

GEF/UNDP/IMO Regional Programme on Partnerships in Environmental
Management for the Seas of East Asia (PEMSEA)
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MID-TERM EVALUATION REPORT

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LIST OF ACRONYMS

ADB	Asian Development Bank
ASEAN	Association of South East Asian Nations
BC	Benefit – Cost

BCCF	Bataan Coastal Care Foundation
CITES	Convention on Trade in Endangered Species
CMC	Coastal Management Center
DA	Department of Agriculture
DANIDA	Danish Agency for Development Assistance
DENR	Department of Environment and Natural Resources
DSS	Decision Support System
EIA	Environmental Impact Assessment
ERA	Environmental Risk Assessment
GEF	Global Environment Facility
GPA	Global Programme of Action
ICM	Integrated Coastal Management
IEIA	Integrated Environmental Impact Assessment
IIMS	Integrated Information Management System
IMO	International Maritime Organization
IRR	Internal Rate of Return
ISO	International Organization for Standardization
IT	Information Technology
ITC-CSD	International Training Center for Coastal Sustainable Development
IW	International Waters
JICA	Japan International Cooperation Agency
KM	Knowledge Management
LFA	Logical Framework Approach
LUAS	Lembaga Urus Air Selangor
MBEMP	Manila Bay Environmental Management Project
MDG	Millennium Development Goals
MED	Marine Environment Division
MEG	Multidisciplinary Expert Group
MMCC	Marine Management and Coordination Committee
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NGO	Non Government Organizations
PCC	Project Coordinating Committee
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PG-ENRO	Provincial Government - Environment and Natural Resources Office
PIR	Project Implementation Review
PMO	Project Management Office
PMMP-EAS	Prevention and Management of Marine Pollution of the East Asian Seas
PPP	Public-Private Partnerships
PSC	Project Steering Committee
PSEMS	Port Safety Environmental Management System
RNLG	Regional Network of Local Governments
RPD	Regional Programme Director
RPO	Regional Programme Office
RTF	Regional Task Force
SIDA	Swedish International Development Agency
SDS-SEA	Sustainable Development Strategy for the Seas of East Asia
SMPR	Secretariat Managed Project Review
SOM	Senior Officials Meeting
TCD	Technical Cooperation Division
UN	United Nations

UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFAO	United Nations Food and Agriculture Organization
WB	World Bank
WSSD	World Summit on Sustainable Development

EXECUTIVE SUMMARY

Unique Contribution of PEMSEA

The unique and distinctive characteristic of Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is that it is the first international programme to develop a core base of practical knowledge in integrated management of coasts and oceans within the Seas of East Asia based firmly on its network of local demonstration and parallel sites. This has generated a wealth of intellectual capital that moves beyond technical know-how and scientific endeavour towards developing a cohesive network of relationships that makes the integrated management approach a living reality in this region. This core competence of PEMSEA has enabled nations to accelerate their progress in implementation of coastal and oceans governance through the development of institutional frameworks, mutual sharing of lessons and greater South-South dialogue. There are dangers that this international asset could be lost at the end of this programme unless the intellectual capital is nurtured by national governments and donor agencies.

Findings

The PEMSEA program has achieved substantial progress in meeting the **Overall Development Objective** “To protect the life support systems and enable the sustainable use and management of coastal and marine resources through intergovernmental, intersectoral and interagency partnerships for improved quality of life in the East Asian Seas Region.”

The ten stated **Project Development Objectives** and fourteen planned **Outputs** as set out in the ProDoc are appropriate to the **Overall Development Objective** and are being implemented within, or in advance of, the planned time frame and in a cost effective manner. These achievements are the result of both good project design and innovative and adaptive management, which are producing commendable outcomes and beneficial social, economic and environmental impacts.

There are areas where the program could be strengthened and the Evaluation Team is confident that the PEMSEA will be able to address these in a manner that will enhance the impact of the program at a local, national and regional level.

It is important for the Global Environment Facility (GEF), United Nations Development Programme (UNDP), and International Maritime Organization (IMO) to fully recognize the valuable information, experience and public and private support the PEMSEA program has developed by focusing on achieving tangible progress in environmental improvements that help to form a sound basis for the expansion and diversification of economic development. This has been achieved through implementation of an Integrated Management approach and developing effective partnerships for environmental improvements at a trans-national and wider regional level.

Together, these achievements have created a very valuable asset that supports the objectives of all three United Nations programs and forms a very sound foundation for helping the nations of East Asia in achieving sustainable economic development that is integrated with sound environmental management. This asset needs to be fostered and developed further as it forms an invaluable resource to help in the implementation of Agenda 21, the World Summit on Sustainable Development (WSSD) Plan of Implementation, and the Millennium Development Goals (MDG) as well as related

international and national efforts to promote sustainable development of natural resources and assets of the marine and coastal areas of the region.

Recommendations

The Evaluation Team recommends the following actions to be taken by the PEMSEA partners:

A. All PEMSEA partners

1. Make full use of the momentum that has been achieved through the PEMSEA, seek continuity in funding and other forms of support for PEMSEA beyond 2005 to maximize the potential benefits to the East Asian Region and beyond.
2. Seek the transformation of PEMSEA into a new regional arrangement for wider exploitation and future development of its intellectual capital to improve the integration of environmental management and economic and social development through the further development of local, national and regional ICM and ocean governance initiatives.
3. Implement the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) as a collective international effort in the regional implementation of the commitments of Agenda 21, WSSD, MDG and other international instruments related to the sustainable development of coasts and oceans.

B. Donor support (GEF, UNDP, IMO and other donors)

1. The GEF, UNDP, IMO, international donors and other donor partners should capitalize on the achievements of PEMSEA in helping each other meet their respective sustainable development objectives by:
 - a) maintaining core roles especially in building national and local capacity in the further development and implementation of PEMSEA and SDS-SEA;
 - b) fostering cooperation and partnerships with and among nations in Asia;
 - c) creating a wider partnership among international donors for supporting the future of PEMSEA;
 - d) supporting an international working party made up of representatives from East Asian nations with a remit to examine options for new institutional and funding arrangements for taking PEMSEA forward.

C. Governments

1. Give careful consideration to maximizing the potential benefits that could be gained from what has been achieved by the PEMSEA program, how this can be extended and expanded to further support national and international development objectives.

2. National Governments set up review panels to determine what they need most in order to make integrated management of coasts and oceans more effective;
3. Initiate a country-driven donors meeting in 2003 to demonstrate support for the future development of PEMSEA and to communicate priorities for funding and technical assistance.

D. PEMSEA management team

1. Adopt a broader view of adaptive management so that a wider array of issues are taken into consideration, while incremental, small-scale actions at the local level are pursued towards solving problems and issues.
2. Strengthen national capacities in EIA system where required, as an interim measure till zoning guidelines are put in place.
3. Accelerate national buy-in by using clear examples of the benefits of ICM, supporting the finalization of national coastal policies, the replication of ICM sites and mainstreaming of the approaches, policies, lessons learned in the implementation of sites and in the program as a whole into major strategic development plans.
4. Enhance efforts to establish public-private partnerships (PPP) in environmental investments, particularly for small and medium sized enterprises.
5. Promote national commitment to the planned Senior Officials Meeting and the Ministerial Meeting being organized by the program.
6. Develop a monitoring and evaluation system that takes into account activity-based and cumulative impacts.
6. Target the development of an ISO 14001 Certification for ICM using the PEMSEA experience and outcomes.
8. Fully implement the Port Safety Audits and the Port Safety Environmental Management System (PSEMS) and further develop certification mechanisms.
9. Seek greater integration of river basin management, coastal land and water use management, and sea use zoning.
10. Explore ways that knowledge management practices could help expand and sustain the intellectual capital developed by PEMSEA.

Taking the Recommendations Forward

The Evaluation Team recommends that an international working party be set up to explore options for a new institutional mechanism and funding to take the PEMSEA program forward. The Working Party should be made up of no more than 5 senior government officials representing the countries taking an active part in the PEMSEA

program. Technical advice should be made available to the Working Group as and when necessary. The Working Party should meet at least on a bi-monthly basis starting as soon as possible to allow time to develop and test the feasibility of alternatives, with a view to presenting their final recommendations by the end of 2004. This would allow actions to be put in place in 2005 to allow a smooth transition and continuity in staffing arrangements from the existing phase of PEMSEA to the new arrangements.

I.0 PROJECT CONCEPT AND DESIGN SUMMARY

Context of the problem

- 1.1 East Asia is a region of dynamic economic growth amidst trends of globalization. The financial crisis only strengthened the resolve of the countries of the region for economic growth while the global economic recession gave focus for intraregional trade and commerce, creating in the process a new East Asian Economy comprised of Association of South East Asian Nations (ASEAN) + 3.
- 1.2 At the same time, there is rapid urban population growth in the region. The annual growth rate of the urban population of East Asia from the mid-1990's to 2025 is estimated to be four times that of the highest income countries. A large number of this urban population will be coastal dwellers. Over the next 25 years, half of the total population of the region will come from coastal urban centers with more than 300 million inhabitants. Many of these inhabitants will belong to sectors of the poor. Presently, majority of the 75 million people living in the coastal areas of the region are below the poverty line.
- 1.3 This combination of aggressive drive for economic development, high population growth and poverty will increasingly put pressure on the region's coastal environment. Coastal environments in the countries of the region are in danger of being overexploited and rapidly degraded. So too is the regional marine environment given that the seas of the region are semi-enclosed with high ecological interconnectivities.
- 1.4 While there is growing awareness of "sustainable development" as the vision for development, there is also the lack of appropriate and practical mechanisms for putting it into action. The need is to have a dynamic process that would deal with conflicts of use, using the increasing recognition of the important role that could be played by local governments, the private sector and other local stakeholders as initiators.
- 1.5 One of the major benefits of the PEMSEA programme is the generation of intellectual capital in the form of human capital, social capital, organisational capital and stakeholder capital related to the implementation of ICM in the region. This valuable intangible asset is difficult to assess quantitatively due to the lack of sophistication of models for such applications. However, case studies, stories, narratives and anecdotes provide useful guides to the strength and depth of these intangible assets. Care needs to be exercised not to assume that economic development is directly related to high levels of social and stakeholder capital in ICM as this is often not the case in planned economies.

Effectiveness of the PEMSEA programme concept and design

- 1.6 The focus of the programme on starting at the local site level allowed fast action to proceed at many sites. Practical field experience is developed. Appropriate demonstration sites were also selected, sites that would later exemplify how integrated management including ICM efforts could create a balance between

- rapid economic growth and environmental management. Xiamen is a designated international economic city. Danang has an aggressive plan to develop the city for industry and for tourism. Batangas port was designated as an international port. Port Klang is already an international port with planned expansion. In all of these cases, there would be increased port activities, extensive infrastructure development, rapid increase in population, and various economic activities. All these will exert pressure on the environment, directly and indirectly. All these sites require an ICM approach.
- 1.7 PEMSEA's strategy is to come in to speed up the process of ICM problem solving. As such it selects sites where people and government are already keen to do something. This has led to fast action. The downside to this is that the experience of these sites will have low utility to sites where supportive local people and governments do not yet exist unless public awareness is created.
 - 1.8 The programme's comprehensive landscape approach (i.e. integrating the coastal area with its linked land and sea-based ecosystems) provides more effective management than a habitat approach. The close and direct ecological as well as socio-economic interconnectivities of the various habitats or ecosystems comprising the coastal area require an integrated approach.
 - 1.9 An integrated approach such as ICM requires partnerships with different sectors and at various levels. The shift from the Phase 1 programme title of "Regional Programme for the Prevention and Management of Marine Pollution of the East Asian Seas to the Phase 2 title of "Building Partnerships on the Environmental Management of the Seas of East Asia" is thus very appropriate. The new title also broadens the concern to extend beyond pollution management to that of environmental management. This then appropriately covers many other relevant concerns that should be part of the programme if it is to be called an ICM effort.
 - 1.10 The partnerships that are developed are not only at various institutional levels – site, national, subregional and regional. There is also the partnership between sectors particularly public-private partnerships. At the conceptual level, the "partnership" or linking of environment and development underlies PEMSEA's approach. As such the programme also becomes a way by which various global agreements on maritime concerns as well as on the broader sustainable development agreements of the WSSD Plan of Implementation, the MDG, Agenda 21, Capacity 2015 and other environmental conventions could be operationalized at the local level. It should be noted that partnerships are also linked to the development of a critical mass of countries, organizations and people which is the only way that these global agreements can be put into practice. Using the PPP framework, there is considerable potential to develop cost effective solutions especially when industries come together and generate economies of scale for environmental facilities.
 - 1.11 The diversity of sites implementing the programme provides an advantage. Demonstration sites pioneer the ICM approach, provide for capacity building, make lessons available for other sites, and are used to convince the country to adopt ICM as a management approach. Parallel sites show that the effort could be replicated using mostly local resources, provide a way to adapt lessons from the demonstration sites to other situations, and would additionally convince the

country to adopt the ICM approach. Hotspot sites provide the opportunity to address cross-boundary issues.

- 1.12 The sites cover a typology of governance mechanisms, from highly centralized governance systems (Xiamen, Danang, Nampo), decentralized governance but with strong central direction (Port Klang) and those with highly decentralized governance practice (Batangas, Bataan, Manila Bay, Bali and Sihanoukville) as shown in Figure 1. The sites also relate to different socio-economic situations. Fast economic growth is exemplified by Xiamen and Port Klang. Relatively slower economic growth areas are in Batangas, Bataan, and Manila Bay. Given this diverse typology of sites the programme would be able to provide a variety of models that could meet the needs of a region with countries of differing environmental, socio-economic and governance situations.



Figure1. Organisational learning at demonstration and parallel sites

- 1.13 The programme has taken the “soft approach”, employing resource use and environmental concerns as the entry point and avoiding security and boundary issues that could lead to inter-country conflicts and debate. Use of conventions already agreed upon as a guide and with focus on sustainable development as a goal, the programme is able to acquire immediate acceptance. In addition, with the countries developing and implementing their national strategies following the ICM approach, these countries are then in a sense already implementing the programme's proposed regional strategy, the SDS-SEA. This would make it easier for such a regional strategy to be approved and a regional mechanism for its implementation to be agreed upon.
- 1.14 The programme's study tours, internships, cross-visits and Regional Task Force (RTF) provided the opportunities for South-South exchange of experiences and knowledge. Together with regional bodies such as the RNLG, Regional Experts Group, and the Project Coordinating Committee (PCC), they have helped create a feeling of regional programme participation.
- 1.15 The co-financing approach of the programme allows local ownership to be developed. At the same time, the ability of PEMSEA to provide a certain level of funding support and technical assistance allows it to stimulate attention and

- participation at certain strategically important activities. It allows the programme to be a catalyst of certain processes and decisions.
- 1.16 PEMSEA states that its budget allocation is more for “people management” rather than the provision of physical facilities. This relatively low level of funding allocated by the programme to sites builds not only capacity but also prevents the creation of false expectations and dependence. Provision of knowledge, through technical assistance and sharing mechanisms augments the funding support and is well appreciated.
 - 1.17 The most difficult aspect of PEMSEA is the many institutional levels involved in the programme. It makes the programme an exercise in the “management of complexity”. Links have to be maintained with various focal points – the focal points of IMO, UNDP and GEF in the 12 countries involved. Relationships at the local, national, subregional, and regional levels have to be developed and appropriate coordinative mechanisms established. At the country level, there is the complexity of linking agencies in-charge of land-based concerns with those for marine and coastal resources. There are also the other coastal and marine resources management projects at the regional and country levels that are supported by other donor agencies. Differences in site and focal implementing agency as well as the tendency to focus on its own approach make it difficult to get coordination amongst these many programmes and projects. An understanding of some of the levels of complexity are shown in Figure 2.
 - 1.18 As the major outputs from this programme are developing tacit knowledge in ICM, promoting best practice and sharing lessons learnt across the region, the programme concept and design could be improved by making knowledge sharing practices more central in its approach. There is a danger that the action orientation of implementation processes could place the creation, organisation, evaluation, storage and retrieval of new knowledge secondary to the primary purpose of meeting outputs in the logframe.

Assessment of the fit of the SDS-SEA to the objectives of Agenda 21, WSSD, MDG, Capacity 2015 and the results of the Third Replenishment of the GEF Trust Fund

- 1.19 PEMSEA’s development objective “to protect the life support systems, and enable the sustainable use and management of coastal and marine resources through intergovernmental, interagency and intersectoral partnerships, for the improved quality of life in the East Asian region” is in a sense an operational definition of sustainable development. The coastal and ocean systems of the East Asia is the region’s natural heritage and source of food and livelihood for the millions of poor in the region. In addition, the social and cultural values of the people of the region are linked to these resources. Properties and investments are also dependent on how well these resources are managed. PEMSEA’s activities on bringing ICM into the countries of the region, building sustainability on such management through capacity building, scientific inputs, integrated information management system (IIMS), stakeholder participation, environmental investments, and national coastal/marine policies as well as upscaling and complementing all these with efforts to create inter-country partnerships through a regional mechanism are therefore not only for the environment’s sake but also for supporting two other pillars of sustainable development -- social development

and economic development. Bringing the sustainable development direction of PEMSEA into the regional level would be facilitated by one of its outcomes, the SDS-SEA.

- 1.20 The 2002 WSSD was quite unique from that of the United Nations Conference on Environment and Development (UNCED) held in 1992 in that it emphasized good governance within each country and at the international level as essential to sustainable development. PEMSEA's efforts at getting local governments to take the lead in ICM activities as well as in helping promote stakeholder participation and national level policy-making support WSSD's call for strengthening good governance at the country level. The process of developing the SDS-SEA, on the other hand, supports the effort for strengthening good global governance, in particular ocean governance.
- 1.21 The foundation of the SDS-SEA are based on the prescriptions of global and regional instruments relevant to the environment as well as on the regional programmes of action developed by ASEAN, UNEP Regional Seas Programme, Economic and Social Commission for Asia and the Pacific (ESCAP), Asia-Pacific Economic Cooperation (APEC) and others. As such it is implementing WSSD's call for strengthening institutional arrangements for sustainable development at the regional level. As stated in the WSSD Plan of Implementation, the "implementation of Agenda 21 and the outcomes of the Summit should be effectively pursued at the regional and subregional levels, through the regional commissions and the other regional and subregional institutions and bodies".
- 1.22 The SDS-SEA provides for the active participation of all stakeholders and not just national governments and international agencies as often is the case for regional agreements and mechanisms. The participation of the local governments, the private sector, civil society and communities are given importance, the same importance that the WSSD Plan of Implementation, in numerous provisions, gives to these stakeholders. The WSSD Plan of Implementation has called for action to "enhance the role and capacity of local authorities", "enhance corporate environmental and social responsibility and accountability", "foster full public participation in sustainable development policy formulation and implementation" and "to enhance partnerships between governmental and non-governmental actors, including all major groups, as well as volunteer groups". The WSSD Plan of Implementation and the SDS-SEA Action Programs both give importance to community-based management and the recognition of the usefulness of appropriate indigenous/traditional knowledge and practices. A slight difference is in the weak reference of the WSSD Plan of Implementation to concerns of artisanal fisherfolks. This is where the SDS-SEA is quite strong. Thus, the Strategy augments that which should have been given importance but was somehow not given enough attention at the WSSD negotiations.
- 1.23 The WSSD Plan of Implementation reiterates Chapter 17 of Agenda 21 which calls for "integrated management and sustainable development of coastal areas, including exclusive economic zones; marine environmental protection; sustainable use and conservation of marine living resources; addressing critical uncertainties for the management of the marine environment and climate change; strengthening international, including regional cooperation and coordination; and sustainable development of small islands". A close look at the

various action programs of the SDS-SEA shows that these programme areas called for by WSSD and Agenda 21 are tackled at an operational level relevant to the region.

- 1.24 The other output of the WSSD was the promotion of Type II partnerships. These are partnerships that bring in not only donors and international bodies but most especially civil society groups and the private sector as well. The objective is to draw in additional resources for the immediate implementation of actions called for by the WSSD Plan of Implementation. The SDS-SEA becomes a framework to stimulate Type II partnerships for coastal and ocean governance in the region as it is built on the pillar of “partnerships”. The SDS-SEA is “meant to be implemented by all the different stakeholders – men and women, public and private, local and national, non-government organizations, governments, and international communities – working in concert with each other”.
- 1.25 In the SDS-SEA Action Programs, there are many elements that would facilitate formation of Type II partnerships. Objective 3 of the “Develop” Section of the Strategy is on “Partnerships in Sustainable Financing and Environmental Investments”. All the action programs under this objective are important in supporting Type II partnerships. Similar action programs are similarly emphasized in other sections of the Strategy. Some examples are action programs for “institutionalizing innovative administrative, legal, economic and financial instruments that encourage partnership among local and national stakeholders” and “creating partnerships among national agencies, local governments and civil society that vest responsibility in concerned stakeholders for use planning, development and management of coastal and marine resources”. Some examples that would facilitate public-private partnership include the following: “enhancing corporate responsibility for sustainable development of natural resources through application of appropriate policy, regulatory and economic incentive packages”, “exploring innovative investment opportunities, such as ‘carbon credits’ for greenhouse gas mitigation, and user fees for ecological services” and “levying economic incentives and disincentives”. For promoting partnerships at the regional level, the SDS-SEA Action Programs call for “promoting south-south and north-south technical cooperation, technology transfer and information-sharing networks” and working with international financial institutions, regional development banks and other international financial mechanisms to facilitate and expeditiously finance environmental infrastructure and services”. The communication action programs of the Strategy would further strengthen the development of Type II partnerships by raising public awareness and mobilizing various stakeholders to act.
- 1.26 The SDS-SEA, in many senses, also supports the MDG, in particular three of its goals: (1) eradicate extreme poverty and hunger; (2) ensure environmental sustainability, and; (3) develop a global partnership for development. As noted in Agenda 21: “More than half the world’s population lives within 60 km of the shoreline, and this could rise to three quarters by the year 2020. Many of the world’s poor are crowded in coastal areas. Coastal resources are vital for many local communities and indigenous people.” The Strategy’s Action Programs under the sections on “Sustain” (East Asian countries shall ensure sustainable use of coastal and marine resources), “Preserve” (East Asian countries shall preserve species and areas of the coastal and marine environment that are

pristine or of ecological, social and cultural significance), “Protect” (East Asian countries shall protect ecosystems, human health and society from risks which occur as a consequence of human activity) – all directly contribute to ensuring environmental sustainability and consequently the maintenance of the coastal resources and oceans as source of livelihood and food. The Strategy’s “Develop” section states the link between environment and development more succinctly: “East Asian countries shall develop areas and opportunities in the coastal and marine environment that contribute to economic prosperity and social well-being while safeguarding ecological values”. The Action Programs on the promotion of sustainable economic development in coastal and marine areas and on building partnerships in sustainable financing and environmental investments with their implications on sustaining or increasing productivity and jobs generation directly relate to eradication of poverty and hunger.

- 1.27 The effort for meeting environment needs as well as the eradication of poverty and hunger extends beyond the local and national levels. Objective 2 of the Strategy’s “Develop” section relates to incorporating transboundary environmental management programs in subregional growth areas or what is alternatively known as East Asia’s international growth triangles. The success of SDS-SEA implementation of this will provide other developing country regions an example to look at and adapt.
- 1.28 The link of the SDS-SEA to the MDG goal of developing a global partnership for development is exemplified by its “Implement” section which states that “East Asian countries shall implement international instruments relevant to the management of the coastal and marine environment.” Its action programs call for national government accession to and compliance with relevant international conventions and agreements and regional cooperation in integrated implementation of international instruments. The Strategy, however, goes a step further to deepen the reach of global partnership by calling for the execution of obligations under international conventions and agreements at the local government level.
- 1.29 The strong links between SDS-SEA implementation and that of meeting the objectives of the WSSD Plan of Implementation and the MDG also then link the Strategy to UNDP’s Capacity 2015 programme. The goal of Capacity 2015 is to develop the capacities needed by developing countries and countries in transition to meet their sustainable development goals under Agenda 21 and the MDG. It seeks to build local level capacities for sustainable development and local implementation of Multilateral Environmental Agreements. The SDS-SEA highlights this in its Action Programs.
- 1.30 Capacity 2015 also seeks to maximize benefits of globalization at the local level. SDS-SEA reflects a similar objective by holistically linking the promotion of regional cooperation and the incorporation of sustainable development in subregional growth areas as a way to further support efforts (i.e. through South-South or North-South exchanges of technical assistance and of environmental investments for key coastal and marine sites) at the local level. The ASEAN + 3 framework of the Strategy is therefore very relevant not only because it allows management of the ecological interconnectivities of the semi-enclosed East Asian seas, including interconnectivities in risk due to a common pattern of oil

tanker routes in the region, but at the same time, the framework is able to draw in the economic dynamism of fast growing economies of the region (Japan, Republic of Korea, and China) and draws them to support the low and middle-income economies. Trade between the countries of the region is growing and the closer economic links that will develop could lead to a similar strengthening of links on environmental investments. The mainstreaming of SDS-SEA action programs in the national economic development plans of the countries of the region as well as in the regional trade and other economic agreements will do well to further strengthen the implementation of the Strategy.

1.31 The consistency of the SDS-SEA with GEF policy has been strengthened with the results of the negotiations for the Third Replenishment of the GEF Trust Fund. The Third Replenishment of the GEF Trust Fund underscored and affirmed the critical importance of supporting the goals of the United Nations Millennium Declaration and of Agenda 21. Other policy recommendations include the following:

- GEF to support a more systematic approach to capacity building. Where capacity is a need and acts as a barrier, then it should be addressed first.
- Country ownership is essential to achieving sustainable results. Thus integration into national priorities, strategies and programs for sustainable development is vital. Mainstreaming and co-financing are also important.
- Need to increase interagency cooperation between the UN system and the Bretton Woods institutions at the country level such as linking the Poverty Reduction Strategy Programme (PRSP) and the United Nations Development Assistance Framework (UNDAF) processes to bring together poverty reduction strategies and sustainable development processes.
- Greater participation in the development and management of GEF projects of other executing agencies (i.e. ADB) designated under expanded opportunities.
- All activities of the GEF should be undertaken in a spirit of enhanced partnership. Cross-learning should be strengthened and accelerated.
- Document best practices of stakeholder participation.
- Better engagement with the private sector.

1.32 All of the above is similar to the direction taken by SDS-SEA. The strategy also puts great importance to capacity-building. The adoption of the Strategy will be through a process that builds country ownership. The plan for adoption also states that “consultations will be undertaken with a view to harnessing the objectives of intergovernmental bodies and multilateral financial institutions, including World Bank, ADB, GEF and official development assistance (ODA).” Once the Strategy is adopted, this will be used by these same partners to act decisively and proactively to conserve the Seas of East Asia. The Strategy puts emphasis on partnership, particularly public-private partnerships. The strengthening and acceleration of cross-learning and the documentation of best practices of stakeholder participation can be found in the Strategy’s Objectives/Action Programs for the establishment of information technology (IT) as a vital tool in environmental management programs, partnerships with scientists and scientific institutions to encourage information and knowledge

sharing, and the utilization of innovative communication methods for the mobilization of governments, civil society and the private sector.

- 1.33 The results of the GEF replenishment negotiation also points out that a new strategic thrust would be to catalyze implementation that builds on foundational work. The development of the SDS-SEA is one such foundational work which, with more financial and political support, would contribute significantly to meeting the action objectives of Agenda 21, the WSSD Plan of Implementation, and the MDG.
- 1.34 The replenishment negotiation documents also pointed at indicators for meeting the objectives of the International Waters portfolio. These indicators are:
- Global Coverage (transboundary waterbodies with management framework of priority actions agreed by riparian countries);
 - Agreed Joint Management Actions (countries with national policies, regulations, institutions, etc. re-aligned to be consistent with agreed joint management actions);
 - Regional Cooperation (regional bodies and management authorities with strengthened capacities);
 - Local Technological Development (countries with demonstration technologies and management practices viable under local conditions).
- 1.35 Note that these indicators could be the same indicators for monitoring the SDS-SEA as the Strategy has strongly brought in Action Programs that lead to meeting the same objectives served by these indicators.
- 1.36 The Beijing Declaration of the Second GEF Assembly contains the same focus as that of the policy recommendations resulting from the replenishment negotiations. The Beijing Declaration also emphasized the need for GEF to assist in the implementation of the WSSD, in particular the importance placed by the Summit on regional and sub-regional initiatives and on public participation, stakeholder involvement and partnerships. It also pointed at the importance of capacity building and the enhancement of technology transfer through public-private partnerships and technology cooperation, both North/South and South/South. As previously noted, the SDS-SEA has placed the same high level of importance to these aspects.
- 1.37 The Beijing Declaration also noted that the expanded mandate of the GEF would now include dealing with Persistent Organic Pollutants (POP). In as much as the SDS-SEA also desires control of land-based pollutants getting into coastal and marine areas, the implementation of the Strategy then also contributes to the meeting this new mandate of the GEF.
- 1.38 The SDS-SEA indeed has strong links and consistency in objectives and action programs with the WSSD Plan of Implementation, the MDG, the strategic directions of the GEF coming out of the Third Replenishment negotiations, and the Capacity 2015 programme. What now needs to be done is to move the

WSSD, MDG, Agenda 21, Capacity 2015, Conventions

↑

Donor Agencies: GEF, UNDP, UNEP, IMO, World Bank, ADB, Bilateral donors

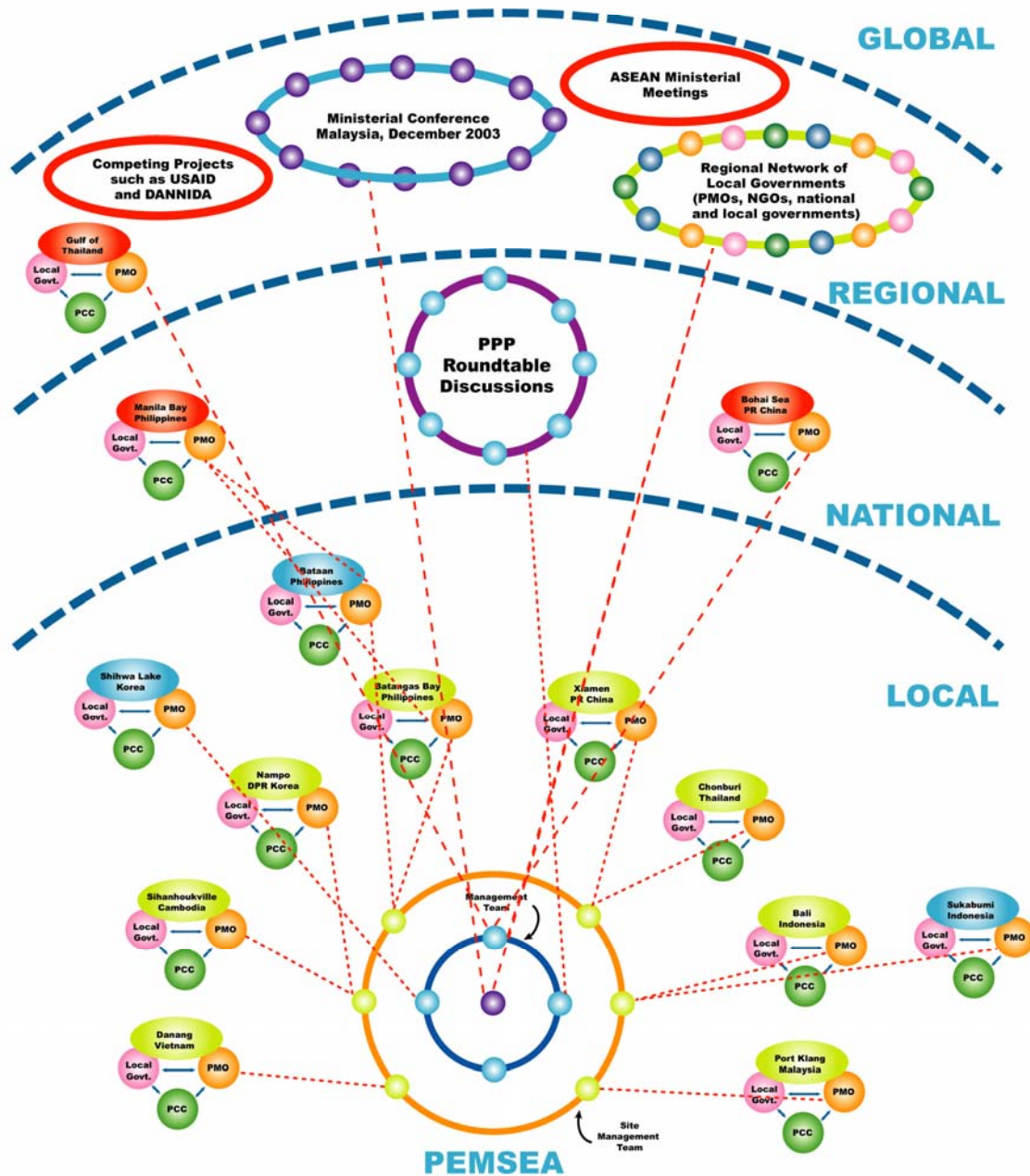


Figure 2. Organisational Networks at PEMSEA

Strategy forward beyond the endorsement of the 8th Programme Steering Committee Meeting and that of the UNDP. The planned PEMSEA Ministerial Meeting of countries participating in the programme would be a good opportunity to get higher-level approval and commitment to SDS-SEA. UNDP's Capacity 2015 could then give it further impetus by providing immediate support in translating its action programs for local level implementation. This would open up additions which could further enhance its validity at the local level such as bringing in a stronger reference to the participation of women and youth and a special consideration for vulnerable groups. Where local coastal sites are repositories of high levels of runoff from chemical-based agriculture, due attention to POP issues could also be made. A link to the other expanded mandate of the GEF which is land degradation primarily desertification and deforestation could also be looked into especially where drought and siltation impact on the coastal ecosystems.

2.0 PROJECT RESULTS

2.1 This mid-term evaluation of the PEMSEA programme is based upon two fundamental observations, namely:

2.1.1 Integrated management approaches attempt to address extremely complex problems and issues affecting the sustainable development of highly dynamic coastal ecosystems whose rich and diverse natural resources have generated powerful and often competing demands from a wide array of economic sectors. This means that ICM is perhaps the most complex form of human activity, far more complex in fact than managing upland or purely marine areas and activities. For this reason alone, the achievement of major outcomes takes a considerable period of time and requires the development of strong political commitment to integrated rather than sectoral approaches to the formulation and implementation of human activities that influence the ability of coastal systems to sustain planned development activities;

2.1.2 When evaluating the progress of the PEMSEA programme, the four most critical features to examine are progress towards the development of:

- a. A robust and self-sustaining process for applying ICM concepts, frameworks, principles and good practices;
- b. Strong ICM strategies and their practical implementation at a project level that are also supported by strong political commitment at a national level;
- c. A critical mass of successful ICM projects at a local level that inform and support the development of national ICM policies and supporting measures;
- d. A regional mechanism to facilitate the sharing of knowledge, experience, technical assistance, and lessons learned to help nations to work together to a common purpose in solving problems and issues which affect the achievement of sustainable development objectives.

2.2 Given the challenge of managing the very complex issues facing the coastal nations in East Asia, it is important to understand a number of key issues that influence the progress made by the PEMSEA program towards the development of ICM at a site, national and regional level. These include:

- a. A long tradition of economic development planning based on transformation of natural systems to meet the needs of individual sectoral activities. This forms a barrier to multiple use management of complex coastal systems, such as mangrove, which can sustain more than one economic activity;
- b. Different political systems characterized by strong, centralized policy making where top-down decision making concerning investment and the allocation of land and water resources takes precedence over local decision making. In some countries, such as Indonesia, the recent move towards decentralization and deconcentration of decision making has created a hiatus where considerable adjustment in policy making and adoption of local priorities for development is taking place;
- c. Where local development priorities and plans to address coastal management issues are being formulated, these are often obstructed by a legacy of prior commitments and approvals of plans by centralized agencies and powerful investors and political interests;
- d. Awareness of the dynamics and functions of coastal systems, and the hazards to life, property and investment from their inappropriate development is generally low in most developing nations. This limits the perceptions of problems and issues that hinder sustainable economic development;
- e. The direct and indirect linkages between coastal ecosystem functions and economic development are poorly perceived. This lack of awareness constrains the development of comprehensive and accurate analyses of problems and issues affecting specific areas and limits the utility of risk assessments and feasibility studies, and the evaluation of management alternatives available to meet stated development objectives;
- f. Where the use of the English language is not widespread its use as the medium of communication can form a barrier to effective sharing of knowledge and experience in the adoption and use of complex ICM concepts, methodologies and examples of good practice;
- g. Low level of understanding of ICM and acceptance of the PEMSEA framework and process as viable and valuable planning and management tools at a national and regional level.

2.3 These constraints add to the complexity of managing development processes in coastal areas and help to explain why the achievement of even modest advances in developing a robust ICM process take considerable time-often 5 to 10 years, consistent technical assistance tailored to the needs of individual sites, continuity

- of funding, and the progressive development of political acceptance of ICM as a tool to help sustain development rather than adding bureaucratic hurdles.
- 2.4 It is clear that ICM frameworks and practices have a good deal to offer the nations of East Asia in promoting effective solutions to very complex problems and issues that undermine efforts to develop sustainable use of coastal areas and natural resources.
 - 2.5 The PEMSEA program is well suited to meet the needs of the new programmatic approach adopted by the GEF. Major advances have been achieved in developing the practical implementation of ICM concepts and practices across a wide spectrum of different environmental, social and economic situations in six East Asian nations. The Evaluation Team has been impressed by the commitment of the PEMSEA core staff, staff and counterparts at the 6 project sites visited, and the developing support for environmental investment from the private sector. All involved are to be congratulated on their combined achievements.
 - 2.6 While the Evaluation Team is aware of the difficulties that the PEMSEA team and their partners have overcome and that there have been advances in the adoption and application of ICM, certification procedures for ports and the SDS-SEA, it has proven very difficult to assess the actual impact of the Program. There are good examples of ICM practice. Some have been catalysed by PEMSEA, while others may not be a direct result of PEMSEA activities. For example, the LUAS river basin framework in Selangor is designed to improve the integration and sectoral planning for land and water use management in watersheds associated with the environmental management of the Klang river which drains into the Port Klang ICM project site. However, this initiative was in place before the Port Klang coastal area was selected as a PEMSEA site. In fact, this initiative by the State Government made the Port Klang area more attractive to the PEMSEA management team and has helped strengthen the potential for longer-term positive impacts of PEMSEA efforts.
 - 2.7 The careful choice of sites based on evidence of political commitment, available information, clearly perceived problems, and other criteria have helped form a series of sites where PEMSEA should be able to demonstrate rapid results and thus gain greater political buy-in to the ICM process. However, the Evaluation Team believes that truly integrated forms of coastal management are at an early stage of development in the sites visited. There remain major obstacles, such as lack of understanding of how coastal systems function and continuing sectoral emphases in planning for and managing human activities that will take a considerable period of time and effort by the PEMSEA Team to overcome.
 - 2.8 Having expressed these concerns, the Evaluation Team does believe that the PEMSEA Program has achieved significant progress towards potentially very beneficial outcomes and, in time, major positive impacts on environmental quality and sustainable use of the coastal lands and waters of the East Asian Region. The following paragraphs attempt to set out progress towards outcomes.

3.0 PROGRESS TOWARDS OUTCOMES

- 3.1 Given the above considerations and that the project is at the mid-point in the implementation of the second phase, the evaluation team believes it is too early to fully assess the outcomes and impact of the project beyond what we have witnessed during field visits and through discussions with the intended participants.
- 3.2 The Evaluation Team is convinced that the PEMSEA program has achieved substantial progress in the development and implementation of ICM frameworks, processes and good management practices. There is substantial evidence of emerging outcomes resulting from one or more program outputs. These include:
- a. Acceptance of ICM as a tool to help sectoral agencies reduce conflicts with other sectoral agencies and improve the effectiveness of the respective efforts to help fulfill mandates, improve the efficiency of public investment, and meet national development objectives;
 - b. Enhanced awareness of the added value ICM can bring to the resolution of national, provincial and local development issues;
 - c. Adoption of ICM in the project sites as a tool for resolving local environmental, economic and social management issues;
 - d. Major progress in developing practical measures for the formulation and implementation of sustainable ICM initiatives;
 - e. Learning shared between project sites, sharing of knowledge, development of shared understanding of problems and potential for complementary solutions at varying ecosystem and geographic levels;
 - f. Innovative and usable technologies that is strengthening comprehension of complex sets of data and information to inform ICM processes;
 - g. Evolution of a local, sub-regional, national and transnational cooperation and development of solutions to common problems;
 - h. Development of a comprehensive data base that can be developed to provide information to better inform planning and decision taking process and investment. Examples include: environmental profiles, risk assessments, feasibility studies, maps and scientific reports for the project and parallel sites;
 - i. Positive influence on investment in measures to improve environmental conditions and reduce stress within coastal and marine ecosystems;
 - j. Engaging private enterprises to focus on coastal management issues in their corporate responsibility agendas;
 - k. Support to national governments in the formulation of national coastal policies.

- 3.3 All of the above contribute to meeting the project's regional and global environmental objectives as per GEF Operational Programs 8 (Waterbody-Based Operational Program), 9 (Integrated Land and Water Multifocal Area Operational Program), and 10 (Contaminant-Based Operational Program). Progress in meeting the targets and indicators that support these objectives are discussed in the various sections of this evaluation. Additional discussion on PEMSEA activities as they relate to the stipulations and expected outputs of GEF OP 8, 9, and 10 is also in Annex 1.

Overall development objective, project development objectives, and planned outputs

- 3.4 The stated **Overall Development Objective** is "To protect the life support systems and enable the sustainable use and management of coastal and marine resources through intergovernmental partnerships for improved quality of life in the East Asian Seas Region." This is a most ambitious higher order objective or longer-term goal. The emphasis upon protecting the life support systems that underpin sustainable production of marine and coastal resources is a key element in enabling the sustainable use and management of these resources to help improve the quality of life in the East Asian Seas Region.
- 3.5 The ten stated **Project Development Objectives** (See Annex 3) and fourteen planned **Outputs** are appropriate to the **Overall Development Objective**.

Progress towards achievement of project outcomes

- 3.6 A clear distinction must be made between project outputs, outcomes and impacts. The Logical Framework Approach is used to test the internal logic of a project design and to monitor and assess the progress in meeting intended objectives through the implementation of planned activities. The outputs are the stated targets of the project activities. For example, training to enhance human resource capacities may have a target of 12 people trained in Environmental Risk Assessment (ERA) by the 7th month of the project. The intended output is 12 trained people. The outcome will be different depending on a number of factors, including the additive or synergistic effects of other outputs from the project (e.g. the design and implementation of an ERA system and the provision of appropriate hardware and software), the starting competence of the trainee and social and economic conditions beyond the control of the project managers.
- 3.7 The Evaluation Team concurs with the findings of the GEF Secretariat Managed Project Review (SMPR) 2002 and the UNDP Project Implementation Review (PIR) 2002 evaluations. It is clear from a comparison of the original logframe and progress reports, verbal presentations of the staff, official reports, published materials and interviews with participants that the project is performing very well and that planned activities are on course for completion within the planned time frame or ahead of schedule. There do not appear to be any significant cost-overruns and it is significant that additional funding from partners has enhanced the use of the GEF funding and has made up for the unfortunate shortfall in planned UNDP counterpart funding. Careful project management and energetic sourcing of funding from participants and external funding bodies has allowed the project team to expand participation in planned activities and to add new activities.

- 3.8 Internal evaluations indicate that there are specific areas where the achievement of objectives has already been met, while some objectives are expected to be fulfilled during the remaining life of the project. Please refer to Annex 4 for illustrative charts prepared by the PEMSEA staff to denote progress in meeting planned activities. The Evaluation Team sees a need to strengthen the objectively verifiable indicators and methods used to track progress in the implementation of activities and performance of the individual projects as these may not give a full and accurate picture of what has been achieved. For example, where an advisory group has been established this is counted as an output. However, the actual range of expertise available in that advisory group may be limited, essential disciplines may not be available, and there may be little experience in the group of working in an inter-disciplinary mode and providing scientific advice in a form that will be valued and applied by planners and managers. By adopting more perceptive indicators to assess outputs, it would be possible to identify areas where selective inputs or corrections by the PEMSEA management team would help provide stronger support to local project activities and thus enhance outcomes and impacts.
- 3.9 It is understood that the PEMSEA staff are preparing an assessment of indicators and methods used to evaluate progress towards implementing activities and achieving stated outputs directed towards fulfilling the ten project objectives. This preliminary draft of this paper is most helpful. It explains how expanded criteria and assessment techniques could be applied and reinforces the Evaluation Team's assessment that the program is actively strengthening project management tools.
- 3.10 The report of the Proceedings of the First Meeting of the Multidisciplinary Expert Group (MEG) held in May 2002 makes specific reference to PEMSEA activities that have helped strengthen scientific support to the program at a regional level and at individual project level. Specific emphasis has been given to a) enriching the application of "indigenous and emerging technologies", b) addressing "cutting-edge scientific issues of leading environmental and resource concerns", and c) promoting management-oriented research to support the demonstration projects. These efforts are commendable and illustrate the determination of the program staff to better integrate information from indigenous knowledge and more formal science to enrich ICM in practice.
- 3.11 However, the Evaluation Team believe that action needs to be taken within the remaining life of the project to strengthen specific activities to help PEMSEA move further forward in addressing its **Overall Development Objective**. These are set out below:
- 3.11.1 The Evaluation Team is concerned that insufficient emphasis is being given in the implementation of planned activities to the protection of the life support systems that enable the sustainable use and management of coastal and marine resources. Throughout the study tour of the six project and parallel sites visited it was very clear that coastal ecosystems were under great stress from inappropriate development. When this was raised with project staff it was clear that the staff were operating under very difficult political, institutional and economic conditions which made it almost impossible to protect and effectively

manage the coastal ecosystems on a sustainable basis. The Evaluation Team have identified four principal areas where the implementation of the project could be strengthened with the result that the protection of the life support systems could be addressed more effectively, namely:

- a. The Training Program needs to strengthen emphasis on the functions of the coastal ecosystems. This would include: environmental linkages among different ecosystems, established management guidelines and good practices that help protect the functional integrity of the different coastal ecosystems and the resources they generate, and the hazards to life, property and public and private investment associated with the inappropriate planning and management of human activities within both the terrestrial and marine components of the coastal zone. The Risk Assessment training materials and exercises do address some of the risks associated with coastal systems, however the Evaluation Team believes the design of the Training Program and materials need to be strengthened to address these subjects as a matter of urgency;
- b. Greater effort is required to enhance awareness of the role of coastal ecosystems in sustaining human activities and the risks associated with their inappropriate development on the part of participants and stakeholders in the PEMSEA program at all levels. The initial training of all PEMSEA staff and participants needs to be reinforced by the application of the materials in 1 above in a “refresher” program. This should then be extended in a very carefully designed and highly graphic and hard hitting manner to the senior managers, policy makers and decision makers associated with the PEMSEA program;
- c. The IIMS is intended to provide a data base for factors relevant to the management of coastal and marine areas. The Evaluation Team sees a need to avoid the IIMS being data driven and for more emphasis to be given to ensuring the data collected will be transformed into information that will be effective in informing coastal and ocean management decision making. For example, more attention could be given to the dynamics of coastal systems and good management practices- such as soft engineering- that would help coastal planners and managers develop more sustainable and economically equitable uses;
- d. The Stakeholder based Coastal Management Strategies for various sites should more adequately address the risks associated with major interventions in coastal processes. This would help avoid increased hazards to life, property and investment.

3.11.2 Strengthening efforts to address these four factors can enhance the impact of the PEMSEA program outputs and will help remove constraints that hinder progress towards meeting **Project Development Objectives and the Overall Development Objectives** of protecting the life support systems and enable the sustainable use and management of coastal and marine resources.

Knowledge Management

- 3.12 There have been local differences in organisational learning at demonstration and parallel sites. One major distinction is between 'centralised learning' and 'decentralised learning' as shown in Figure 1. Project sites based in command economies such as China and Vietnam favoured centralised learning aimed more at mobilising committees rather than communities. This is not to say that public awareness and consultation was not important at these sites. Instead, progress in ICM implementation was much faster at these sites due to strong committee decision making structures in local government. In contrast, decentralised learning was more evident at project sites such as Bali based more on community oriented decision making. Progress at these sites was much slower as considerable efforts were placed on mobilising local stakeholders and community leaders. The distinction can be developed further as a difference between 'top down' approaches in centralised learning and 'bottom up' approaches in decentralised learning.
- 3.13 There are a number of examples of innovative and creative practices in Phase 2 arising from double-loop learning. Such double-loop learning involves questioning underlying assumptions and moving beyond the confines of the iterative ICM development cycle in Phase. These innovations have included:
- a. The establishment of self funding parallel sites.
 - b. The development of 'hotspots' exploring cross boundary issues.
 - c. The examination of PPP funding mechanism for sustainable development.
 - d. The establishment of the RNLG to promote greater South-South dialogue on ICM implementation.
 - e. The promotion of a regional SDS through a Ministerial Conference in 2003.

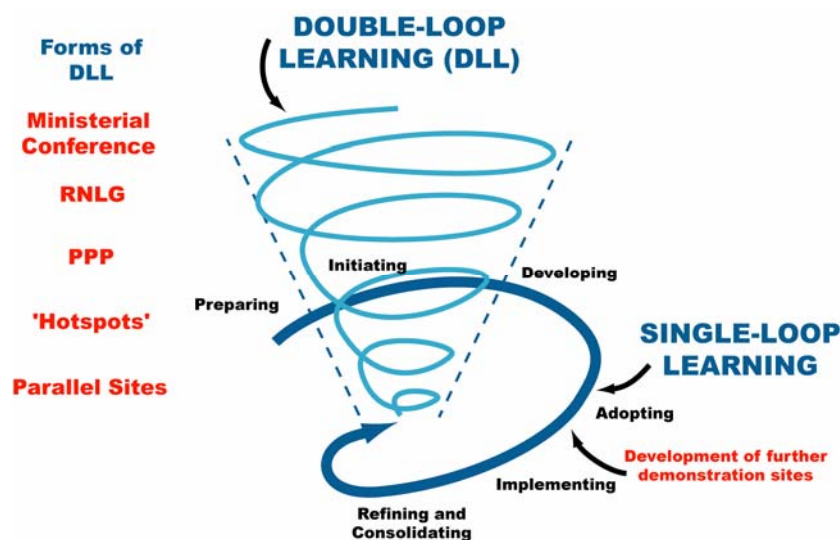


Figure 3. Single-loop and double-loop learning on the PEMSEA Programme

- 3.14 Some of the difficulties in effective impact with key stakeholders is likely to arise from the fact that the current communications strategy is trying to cover too many stakeholders at the same time with limited resources and giving each stakeholder equal importance. The danger with the current strategy is that PEMSEA may be 'preaching to the converted' such as the 312 regular subscribers to 'Tropical Coasts'. The result is that the media approaches chosen may become too bland as they try to please a wide variety of stakeholders and lose effective impact on particular segments. Instead, an adaptive management strategy used in other parts of the PEMSEA project could be used to help improve the communications strategy. This could be based on a force field analysis¹ identifying key stakeholders actively driving PEMSEA's goals and stakeholders resisting PEMSEA's goals at local, national and regional levels. Reinforcement communications strategies could be used for supportive stakeholders and awareness building strategies for stakeholders resistant to PEMSEA's approach. In such cases, a few stakeholders are identified, segmented and the communications activities are directly targeted at them.
- 3.15 Knowledge sharing across demonstration and parallel sites is currently limited. At present, staff at PMO sites share their knowledge centrally with site managers at the RPO rather than horizontally across other regional sites. The linkages in knowledge sharing mechanisms between local and national levels are weak and not well defined. The main knowledge sharing occurs formally through national focal points reporting site activities to the Project Steering Committee (PSC) and their local PCC. However, there is no direct linkage between staff at local site level in the region. This needs to be addressed to consolidate ICM practices and promote best practice more widely within the region. One future challenge at local level is overcoming language barriers to ensure that shared understandings are developed and similar mistakes are avoided across the East Asia Seas region.
- 3.16 An ontology or taxonomy to describe the ICM knowledge domain is currently implicit in PEMSEA's activities. A more explicit ontology would be useful to provide a 'knowledge map' of the area and develop shared conceptualisations of how integration occurs between technological, social, economic and political factors. Such ontologies could be used for codifying knowledge in a systematic manner and provide a further mechanism for creating, organising and sharing knowledge across sites. There have been attempts in the past to capture coastal management ontologies through simulation models such as 'Simcoast'. However, the advantage of developing an ICM ontology at PEMSEA would be that it is embedded in practice.
- 3.17 The poor standing of the IW: LEARN site on search engine rankings may be principally due to its aim to develop global communities in international waters rather than supply direct explicit knowledge through a search engine. One of the difficulties in maintaining global communities of practice is sustaining the passion and interest in any given area over time. Face to face meetings are essential to renew and revitalise trust in these relationships. Community members need to

¹ Force field analysis is a simple tool used in strategy to identify those forces driving a change process and those forces retarding it. Strategies are developed to support and enhance the driving forces and examine ways to undermine the restraining forces. Such an analysis has a background in military planning.

feel that they are contributing and receiving in equal measure. If these relationships become unbalanced, commitment to such communities is likely to waver. From the IW: LEARN brochure, there appears to be a few hundred solid participants with a possible few thousand other interested parties globally. However, there are a number of unanswered questions that arise from IW: LEARN's e-forums:

1. How are the interest areas identified and promoted?
2. How are champions or e-forum co-ordinators selected to ensure that they bring the necessary passion, commitment, contacts and expertise to online discussions?
3. Are e-forums problem centred or theme based?
4. Is there a critical mass of participants to sustain these communities globally with all the cultural differences and language problems?
5. What role does storytelling play in these communities of practice?

3.18 Currently, none of the staff at PEMSEA are actively engaged in IW: LEARN communities of practice as there appears to be an imbalance in benefits gained from their contributions and pressures on their time. For example, IW: LEARN does not provide a one-stop shop on ICM issues in the East Asian Seas which would make the site much more valuable and useful. One way of enhancing IW: LEARN's communities of practice may be to develop and co-ordinate a few regional websites such as East Asian Seas, Caribbean and so on. These regional sites could be more problem centred encouraging deeper debate and dialogue and sharing knowledge through regional stories. It is more likely that these communities could be nurtured through face to face meetings at regional forums or conferences such as the Regional Network of Local Governments (RNLG). As these regional networks and communities develop over time, there is a greater likelihood that global communities would be much more successful as they become embedded in local and regional practice.

3.19 The IIMS is still in its development phase and poses a number of challenges for PEMSEA. There is limited capacity of staff in database management for its successful future development and a limited understanding of its use at local project level. There are 192 data entry forms; much of which is uncollected at local level due to the scarcity or paucity of data. There is also some hesitancy among certain countries and agencies to share their data. In essence, IIMS should be made into a decision support system (DSS) that combines data analysis with sophisticated models to support non-routine decision-making. The current IIMS incarnation suffers from being data driven rather than user driven. The argument is that it encourages the development of baseline data to make comparisons with future interventions. However, there is limited understanding at local project level on how IIMS will help make better policies or decisions in a practical manner. Some examples identifying key indicators and mechanisms for monitoring and predicting the effect of policy and management options at a local level would be helpful. This may help to bridge the gap between the scientific community and decision makers in local government, central government and the private sector. Care needs to be taken that the IIMS doesn't become an end in itself and consumes excessive resources that could be better prioritised elsewhere.

- 3.20 At PEMSEA, the existing networks are more formalised and characteristic of professional networks rather than communities of practice. For instance, there is a Friday club where all RPO staff get together monthly and receive a presentation from a staff member on a certain aspect of PEMSEA's activities. There is also an annual retreat to reflect and encourage knowledge sharing between participants. There is no formalised network among PMO staff across regional countries such as the use of online discussion groups. Language is likely to be a deterrent. More formalised networks also exist at national level at 'hotspot' sites and at regional level through the annual RNLG forum. Each of these networks (including the study tours) are likely to result in some informal groupings and promote certain dialogue between participants. The challenge is how to keep this dialogue alive. In its true sense, the networks at PEMSEA are more characteristic of professional networks rather than communities of practice.

4.0 IMPACTS OF THE PEMSEA PROGRAMME

- 4.1 The field visits and discussions with project personnel, counterpart staff, stakeholders and senior government officials have helped the Evaluation Team to relate planned program activities to outputs and emerging social, economic and environment impacts. Caution must be exercised in assessing the relative importance of outcomes and impacts as these are relative to the specific conditions at individual sites and the extent to which the outcomes and impacts have had a measurable effect at a national or broader regional level.
- 4.2 Examples of Outcomes of the PEMSEA Program include:
- Training has increased the competence of project staff to support local projects
 - Training has increased the competence of Project staff to apply ICM concepts and methods to the resolution of complex environmental problems
 - The IIMS is establishing the basis for standardizing information formats to facilitate information exchange among projects and to expand the knowledge base for managers to use in formulating and implementing ICM;
 - Enhanced political awareness of coastal problems and issues that adversely influence sustainable economic, social and environmental development;
- 4.3 Examples of impacts of the PEMSEA Program include:
- In Danang and Port Klang the PEMSEA ICM Framework influenced counterpart staff to undertake stakeholder consultations;
 - Knowledge sharing emerging within the region through the RNLG;
 - Strengthening and enhancement of intellectual capital particularly in the form of human, social and stakeholder capital particularly in the more community-based sites where interactions and interrelationships between stakeholders become critical.
- 4.4 The evaluation team reiterates the need to measure the extent or durability of these outcomes and impacts. The PEMSEA Program is in the process of developing criteria and a stronger system for monitoring outcomes and impacts.

These efforts should be beneficial to the Program, the GEF, UNDP, and IMO, and the counterparts in demonstrating the outcomes and impacts of their combined efforts.

Review and evaluation of the extent to which project impacts have reached the intended beneficiaries, both within and outside the project sites:

- 4.5 The extent of project impacts depends very much on how much the activities on the ground have progressed. In most cases, site activities relative to the larger ICM goals are at the early stages and still with pilot communities. Where initial site consultations have been held, the concept of caring for the coastal environment has been started and the need to work together on this task. There seems, however, still a need to follow-up these consultations with deeper discussions, and community acceptance, of what ICM really should be. This would be a challenging task given that at grassroots level the PMO staff in the countries visited emphasized the need to proceed with simple concepts and on a step-by-step process. Beach clean-ups have been used as the first step for awareness raising and public involvement. The challenge is sustaining stakeholder interest beyond beach clean ups. The succeeding process of land and sea use zoning would provide the opportunity for broadening the public and inter-agency understanding of ICM. Many of the sites, however, are still at the start-up process on this.
- 4.6 In Xiamen, there was a major effort in place to clean up Yuandang Lake/Bay and reclaim land before PEMSEA chose the area as a pilot site. The rehabilitation of the Yuandang Lake is promoted by PEMSEA as a fine example of environmental investment that has created handsome returns in respect to enhanced property values and taxation for the municipal government. Care must be taken in using this example as an example of good practice as it may create a negative impact on PEMSEA. The true positive and negative impacts of the environmental investment would depend on how the increased revenues from increased land values, tourism, port activities, and commerce would benefit the citizens. It is understood that there is an on-going study on this, and the Evaluation Team would expect that this study should include a balanced account of environmental and economic goods and services gained or lost through the reclamation and large scale engineering intervention in Yuandang Lake. This would be important as Xiamen is used as a “Model” study tour destination. A comprehensive evaluation of the economic, environmental and socio-cultural impacts of the various environmental improvement and ICM activities in Xiamen would prove useful to International Training Center on Coastal Sustainable Development (ITC-CSD) of Coastal Areas in Xiamen and in training and information dissemination for the government officials and their staff in the countries participating in PEMSEA.
- 4.7 South-South exchange through internship, trainings at various levels and study tours have had a significant positive impact. These trainings were considered valuable by the participants as “ICM is new” to them. The study tours have been helpful in showing how colleagues in similar situations have dealt with ICM issues and problems. These trainings and study tours have also provided opportunities for networking. Many of the participants met during the evaluation stated that contacts, though more on an informal level, have been maintained

- with their co- participants. The Xiamen study tours have inspired local government officials and other participants on what could be accomplished by strong political will and coordinated action. These trainings and study tours have created the core of leaders and staff that would put ICM into operation in their project sites and have the willingness to coordinate at a regional level.
- 4.8 While beach clean-ups are very simple activities, it has benefited local stakeholders. In the three Danang communes selected as pilot areas for beach clean-up and waste segregation, the commune members mentioned the heightened awareness that was developed and the attitude change of the local residents. Where before, the sea was used for waste disposal and as a toilet, people are now segregating waste and are actively involved in regular beach clean-up. While there is almost no income that can be derived from waste segregation, recyclable waste being of low resale value, indirect income from increased services such as from motorcycle parking and sale of bottled water to increased number of beach visitors was pointed out.
 - 4.9 In Bataan, the beach clean up was a major success. While garbage would most likely be a continuing feature of Bataan's coastline since it comes from adjacent Metro Manila and not from its residents, the clean-up campaigns has created awareness amongst the public and became an opportunity to organize joint efforts between government, civil society and the private sector. An example of the coastal dynamics in Bataan is shown in Figure 4. More long-term effort, however, has to be directed at getting the Manila Bay Coastal Strategy to reduce the waste that eventually ends up in Bay and into Bataan. Bataan's alternative livelihood projects with pilot coastal communities have just started and the positive experience of income gains that could institutionalize mangrove rehabilitation and sustainable mariculture in these communities have not yet come in.

Likelihood of continuation of project outcomes and benefits after completion of GEF funding

- 4.10 In Xiamen, the likelihood of ICM proceeding is high, due mainly to its institutionalization in the form of a strong coordinative mechanism, a management office, a support system in the marine expert group, the establishment of the ITC-CSD and the high revenue of the city and thus its ability to fund its own projects.
- 4.11 Sustainability is also dependent on how well the local sites can mainstream their action plans and zoning into the development plans and regulations of the local government and with strong "buy in" at the national level – meaning that national agency decisions and national leadership will respect coastal strategy and action plan and zoning developed for the site.
- 4.12 Continuation of project outcomes and benefits will influence on how the sites would later be considered as models of good practice in the eyes of political decision makers with effective documentation and information dissemination. There is a need to develop a critical mass of champions and stakeholders that do not change with changes in political administration.

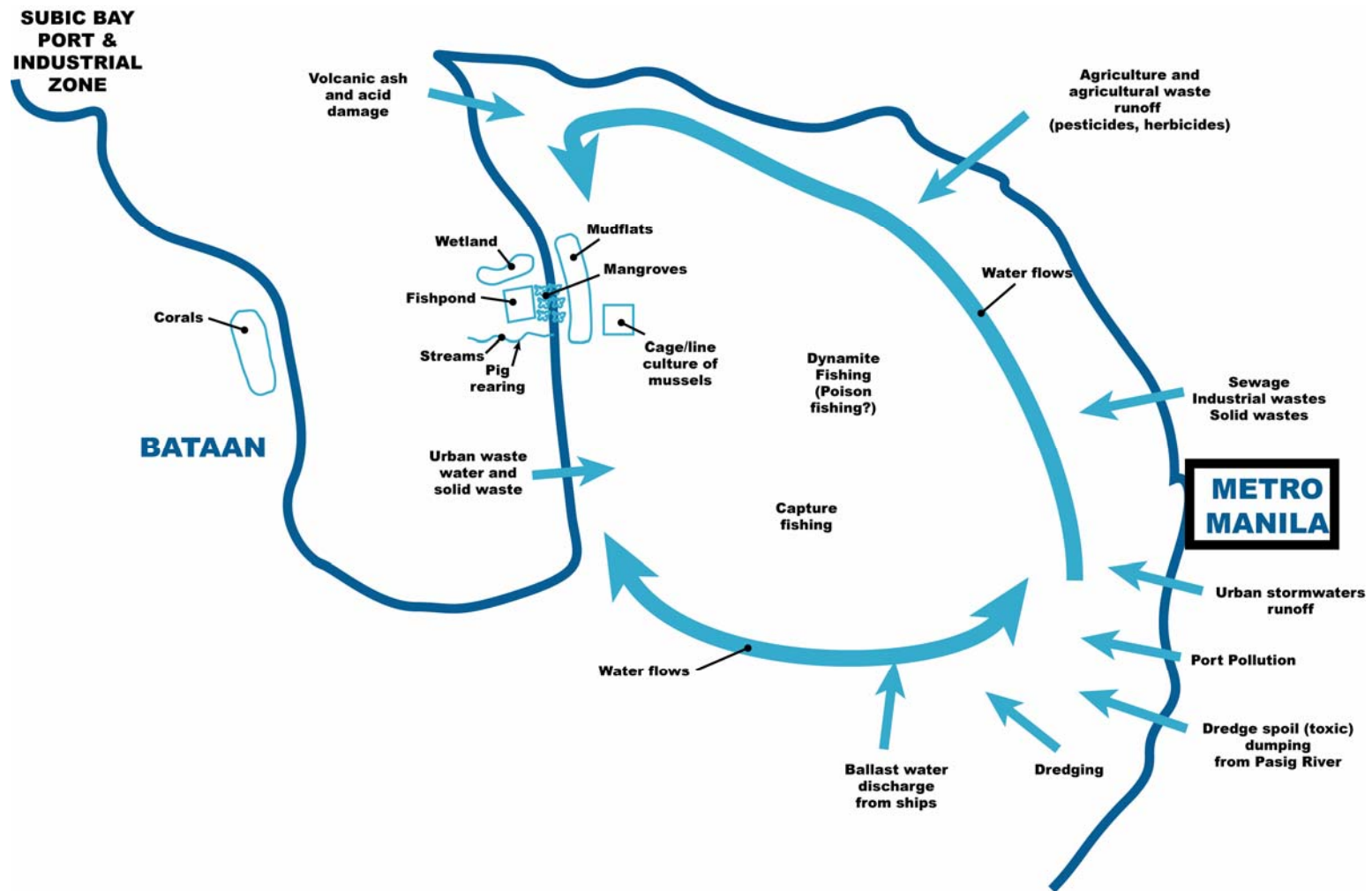


Figure 4 Coastal systems dynamics at fisherfolk livelihood project in Bataan

Key factors and issues that require attention

- 4.13 There are some elements of the program that could be strengthened to support consistent and cost-effective investment of both public and private funds is to sustain current and projected activities directed towards meeting the GEF/UNDP and IMO objectives. These are associated with:
- 4.13.1 **Relationships between the PEMSEA program and other donor assisted coastal management programs and projects could be strengthened.** PEMSEA staff have made attempts to communicate with other coastal and ocean projects as part of their efforts to build partnerships. However, there appears to have been limited positive response from other donor based programs, which inhibits sharing of knowledge, experience and expertise, and inhibits the development of mutually supporting initiatives where added value could be brought to the PEMSEA program. This point was raised by a number of individuals and agencies during the field visits. National governments could play a leading role in enhancing and promoting greater knowledge sharing between donor projects as PEMSEA's efforts have been relatively unsuccessful so far;
- 4.13.2 **A need to expand the number of PEMSEA core staff with practical experience in the formulation and implementation of ICM activities.** Given the resources available to the Programme, there are practical limits to the human resources available in the PEMSEA regional office and the level of support that can be given to projects. Concern that PEMSEA could not provide timely and effective technical support to individual ICM initiatives was expressed by national as well as local project staff in four of the countries visited. This brings into question the concept that PEMSEA can serve as a catalyst and the individual projects must rely on their own resources to carry forward the PEMSEA framework and six-stage system for developing and implementing ICM initiatives. Staff in a number of the projects visited said that they feel that the PEMSEA framework and procedures are at times inflexible (i.e. having to go through, step-by-step, the six-stage process) and can waste time and effort in developing solutions to complex and urgent problems. In discussions with the national and local project staff in Danang, Bali and other sites, adopting complementary approaches (i.e. an inception report approach where urgent problems are identified and immediate solutions are put forward) that are used in other coastal management programs and projects into the PEMSEA framework was seen as desirable. This suggests that an opportunity to gain added support and value from other complementary activities is being lost, but it is difficult to see how this can be solved where other donor projects do not encourage partnerships.
- 4.13.3 **Need for expanded scientific support to PEMSEA initiatives.** While the PEMSEA program's emphasis on pragmatic implementation of often-experimental solutions to complex coastal problems and issues is to be commended, there remains a need to strengthen the integration of scientific knowledge and advice into the ICM process. This is not advocating more research to meet scientific curiosity. Instead, it has been observed that, social and environmental performance of some PEMSEA ICM initiatives could be enhanced through the integration of existing knowledge from different sciences. Examples are set out in the section on Recommendations for improving the Xiamen Model.

4.13.4 **SDS-SEA:** The Evaluation Team supports the recommendations of the Multi-Disciplinary Expert Group (PEMSEA/WP/2002/06, pages 3-4) for strengthening the scientific basis of the SDS-SEA.

4.13.5 **PPP:** The development of Private Public Partnerships (PPPs) is a good example of the pioneering work of the PEMSEA program to develop sustainable financing mechanisms for ICM. Environmental and social factors, however, need to be comprehensively incorporated into the more broadly based economic assessment of the PPP mechanism. In the Maluan Bay rehabilitation project, as presented by the engineering consultants, for example, there was an observed fundamental weakness. This is the simplistic assumption that reclamation of further areas of the former wetlands is the best way to attract private investment when in truth there is need to examine the benefits and costs of this approach within a broader framework. In fact, the suggestion was made that the application of an Integrated EIA, as was the case for making the decision to remove the dike across the Bay, should also be made for the rehabilitation project. These assessments have to consider that: (1) urban development of the reclaimed land may incur high costs for piling and protection against sea-level rise, which may make this proposition less viable; (2) that the placement of new roads in a position as planned will reduce the natural functions of the remaining wetlands with the result that their ability to remove pollution, store storm water and reduce flooding hazards and other environmental services would be reduced; (3) reduction in the planned social, economic and environmental benefits with the loss of these environmental services will occur and thus the need for additional PPP investment to compensate. In the end, all these will weaken the B/C ratio and internal rate of return. Such considerations therefore should be incorporated into a more broadly based economic assessment of the PPP mechanism. This brings into fore the need to strengthen the effectiveness of the Risk Assessment methods and procedures, the EIA methods, and the methods used to assess the economic feasibility of PPP proposals. If the project was indeed approved or would be approved without these considerations, then there appears to be a grave risk that internal rates of return have been or would be calculated that would not stand up to critical economic, environmental or social evaluations, that property, lives and investment may be placed in jeopardy, and that planned activities may not be sustainable at costs that would be acceptable to either private or public sectors.

4.13.5a By taking a broader view of the economic, social and environmental costs and benefits it should be possible to improve the economic performance of both the public and private capital invested. For example, by placing less emphasis upon further destruction of the Bay's ecosystem through land reclamation, flooding hazards in the surrounding area may be reduced thus reducing the need for investment in hard engineering structures. This would reduce the costs and increase the security of investment in urban development in the wider bay area.

4.13.6 **Enhancing the use of Xiamen as a Model and Demonstration Site** The complexity of issues and problems faced at the various sites and the focus on attaining short-term and tangible results can cause the wrong signals to be transmitted to the local stakeholders and observers visiting demonstration sites used by PEMSEA as model examples of ICM in practice.

- 4.13.6a Although admirable progress has been made in redressing the issue of pollution of the Yuandang Bay, more could be done to develop a truly integrated approach to coastal management. The coastal development efforts are predicated on hard engineering approaches to removal of pollution and the enhancement of public revenues and private profits through the reclamation of wetlands. Both approaches have been challenged as rational practices in other parts of the world as they send very negative signals concerning the management of coastal systems and can increase hazards to lives, property and public and private investment. There is a consequent danger of negative lessons being transmitted from the demonstration sites.
- 4.13.6b It would be beneficial to better integrate fundamental knowledge of dynamic coastal processes and modern “Soft-Engineering” into plans to “rehabilitate” the Maluang Bay in Xiamen. It may well be that by adopting a broader analysis of options to address issues, such as pollution and flood hazard reduction through the rehabilitation of Maluang Bay, benefits to navigation and reduction in dredging costs in the West Sea of Xiamen could be achieved by restoring the estuarine functions of the former estuarine bays. In turn, this should be seen as part of a broader strategy to restore tidal flushing between the East Sea and West Sea which would assist efforts to develop the deep water port, restore capture fisheries, redevelop aquaculture, and reduce marine pollution as part of a broader ICM strategy for the sustainable development of the Coastal City. In the above example, it would be helpful to bring in additional expertise on coastal geomorphology, systems modeling, coastal ecosystem functions and resource economics to help expand the analytical framework being applied by the marine expert group, urban planners and ocean managers.
- 4.13.6c A further example is the need to examine the proposal to dredge the Maluan Bay and to place the fine sediments along the margins of the planned open water areas to form the substrate for the replanting of mangrove. The nature of the sediments needs to be examined and compared with the long-shore currents, tidal amplitude and other factors that will have an influence on whether the fine sediments stay where they are placed, and whether they will support the proposed mangrove species. There is a possibility that the sediments may return to the areas dredged or be exported into the shipping channels in the West Sea, and that the mangrove may not survive. It must be stressed that PEMSEA has not been directly involved in the current plans for the Bay. PEMSEA may be able to encourage the local government in Xiamen to further apply ICM practices in revising the engineering and PPP proposals.
- 4.13.6d The restoration of the Gold Coast in Xiamen, where sand mining had degraded the shoreline and beaches, illustrates a commitment to improving the coastal environment. Valuable lessons were learned in the process; for example, well-established trees that form the natural vegetation of the beach-dune system were removed and replaced by grass. The grass could not maintain the dynamic stability of the beach-dune system with the result that erosion took place which required considerable effort and expenditure of public capital to correct. The current landscape approach to the management of this coast could be improved by working with the local management team to enhance

their knowledge of beach and dune systems. At the moment, a significant portion of the fore-dune areas have been built over, have had tarmac and concrete paths inserted, and exotic trees have been planted. This disrupts the dynamic relationship between the beaches and dune systems. When a major storm hits this coast, much of this infrastructure and landscaping could be damaged and the beach eroded. The dunes will then erode to supply sand to replenish the beach. In time, the sand eroded from the beach during a storm will be returned from off-shore sand banks, and the dunes will be replenished by wind-blown sand. This is a natural process and future management of this coast should allow seek to establish a system of dynamic equilibrium where the beach and dune systems can be free to interact. This is a good example where the application of available knowledge of these coastal ecosystems would have saved money and helped to provide sustainable use to meet increasing demands for tourism and recreation.

- 4.13.7 The ISO 14001 certification status for the Gulatingu Island is a major achievement that demonstrates the value of a clean environment for tourism development. However, the ISO award may be in jeopardy. The management of the island is flawed by contraventions of the international convention on trade in endangered species (CITES). Specific examples are the widespread sale of coral and shells such as the increasingly rare Indian Ocean Cowrie, and the sale of stuffed marine turtles. Reportedly, senior PEMSEA staff, as well as some public opinion, have attempted to raise attention on these issues with the local government. The local government still has to fully address this issue. There is a danger that people visiting the island will receive the signal that the overcommercialization of the island and sale of marine organisms is perfectly acceptable. Greater efforts should be taken by the PEMSEA staff to point out these poor ICM practices to local officials and visitors as they pose a risk that the ISO 14001 certification could be withdrawn should international NGOs and the ISO authorities discover these blatant contraventions to international treaties and conventions.
- 4.13.8 There appears to have been a significant impact of the PEMSEA program in supporting the LUAS team managing the Port Klang ICM demonstration site in their efforts to make sectoral agencies aware of ICM. However, there remains a major challenge in reducing the current rigid, top-down approach in the development of plans for the “rehabilitation” and tourist development of Crab Island. This could be achieved by putting more emphasis upon a rights-based approach where local stakeholders are given a greater role in formulation and implementing ICM strategies and plans that affect their lives and welfare. This would certainly help improve the Crab Island initiative as a model for local ICM.

Other concerns that the programme should look into include:

- 4.14 Concern that because of the need to keep the concept simple for local people, that the comprehensive nature of ICM is being missed. It seems that the “working with nature” principle is lost amidst the aggressive drive for man-made theme parks (e.g. dancing fountains, man-made lagoons, cemented riverbanks, etc.).
- 4.15 Changes in political leadership either through elections or new appointments would cause delays particularly where institutional mechanisms such as the

Marine Management Office and Marine Expert Group in Xiamen, and the Provincial Government-Environment and Natural Resources Office (PG-ENRO) in Batangas are absent.

- 4.16 Lack of buy in by national level political leaders in some countries (due to lack of information, exacerbated by rapid leadership changes, as well as weak sense of ownership for locally led ICMs such as in Bataan and Batangas) and by perceived competition of other national and regional coastal management projects and programmes.
- 4.17 Decisions at the national or federal level could easily negate decisions at the local level (Batangas, Bali and also expressed in Kuala Lumpur and Danang). National government agencies have decision-making powers over the country's overall direction for development and in many cases these have been exercised in the approval of major development projects prior to ICM planning and zoning activities. As such, there is the concern that ICM strategies and zoning at local sites would be very difficult to enforce unless it is championed by the strongest national agencies or, better still, mandated by national legislation. The LUAS head in Selangor, Malaysia related difficulties as regards coordination with various levels of the bureaucracy. Part of the difficulty lies in the residual resistance of federal agencies to transfer their powers to a newly formed local body, LUAS. Politicians also gave a lower priority to environmental issues. While many senior political leaders have not obstructed environmental efforts, they have neither been champions to the cause. The head of LUAS is looking for legal ways, possibly using maritime and navigation laws, to have more powers on environmental management (i.e. auditing of EIAs) transferred to it. This situation is very similar to that of Batangas where the PMO is trying to negotiate a MOA with the DENR to transfer some EIA powers to it.
- 4.18 As many economic development projects have already been approved or implemented prior to ICM activities (Danang coastal road, reclamation in Turtle Island in Bali, reclamation of about 10,000 hectares of a peninsula and some islands in Kuala Lumpur), the challenge to ICM strategies and zoning is to mitigate against the negative impacts of on-going and past developments. At the PMO level, there is a resignation that once top political decisions have been made on a development project, there is little they could do to change it. An insistence on independently made and reviewed EIAs (better still utilizing the Integrated EIA tool developed by PEMSEA) as basis for approval of projects could serve as stop-gap measure till detailed zoning is made and strong institutional support for such zoning (i.e. gazetting in the case of Port Klang, local ownership through participatory mapping as planned in Bali) is gathered. There has to be intensive training, however, for the PMO staff as well as even the expert groups on EIA of coastal projects. A link to independent experts within and outside the country would also do well to increase the objectivity of the EIA. PEMSEA could identify these needs and the type of training and expert linkages when the sites do their EIA.
- 4.19 The lack of rigorous studies on the economic and social benefits arising out of ICM. Xiamen has applied an Integrated EIA approach to predicting the impact of a planned project but there is also need for doing the same in a post-project situation. Without credible economic and social benefit studies (credibility in

terms of methodology, data, and evaluators) there would be difficulty in convincing others of advantage of investing in an ICM approach. It seems that at present, the monitoring of impacts, particularly in a complex approach as ICM, is spotty and weak.

- 4.20 The expectation is that successful ICM activities eventually lead to increased tourism income. In Xiamen, Danang, Crab Island and Bali, the ICM related plans of the local governments are directed at tourism development. The question is whether the PMO is well equipped to guide these tourism development projects towards sustainable tourism principles and approaches. Where tourism leads to the sale of corals and endangered species of shells, capture of turtles for their shell or for feeding by tourists as they swim in murky pools, then the objectives of ICM become violated. There is need to develop sustainable tourism guidelines and train staff to make sure that these are integrated in the planning process and in operations.
- 4.21 The problem of “projectization” of ICM activities (i.e. Manila Bay Coastal Management Project). As a “project”, the efforts are seen as short-term and a special task rather than one that should be integrated into the province or city development plans and budgets.
- 4.22 The Regional Mechanism still has to be developed. Such mechanism will have to consider other regional institutions as well as financing concerns (i.e. can a future PEMSEA commercialize its services and products?). This mechanism should be one that does not depend solely on government financial support while at the same time able to get away from UN bureaucracy. As first steps, there is the need to get regional support for the SDS-SEA.

5.0 PROJECT MANAGEMENT

The project's adaptive management strategy

- 5.1 The concept of “Adaptive Environmental Management” has been with us for more than 35 years. Originally, it was developed as a tool for integrating different experts and different interest groups to provide a comprehensive definition of specific environmental problems, to explore options for solving those problems, developing a consensus on the most effective management solution and building cooperation in applying the preferred solution and then monitoring its effectiveness and-where necessary- adapting various elements of the solution to ensure its effectiveness. Although adaptive management has been used to good effect in the management of the PEMSEA program, the concept could be applied more widely in the development of individual projects and communications programs to develop a more robust definition of the problems and issues at project sites, and the development of alternatives for management solutions.
- 5.2 From observations in the field it is clear that there are broader issues that may overwhelm the coastal strategies that are being developed for the project sites. A case in point is Bali where major reclamation works that have had a major impact on islands close to shore and proposals for port expansion, dredging, and

further land reclamation in the project area could overwhelm the discrete actions set out in the Coastal Strategy for the southeastern coast of Bali.

- 5.3 The PEMSEA strategy has been to focus on achieving implementation of actions that can demonstrate that ICM can make a difference. In successive iterations of the ICM process new issues, problems and corresponding actions can be applied. However, there is a danger that in sites such as Bali, an opportunity to take a more holistic view of problems and issues that threaten the sustainability of tourism, fisheries, and nature conservation will be lost as time taken for the process delays immediate action and as too much focus on site activities blinds stakeholders to the powerful influences coming from the national and even global levels. The result is that the effectiveness of the planned PEMSEA ICM actions to reduce pollution, develop responsible fishing practice and sea use zoning will be undermined. This would adversely affect the credibility of PEMSEA and degrade confidence in the utility of ICM. There is need for adaptive management in terms of being able to extend assessments beyond the site and in implementing timely interventions.
- 5.4 An example of an adaptive management strategy is the decentralization of certain decisions from IMO to that of the Regional Programme Office (RPO). These decisions include the recruitment of local staff, approval of contracts up to US\$50,000 and procurement up to US\$100,000. This has been made possible by designing standard contracts that do not anymore need scrutiny by lawyers of IMO. This has facilitated operations of the program. Audit findings show that this is also cost effective.
- 5.5 The need to establish linkages with other programs yet bypassing institutional bureaucracies has led to the practice of developing programme to programme memoranda of agreements (i.e. PEMSEA with UNEP-Global Program of Action (UNEP-GPA) on sharing of knowledge and experiences rather than UNDP with UNEP).
- 5.6 Adaptive management through a decentralized, non-bureaucratic system is important for the programme to be able to respond quickly to country requests. This should be further developed to cover other aspects of program management.

Roles and responsibilities of the various institutional arrangements for project implementation and the level of coordination between relevant players

- 5.7 The city of Xiamen exemplifies the strong inter-agency coordination needed to make ICM a success. Its Marine Management and Coordination Committee has very well clarified the roles and responsibilities of the various government agencies involved in the city's ICM. On top of this, the Deputy Mayor who heads this Committee is in charge of both the infrastructure development and the coastal management concerns of the city. There is, however, no private sector and national government agency participation in Xiamen. This might well be alright for Xiamen but is a problem in other governance systems such as in Batangas and Bataan where decisions on the use of coastal resources is still very much within the jurisdiction of national agencies such as the Department of

Environment and Natural Resources (DENR) and the Department of Agriculture (DA).

- 5.8 Decentralization has provided advantages. Local government units are more able to direct their own development plans and promulgate the regulations that would enforce its implementation. They can therefore commit to the establishment of an ICM site and the co-financing for it. But there are disadvantages as well when more than one level of political jurisdiction is involved. In Bali, where the site involves five regencies, there has to be coordination between the governor and the heads of the regencies. The ability of the governor to coordinate has been weakened, however, because Indonesia's latest decentralization policy has given substantial level of autonomy to the regencies. The same applies to Philippine sites – Batangas, Bataan, Manila Bay – where mayors, governors, and national agencies have their own particular level of political power and autonomy.
- 5.9 A strong political champion, one that wields political power beyond what decentralization policies provide, is needed to create the "good coordination in the making of decisions" approach (as stated by the National Focal Point for Indonesia). But accounts from heads of PMOs (Port Klang, Manila Bay) say that even when heads of political units have given their approval, the middle level bureaucracy would still make timely decision-making and action difficult. A suggested solution would be to start at the very lowest political level, with the city or regency rather than with a province or sub-region. It has been pointed out, however, that this would not allow the many interactions that go beyond a city or regency to be considered in the project. In a sense, the notion of an ICM approach would be placed into question.
- 5.10 There is thus an advantage in countries with centralized governance mechanisms. There is much stronger coordination among local agencies and decisions are made much more quickly. The concern, however, is that when the basic principles of ICM are not well understood, such as when short-term economic considerations are placed above that of environmental imperatives, then erroneous decisions may be made rashly with detrimental consequences.

Partnership arrangements with other donors

- 5.11 Local governments have been the more substantive donors so far. Recent MOAs attest to this. The MOA signed by the Selangor Chief Minister on 19 July 2001 designating Klang as an ICM project demonstration site allocated counterpart support of US\$491,895. Similarly, the Chonburi Provincial Government pledged a counterpart support of US\$287,394 when Chonburi was designated a National ICM Demonstration Site in a MOA signed August 2001. National governments, however, have also put in substantial support funds. The Government of the Philippines had committed US\$948,347 for 2001 and US\$142,000 for 2002 for the Manila Bay Environmental Management as well as US\$777,000 as support for PEMSEA. The State Oceanic Administration (SOA) of the People's Republic of China had committed US\$2,647,300 for the Bohai Sea Environmental Management activities. In total government contributions have totaled US\$8,954,546. In comparison, private sector contributions have totaled US\$400,000 while that of Swedish International Development Agency

(SIDA)/Coastal Management Center (CMC) was at US\$163,820. The detailed breakdown of these contributions are in Annex 7.

- 5.12 The advantage of local government counterpart funding is that it helps develop local ownership of the local project. There is interest in the city bureaucracy to follow up on the project as it has an investment in it. The weakness lies in the size of the counterpart funding. These funds are mostly for support services, primarily for PMO operations, for consultations, and information campaigns (need to check this). Substantial financing for needed environmental infrastructures such as for wastewater treatment and solid waste or hazardous waste management would still have to be negotiated with private investors or another set of donors.
- 5.13 As there is no substantial counterpart funding coming from many national governments, national level ownership or buy-in is that much weaker. National level agencies have tended to give more attention to other much larger donor-assisted coastal management projects. On the other hand, the lesser requirement for substantial national level co-financing has allowed the local project sites to proceed with start-up action almost autonomously and with less delay. National buy-in has to be developed in other ways than the requirement of substantial co-financing.
- 5.14 There are other coastal management projects funded by other donors in all the countries visited (e.g. ADB and World Bank in the Philippines, DANIDA in Malaysia, Dutch Government in Vietnam, JICA in Bali). There has been no active formal mechanism at the country level to get these projects and donors to link up with PEMSEA sites. There has been the assumption that membership of the focal agency or the focal point person to the steering committees of these other projects would create the link. Some PEMSEA PMOs have also not been active in linking with these other projects and donors. Outside of donors and donor-assisted projects, however, there is active collaboration. These are with the private sector, NGOs, government agencies and universities. A listing of PEMSEA cooperation and collaboration with these other partners are in Annex 8.

Public involvement in the project

- 5.15 All of the ICM project sites visited exerted efforts to provide opportunities for public involvement. The level and type of public involvement has depended on the governance mechanism of the local and national government. Public consultations have been relatively more government-led in the centrally planned economies. Where decentralized governance mechanisms exist, many non-governmental or traditional organizations were involved in the process.
- 5.16 Public involvement was a way of assuring social equity (i.e. compensation for aquaculturists to be relocated out of Maluan Bay in Xiamen), organizing a political constituency (i.e. formation of the Coastal Care Foundation in Bataan), and sustaining actions initiated at the local level (i.e. mainstreaming into commune activities in Danang).
- 5.17 Public involvement was also necessary since much of coastal environmental problems emanate from the social practices of local people (i.e. using the sea as

toilet in Danang or as a garbage dump in Manila Bay) and their economic activities (i.e. dynamite fishing in Bataan).

- 5.18 In decentralized governance systems, public involvement is vital to the political sustainability of the site projects. The governor or mayor derives political power from strong public support and could therefore make difficult political decisions in favor of coastal environmental measures. For the governors of both Batangas and Bataan, the continuation of what they have started after their terms of office depends on the continued demand of environmental issues from their constituencies and the engagement of private sector enterprises in their localities.
- 5.19 Public involvement, however, is still basically focused on coastal pilot sites and has yet to expand to cover the whole landscape, particularly the upland watershed areas. This is the added task of the programme for the coming years, noting that in the GEF Operational Program documents, it has been noted that this would take a long-term effort, much beyond GEF's funding. This expansion then would have to come in time when commitment and capacity building of various stakeholders along the coastal areas can be directed towards the upland areas.
- 5.20 It has been observed that where major development projects have already been decided at the top level, public involvement in decision-making is not sought or given enough weight. Perhaps, the concern is that public participation at this point could lead to opposition and protests. Given this, the approach would then have to be preventive rather than curative. Public participation has to be brought in early before any other developments are given final approval. The land and sea-use zoning of the sites, and intensive public participation in this area have to be speeded up to match the speed by which other developments are being planned.
- 5.21 Aside from consultations and beach clean ups, there are other ways by which public participation can be enhanced. The "willingness to pay" surveys can be implemented in such a way as to enhance public participation. The PPP therefore is not just for the government and the private sector to be involved in. The public will eventually have to pay. The prospect of paying a fee certainly generates public interest and public participation is critical to ensure acceptability and public commitment to any future decisions.

Efforts of UNDP and IMO in support of the programme office and national institutions

- 5.22 IMO is the Executing Agency and is thus legally responsible for the management of the Programme both in terms of hiring staff as well as the execution of the programme activities. The Marine Environment Division (MED) of the IMO is responsible for overseeing the RPO. IMO has established a PEMSEA Management Committee in London which is made up of representatives from various concerned administrative and technical divisions of the organization in London to provide management support to PEMSEA. All MOAs, MOUs and other partnership agreements with governments and other partners that PEMSEA developed will have to be cleared by the Legal Office of IMO. The Personnel Unit

of IMO handles the recruitment of international staff in consultation with the RPO while the RPO is solely responsible for the recruitment of national staff.

- 5.23 At the start of the programme, the finalization of MOAs, MOUs, other partnership agreements and contracts thus took time as they had to be sent to IMO headquarters in London. Thus, the decentralization by IMO of some of its executing responsibility to the RPO through a Memorandum of Agreement dated 08 July 1999 was a welcome move. PEMSEA was able to operate more effectively and efficiently with minimum supervision and management support from IMO.
- 5.24 The IMO Secretary-General visited the Regional Programme twice during Phase I. The Director of MED also visited in this initial phase. No senior officers, however, were able to visit the office in Phase 2 of the Programme.
- 5.25 A much closer working relationship, due partly to proximity, exists between the Programme and UNDP. UNDP is not supposed to be involved in project execution as an Implementing Agency of the GEF. Substantial support, however, was given to the RPO through the direct involvement of the Principal Project Resident Representative. Support has come in the way of: (1) overcoming obstacles related to the frequent change of and uncertainty in government administrative arrangements; (2) facilitating the use of the UNDP field offices in PEMSEA participating countries, and (3) providing valuable donor and government contacts of the UNDP, particularly that of the UNDP Manila Resident Representative.
- 5.26 UNDP Manila's Resident Representative have also made personal efforts to find ways of fulfilling UNDP's co-financing commitment to the programme, which to date have not yet been met. There would also be difficulties for UNDP country offices where PEMSEA sites are located to provide additional funds. UNDP country offices also have their own operational fund problems and could only utilize the funds available from its programs for the project if the national Government focal point specifically allocates the funds for the project when the Country Program Outline is developed.
- 5.27 IMO's contribution to co-financing is realized through the implementation of IMO's Technical Cooperation Division supported projects. IMO's contribution has reached US\$350,000. An additional US\$480,000 is being planned for 2004-5. As the Regional Programme is also providing technical support in the implementation of IMO's Technical Cooperation Projects in East Asia, IMO could further strengthen the RPO by providing technical staff to implement IMO related activities.
- 5.28 IMO has no medical plan for locally recruited field staff. Unfortunately, the local field staff cannot also avail of the UNDP medical insurance plan as such plan is exclusive to UNDP staff only. While the Regional Programme Office was able to secure its own medical insurance plan, such plan exposes the Regional Programme to a major financial burden if there is a major medical catastrophe.

Use of the Logical Framework Approach (LFA) and performance indicators as project management tools

- 5.29 The programme and its project sites have adhered to the logical framework approach and the performance indicators they have set for themselves. Reports and presentations indicate where programme and the project sites are in relation to the targets and indicators they have set. This has the advantage of helping the programme and the project sites see where they are well in advance and where they are lagging behind. But this is only as far as the workplan is concerned. There is a difference between outputs and outcomes or impacts and where indicators are more linked to outputs, then there could be situations where outputs have been met but impacts are not commensurate to the need of the situation. Some PMOs, for example, were well satisfied with reaching stage 3 of the framework as called for in the workplan. The need of the situation, however, called for immediate zoning of the coastal area in order to address the impacts of rapid developments (i.e. construction of a major coastal road on the beach sand dunes or reclamation) have been planned and/or are already under implementation.

Implementation of the project's monitoring and evaluation plans

- 5.30 Monitoring and evaluation of progress in achieving logframe indicators and workplan targets are done through reports and presentation of progress in various levels of project management. Meetings of experts, RLNG and the PCC provide the venues for monitoring and evaluating progress in programme and site activities.
- 5.31 There are also site managers assigned for each site. Site visits by these site managers, aside from site visits from senior staff and the Programme Director, are conducted for technical assistance as well as for monitoring and evaluation purposes. Mission reports are prepared after each visit, circulated and filed for reference. Case studies have also been written and published.
- 5.32 From the sites visited, there is what can be called disciplined monitoring of how far they have progressed in terms of the ICM framework provided by PEMSEA. But there seems to be a lack of organized monitoring and evaluation of impacts particularly the cumulative impacts of many activities coming from the project as well as the effect on such impacts of the many other activities outside the project. Note that ICM has a complex set of activities and institutional arrangements. Monitoring and evaluation of their impacts must also be at a programmatic and strategic level.
- 5.33 The monitoring and evaluation of impacts must be set at the outset using appropriate mechanisms (i.e. case studies) that could surface out what could be incremental value added benefits arising out of site ICM activities. Note that much of what PEMSEA would be setting up are processes -- products that are non-physical and non-infrastructure -- and therefore difficult to identify, much less measure, unless there is a proactive effort and the proper instrument to do so. In many cases, no grandiose monuments of success will be evident. The "balancing act" that will be implemented in most areas will have its "steps forward" (i.e. removal of waste from coastal areas) but also its "steps backward" (i.e. damage

from massive reclamation from a previously approved development). The damage would most likely be noticed more. Clean-ups are only appreciated by those who have seen how polluted the area was before. The argument that situations would have been worse had ICM activities not been there would not hold unless proper documentation and credible evaluation of the complex processes involved and their impacts are made.

- 5.34 The same difficulty exists with the monitoring and evaluation of awareness campaigns. Awareness raising is incremental and there are issues concerning the lack of follow-up of campaigns, the risk of not being able to reach those stakeholders that really count and the problem of trying to reach too many people with too few resources. The communications plan needs to give some consideration on how the impact of various communication activities would be monitored and evaluated. A clear understanding of the size and nature of the target audience would help determine the most appropriate methods in this respect.
- 5.35 Some efforts have been made to develop a way to monitor and evaluate the ICM programme (see Annex 4). The system uses four categories of indicators that relate to: (1) Problem Identification and Program Formulation; (2) Program Implementation; (3) Program Sustainability, and; (4) Program Impacts. While the list of indicators under each of the categories need to be expanded to take in new findings, the use of the system allows the program manager and staff to see which sites are progressing fast and which ones are not (see Annex 9). However, the current indicators give very little indication of the quality of progress and some of the richness may be lost. Some form of narrative with key indicators could help capture the depth of progress at PEMSEA.
- 5.36 The programme is developing an IIMS, an environmental database designed to provide storage, retrieval and analytical capabilities for multi-sectoral user groups. As such it can also be a tool for monitoring, particularly environmental impacts of ICM activities. The development, however, of the IIMS is at an early stage. Site stakeholders interviewed still find difficulty meeting the data requirements of the system. They also do not yet see the potential of the system's analytical capabilities in solving their immediate problems.

6.0 MAIN LESSONS LEARNED

Strengthening country ownership/drivenness

- 6.1 Local ownership and drivenness is strengthened when contributions derive from local sources. Financial resources from the local budget, focal agency staff assignment and time provided for the project, and the participation of officials from various agencies in coordinating and technical committees are considered co-investments. The monetary co-financing from local sources in many sites are at least half of the total costs. The non-monetary contributions are not intensively monitored and valued but these are most likely significant given the many meetings and consultations that a complex project such as PEMSEA requires. At least one of the stakeholders interviewed, in comparing this project with others which received much higher funding and foreign consultant support from donors,

stated preference for this project because its participants are working for it because of their commitment to their country. There is better chance of sustainability at the end of programme support.

Strengthening regional cooperation and inter-governmental cooperation

- 6.2 Regional cooperation and inter-governmental cooperation is strengthened through shared activities. The study tours strengthen regional cooperation by bringing different country participants together. It also helps create a common vision of what ICM could eventually accomplish with committed political leadership and strong inter-agency cooperation as exemplified by Xiamen. The Regional Task Force shows how South-South cooperation can assist countries of the region. The RNLG further deepens this sharing with leaders of the site exchanging lessons learned, thus benefiting each other and the programme.

Strengthening stakeholder participation

- 6.3 Stakeholder participation is vital in that a comprehensive approach such as ICM which covers a wide spatial area, a multitude of often competing concerns, and an array of institutions at various levels requires a critical mass of people and institutions working together. This critical mass is necessary for the political support it conveys in the initiation of site ICM activities and their sustainability. This critical mass also refers to the large coastal populations whose present overexploitation and pollution of the coastal areas have to be shifted to positive practices such as clean ups, patrols against dynamite and cyanide fishing, and "willingness to pay" for solid and hazardous waste facilities and sewage management systems.

Application of adaptive management strategies

- 6.4 An ICM program or project that deals with the management of complexity within a highly dynamic social, economic, and political environment must have adaptive management as its strategy. At the programme level, there is always the need to respond quickly to changing needs of countries. Decentralization of decisions at the programme office has been most effective. At site level, other developments are impinging on the project area, requiring redirection of efforts to meet what could be negative impacts of such developments. All these are only possible within an adaptive management framework.

Efforts to secure sustainability

- 6.5 The effort to secure sustainability is supported by: (1) strong government action (i.e. permanent management structure with operational funds already allocated to it as in the Xiamen Marine Management Office and also the Batangas PG-ENRO ; (2) supportive legal system (i.e. Batangas and Port Klang trying to come up with legislation to transfer environmental powers from national to local government bodies; (3) sound scientific basis (i.e. organization of a Marine Expert Group as in Xiamen and the access to scientific expertise from universities in the other sites), and (4) enhanced capacity building (i.e. through continuous training for staff, study tours for government officials, and intensive information campaigns and public participation.

- 6.6 There is need for innovative mechanisms for developing financial sustainability. Xiamen provides an example with its adoption and enforcement of a user fee permit system. In Kuala Lumpur, a user fee system is planned, with one half of the fees going to LUAS to provide it financial sustainability while the other half to be shared with agencies but specifically allocated to support their environmental activities. In the other sites, the development of such mechanisms has not yet been well conceptualized. Their participation, however, in PPP activities would stimulate and facilitate the development of financial resource mobilization mechanisms.

Role of monitoring & evaluation in project implementation

- 6.7 ICM is the management of complexity towards the goal of sustainable development. As such it is also the balancing of competing uses. Given these, the building up of capacity and the generation of positive outcomes come in increments, with full attainment of goals being reached only after several ICM cycles. Unlike infrastructure projects, many of its outcomes and impacts are not easily evident (i.e. change in government officials' attitudes). The development and application of appropriate monitoring and evaluation systems, particularly for cumulative impacts is therefore critical.

7.0 RECOMMENDATIONS

A. Overview

- 7.1 The investment over Phases I and II has yielded very significant outputs that have greatly improved expertise and other supporting measures for the application of ICM by the participating nations. This is money well spent and has created an asset of great value in helping to meet sustainable development goals. Careful consideration needs to be given by the participating agencies to capitalizing on this investment to maximize the potential benefits that could be gained from what has been achieved by the PEMSEA program that can be extended and expanded to further support their respective development objectives.
- 7.2 This raises the issue of whether the momentum that has been achieved can be sustained if no further international support is given. Our assessment is that there is a danger that the momentum that has been achieved in developing local, national and regional cooperation could evaporate unless the PEMSEA ICM process and activities is not nurtured for 3 to five further years. This would jeopardize the development and successful implementation of the emerging SDS-SEA, which would undermine the advances that the investment by the GEF, UNDP, IMO and other organizations has achieved. The Evaluation Team sees great value to the GEF, UNDP, IMO and other Partners in maintaining their support for and active participation in the future development of PEMSEA.
- 7.3 The evaluation has identified an urgent need for the GEF, UNDP, IMO and other prospective partners to consider adopting a common vision for adopting the PEMSEA concept of using ICM to foster cooperation among nations in Asia in

developing sustainable environmental, economic and social benefits from the use of their coastal resource heritage. The SDS-SEA offers a logical progression of the PEMSEA program and opportunities for selective investment by the participating UN agencies that would add value to what has been achieved and maintain continuity in the development of regional capacities to use the ICM process and supporting measures to meet their respective sustainable development objectives across sectors of interest whether on land or in the marine environment. To this end we would like to propose the following recommendations:

B. Specific Recommendations

All PEMSEA partners

- 7.4 Make full use of the momentum that has been achieved through the PEMSEA, seek continuity in funding and other forms of support for PEMSEA beyond 2005 to maximize the potential benefits to the East Asian Region and beyond;
- 7.5 The Evaluation Team suggests that the **PEMSEA Program be transformed into a new regional arrangement** that will capitalize on the PEMSEA intellectual capital to improve the integration of environmental management and economic and social development through a wider integration of the application of available financial, technical and information resources to the further development of local, national and regional ICM initiatives.
- 7.6 Implement the Sustainable Development Strategy for the Seas of East Asia as a collective international effort in the regional implementation of the commitments of Agenda 21, WSSD, MDG, and other international instruments related to the sustainable development of coasts and oceans.

Donor Support: Recommendations to GEF, UNDP, IMO and other donor partners

- 7.7 The GEF, UNDP, IMO, international donors and other donor partners should capitalize on the achievements of PEMSEA in helping each other meet their respective sustainable development objectives by maintaining core roles in the further development and implementation of the PEMSEA programme and SDS-SEA.
- 7.8 Seek a wider partnership for developing the future of the PEMSEA program. It is recommended that a new diversified funding approach be adopted that will:
 - a. Expand beyond dependence on UN based funding which is most likely to become more limited due to a number of circumstances beyond the UN's control;
 - b. Provide secure core funding that will allow PEMSEA to evolve into a more robust regional mechanism to support the further development and expansion of integrated coastal management initiatives at a local, national and regional level;

- c. Increase the number and range of the PEMSEA core staff available to provide technical assistance that is appropriate to the needs of different sites;
 - d. Promote a wider partnership among international donors seeking to strengthen ICM within the East Asian region
- 7.9 Make more full use of technical and funding support available through international financing mechanisms, including: UN organizations, International Banks, Bi-Lateral and Multi-Lateral donor assistance programs, Charitable Foundations, Universities, and Technical and Research based institutes;
- 7.10 Foster cooperation and partnerships with and among nations in Asia in their sustainable development efforts particularly in coastal and ocean governance as this would further support the SDS-SEA and the regional arrangements for its implementation.
- 7.11 Support an international working party made up of representatives from East Asian nations with a remit to examine options for new institutional and funding arrangements for taking PEMSEA forward.

Governments

- 7.12 Give careful consideration to maximizing the potential benefits that could be gained from what has been achieved by the PEMSEA program, how this can be extended and expanded to further support national and international development objectives.
- 7.13 National Governments set up review panels to determine what they need most in order to make ICM as well as ocean management more effective.
- 7.14 Initiate a country-driven donors meeting in 2003 to demonstrate support for the future development of PEMSEA and to communicate priorities for funding and technical assistance.
- 7.15 A major donor's meeting should be planned well in advanced of the end of this phase of the programme. UNDP, IMO and the GEF should be leading players in preparing, supporting and taking the lead in this. It would do well, however, following the policies of the GEF, UNDP and many donors that the whole process be country driven, meaning that the call for such a donor's meeting be made by the countries of the region and the lead institutions managing such a meeting be decided on by the same countries.

PEMSEA management team

- 7.16 The concept of **Adaptive Management** should be applied more widely in the development of individual projects to develop a more robust definition of the problems and issues at project sites, and the development of alternatives for management solutions the concept could be applied more widely in the development of individual projects to development a more robust definition of the

problems and issues at project sites, and the development of alternatives for management solutions.

- 7.16.1 By adopting a broader view of Adaptive Management, it may be possible to promote greater interaction between the PMO in Bali and the Governor's Office and key staff who appear to be resisting major pressure for port development and expansion of the airport because they sense these developments may cause extensive and irreparable damage to the environment and degrade opportunities to expand tourism. However, they lack comprehensive advice to elaborate their concerns and to develop more integrated management strategies. There is a good opportunity for PEMSEA to have a greater positive impact in Bali. However, this would require stronger technical support from the PEMSEA office to strengthen the existing project and build stronger communications with the Governor and his staff and to set out the implications of the cumulative effect of the sectoral plans and investment proposals. This broader application of adaptive management could pay positive dividends in terms of building greater awareness of risks to the environment and sustainable economic development, promoting improved environmental impact assessment of the proposed development projects, and strengthening the role of ICM.
- 7.17 Where developments are occurring fast, the sites have to find ways of speeding up their zoning activities. In the interim, other mechanisms of ensuring the balance between development and environment should be fully utilized. The EIA system is one such mechanism. It would have to be strengthened, however, through policies of non-exemption of projects and the strong participation of the site PMOs and their expert groups in the review of EIA and in the monitoring or audit of mitigative measures as is being negotiated by the Batangas and Port Klang PMOs. The Integrated EIA tool developed by PEMSEA should be further developed using experience so far gained in its implementation (i.e. in Xiamen) and be made part of the training offered by the programme, either in-country or in ITC-CSD in Xiamen.
- 7.18 With two and a half years remaining under the present phase, national buy-in has to be speeded up. While the best way would have been for demonstration as well as parallel sites to show the significant benefits of ICM, SDS-SEA and other PEMSEA initiatives, this would still take time in most of the countries involved. In the more advanced sites, however, could already be seen the benefits that come from implementing ICM. These could be used as examples and arguments for appropriate adoption. In some countries the entry point for speeding up national buy-in is through the countries' on-going development of their national coastal policy (Malaysia, Philippines). In others, it could be through plans for replication (China, Indonesia). It has also been strongly suggested by key stakeholders that the approaches, policies and lessons learned in the implementation of sites and in the programme as a whole be mainstreamed into major strategic development plans. Another form of buy-in is to support the establishment of PPP in environmental investments. The planned Senior Officials Meeting that is preparatory to the Ministerial Meeting, as well as the Ministerial Meeting itself would be critical activities as far as developing national support and commitment to ICM is concerned.

- 7.19 PEMSEA should further develop their system of monitoring and evaluation that takes into account not just the accomplishment of outputs in the programme logframe but also the impacts of various activities as well as their cumulative impact as a whole. Due attention should be given to those aspects, such as social and institutional changes, that are not so easily evident. Process documentation leading to case studies would be one such approach. The Integrated EIA developed by PEMSEA could also be utilized to look at impacts. It is important though that as much as possible, independent expert groups be utilized with PEMSEA staff, to conduct these studies-cum-M & E activities. This will not only enhance the credibility of the results but at the same time be a way of expanding the community of ICM champions. The results of such an M & E system should then help provide strategic guidance to the programme. A similar M & E system should be developed for site level activities.
- 7.20 **ISO 14001 Certification-** One means of extending the value of the PEMSEA program would be to develop an accreditation system and standards for ICM program, projects and capacity building initiatives, Port Safety Audits and other activities similar to the ones used for Quality Assurance and Quality Control (ISO 9000, ISO 14001). The iterative ICM process has now become well established in many parts of the world and would serve as a common basis for establishing an accreditation system. The PEMSEA program is in the process of achieving significant advances in the development of ICM practices based on this process. In fact, many of these advances could set standards for Integrated Coastal Management that could usefully be adopted in other regions to improve both the outputs of other coastal management projects and help ensure the cost-effective use of public and private funds. The GEF and UNDP might well consider this as a task in an advanced phase of the PEMSEA program. The iterative ICM process has now become well established and would serve as the basis for establishing an accreditation system. Specific tasks to elaborate the system could include:
1. Developing a system for comparing experience from different ICM initiatives from around the world and deriving lessons learned for good practice. This has been done as part of Phase I and would need to be updated through linking with the Cross Portfolio Learning Program that is being developed by the University of Rhode Island and the University of Hawaii, the UNDP initiative to examine means of evaluating the “success” of ICM programs and projects, and other international initiatives;
 2. Promoting the adoption of internationally agreed standards of practice for the six main elements of the ICM process, such as building public awareness, capacity building, knowledge management, etc.
 3. Devising an International Code of Practice for the design and implementation of ICM initiatives, including: policy, plans and management arrangements;
 4. Developing the procedures for gaining accreditation for an ICM initiative in based on current ISO 9000 and 14001 procedures and standards of practice.
- 7.21 The integration of river basin management, coastal land use planning and management, and sea use zoning represents a major advance in ICM in Asia. Valuable lessons are being learned from this project on how to promote greater

integration of these concepts and PEMSEA is encouraged to use these lessons to promote wider application of the integration of river basin management and coastal management, including marine systems where feasible.

7.22 In order to develop and sustain the high levels of intellectual capital² generated on the PEMSEA programme, there are six areas that need critical consideration (see Appendix for further elaboration):

- a. Develop a self-sustained funding mechanism to broaden and enhance the knowledge management dimensions of ICM implementation in the East Asia Seas region.
- b. Articulate a clear ontology of ICM knowledge to promote a shared understanding of the complexity of coastal systems among diverse stakeholders.
- c. Review the current public awareness strategy and action plan to increase knowledge sharing of PEMSEA's activities and to achieve greater impact.
- d. Review the current KM tools and systems and explore how technology could be used to enhance and embed tacit knowledge more effectively.
- e. Build on current professional networks to further develop communities of practice to enhance the creative and innovative capabilities at PEMSEA.
- f. Establish a 'Regional ICM Knowledge Centre' focused on implementation issues and responsible for developing an ICM knowledge repository on best practices in the region as well as maintaining a specialised extranet to promote knowledge sharing practices especially the facilitation of communities of practice in the East Asia Seas region.

² Intellectual capital is more than what is in people's heads. It is about the competence of people developed through capacity building exercises and enabling environments at PEMSEA, namely human capital. Competence on its own is not enough and what PEMSEA has developed is a strong web of relationships at different levels in the form of social and stakeholder capital. This is not easily replicated and has taken years to develop through PEMSEA's adaptive management approach. A small fraction of this knowledge has manifested itself in a tangible form such as the IIMS and become part of PEMSEA's organisational capital. All these rich forms of intellectual capital contribute to PEMSEA's uniqueness in the field of ICM implementation.