resources amidst varying religious and cultural backgrounds and institutional systems. The ICM sites should work together since they are interconnected by common waters of

the East Asian Seas, and should not be constrained by ideological, religious or cultural differences.

There is a need to go beyond politics since politicians have term limits. Politicians must go out of their way to establish linkages and partnerships with other sectors in order to develop meaningful and long-term projects, such as ICM, and leave a legacy of good governance.

The key to sustainability is through strong local efforts since PEMSEA can only initiate the formation of the RNLG. There should be willingness to act fast on concerns and issues – to actually make use of the lessons learned.

Encourage inputs from the private sector, civil society and other stakeholders because their involvement provides insights beyond the local government set-up, and there is sharing of responsibilities, costs, risks and benefits in caring for the environment.

Sustaining RNLG requires solid partnership, guided by a common vision, and cemented by commitment.

Discussion:

The discussion focused on how to develop political will, which is necessary among leaders and public officials to effectively implement and sustain ICM. Dr. Alcala emphasized that political will cannot be developed through seminars, but by really caring for the environment and resources. There is a need for change of perception and putting this information/knowledge into actions.

For Governor Roman of Bataan, to develop political will – your heart must be in it. He mentioned some key factors. First, one must implement projects with long-term gains for the people rather than those with high impact but short-term benefits. Second, you have to be innovative to be able to implement ICM, which is not yet institutionalized like in the case of Bataan. Third, you have to educate the people, conduct public consultations to get support of the people and also do something visible, on-the-ground work. They started first with coastal clean-up, then community monitoring, mangrove planting, establishing the turtle sanctuary, and now alternative livelihood programs. He said that it is never easy, especially like in his case, he has to contend with 12 hard-headed mayors – he has to use incentives and show them benefits to be derived from implementing ICM.

14.5 **Involving Japanese Local Government** by Dr. Kenji Hotta, Professor, Nihon University

He shared his experiences in introducing the experiences of the Hawaii coastal management programs to the Tsokuba prefecture. The prefecture spent a lot of money in environmental management (air and water pollution), but industries are actually located in Tokyo. Industries pay only taxes to the prefecture, but benefits mostly go to Tokyo, while prefecture suffers from environmental problems.

He also discussed the National Law of Fishery, Fishery Act and Coastal Act of Japan, and their implications. These were revised, and are now more focused on conservation. These laws require each prefecture to prepare its own coastal program. The problem is that local governments are still finding ways to adopt national government policy and conduct effective coastal management. There is also a need for collaboration and institutional arrangements. Although local governments know the importance of institutional arrangements, they don't know how to do it, and at the same time, he finds it hard to communicate with local governments – he has to translate PEMSEA papers and success stories. In general, there is a need for environmental education, and establish linkage with universities.

He mentioned the utilization of the Official Development Assistance (ODA). The national government decided that local government can use ODA fund for international cooperation in environmental conservation.

Discussion:

Japan developed in a sectoral way, so integration is still something new, but there are developments toward integrated management. A new policy on ODA release will help local governments collaborate with PEMSEA for sharing ICM experiences.

14.6 **Partnership with Other Networking Initiatives of Local Governments** by Ms. Diane James, Victoria Coastal Council, Australia

The process of developing institutional arrangements may take years. It took them 11 years to get a representative system. There is a need to develop and enhance partnerships at different levels of government and society, within jurisdictions and across regions. Putting issues on the agenda is important.

Based on the Victoria experience, the major benefits of integrating local and national initiatives and approaches include a holistic approach to issues, easier access to information, better understanding of responsibilities, improved environmental, social and economic outcomes, and reduction of duplication of activities, plans and programs. Moreover, managing coastal impacts requires agreement on outcomes, determining the context for decisions, establishing institutional arrangements, and building political support.

The Victoria Coastal Council and the Coastal Strategy focused on key issues: climate change, population, capacity building, indigenous knowledge, industry, water quality, and biodiversity.

Discussion:

The Victoria approach follows the bottoms–up approach. By focusing on outcomes, it's much easier to achieve goals. In developing the coastal strategy, the members of the Victoria Coastal Council went around interviewing ordinary Victorians, and they found out that people were hungry for information and want to learn about the environment, and it's our duty to inform.

In addition to information dissemination, participation of the local people and communities is essential to help them internalize information about the environment. Mr. Koichi Kawagoe mentioned the establishment of a local people network where people can participate. Even a simple activity, such as watching the sea, can make people aware of the environment and they may learn something. Dr. Jack Mathias briefly described the Reef Watch program in Canada. This has been a good program where people/stakeholders do the measurement and gather information about underwater environment, although problems started when it was taken over by scientists who wanted to make it perfect. Another problem is feedback to the stakeholders about the analysis, so it is important that when you involve people in data gathering, survey and monitoring, you also explain to them the results of the studies/analysis, and any progress being achieved in terms of environmental improvement.

Dr. Chua encouraged the participants to focus on developing and sustaining a network.

Closing of the RNLG Second Forum:

15.0 After Session 4, Dr. Chua asked the participants to consider the potential benefits and strengths of the RNLG and assess the significance of having regular meetings among the members. Specifically, he posed the following questions:

- Do you want to continue RNLG?
- Who will host the next RNLG forum?

15.1 Everyone agreed that RNLG meetings should be continued. The following are some of the key reasons given by the participants:

- It is very useful – in terms of knowing about other sites, the progress they made, and lessons learned (from failure to success).
- It is a vehicle to know more about LGU efforts in addressing coastal concerns and other environmental management issues.
- It is infectious. Even the national government can also learn from the local government units.

15.2 Haji Rahmat proposed that Klang, Malaysia would host the next RNLG forum in 2003. Dr. Chua extended his thanks to Klang ICM project on behalf of the RNLG participants.

15.3 The meeting closed at 5:00 p.m., 21 September 2002.

ANNEX 1

Meeting Program of the 2nd Forum of the Regional Network of Local Governments implementing Integrated Coastal Management (RNLG)

ANNEX 2

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