



Partnerships in Environmental Management
for the Seas of East Asia

Development and Implementation of Public-Private Partnerships In Environmental Investments

Terminal Evaluation Report

March 2011



Dr. Ma. Cecilia G. Soriano

GEF/UNDP/IMO PEMSEA Medium-sized Project

**DEVELOPMENT AND IMPLEMENTATION OF
PUBLIC-PRIVATE PARTNERSHIPS
IN ENVIRONMENTAL INVESTMENTS**

**TERMINAL EVALUATION
REPORT**



DR. MA. CECILIA G. SORIANO

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List of Acronyms

ADB	-	Asian Development Bank
APEC	-	Asia-Pacific Economic Cooperation
APR	-	Annual Performance Report
ASEAN	-	Association of South East Asian Nations
AusAID	-	Australian Agency for International Development
BOO	-	Build-Operate-Own
BOT	-	Build-Operate-Transfer
CDM	-	Clean Development Mechanism
CLUP	-	Comprehensive Land Use Plan
COBSEA	-	Coordinating Body on the Seas of East Asia
CVM	-	Contingent Valuation Method
DBP	-	Development Bank of the Philippines
DENR	-	Department of Environment and Natural Resources, Philippines
DILG	-	Department of the Interior and Local Government, Philippines
DOF	-	Department of Finance, Philippines
EAS	-	East Asian Seas
EAS/RCU	-	East Asian Seas Regional Coordinating Unit
ECC	-	Environmental Compliance Certificate
ESCAP	-	Economic and Social Commission for Asia and the Pacific
EMF	-	Environmental Management Fee
EUF	-	Environmental Users' Fee
FIDIC	-	International Federation of Consulting Engineers
GEF	-	Global Environment Facility
GPA	-	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
GTZ	-	German Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)
IBRD	-	International Bank for Reconstruction and Development
ICLEI	-	International Council for Local Environmental Initiatives
ICM	-	Integrated Coastal Management
IEC	-	Information, education and communication campaign
IGR	-	Intergovernmental Review Meeting
IMO	-	International Maritime Organization
IP	-	Industrial Park
JBIC	-	Japan Bank for International Cooperation
JICA	-	Japan International Cooperation Agency
LCP	-	League of Cities of the Philippines
LGU	-	Local Government Unit
LOI	-	Letter of Intent
MDGs	-	Millennium Development Goals
MOA	-	Memorandum of Agreement
MOU	-	Memorandum of Understanding
MRF	-	Materials Recovery Facility
MSP-PPP	-	Medium-size Project on the Development and Implementation of Public-Private Partnerships

NEDA	-	National Economic and Development Authority, Philippines
NGA	-	National government agency
NGOs	-	Nongovernmental organization
NOWPAP	-	Northwest Pacific Action Plan
ODA	-	Official development assistance
p.a.	-	per annum (per year)
PBAC	-	Public Bidding and Awards Committee
PIF	-	Partnership Investment Fund
PIR	-	Project Implementation Review
PCC	-	Project Coordinating Committee
PDF-B	-	Project Development Fund-Block B
PEMSEA	-	GEF/UNDP/IMO Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia
PhP	-	Philippine Peso
PMO	-	Project Management Office
PMU	-	Project Management Unit
PPP	-	Public-Private Partnerships
PPPUE	-	Public-Private Partnerships for Urban Environment
PRC	-	People's Republic of China
PRF	-	PEMSEA Resource Facility
PSC	-	Programme Steering Committee
QOR	-	Quarterly Operational Report
RFP	-	Request for Proposals
RFQ	-	Request for Qualifications
RNLG	-	Regional Network of Local Governments Implementing ICM
ROW	-	Right-of-way
RPO	-	Regional Programme Office
RPD	-	Regional Programme Director
RTF	-	Regional Task Force
SCOTIA	-	Sustainable Coastal Tourism in Asia
SDS-SEA	-	Sustainable Development Strategy for the Seas of East Asia
STP	-	Sewage treatment plant
SWM	-	Solid waste management
TOR	-	Terms of Reference
TWG	-	Technical Working Group
UN	-	United Nations
UNDP	-	United Nations Development Programme
UNEP	-	United Nations Environment Programme
UNFCCC	-	UN Framework Convention on Climate Change
USA	-	United States of America
USAID	-	United States Agency for International Development
USD	-	United States Dollars
WESTPAC	-	Western Pacific
WSSD	-	World Summit on Sustainable Development
WTP	-	Willingness-to-pay
WWF	-	World Wide Fund for Nature

Executive Summary

The Medium-size Project on the “Development and Implementation of Public-Private Partnerships in Environmental Investments” (MSP-PPP) sought to build confidence and capabilities in public-private sector partnerships as a viable means of financing and sustaining environmental facilities and services for pollution prevention and sustainable use of the marine and coastal resources of the East Asian Seas region. To ensure that both short-term and long-term targets and objectives are met, the MSP-PPP was strategically built within the larger framework for integrated coastal management (ICM).

The MSP-PPP was initiated in 2004 and completed in 2009. The project was funded by the Global Environment Facility (GEF), implemented by the United Nations Development Programme, and executed by the International Maritime Organization (IMO) through the Partnerships in Environmental Management for the Seas of East Asia (PEMSEA). This terminal evaluation was commissioned to assess the overall performance, results, effectiveness, and impact of the project, draw lessons from the experiences in different sites, assess the sustainability of results achieved, and identify ways to further enhance future PPP initiatives.

The evaluation is in accordance with the GEF Guidelines on conducting terminal evaluations. The evaluation entailed a combination of processes including desk review and assessment of technical and monitoring reports and other studies completed under the project, as well as a visit to one of the PPP project sites – Puerto Galera, Mindoro Oriental, Philippines, wherein interviews with the project implementers from both the public and private sectors were undertaken.

The report is divided into four parts. Part 1 focuses on project design and activities. Part 2 looks into the outcomes of the project. Parts 3 and 4 discuss the lessons learned and recommendations.

Findings based on the GEF Evaluation Criteria

1. Relevance

The objective of the MSP-PPP is to develop and implement public-private partnerships (PPP) as an innovative approach and possible option for environmental investments. The project’s concept is built upon the recognition that there is a need for an innovative approach for pollution reduction investments to address the growing concerns on environmental degradation from land and water-based sources of coastal and marine pollution, particularly at the local levels where financial resources for environmental protection and restoration are quite limited. These environmental concerns, threats or risks have been highlighted in a number of initial studies made as part of the PPP process. The MSP-PPP project sites, most of which were implementing integrated coastal management (ICM) programmes under PEMSEA, have identified water pollution, solid waste management and control of industrial and hazardous wastes as key issues within their coastal and environmental strategies (i.e., Danang Coastal Strategy, Bali Coastal Strategy and Initial Risk Assessment, Sihanoukville Coastal Strategy, San Fernando Comprehensive Land Use Plan, Puerto Galera Coastal Resources Management Plan). In line with these strategies, the surveys and consultations conducted in the sites also identified environmental investment projects as high priorities. The corresponding contingent valuation method (CVM) surveys further confirmed stakeholder willingness to support and contribute

to environmental investment initiatives to improve waste management in their areas. These studies provided important preliminary information on key concerns and needs in the different sites and helped identify the environmental investment projects that should be prioritized.

Overall, the MSP-PPP met its objectives and targets. Of the seven sites that initiated the PPP process, two — Puerto Galera (Philippines) and Sihanoukville (Cambodia) — were able to complete the six stages of PPP development including competitive bidding by potential private sector partners. Two others — Bali (Indonesia) and Haikou City (China) — implemented their proposed environmental investment projects with private sector financing obtained through negotiated bidding. In one site — Danang (Vietnam) — state-owned enterprises undertook the solid waste and sewage management projects but there are continuing efforts to have the private sector take over operations. Thus, while some sites did not complete the PPP stages, the introduction or initiation of the PPP process provided the concerned local governments with more financing options and facilitated coordination/linkages between local governments and the private sector.

Apart from gathering information and developing consensus on key environmental concerns, the PPP process considers the various political, social and economic scenarios in participating countries or sites that are critical in determining the appropriate arrangements for project development and implementation. By considering the different planning systems, processes and requirements of each country or site, the PPP process allows some flexibility and dynamism in the identification of approaches, thus making the projects more in line with and relevant to the local government or country setting. However, the PPP process was too narrowly defined to include only projects that are bid out competitively to potential investors. In some of the participating countries, the role of the private sector and need for transparency and competition in the procurement process are not so clearly defined in law, in policy or in practice.

In view of the above, **the MSP-PPP's rating for Relevance is Satisfactory.**

2. Effectiveness

The intended outcome of the MSP-PPP as stated in the Country Programme Results and Resources Framework was increased investment opportunities for environmental improvement and coastal and marine resource development and management. The outcome indicator was US\$ 600 million in environmental infrastructure improvements identified as investment opportunities.

In the five sites where the proposed priority environmental infrastructure projects were actually implemented, MSP-PPP paved the way and served as a catalyst to leverage funding from the private and public sectors and even in tapping Official Development Assistance (ODA). Private sector financing reached US\$ 78.65 million while government contributions amounted to US\$ 99.10 million for total investments of US\$ 177.754 million (Annex D).

As part of its networking to leverage investments in land-based pollution reduction, PEMSEA entered into a strategic partnership arrangement with The World Bank and GEF which aims to coordinate and facilitate the effective implementation of pollution reduction investments in support of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) (i.e., as described in the World Bank/GEF project document entitled, Partnership Investment Fund for Pollution Reduction in the Large Marine Ecosystems of East Asia). Under this project, a total budget of US\$ 80 million was allocated, from which US\$ 20 million was released as a first tranche. The US\$ 20 million leveraged

projects with budgetary allocations from the Governments of China and the Philippines, as well as loans from the World Bank. The budgetary allocations from the public sector amounted to US\$ 379.47 million while the IBRD loans totaled US\$ 441.20 million. The private sector proponent for the Manila Third Sewerage contributed US\$ 3.35 million. Total investments in the four projects implemented under the Partnership Investment Fund amounted to US\$ 844.02 million (Annex E).

In addition to the five projects implemented with assistance from MSP-PPP, thirteen other projects had been identified and presented at Investors' Roundtables organized by MSP-PPP. Total investments were estimated to be at least US\$ 842.198 million, of which US\$ 839.298 million was expected from the private sector and US\$ 2.9 million from government contributions (Annex F).

Taken all together, environmental infrastructure projects implemented and investment opportunities identified under the MSP-PPP total over US\$ 1,863 million, more than three times the indicative amount of US\$ 600 million.

The target of MSP-PPP was three self-sustaining PPP arrangements developed/operating as working models/learning centers for governments of the region. As mentioned above, PPP arrangements were made in two project sites through competitive bidding and lessons have been learned and continue to be learned from their accomplishments as well as measures taken to address remaining challenges.

Based on the above, **the MSP-PPP's rating for Effectiveness is Satisfactory.**

3. Efficiency

The project was initiated in 2004 and was originally planned to be completed by 2006. However, in order to complete the activities at one of the PPP sites and to finalize the terminal evaluation of the project, the project was extended up to December 2009. While project closure was extended, additional funding from GEF was not needed beyond the US\$ 1 million core funding in view of the project's success in raising more than the expected co-financing and in-kind support. The local governments, for instance, covered the costs of their PPP Task Teams and project offices, as well as the expenses incurred during data collection, training, awareness-raising/consensus-building, investors' roundtables and surveys. The private sector contributions, on the other hand, were made through participation in investors' roundtables, development and submission of partnership proposals, feasibility studies and environmental assessments, site visits, consensus-building and facilitation of the project approval process.

As most of the projects were built within the PEMSEA ICM programmes, PEMSEA was able to efficiently integrate the MSP-PPP activities with those of PEMSEA, thereby avoiding duplication of efforts and ensuring the efficient use of available human and financial resources. Activities requiring specific expertise were completed through the hiring of experts under short-term contracts. On hindsight, filling up of at least one of the two full-time positions mentioned in the Project Document could have led to greater continuity and accountability in the delivery of outputs particularly the pre-feasibility studies.

The partnerships established by PEMSEA with other international and national agencies also provided additional support in the identification and assessment of potential environmental infrastructure improvement projects (i.e., partnership with SCOTIA in Puerto Galera, Philippines), capacity development in financing of environmental infrastructure (i.e., partnership with UNEP GPA

on conduct of workshops and publication of information materials), and in identifying, preparing, promoting or facilitating replication of effective pollution reduction facilities, technologies and services (i.e., Strategic Agreement with the World Bank).

In view of the above, **the MSP-PPP's rating for Efficiency is Satisfactory.**

4. Results and Lessons Learned

While a good number of accomplishments have been achieved, it is important to recognize that the project faced many difficulties and challenges along the way including the changing political leaderships in the sites, limited capacity of stakeholders, misinterpretation of proposed initiatives, lack of clearly defined laws and procedures on procurement. By taking these constraints into consideration and continuously learning during the process, the project was able to overcome some obstacles by giving more room for flexibility and by looking more deeply into the processes and requirements in the sites. Some of the key lessons learned include:

- A comprehensive approach is needed for packaging and promoting environmental investment projects, including detailed technical evaluations of alternative sites, all possible technological options and desired project outcomes. A comprehensive and integrated study of site concerns or issues will not only provide better understanding of their needs, but also help to identify a more comprehensive set of solutions and package bankable projects. Potential private sector partners can build on these studies to offer innovative and integrated solutions (e.g., combining waste treatment and energy generation). The integrated approach also entails early involvement of the general public in the consultations, pre-feasibility studies and site selection. This approach will not only provide more options but will also be more cost and operation-efficient for both the local government and private sector.
- Credible and sustainable cost-recovery mechanisms are critical in getting investor confidence. Sources of revenue to cover capital expenditures and operating costs need to be carefully analyzed and assessed so as to avoid shortfalls in revenues and difficulties in attracting investors.
- ODA remains an attractive option for some countries and local governments despite the declining levels of ODA particularly for middle-income countries. The implementation of PPP in some sites has shown its catalytic effect in securing private or even in tapping ODA for environmental infrastructure projects.
- The role of the private sector and need for transparency and competition in the procurement process are not clearly defined in law, in policy or in practice in some countries.
- National government agencies still have a big role in approving and supporting some local government projects, particularly environmental projects. National government agencies also continue to play significant roles in enforcing national environmental laws and standards, as well as in providing technical and financial support to local governments.
- Development, coordination and implementation of PPP projects entails interaction among national, regional and local levels of government, as may be relevant in the respective countries of the region.

- Clearly defined institutional arrangements among local governments and national government agencies lower risks and transaction costs for private sector partners.
- Capacity building for local government officials and local stakeholders promote better understanding and appreciation of and commitment to the proposed environmental projects.
- Political leadership and political will have critical impacts on project development and implementation. The frequent change of leaders in some of the sites proved to be challenging and caused delays in some cases, as re-orientation and re-building of confidence had to be undertaken. Commitment or buy-in from local leaders is critical for the continuity of efforts.
- PPP can be facilitated through the implementation of ICM. Not only can the PPP approach be applied at all levels including the village or community level, the success of projects using the PPP approach rests ultimately on the commitment and support they get from the communities involved.
- Securing the commitment of local governments and communities to undertake environmental infrastructure projects in partnership with the private sector through awareness-raising and capacity-building activities takes time and requires investment of substantial human and financial resources.

The MSP-PPP provided PEMSEA with a better understanding of the strengths and limitations of PPPs. The success stories in some sites show the value of PPP as an alternative delivery mechanism for environmental investments. The PPP process also resulted in some significant developments in various countries. In Vietnam, an Environmental Protection Fund was established to include assistance to local governments in preparing PPP projects. In China, while direct linkage to PPP initiatives cannot be established, the setting up of the local bond market to help local governments raise funds on their own also signifies a good development.

5. Sustainability and Replicability

A key feature of the MSP-PPP is the focus on and engagement with small- and medium-sized municipalities. The approach is to work with local governments and create a climate for private sector partners to come in and provide their expertise and investment in the selected site. While this entails more time and effort, the outcome proves to be more beneficial and sustainable as stronger local commitment and ownership can be established. The commitment from formal and informal leaders should be reinforced by appropriate institutional arrangements to ensure a more orderly transition of power and authority to the succeeding generations of leaders or managers, and the continuity of the initiative.

Knowledge transfer through participation in various knowledge-sharing activities or events as well as the dissemination of information on the various project sites and PPP processes and experience can serve as references and models for other countries/sites (i.e., training materials, case studies, environmental investment guide, and other papers related to environmental investment policies, practices and sources of financing in the region). The web-based PPP portal is a key instrument in disseminating information on PPP to a wider audience. The continuous expansion/scaling up of the PPP initiative in Sihanoukville, Cambodia, for instance, demonstrates the value and benefits of the

community-based solid waste management project to the villages. The wastewater treatment facilities and sanitary landfill in Danang, Vietnam, which are currently managed and operated by a state-owned enterprise, are already being considered for possible takeover by a partnership between the local government and a private company, signifying the growing awareness and openness of the People's Committee in Danang towards PPPs.

A number of risk factors can impact on the sustainability of the project outcomes, including financial, governance or political, and operational risks:

- a. **Financial risks** – A key challenge in the PPP process is to identify, package and promote environmental investment opportunities that are attractive to the private sector. There is a risk that potential private sector investors would not be willing to finance the preparation of feasibility studies and the projects themselves. The MSP-PPP, however, managed to demonstrate that there are private sector companies that are willing to do so if there is strong political and stakeholder commitment to the proposed projects as well as credible cost-recovery mechanisms. As most of the project sites were also implementing ICM programmes under PEMSEA, a number of them had already taken measures or expressed willingness to develop policies and incentive programmes to attract investors. The institutional arrangements in most sites also highlight the active participation of civil society and the private sector in environmental decision-making thereby reducing barriers to private sector involvement.

With PEMSEA now a legal entity, it will be in a better position to mobilize resources other than from GEF to promote PPPs in priority environmental projects within the ICM framework. It can use its experience in packaging implementable PPP projects to partner with other international organizations that have funds for project identification and preparation, for improving PPP and regulatory frameworks, or for providing incentives or enhancements for private sector investments. Some Partner Countries of PEMSEA (e.g., China, Japan, RO Korea, Singapore) may also be tapped to provide grants and concessional loans for projects in other Partner Countries.

In view of the above, **the Financial Sustainability of the MSP-PPP is Likely.**

- b. **Governance or Political risks** – At the governance or political level, the major risk factor is the changing of officials at the local and national levels usually because of elections. Changes in local government leadership can significantly affect the implementation of proposed and even ongoing projects. There can be delays due to the need to brief and get the support of the new leaders and develop a good working relationship with them. There can even be non-implementation or stoppage of projects. Through the experiences of MSP-PPP, many lessons have been learned on how this risk can be best addressed. These include the identification of innovative measures to increase project revenues that can be used to recover the capital investment and operational costs of the facilities. Growing stakeholder support for environmental infrastructure projects and willingness to pay for environmental services had also been observed in most of the MSP-PPP project sites.

The commitment of officials at the national level to pursue environmental investment projects through PPPs will also be critical to how PPPs are viewed as a desirable and viable means of financing and sustaining marine pollution control facilities. These officials are not limited to those in environmental protection, power, transportation or tourism agencies but also those responsible for national planning, budgeting, financing and investment policies. As discussed

in the section on Recommendations, PEMSEA will need to engage in more policy dialogue with the concerned national government policymakers to convince them to invest more financial and human resources into environmental infrastructure and the appropriate financing and regulatory frameworks that will facilitate PPPs.

In view of the above, **the Governance Sustainability of the MSP-PPP is Moderately Likely.**

- c. **Operational risks** – As noted above, PEMSEA has attained a legal personality as an international organization. It is in a better position to promote PPP within the ICM framework, preferably in three phases as described in the section on Recommendations. More of its financial and human resources should be dedicated to the identification, prioritization and packaging of environmental infrastructure projects that match local needs and paying capacities with the technical expertise and cost-recovery requirements of potential private investors. It is deemed preferable to have in-house teams prepare pre-feasibility studies with recourse to external consultants only for specific skills sets or expertise. PEMSEA will also have to work more closely with ODA-providers and other regional organizations and programmes in building up the capacities of local and national governments and domestic private companies to enter into and sustain PPPs for environmental infrastructure projects. PEMSEA can build on its current team of dedicated professionals to carry out its mandates as a new international organization including the promotion of PPPs.

In view of the above, **the Operational Sustainability of the MSP-PPP is Likely.**

Rating Per Project Outcome and Targets

Project Outcome	Indicators	Targets	Output/Outcome	Remarks
Outcome 1: Support for identified priority environmental infrastructure improvement projects from local governments and communities at selected PEMSEA sites in the EAS region secured, thereby ensuring commitment and mitigating risks arising from political uncertainties.	Indicator 1.1: Staff hired and project inception report submitted to UNDP.	Target 1.1.1: Establishment of a project office in the first month of the project.	<ul style="list-style-type: none"> Project office established MOAs/subcontracts negotiated Monitoring reports submitted 	(R) : S (E1) : S (E2) : S Subtotal: S
	Indicator 1.2: Five (5) environmental infrastructure improvement projects identified and established as priority investment projects by participating local governments.	Target 1.2.1: Inventories of environmental infrastructure improvements at five selected locations. Target 1.2.2: Priority ranking for environmental infrastructure improvement projects at each site.	<ul style="list-style-type: none"> 7 local governments identified priority environmental infrastructure investment projects 6 of the seven local governments drew up inventories of proposed environmental infrastructure improvements, and 7th site drew up list of priority projects 2 of the 7 local governments identified two priority projects each 	(R) : S (E1) : S (E2) : S Subtotal: S
	Indicator 1.3: Five (5) pre-feasibility studies and contingent valuation surveys, including analysis of policy, legal/regulatory, technical, social, financial, economic and environmental issues, presented to national and local governments for review and approval.	Target 1.3.1: Five (5) pre-feasibility studies for environmental infrastructure projects completed addressing the legal/regulatory, technical, financial, economic, and social issues of the concerned projects, and the options, benefits and risks associated with public-private partnership arrangements as a means to deliver and sustain the projects.	<ul style="list-style-type: none"> 8 pre-feasibility studies completed in 6 localities WTP surveys using CVM completed in 5 of the 6 localities Research on gaps and constraints Review of legislation, policies and programs (Phils & Vietnam) Municipal Ordinance in Puerto Galera developed and approved Environmental Impact Assessment completed in Puerto Galera and Environmental Compliance Certificate released 	(R) : S (E1) : HS (E2) : S Subtotal: S

Project Outcome	Indicators	Targets	Output/Outcome	Remarks
		Target 1.3.2: Five (5) contingent valuation (willingness-to-pay) surveys completed. Target 1.3.3: Policy/regulatory and administrative review to identify/ address government rules, procedures, incentives and constraints to priority projects, environmental investment process and public-private partnerships.		
	Indicator 1.4: Letters of Intent signed with LGUs and local stakeholders confirming commitments to the development and implementation of the proposed projects.	Target 1.4.1: Five local government ordinances/ resolutions calling for investment in the priority projects and partnership arrangements with the private sector. Target 1.4.2: Agreements signed among local government units, relevant agencies of central government, local communities, NGOs, and/or local private sector in support of the investment projects.	<ul style="list-style-type: none"> Ordinances/ resolutions: Bataan, San Fernando, Danang, Sihanoukville, Puerto Galera LOIs: Bataan; San Fernando; Haikou Joint Declaration: Sihanoukville 	(R) : S (E1) : S (E2) : MS Subtotal: S
Outcome 2: Investment potential in environmental improvement reinforced with the creation of a global network of private sector investors and companies engaged in PPP development in the region thereby enhancing coastal and marine resource development and management	Indicator 2.1: Investors Network established and providing private sector, financial institution, and investor group inputs to development, promotion, and implementation of investment projects.	Target 2.1.1: A virtual center for environmental investments set up on the Internet, providing information on investment opportunities in pollution prevention and reduction projects. Target 2.1.2: National/regional networks of operating companies and investment groups operationalized and participating in Investors Roundtables at sites	<ul style="list-style-type: none"> Link in PEMSEA website developed as information center for PPP Concept paper and TOR on formulation of a regional network of investors and operating companies completed Call for investors networking announced 	(R) : S (E1) : S (E2) : S Subtotal: S
	Indicator 2.2: Partnership proposals submitted by private sector and investors for environmental infrastructure projects at each site.	Target 2.2.1: Five Investors Roundtables conducted with the participation of private sector operating companies and investment groups. Target 2.2.2: Partnership proposals submitted by members of the Investors Network to local government units promoting PPP projects. Target 2.2.3: Private sector partners and/or investors selected by three local governments.	<ul style="list-style-type: none"> Investment Opportunity Briefs presented in roundtables Investor roundtable conducted: Xiamen; Danang Pre-bid conference held in Puerto Galera Partnership proposals submitted: Bataan (5); San Fernando (4); Puerto Galera (5). Private sector partners selected: San Fernando (Pro-Environment Consortium); Sihanoukville (Cintr Waste Management Co.); Puerto Galera (Puerto Galera Water Consortium) Other projects initiated with PPP process proceeded with different processes (Danang; Sarbagita; Haikou) 	(R) : S (E1) : S (E2) : S Subtotal: S

Project Outcome	Indicators	Targets	Output/Outcome	Remarks
Outcome 3: Established Public Private Partnerships effective in developing, financing, implementing and managing environmental facilities/services.	Indicator 3.1: At least three mixed ownership operating companies or joint venture arrangements established to plan, develop, finance, construct and manage environmental facilities.	Target 3.1.1: MOAs negotiated and signed between local governments and their respective private sector partners. Target 3.1.2: Comprehensive feasibility studies/business plans developed/finalized for three investment projects. Target 3.1.3: Partnership arrangement negotiated/company incorporated. Target 3.1.4: Monitoring and evaluation of the partnership arrangement reported.	<ul style="list-style-type: none"> • Agreements signed: San Fernando (MOA with Pro-Environment Consortium); Sihanoukville (PPP Agreement with Cintri Waste Co.); Puerto Galera (contract with Puerto Galera Consortium). • Business plan/feasibility study prepared: Validation and feasibility study in San Fernando; Business plan for Sabang Sewerage in Collection and Treatment Plant Project in Puerto Galera. • Case studies developed as part of monitoring and evaluation: Case study on Sihanoukville and Puerto Galera. Sihanoukville SWM Project scaled up and expanded 	(R) : S (E1) : MS (E2) : MS Subtotal: MS
	Indicator 4.1: Integrated Coastal Management (ICM) certification programmes initiated by national and local governments to leverage private sector investment in environmental infrastructure projects.	Target 4.1.1: Case studies, guide and policy briefs on facilitation of PPP prepared and disseminated to local governments. Target 4.1.2: International certification among RNLG members initiated, providing recognition of local government commitment to environmental protection and management	<ul style="list-style-type: none"> • Seven (7) case studies prepared • PEMSEA's Guide to Environmental Investments prepared • Training Manual on PPP (nine modules) prepared based on the Guide to Environmental Investments. • Policy brief based on the outcome of the preparatory workshop for the 2nd Intergovernmental Review Meeting (IGR-2) of the GPA prepared by PEMSEA, COBSEA and UNEP EAS/RCU • ICM Code of Good Practice for Local Governments, and Mechanics for awarding Certificates of Recognition for ICM Good Practices to local governments drafted 	(R) : HS (E1) : S (E2) : S Subtotal: S
	Indicator 4.2: Pipeline projects for environmental infrastructure improvements developed for each ICM and hotspot site, and submitted to PPP Investors Network for follow-on PPP activities	Target 4.2.1: Private sector associations, operating companies and investment groups partner with PEMSEA to develop pipeline projects and build capacity among local governments Target 4.2.2: PPP approach identified as an alternative financing mechanism, nationally and regionally. Target 4.2.3: PPP pipeline projects identified in each participating country.	<ul style="list-style-type: none"> • MOU with League of Cities of the Philippines on capacity building • MOU with Louis Berger Group, Inc. on identification and assessment of potential projects; • Training Workshop and LGU Sharing Forum on Financing Sustainable Environmental Projects held • Training Workshop on Financing Sustainable Environmental Projects through PPP held • National Workshop for Local Governments Implementing ICM in China held • Workshop on Local Government Financing for Water, Sewage and Sanitation held 	(R) : S (E1) : S (E2) : S Subtotal: S

Project Outcome	Indicators	Targets	Output/Outcome	Remarks
			<ul style="list-style-type: none"> • PEMSEA received special recognition for promoting coastal tourism through PPP • MSP-PPP presented in ICM Bali Workshop; brochures on PPP developed and distributed • Projects identified/proposals developed in Bali, Indonesia; Cavite, Nueva Ecija, Bataan, and San Fernando, National Capital Region, and Region V, Philippines; Klang, Shah Alam and Kuala Langat, Malaysia; Changxing Island, Zhanhua County, Hebei Province, and Tianjin Binhai New Area, Maluan Bay and Haikou City in China 	
	Indicator 4.3: National policy and financing reforms developed and adopted, facilitating private sector participation in environmental infrastructure projects.	Target 4.3.1: National strategies/action plans for institutionalization of PPP as an alternative delivery mechanism.	<ul style="list-style-type: none"> • A paper on "Financing Environmental Infrastructure Investments in PR China" prepared and presented at the National Workshop for Local Governments Implementing ICM in China • Paper on "Towards a Work Programme in Finance and Investment for Environmental Infrastructure in the EAS Region" developed 	(R) : S (E1) : MS (E2) : MS Subtotal: MS

Legend:

Relevance (R) pertains to the extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time.

Effectiveness (E1) pertains to the extent to which an objective has been achieved or how likely it is to be achieved.

Efficiency (E2) pertains to the extent to which results have been delivered with the least costly resources possible; how well the project activities transferred the available resources into the intended results in terms of quantity, quality, and timeliness through sustainable and participatory processes.

Highly Satisfactory (HS)

Satisfactory (S)

Moderately Satisfactory (MS)

Summary of Ratings Per Project Outcome

Project Outcome	Total Production			Overall Rating
	Relevance (R)	Effectiveness (E1)	Efficiency (E2)	
Outcome 1	S	S	S	S
Outcome 2	S	S	S	S
Outcome 3	S	MS	MS	MS
Outcome 4	S	S	S	S
Total	S	S	S	S

Summary of Ratings for the Project

Project Aspect	Rating
Relevance	S
Effectiveness	S
Efficiency	S
Sustainability and Replicability	
• Financial	Likely (L)
• Governance	Moderately Likely (ML)
• Operational	Likely (L)

Key Recommendations

The lessons learned and successful results and outcomes of MSP-PPP can provide guidance for future initiatives. In line with the lessons learned, the following are some recommendations for consideration.

Engaging the local governments, local stakeholders and private sector in a partnership requires time and preparation. It is therefore important that thorough and proper preparation and packaging of proposed environmental infrastructure projects are made. Pre-feasibility studies, in particular, are critical as they provide local governments the basis for decision-making. It is important that studies including willingness-to-pay surveys are as comprehensive, realistic and consultative as possible to secure the commitment not only of the concerned local governments but also the targeted and affected local communities. Environmental protection is not achieved through the mere construction of environmental infrastructure. The communities themselves have to do their part in making sure that the waste they generate, be it solid or liquid, get into the waste management system being set up. This usually involves modification of their behavior and payment of hopefully reasonable fees. The pre-feasibility studies should be able to identify sustainable and credible cost-recovery mechanisms that are acceptable to both prospective users and investors. The various risks facing the proposed projects should also be clearly identified and possible arrangements for sharing these risks proposed. Given the long gestation and economic life of environmental infrastructure, changes in political leadership are one of the most common sources of risk. Sustainability and succession plans should be prepared even in the early stages of project implementation so that there will be orderly transition of power and responsibility to future generations of leaders and managers.

For them to be accepted and appreciated by local stakeholders, private sector partners or investors should show their sincere commitment to helping protect the environment as well as building up local capacity. They should promote technologies that are affordable and adapted to the local situation, and be willing to provide training to local officials, professionals and communities to ensure proper maintenance and operation of the environmental infrastructure to be constructed.

While projects are mostly local-based, it is still important to highlight the roles of national governments in enforcing environmental laws, promoting policies that encourage private sector participation in the provision of public infrastructure, and providing the needed technical and financial assistance to local governments. Because of the externalities involved, a local government will

undertake an environmental infrastructure project only if it can get the support of other concerned local governments and the national government itself. National oversight agencies should also ensure that government agencies, corporations and financial institutions do not crowd out the private sector, either as project proponents or financiers, from undertakings that they feel comfortable enough with. Particular care should be taken that ODA is not used for that purpose.

Development partners providing ODA should work with the concerned national government agencies or local governments to find ways of using their long-term funds and concessional rates as well as international expertise to reduce the risks inherent in PPPs. ODA can be used to provide credit enhancements for co-financing facilities and other innovative financing mechanisms. ODA can also play a key role in helping to strengthen regulatory frameworks and capacities so that the tariff-setting process becomes more transparent and predictable for investors.

PEMSEA, with its new international legal personality as the regional mechanism for the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) and foremost entity in East Asia promoting and implementing ICM, can act as service provider for or facilitator of environmental investment projects as well as promote a more integrated approach to PPP by building it within the larger framework of ICM and sustainable environmental financing. PEMSEA's proven track record in building community consensus and promoting actions through multistakeholder participation can help to get local communities and governments to work together in addressing their environmental concerns. As most local governments lack technical and financial capacities/expertise in implementing environmental infrastructure projects, PEMSEA can provide assistance in identifying, prioritizing and packaging environmental investment projects that focus on improving governance, capacity development and environment infrastructure.

PEMSEA can work with national governments and engage them in policy dialogues to encourage investments in environmental infrastructure and setting up of financing policies, facilities and regulatory frameworks including those that will promote PPPs. To increase the capacity and financing options for local governments, PEMSEA can also facilitate linkages between local governments and ODA-providers, as well as sustain and further strengthen the cooperation among PEMSEA's Country and Non-Country Partners and other collaborators. The ongoing PPP project in Puerto Galera, Mindoro Oriental, Philippines, for instance would still need further technical assistance from PEMSEA, particularly in resolving issues affecting the issuance of the Notice to Proceed, continuity of Information, Education and Communication (IEC) projects, and setting up of the contract management office and monitoring and evaluation system for the project, as well as in facilitating tapping of additional financial resources for the project.

For future UNDP projects focused on environmental investments, it is recommended that outcome indicators measure not only the quantity of outputs but also their quality. It is crucial to successful project implementation that adequate resources are made available at the onset to achieve the project's intended objectives within a realistic timeframe. In projects of this nature, it is also important to consider electoral and budgetary cycles in formulating project development schedules and timeframes.

Evaluation Methodology

An independent consultant and expert on water resources management, environmental policy, financing mechanisms, and policies and regulations impacting on investments undertook this Evaluation. The Evaluation consisted of the following steps: briefing and planning, data collection, review and validation of information or data, site visit and interview, analysis, report writing and consultation.

Briefing and Planning Phase:

The project management team of PEMSEA provided the evaluator with an overview of the key aspects of the project. Copies of all the documents or reports related to the project were compiled to enable the evaluator to undertake documentation review, identify key issues and gaps, review the Terms of Reference (TOR) and propose changes in the workplan and schedule.

Data Collection Phase:

The data collection phase included two main parts: (i) an in-depth review of all project document outputs; and (ii) a site visit to Puerto Galera, Philippines, as one of the key project sites, to look into the progress made or activities on-the-ground, as well as to discuss the project with key stakeholders from the local government as well as the private sector.

The in-depth review of documents covered a large number of materials including pre-feasibility studies, contingent valuation surveys, investment opportunity briefs, local government resolutions, policy and regulatory reviews workshop presentations and proceedings, training manuals and CDs, and case studies. The complete list of documents reviewed is found in Annex I.

The site visit to Puerto Galera, Mindoro Oriental, Philippines, provided the evaluator with the opportunity to view the ongoing construction of the jetty pier and terminal as part of the project and validate information with the key stakeholders. During the site visit, the evaluator was able to interview the Barangay Chairman of Sabang (project site), the officers or representatives from the Municipal Government, including the Mayor of Puerto Galera, and the private sector partner. The list of persons met and interviewed during the site visit is found in Annex G.

Analysis, Report Writing and Consultation Phase:

In analyzing the project, the evaluator mainly focused on the logical framework and its indicators, target deliverables or outcomes and outputs of the project. The Project Document was cross-checked with the monitoring reports including the Annual Performance Report (APR)/Project Implementation Review (PIR) and quarterly monitoring reports submitted for the duration of the project.

Apart from the key indicators, the evaluator also took into consideration other accomplishments of the project, and other relevant issues that were not necessarily captured in the monitoring reports.

In the course of writing the report, the evaluator also conducted several consultations with the PEMSEA Project Management Team, as well as with the staff that were previously involved in the project to validate information and gather additional information or experiences that were not fully reflected in the monitoring reports.

In line with the GEF guidelines, the evaluator looked into the relevance, effectiveness, efficiency, sustainability and replicability of the project and its outcomes including the risks that can affect the sustainability of project outcomes, and key results or lessons learned from project implementation. The evaluator also provided key recommendations for consideration of the project management team, stakeholders involved in the project, and related implementing agencies.

Evaluation Methodology

1 Project Design and Activities

The Medium-size Project on the “Development and Implementation of Public-Private Partnerships in Environmental Investments” (MSP-PPP) was approved on 8 June 2004 with a US\$1 million grant from the Global Environment Facility (GEF) and the support of the Governments of Cambodia, People’s Republic of China, Indonesia, Malaysia, the Philippines, the Republic of Korea, Thailand and Vietnam. The Project was implemented by the United Nations Development Programme (UNDP) and executed by the International Maritime Organization (IMO).

Project Rationale

The urgent requirements in the East Asian Seas region for environmental facilities, services and programs to improve the management of hazardous and non-hazardous waste, control land and water-based sources of marine pollution, and sustainably manage marine and coastal resources are well recognized. With the continuing decline in the volume of official development assistance and the oftentimes limited ability or willingness of countries to allocate sufficient portions of their budget for environmental protection and restoration, mobilizing new and additional financial resources to meet these requirements is an indispensable component of any serious effort to preserve the region as the world center for marine biodiversity. Private sector participation can help to meet the growing demands on both central and local governments, particularly with regard to new investment capital, management expertise, technologies and operational know-how. These potential contributions of the private sector to environmental sustainability can be tapped through the promotion of public-private partnerships (PPP).

Environmental Concerns

If current trends in the environmental degradation of the seven East Asian Seas are not reversed, the economic development and human security of the nations in the region could be seriously derailed in the coming years.

- Food and water security will be undermined as populations of fish and other edible marine products crash and pollution affects freshwater sources.
- Economic dislocation will result for those whose jobs are related to the coastal and marine environment when the environment is no longer able to generate sustainable livelihoods.
- Public health will be compromised by toxins and hazardous compounds in edible marine products and by increased dangerous waste levels in coastal waters used by the public.
- Aesthetic and recreational values will be lost.
- Infrastructure will deteriorate as pressures of urbanization undermine ability to provide adequate infrastructure levels for growing populations especially the poor.
- Pressure on the state will increase to cope with and compensate for the loss of values of the marine environment, e.g., health and social services, food adequacy and public works.
- Economic development will not be able to compensate for the irreversible ecological damage and will eventually be adversely affected by it.
- Conflicts on the use and quality of the resources will intensify and can lead to social and political strife within and among states in the region.

Financing Concerns

While the financial resources that governments at the global, regional, national and local levels can and do allocate for environmental protection and restoration are limited by revenue constraints, many competing needs and lack of appreciation for the medium to long term benefits of investments in environmental infrastructure and programs, the private sector has both financial resources and technical expertise that can be tapped for these investments. They need to be encouraged to do so through the appropriate laws, policy and regulatory frameworks, and project packaging.

- The levels of official development assistance from both multilateral and bilateral sources have been declining in recent years. With the global financial crisis that started in late 2008 and the economic stimulus packages that the affected developed countries have had to fund with their budgets and borrowings, ODA levels can be expected to further decrease.
- There are many competing needs for the available levels of ODA, among countries and across sectors. The environment is just one of those sectors, albeit an important one, with effects on the other sectors. The middle-income countries are losing their share of ODA as the needs and absorptive capacity of the lower-income countries increase. If the middle-income countries can show that they are able to leverage limited amounts of ODA with additional financing from central and local governments and the private sector, they can improve their chances of getting their fair share of ODA.
- While some central and local governments have healthy enough fiscal positions, many of their finance and budget officials do not yet see the importance of investing more financial and human resources in protecting the environment and preventing its degradation. They do not yet fully comprehend the linkages between ecological balance, economic development and fiscal strength.
- Public-private partnerships have been used to build infrastructure in developing countries in recent years but these have been mostly in the power and water supply sectors. Only a few projects have been implemented successfully in solid waste management and wastewater treatment, partly because governments have not undertaken too many of these types of projects where the returns are less visible until the garbage piles up in city streets or there is an outbreak of water-borne diseases.
- Even among non-environmental infrastructure projects, many PPP projects do not materialize or end up in the courts. Changes in the political leadership, lack of political will or public support, inadequate arrangements for the sharing of project costs, risks and revenues, and use of inappropriate technologies or sites are some of the factors that lead to project delays or non-implementation.

Project Strategy

The Project sought to address the delivery of targeted outputs which have been confirmed in the World Summit on Sustainable Development (WSSD) Plan of Implementation, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), and the UN Millennium Development Goals (MDGs) by:

- Creating a policy and investment climate at the local government level that is conducive to investment by the private sector;
- Packaging and promoting capital investment projects that prevent and mitigate transboundary pollution problems, including sewage discharges into the marine and coastal areas of the region; and
- Developing and establishing multi-sectoral partnerships between local governments, civil society and the private sector for planning, financing, constructing, operating and managing the required facilities and services on a long-term and self-sustaining basis.

Overall Goal

The Project's goal is to build confidence and capabilities in public-private sector partnerships as a viable means of financing and sustaining environmental facilities and services for pollution prevention and sustainable use of the marine and coastal resources of the East Asian Seas region. To achieve sustainability, the Project focuses on three main concerns:

- Strengthening the capacities of local stakeholders (i.e., governments, civil society and the local private sector) to identify, build consensus on, and develop investment opportunities that will be attractive to the private sector, and to create a policy and investment climate that is conducive to such investments;
- Establishing networks of investors, operating companies and business organizations at the national and international levels that are interested in developments in the environmental sector, and are willing to participate in the PPP process; and
- Confirming the PPP methodology as an acceptable alternative delivery mechanism for private sector participation in environmental infrastructure improvement projects, thereby assuring access to financing from investors, international and national financial institutions, and international agencies.

Partnerships among governments, international financial institutions and multi-sectoral stakeholders are seen as central to the goal of achieving the elusive balance between social development, economic growth and environmental sustainability.

Development Objectives

The Project's key objectives are the following:

- Verify a PPP working model and related guidelines, resulting in formation of public-private partnerships at local government level;
- Build capacity within and among public and private sectors to effectively develop, finance, implement and sustain new investments in environmental facilities and services utilizing the PPP approach in the region; and
- Adoption of the PPP process within the larger Integrated Coastal Management (ICM) Framework of the PEMSEA programme to ensure that both short-term and long-term objectives and targets are built in and sustained within PEMSEA programme implementation.

ICM — which involves strengthening of governance arrangements, awareness building and stakeholder participation — helps create conditions conducive to PPP.

Intended Outcome and Indicator

The Project's Intended Outcome as stated in the Country Results Framework is increased investment opportunities for environmental improvement and coastal and marine resource development and management.

The Outcome Indicator as stated in the Country Programme Results and Resources Framework is more than US\$600 million in environmental infrastructure improvements identified as investment opportunities.

The Baseline is limited knowledge/capacity among national and local governments of the region to develop/promote environmental infrastructure projects to leverage private sector investment. The Target is three self-sustaining public-private partnership arrangements developed/operating as working models/learning centers for governments of the region.

Project Duration

The Project Document was signed on 8 June 2004. The original planned closing date was June 2006. The revised closing date was December 2009 to allow the completion of activities at one of the PPP sites and to finalize the terminal evaluation of the project.

Project Cost and Contributions

Total estimated project cost was US\$1,808,500 of which US\$1,000,000 or 55 percent was contributed by GEF. Co-financing was provided in-kind by local governments (estimated at US\$143,500 or 8 percent) and the private sector (estimated at US\$665,000 or 37 percent). There was no direct accounting of their in-kind contributions.

Local governments covered the costs of their PPP Task Teams and project offices; hosted training workshops, community awareness and consensus building events and investors roundtables; collected data; and provided staff and transportation for the conduct of willingness-to-pay surveys.

Private sector contributions were made through participation in investors' roundtables and related events, submission of partnership proposals, preparation of feasibility studies and environmental assessments, site visits, awareness and consensus building, and facilitation of the project approval process.

Project Components

To achieve the goals of the Project, it had the following four major components:

1. Project Management

To establish governance mechanisms at the regional, national and local levels.

2. PPP Development and Demonstration

To develop and demonstrate the PPP process under different political, social and economic scenarios.

3. PPP Networking

To establish both formal and informal collaborations/partnerships with local, national, and international groups/agencies and investment groups/business sectors to support the development, promotion and implementation of environmental investment projects.

4. Capacity Development

To build the capacity of public and private sectors (through workshops, public consultations, roundtable discussions, information materials, etc.) to develop confidence in the PPP process as a viable alternative for investments in environmental facilities and services.

Component 1: Project Management

Regional Level

Overall management and co-ordination of the Project was undertaken by the Regional Programme Office (RPO), which had been set up in Manila, Philippines, to manage the implementation of the GEF/UNDP/IMO Regional Programme on the Prevention and Management of Marine Pollution in the East Asian Seas from 1994 to 1999 and the GEF/UNDP/IMO Regional Programme on Building Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) from 1999 to 2008. The objectives of PEMSEA were the following: (1) to build and strengthen coastal and ocean governance in the seas of East Asia through intergovernmental, interagency and multistakeholder partnerships; (2) facilitate implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA); and (3) support national and local governments to plan and manage coastal areas through ICM.

The Regional Programme Director (RPD) of PEMSEA oversaw project implementation and promoted the outputs from the MSP-PPP initiative to national governments and to regional and international organizations. The Senior Programme Officer of PEMSEA was responsible for integrating the ongoing activities of PEMSEA with those of the MSP-PPP to avoid duplication of effort and ensure efficient use of available human and financial resources at the local, national and regional levels.

Instead of hiring an Environmental Investment Technical Officer and an Environmental Investment Specialist on a full-time basis, as mentioned in the Project Document, the Senior Technical Officer and Economist of the RPO carried out their duties and responsibilities, respectively, in addition to their regular ICM work program. The other professionals and technical assistants in the RPO (Legal Officer for Law, Policy and Institutional Development, Technical Officers responsible for ICM sites, Training Officers, Administration and Accounting) also supported the MSP-PPP in their respective areas of expertise.

Short-term contracts were given to business/financial expert groups to undertake preliminary assessments in Cambodia, Philippines, Indonesia and Vietnam. A financial expert was also contracted to develop criteria and undertake financial analysis of environmental infrastructure investment projects in the region, focusing on sustainability and affordability at the local government level.

A database of approximately 200 experts and operating companies was established for possible employment in the conduct of pre-feasibility studies and willingness-to-pay surveys and the preparation of investment opportunity briefs.

The RPO was to be complemented by the IMO and the UNDP through its representative offices in Manila and throughout the region. In addition, collaboration with international organizations and private sector associations, such as UNDP's PPPUE, ICLEI and FIDIC, were to be pursued to ensure a wide range of professional capabilities and functions in order to execute the project efficiently and effectively.

Project implementation was overseen by the PEMSEA Regional Programme Steering Committee (PSC) which met once a year and had representatives from the GEF, UNDP, UNEP, GPA and The World Bank as well as national agencies of the 11 member countries. The PSC was later replaced by the East Asian Seas Partnership Council which met for the first time in December 2006.

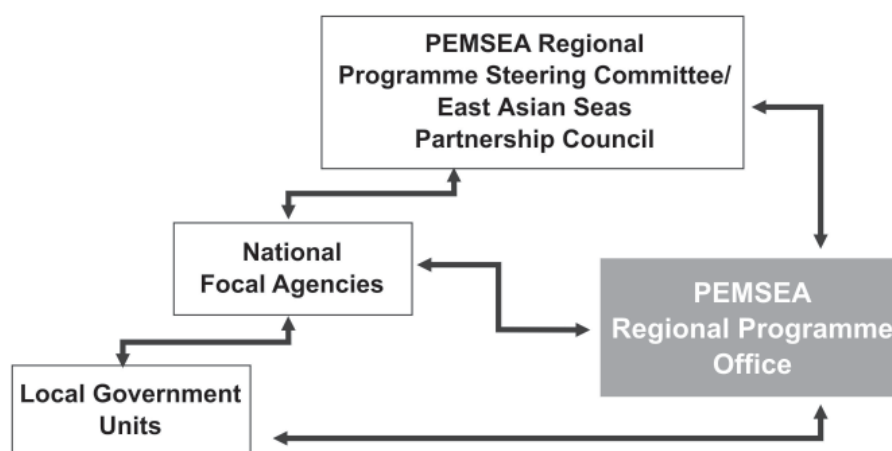
National Level

Among the National Focal Agencies of the 11 member countries of PEMSEA, five had projects under the MSP-PPP. These were the Ministry of Environment of Cambodia, State Oceanic Administration of China, Ministry of Environment of Indonesia, Department of Environment and Natural Resources of the Philippines, and Ministry of Natural Resources and Environment of Vietnam.

Local Level

At each MSP-PPP project site, the ICM Project Coordinating Committee (PCC) handled project management and implementation. These were composed of the concerned local government and non-government organizations whose roles were clearly identified and responsibilities delineated. There was also a Project Management Office (PMO) with one part-time coordinator and two part-time support staff to develop and implement the PPP project with local stakeholders. The RPO was responsible for training the local staff. One national training workshop and three local consultative workshops were held at each pilot site, to build support and understanding for the PPP projects. There were also PPP Task Teams composed of experts contracted to provide technical support at each selected location.

Figure 1. Project Management Set-up.



Component 2: PPP Development and Demonstration

PPP project sites were differentiated by the level of local government involved and by the type of planning system followed in the participating countries, as shown in the table below.

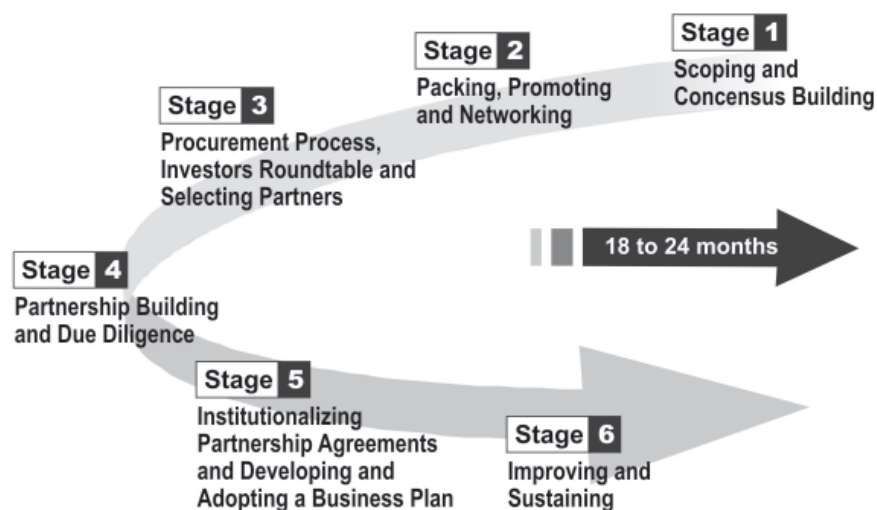
Figure 2. PPP Project Sites.

	Centralized Planning	Decentralized Planning
Village-level	Sihanoukville, Cambodia	
Municipal/City level	Danang City, Vietnam Haikou City, China	Municipality of Puerto Galera, Philippines San Fernando City, Philippines
Provincial level		Bali, Indonesia Bataan, Philippines

Three of the PPP project sites were in ICM demonstration areas of PEMSEA. These were Sihanoukville in Cambodia, Danang City in Vietnam and Bali in Indonesia. Two were ICM Parallel Replication sites. These were the Province of Bataan in the Philippines and Haikou City in the People's Republic of China.

The development of PPP projects undergoes six stages, as shown in the diagram below and explained fully in PEMSEA's Guide to Environmental Investments.

Figure 3. Stages of PPP Development



In the initial stage of Scoping and Consensus Building, awareness of local stakeholders of environmental threats and risks to the local ecosystem, health and economy is created or strengthened and consultative workshops are conducted to identify and prioritize environmental investment projects. A willingness-to-pay survey and pre-feasibility study are conducted for the selected project. A letter of intent is signed by officials of the concerned local governments, national government agencies (NGAs) and nongovernmental organizations (NGOs) when consensus has been reached to move forward with the proposed project using the PPP process.

In the second stage, the appropriate partnership arrangements are identified based on the revenue-generating capacity of the proposed project and the ability of the concerned local government/s to access financing. The possible financing sources and cost-recovery mechanisms are identified. If results are positive, an investment opportunity brief is prepared and circulated to potential investors.

In Stage 3, Investors Roundtables are held and Expressions of Interest solicited from potential investors. Pre-qualified investors are then invited to submit partnership proposals.

In Stage 4, a private sector partner is chosen by the local government through a transparent, competitive process and a Memorandum of Agreement signed between the public and private sector partners. A feasibility study and Environmental Impact Assessment are then conducted by the private sector partner.

In Stage 5, a contract is signed between the private and public sector partners after which the private sector partner prepares a business plan. Legal and regulatory requirements are met including the passing of local ordinances.

In Stage 6, measures to improve and sustain the benefits of the project are undertaken. These include continuing the public awareness activities, setting up a contract management team within the local government and implementing a monitoring and evaluation system.

Integrated Solid Waste Management for the Province of Bataan, Philippines

As part of its ICM program and in line with the Philippines' Ecological Solid Waste Management Act of 2000, the Province of Bataan, its 11 municipalities and one city and concerned NGAs and NGOs had identified proper solid waste management (SWM) as a priority area of concern and near-term investment to avoid the further pollution of their waterways. With the support of PEMSEA, a pre-feasibility study was conducted in 2002 to evaluate two options for providing materials recovery facilities (MRFs) and landfill/s for three clusters of municipalities. Option 1 was to have one MRF per cluster and a large-scale centralized sanitary landfill. Option 2 was to have one MRF and a small landfill for each cluster. The study showed that while both options were both economically and financially viable, Option 1 was more attractive.

A willingness-to-pay (WTP) survey using the contingent valuation method (CVM) was conducted in July – August 2002. It showed that Bataan residents were willing to pay US\$ 0.71 per household per month for improved SWM in the province.

In May 2003, a letter of intent was signed by Bataan Governor Leonardo Roman, the Vice-Governor, heads of the Bataan League of Municipalities, Municipal Councilors' League and Association of Barangay Captains, Bataan ICM-PCC, Bataan Coastal Care Foundation and Region III Executive Directors of the Department of Environment and Natural Resources (DENR) and National Economic and Development Authority (NEDA).

An investment opportunity brief was prepared and presented at an Investors Roundtable hosted by the Development Bank of the Philippines (DBP) on 6 May 2003. Five partnership proposals were received in October 2003.

In February 2004, just about three months before the local elections scheduled for May 2004, the provincial council approved the proposed Integrated SWM Project for the Province of Bataan and authorized the Governor and Vice Governor to enter into agreements for the financing and implementation of the Project under a PPP arrangement. However, they were not able to do so before the elections.

In September 2004, three of the five original potential investors submitted updated proposals. However, the new governor raised concerns about the location of the proposed sanitary landfill and a private sector partner was never selected.

Integrated SWM Project for San Fernando City, Philippines

San Fernando City in the Province of Pampanga was not an ICM demonstration or replication site. However, as part of the Manila Bay Environmental Management Program, it was recommended that the PPP process be developed and demonstrated for the purpose of showcasing an innovative approach to pollution reduction investment within a regional "pollution hotspot." A number of pollution reduction/waste management opportunities were submitted by local government units from around

the Bay, along with commitments by local governments to fully participate in the PPP process. After presentations from each local government unit, a technical working group selected the proposal from San Fernando, Pampanga, as the most likely candidate project to successfully demonstrate the PPP process in the Manila Bay area.

San Fernando's environmental problems were identified during the preparation of its Comprehensive Land Use Plan (CLUP). The improper disposal of garbage through burning, burying in empty lots, dumping into streets or open pits or throwing into waterways was cited as one of the biggest problems. These practices worsened the city's other problems of flooding and air and water pollution. The lack of access to safe water and sanitation facilities by around 12 percent of households compounded the other problems. The leading causes of morbidity in the city were upper respiratory infections, diarrhea and skin disorders which are strongly correlated to air and water pollution.

Some of the objectives mentioned in the CLUP were the following: (1) to implement a city-wide waste segregation and recycling system to effectively manage garbage; (2) to construct essential facilities required for cities; and (3) to rehabilitate the San Fernando River which was given an unsatisfactory rating in the Water Quality Scorecard for Surface Water presented in the 2003 Philippine Environment Monitor prepared by The World Bank.

To assess community support for the proposed environmental investment activities, a CVM survey was conducted in San Fernando City in July-August 2002. It was estimated that households were willing to pay an average of US\$ 0.91 per month for improved collection, processing and disposal of solid waste. At that time, only 25 percent of the respondents were paying fees for garbage collection which averaged US\$ 0.82 per month per household. Although the city had existing ordinances concerning garbage fees, close to 17 percent did not wish to pay any fees, believing that it was government's responsibility to take care of the garbage.

A pre-feasibility study was completed on 16 September 2002. The pre-feasibility study recommended the construction of a sanitary landfill and recycling facility to manage and dispose of the solid wastes. However, due to the short duration of the pre-feasibility study (i.e., one month) several key issues concerning the project were left unresolved, including the problem of a high groundwater table in the San Fernando area. Follow-up discussions with the DENR indicated a reluctance to issue an Environmental Compliance Certificate (ECC) for the proposed landfill site. Other issues concerned the acceptability of the proposed tipping fees identified in the pre-feasibility study, relative to the results of the WTP survey, which was being conducted in parallel to the study.

The opportunity brief prepared by PEMSEA in May 2003 took these various constraints into consideration. To provide the local government with an estimate of a ceiling cost for the capital and O&M of an integrated waste management system, PEMSEA specified an integrated waste management system to consist of a materials recovery facility (MRF) within San Fernando, and transportation of the residual waste (estimated to be 75 percent of the total volume generated) to an existing sanitary landfill in the Clark Special Economic Zone, some 30 km from San Fernando. The estimated user fee per household for the proposed system was USD 0.78 per month, or about PhP44/household/month. The opportunity brief was agreed to by the local government and was presented at the Investors Roundtable held on 6 May 2003.

On 30 May 2003, six investors submitted Expressions of Interest. All of them were asked to submit partnership proposals. Four did, of whom three were asked to make oral presentations. The winning bidder was notified and appointed as private partner on 27 October 2003. The winning bidder proposed

an innovative solution to the City, which included the provision of a materials recovery facility (MRF), composting of the biodegradable fraction of the waste, marketing of valuable recyclables, above-ground storage of any residual wastes, and the remediation of the existing open dump. The estimated user fee for such a facility was stated as PhP30 to PhP40 per household per month.

On 26 March 2004, the city council passed a resolution authorizing the Mayor to enter into a Memorandum of Agreement (MOA) with the private partner. The MOA was signed on the same day, witnessed by the DENR Secretary, UNDP Resident Representative and the German Ambassador. With the MOA signed, the private partner started work on a feasibility study.

Highlights of the draft feasibility study were presented to the new Mayor on 25 October 2004. The feasibility study finalized in December 2004 verified the original offer indicated in the successful bid by the private sector. The feasibility study was presented to the City Council in early December 2004 with follow-up workshop on 21 January 2005.

During the workshop, the Council stated that its main concerns with the feasibility study were that the City may not be able to meet the daily minimum of 200 tons of waste, nor collect the expected amounts of user fees from the households. PEMSEA and the winning bidder requested the City Council to set up a task team to address the legal, technical and financial issues that were of concern, in order to develop an improved understanding of the scope and content of the project, and to arrive at acceptable solutions. The City did not respond to the recommendation, but instead proceeded unilaterally to enter into a service contract for transporting all the waste out of the city to the Clark landfill.

Subsequently, the city stopped transporting municipal waste to the Clark Landfill, and attempted to set up MRFs in each of the 34 barangays, along with disposal areas for residual wastes. This has proven to be highly unsatisfactory, with 34 open dumps now operating in the area.

Integrated Industrial Wastewater and Hazardous Waste Treatment System, Danang City, Vietnam

Danang City was an ICM Demonstration site of PEMSEA. With the support of PEMSEA, the People's Committee of Danang City adopted the Danang Coastal Strategy in 2001. The primary environmental concerns identified in the process were water pollution, solid waste management and control of industrial and hazardous waste. A CVM survey conducted in July-August 2002 with the support of PEMSEA showed that households were willing to pay US\$ 0.54 per month for both solid waste and sewage management, just a little more than what they were paying already for garbage collection. There was no separate payment for sewage facilities since this was incorporated in the water supply fee.

Pre-feasibility studies were drafted in August 2002 to determine the technical and financial options for treating wastewater from the Hoa Khanh Industrial Park (IP) and for managing hazardous hospital waste in Danang City. For PEMSEA's Investors Roundtable held in Xiamen on 24 September 2002, investment opportunity briefs were prepared separately for the two projects. In October 2002, the pre-feasibility studies were revised to reflect new estimates on the volumes of waste being generated and to increase the initial design capacity of the wastewater treatment plant from 5,000 to 10,000 m³/day. On 18 February 2003, the pre-feasibility report on the Hoa Khanh wastewater treatment facility was approved by the People's Committee of Danang City. In the July 2003 investment opportunity

brief, the two projects were proposed to be jointly established since the volume of hazardous waste being generated at that time was too low for a stand-alone facility. The hazardous waste would be pre-treated and processed for eventual disposal in the sanitary landfill being constructed elsewhere with World Bank assistance. Representatives of eight private companies attended the Investors Roundtable held on 9 September 2003 but no proposals were submitted by the companies. A second Roundtable and site visit was organized by PEMSEA on 10–11 May 2005, and attended by two potential investors. Once again, neither company was willing to submit a partnership proposal.

As explained in the Opportunity Brief, one of the main constraints for the project was the uncertainty regarding the generation of sufficient quantities of wastewater and hazardous waste to make the investment economically viable. Another reported concern of the foreign companies was how to repatriate their earnings in hard currencies. Although the local People's Committee verbally confirmed their commitment to ensure payment for the required facilities and services, the issue was not addressed in the Decision of the People's Committee of Danang City issuing preferential policies to attract foreign direct investment to Danang City issued on 10 March 2004. As a consequence, the project was unable to attract a private sector partner.

However, the results and impact of the PEMSEA work were not lost. The People's Committee decided to move forward with the project. The wastewater treatment facility in Hoa Khanh IP was built with state funds in 2006. It is currently being operated by a Hoa Khanh IP service enterprise, Danang Industrial Zones Infrastructure Development and Exploitation Company (DAIZICO). The facility was designed for a capacity of 5,000 m³/day. The current hydraulic loading is of the order of 1,000-1,200 m³/day, with a number of enterprises reportedly not yet connected to the system.

Most of the hazardous waste that is not being incinerated is being collected and disposed at the new landfill in Kahn Son built as part of the Danang Sanitation Project (DSP) funded by a loan from The World Bank and grants from the governments of Australia and Vietnam. The sanitary landfill was not designed or constructed as a hazardous waste disposal facility. Thus there are still some human health and environmental issues associated with this operation.

The wastewater treatment facilities and sanitary landfill constructed under the DSP are being managed and operated by another state-owned enterprise, the Danang Urban Environmental Company (URENCO). However, that too is about to change. Negotiations have started between the local government and a private company for take-over of the management and operation of the wastewater treatment facilities in Danang. Thus the PPP initiative in Danang, while not resulting in a direct investment by the private sector, did appear to have impacts on the awareness and openness of the People's Committee towards PPPs.

Integrated SWM for Denpasar City and the regencies of Badung, Gianyar and Tabanan (SARBAGITA) in Bali, Indonesia

The ICM demonstration project in Bali was implemented in 2002–2005 in its southeastern coast, the center of Bali's tourist industry and home to 1.7 million people. The area consists of Denpasar City (then a municipality) and the four regencies of Badung, Gianyar, Klungkung and Karangasem. Under the project, a survey was conducted in 2002 to measure public perception of coastal issues and problems. Solid waste management was the foremost general concern, followed only by unemployment and inflation. SWM was also the top environmental concern, followed by water pollution and beach erosion. Similarly, Initial Risk Assessment conducted under the project showed

wastewater (including domestic sewage, industrial waste water and drainage run off), SWM and environmental abuse (uncontrolled land use and fishing practices) to be the major risk factors.

Another key output of the ICM process was the Bali Coastal Strategy which was guided by the “Tri Hita Karana” philosophy and balances spiritual development, economic growth and environmental protection. Among the action programs identified were investment in environmental facilities and services to minimize both land- and sea-based pollution as well as strengthening of policy and regulatory measures to promote environmental investment opportunities.

To implement the Bali Coastal Strategy, an action plan was developed by a Technical Working Group (TWG) with 46 individuals representing various stakeholders. Several projects in SWM and waste water treatment were identified and then three selected. PEMSEA funded pre-feasibility studies for two of the three projects.

The first project was for an integrated SWM scheme in SARBAGITA (DenpaSAR City, Badung, Gianyar and Tabanan). The pre-feasibility study was completed in November 2002 by ICM Demonstration Project Bali in association with PEMSEA. A guaranteed revenue stream was identified to be one of the most important challenges facing the project. Since a broadbased user fee system would take time to be developed, an Environmental Management Fee (EMF) for tourists was proposed. This would need Central Government approval and legal issues had to be resolved. Other revenue-generating schemes such as waste-to-energy technology, composting and centralized recycling were also proposed. The economic cost of not doing the project was estimated at US\$ 10 million arising from foregone tourism. The need to address the solid waste situation was emphasized and the intention to work with the World Bank which has spearheaded SWM initiatives in the area was made clear. Other previous studies were cited as was the CVM survey done in July-August 2002 with the support of PEMSEA. One thousand twenty-seven (1,027) respondents were asked about their willingness to pay for improved solid waste management. Households were estimated to be willing to pay US\$ 0.78 per month which was 125 percent higher than what they were paying then for garbage collection. The investment opportunity brief was prepared in March 2003. It was at this stage of the PPP process that the SARBAGITA decided to proceed with a “bid and tender” process of their own design.

In January 2004, BPK SARBAGITA invited potential investors through newspaper advertisements and letters to several embassies to submit proposals to treat about 500-600 tons of solid waste per day at the existing Suwung landfill with any environment-friendly technology and any type of PPP scheme as well as period of cooperation and profit sharing scheme. Thirteen investors submitted proposals but only six were considered as appropriate. The six were asked to present their proposals to the selection committee and were evaluated in four areas: technical feasibility; financial feasibility; environmental feasibility; and cooperation feasibility.

The selected investor was PT. Navigat which formed a joint venture called PT. Navigat Organic Energy Indonesia (PT. NOEI) with three other foreign companies. The Build-Operate-Own (BOO) contract was awarded by BPK SARBAGITA to PT. NOEI in May 2004.

In July 2004, the local governments started a six-month socialization or public awareness program to ensure the success of the project. MSP-PPP assisted in the conduct of consultations with village leaders and other key stakeholders. The local governments would also have to find alternative work for those earning their livelihood from the Suwung landfill and open dumpsites that would need to be closed.

PEMSEA provided comments on the environmental impact assessment begun in August 2004. It also supported the private investor's application for a Clean Development Mechanism (CDM) Project under the UN Framework Convention on Climate Change (UNFCCC). The CDM project was approved on 20 May 2007. The integrated waste management facility has been constructed and operation has commenced.

The second project for which PEMSEA funded a pre-feasibility study was the Denpasar Sewerage Development Project (DSDP) covering Denpasar City and the southern part of Badung Regency. The CVM survey done in July-August 2002 also asked about 52 percent of the respondents (those living in Denpasar and Badung) additional questions regarding the planned sewerage system. Ninety percent of respondents were willing to pay US\$ 0.92 per month for sewerage services. A draft investment opportunity brief was prepared in September 2002. It showed that operating costs would be lower if a JBIC loan with interest rate of 2.6 percent p.a. were availed of rather than a conventional loan with 7 percent interest. Thus, a conventional bid and tender process was agreed to by the government.

The DSDP was undertaken with a JBIC loan and co-financing from the Government of Indonesia, Bali Province, Denpasar City and Badung Regency. The tendering process for construction was done in 2003 and construction of the sewer lines and wastewater treatment plant started in 2004 and were completed in 2008. The project is now fully operational.

Sewerage and SWM Project for Haikou City, China

To better position itself as a prime tourist destination and special economic zone, Haikou City in the island of Hainan in the People's Republic of China aims to carry out professional and efficient urban planning by implementing environment-related projects like water supply, sewerage, solid waste management, and energy and resource saving technologies. The city secured the support of PEMSEA in conducting a preliminary analysis of two environmental investment projects: (1) construction and operation of a new 100,000 m³/day sewage treatment plant (STP); and (2) upgrading and operation of the existing landfill/leachate treatment facility located in Cheng Mai County. After a site visit in August 2005 by two PEMSEA RPO technical officers, the capital and operating costs for the facilities were estimated and two possible PPP arrangements proposed for consideration.

Another mission was conducted from 17 to 29 April 2006 by a member of the PEMSEA Regional Task Force (RTF) to gather data and documentation needed to formulate the legal, technical and financial framework which formed the basis for preparing the "Request for Qualifications" (RFQ) and later the "Request for Proposals" (RFP) for the proposed process optimization and upgrading of the existing STP from 300,000 to 600,000 m³/day. A draft Letter of Intent (LOI) between PEMSEA RPO and Haikou City was discussed with city officials, together with the roles of the public and private sector partners in the PPP process. Efforts were made to make the city's decisionmakers fully aware of the benefits of the PPP approach in order to gain their full support. The LOI was signed on 15 July 2006. However, city officials later decided to choose their private sector partner through negotiation rather than competitive bidding. The project has now been completed.

Community-Based SWM Project in Sangkat 4, Sihanoukville, Cambodia

Sihanoukville was a PEMSEA ICM demonstration site located in the southern part of Cambodia, about 230-km southwest of Phnom Penh. Its priority environmental concerns and management

interventions were identified through stakeholder consultations and documented in the Sihanoukville coastal strategy and coastal use zoning plans. Since only about 30 percent of its solid wastes were being collected in 2001, improving solid waste management was deemed of high priority. A baseline survey and willingness-to-pay study was funded by MSP-PPP and the report issued in March 2006. The study area was a poor urban community in Village No. 1 in Sangkat 4 Commune. The study showed that the residents were willing to support improvements in SWM services through payment of reasonable fees, waste separation starting at the household level, and even some extra activities such as curbside cleaning and helping to secure the garbage bins.

Based on these findings, three options were identified: (1) primary collection to be done by the community and secondary collection by a private company; (2) promotion of waste separation to reduce volume to be collected by 20 to 30 percent; and (3) the community promotes waste separation starting at the household level and undertakes primary collection while the private company collects residual wastes from transfer points and transports them to a designated dumpsite. Given the lack of access roads through which the collection vehicles could pass, the private company which already had a contract with the municipal government could only really do secondary collection, and as such option 1 was carried out.

The initial demonstration phase involved about 280 families in Village 1 of Sangkat 4. The families organized themselves to clean up their commune. Some training on the basic concepts of waste management was provided. With the initial success of the first phase, the project was scaled up to include 1,155 families in all five villages of Sangkat 4 that were generating approximately 3.5T of daily waste and accumulated waste with old waste estimated at 270 tons for each of the four additional villages. Terms of Reference (TOR) for a community-based solid waste management program were developed taking into account the contributions that the private sector, government and the communities themselves could make to improve SWM in the commune. The TOR included: (1) setting up of an SWM Fund with revenues generated from a user fee collection system; (2) promotion of social acceptability and public participation through IEC and other mobilization activities; and (3) negotiations with the private company.

Through a joint declaration signed in November 2007, the Commune Council of Sangkat 4 and the five villages through their respective SWM Committees agreed to take responsibility for primary waste collection and implementation of waste segregation and reduction schemes including recycling and composting. The SWM Coordinating Group of Sihanoukville was established to ensure effective implementation of the PPP Agreement between the municipal government and its private sector partner. The SWM Coordinating Group was headed by the Commune Chief of Sangkat 4 and the concerned local government officials and department heads as its members. The PPP Agreement was signed in November 2007 between the Sihanoukville Municipal Government and the Cintri Waste Management Company, Ltd.

Since its implementation, the project has benefited about 1,110 households in Sangkat 4. A Village Revolving Fund was likewise established from the revenues of the solid waste management project. This came from the realization that a complimentary initiative on sanitation needed to be undertaken to improve human health as well as improve environmental conditions in the community. Geographically, the project was also scaled up and experiences in Sangkat 4 are already being replicated in Tomnob Rolok Commune, Stung Hav District, Preah Sihanouk where there was essentially no secondary waste collection. The commune has adopted a capacity development and information campaign for 42 students and 23 teachers in Hun Sen High School in Stung Hav.

A case study on Sihanoukville has been completed, documenting difficulties met and lessons learned.

Sabang Sewerage Collection and Treatment System in Puerto Galera, Mindoro Oriental, Philippines

In November 2004, the Municipality of Puerto Galera created a Coastal Resources Conservation and Management Board (CRMB) which spearheaded the formulation of the Puerto Galera Coastal Resources Management Plan (CRMP), 2006-2010, entitled “Building Strength for Sustainable Fisheries and Tourism,” with support from the World Wide Fund for Nature (WWF)-Philippines. The plan identified the urgent need for an integrated sewerage system and wastewater treatment facility to provide a lasting solution to the uncontrolled sewage discharges to Puerto Galera Bay, which had been the first in Asia to be chosen by UNESCO as one of the most beautiful bays in the world and which was in close proximity to Verde Island Passage, the world’s center for marine biodiversity.

In late 2005, PEMSEA was invited by then Mayor Aristeo Atienza to send environmental and investment specialists to assist Puerto Galera in preparing the proposed sewerage development project and facilitating private sector participation through PEMSEA’s PPP process. A tripartite MOA was signed on 31 March 2006 among the Municipality of Puerto Galera, PEMSEA and SCOTIA (Sustainable Coastal Tourism in Asia, a USAID-funded project) to formalize their collaboration.

After a stakeholders consensus building and action plan workshop in April 2006, PEMSEA, SCOTIA, WWF-Philippines and the Municipal Government of Puerto Galera jointly undertook a WTP survey using the contingent valuation method in July-August 2006. The pre-feasibility study prepared by PEMSEA in partnership with Puerto Galera and Scotia was also completed in August 2006.

In January 2007, Puerto Galera Municipal Ordinance No. 06-03 established the Environmental Users’ Fee (EUF) System. Elections were held in May 2007 and a medical doctor, formerly the Municipal Health Officer, took over as mayor. Under the leadership of Mayor Hubbert Christopher Dolor, the Municipal Council passed in December 2007 a resolution prioritizing implementation of the sewerage treatment plant (STP) in the municipality. The Provincial Development Council also passed in March 2008 a resolution endorsing the construction of the plant. After public consultations and dialogues in March and May, the Municipal Council passed another resolution in June 2008 approving the project and Request for Proposals and authorizing Mayor Dolor to proceed with the procurement and competitive bidding processes, in accordance with the BOT Law of the Philippines.

Supported by the MSP-PPP project, the various steps in the bidding process were undertaken from July 2008 until the Notice of Award was given to the winning proponent in January 2009 and the contract signed in April 2009. In August 2009, a resolution was passed by *Barangay* Sabang (Sabang village) approving the construction of a jetty pier and pedestrian boulevard in the foreshore area under which the sewerage interceptor pipes would be laid. After several public hearings and submission of documents, the Environmental Clearance Certificate was obtained in October 2009. Construction of the jetty pier and terminal has begun and is expected to be completed by April 2010.

In collaboration with WWF and SCOTIA, the MSP-PPP project also assisted the municipality in developing and implementing the EUF system to generate revenues to cover the investment costs of the STP. The EUF targeted tourists and was set at PhP50/tourist arrival. Tourist arrivals were estimated to be 1 million per year. This number was proven to be optimistic later, when the EUF was put into operation.

According to the Municipal Environment and Natural Resources Officer of Puerto Galera, issuance of Notice to Proceed with construction of the sewerage treatment plant (STP) is pending the following:

1. Finalization of land transaction for location of the STP and right-of-way (ROW);
2. Acquisition of foreshore lease and waiver from affected landowners for ROW for the pedestrian boulevard and sewerage system; and
3. Financial closing of the proposed loan from the Development Bank of the Philippines (DBP).

The land previously purchased by the municipality for the STP is perennially flooded. This area will now be utilized as a polishing lagoon. Purchase of nearby land at a higher elevation has been proposed by the private sector partner. The municipality is in ongoing talks with the lot owners.

Approval of the proposed loan from the DBP, a government financial institution, has been delayed because of the lower than projected collections of the EUF from tourists. Actual tourist arrivals have been much lower than the one million projection. As a consequence, the EUF needs to be increased to at least PhP 100. In addition, the municipality is seeking assistance from the national government and development partners to support the project.

With municipal elections coming up in May 2010, and the current Mayor and Vice-Mayor (former Mayor) running against each other, some of the above actions may be delayed.

Component 3: PPP Networking

In addition to networking with the national and local governments, private sector and civil society as mentioned above, PEMSEA also established partnerships with the following international organizations and foreign-assisted projects:

With the World Bank

The World Bank/GEF Partnership Investment Fund for Pollution Reduction in the East Asian Seas was approved by the GEF Council in November 2005 (US\$ 25.7 million as a first of three tranches). The objective of the project is to reduce pollution in the seas of East Asia and to promote their sustainable development. To contribute to this overall goal, the Fund was established to leverage investments in land-based pollution reduction through the removal of technical, institutional, and financial barriers. Expected outcomes of the Fund are: increased investment in activities that reduce land-based pollution; removal of technical, institutional and financial barriers that currently limit investment in pollution reduction; and, replication of cost-effective pollution reduction technologies and techniques demonstrated by the Fund.

A Strategic Partnership Arrangement was developed with the GEF, World Bank, UNDP and PEMSEA. The purpose of the Strategic Partnership is to coordinate and facilitate the effective implementation of environmental investments in support of the SDS-SEA, by forging a working relationship between the two GEF-supported projects in the region, namely, the GEF/UNDP Implementation of the SDS-SEA, and the World Bank/GEF Partnership Investment Fund.

A key element of the Strategic Partnership is the collaborative effort to identify, prepare, promote and facilitate replication of pollution reduction facilities, technologies, practices and services that

are proven to be effective in achieving desired on-the-ground changes. A principal role of PEMSEA under the arrangement is to identify, promote and facilitate the replication of good practices in pollution reduction at ICM sites and pollution hotspots across the region. In addition, PEMSEA has been challenged to develop a financing mechanism that will facilitate pollution reduction investments across the region over the long-term, as well as a means of providing financial backing to the PEMSEA regional mechanism.²

In 2009, PEMSEA and WB signed a Memorandum of Understanding (MOU) to continue working together to achieve common objectives such as: (1) land-based pollution reduction; (2) integrated coastal and ocean management; (3) climate change adaptation; and (4) public-private partnerships.

With UNEP

PEMSEA co-organized with the UNEP East Asian Seas Regional Coordinating Unit (EAS/RCU) the preparatory workshop for the Second Intergovernmental Review Meeting (IGR-2) of the GPA. The workshop was entitled “Partnership Opportunities for Enhancing GPA Implementation” and was held on 4-5 September 2006 in Bangkok, Thailand. It was attended by representatives from six countries (Cambodia, China, Malaysia, Philippines, Thailand and Vietnam), three regional organizations (Coordinating Body on the Seas of East Asia or COBSEA,³ APEC Marine Resources Conservation Group and ASEAN Working Group on Coastal and Marine Environment), and UNEP/GPA.

The outcome of this workshop was a policy brief entitled, “Partnership Opportunities for Enhancing GPA Implementation in the East Asian Region (2007-2011),” jointly authored by PEMSEA and COBSEA. The policy brief was published and disseminated during the IGR-2 Meeting in Beijing in October 2006, serving as a resource document for the meeting.

In addition to the above initiative with COBSEA, PEMSEA also worked directly with UNEP/GPA. Two MOUs were developed during the project, dealing primarily with capacity development in financing of environmental infrastructure. National workshops on implementation of ICM and financing sustainable environmental projects through PPP were co-organized in the Philippines in April 2006, in Vietnam in June 2007 and in China in November 2008.

With SCOTIA

On 31 March 2006, PEMSEA signed an MOU with the Louis Berger Group, Inc. as the technical assistance contractor for the implementation of USAID’s Sustainable Coastal Tourism in Asia Project in the Philippines (SCOTIA–Philippines). SCOTIA is modeled after other successful public-private, voluntary eco-tourism programs which focus on minimizing the environmental impact of tourism-related activities. It offers technical assistance on coastal resource management and environmental management to local governments and resort operators with special emphasis on solid waste management and sanitation in six project areas in the Philippines including Puerto Galera.

² From GEF/World Bank Partnership Investment Fund for Pollution Reduction in the East Asian Cities, 5 July 2008.

³ COBSEA oversees the implementation of the Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas Region or East Asian Seas Action Plan that was approved in 1981 and revised in 1994. COBSEA has ten participating countries: Australia, Cambodia, China, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand and Vietnam (nine of whom are also PEMSEA member countries). UNEP EAS/RCU acts as COBSEA secretariat.

PEMSEA and SCOTIA agreed to collaborate on the identification and assessment of potential environmental infrastructure improvement projects addressing municipal sewage and solid waste problems in coastal areas and to facilitate the development of investment opportunities at one or two sites through the application of PEMSEA's PPP process. The aforementioned sewerage collection and wastewater treatment plant in Puerto Galera was the first project.

Component 4: Capacity Development

Training Materials and Workshops on PPP

Training materials and programs to enhance the capacity of the region's stakeholders in developing and implementing PPP in environmental investments were developed. Training materials included seven (7) case studies on the PPP projects supported by MSP-PPP.

PPP training workshops were conducted at the regional, national and local levels to cater to the different capacities of stakeholders. These included the following: (a) Training Workshop and LGU Sharing Forum on Financing Sustainable Environmental Projects held in Manila, Philippines on 26-28 April 2006; (b) Training Workshop on Financing Sustainable Environmental Projects through Public Private Partnership held on 27-28 June 2007 in Hanoi, Vietnam; and (c) Study tour, training and planning workshop on the implementation of the Sewage Treatment System for Sabang for the members of the PPP Technical Working Group and the Bids and Awards Committee of Puerto Galera on 11-12 December 2007 at the Subic Park Hotel.

Knowledge Transfer

PEMSEA facilitated knowledge transfer through the organization of and participation in various knowledge-sharing events:

As part of the 2006 East Asian Seas Congress: International Conference on Coastal and Ocean Governance: One Ocean, One People, One Vision, the Workshop on Local Government Financing for Water, Sewage and Sanitation was held on 12-14 December 2006. The workshop was divided into three related seminars: (a) Public and Private Sector Investments in Water, Sewage and Sanitation: Approaches and Case Studies; (b) GPA Implementation: National and Local Government Challenges; and (c) Policies and Incentives for Scaling up Investments for Pollution Reduction.

During the Second Session of the Intergovernmental Review (IGR) Meeting on the Implementation of GPA held in 2006 in Beijing, China, the "Policy Brief on Partnership Opportunities for Enhancing GPA Implementation in the East Asian Region (2007-2011)" was prepared and distributed.

During the Fourth Biennial International Waters Conference held in Cape Town, South Africa on 31 July–3 August 2007, a PEMSEA exhibit on "Strategic Partnerships in the East Asian Seas" was set up in collaboration with the GEF, World Bank and UNDP. It highlighted the application of partnerships as a means of implementing the PEMSEA framework for sustainable development of coastal areas in East Asia and on-the-ground changes achieved through integrated approaches to coastal and ocean governance at the local, national and regional levels, covering hazard prevention and management, habitat restoration, alternative livelihoods, fisheries management, water use and conservation, and pollution reduction and management.

On 24 November 2009, the Workshop on Innovative Policies and Practices in Water Supply, Sanitation and Pollution was conducted under the Pollution Reduction and Waste Management theme of the 2009 EAS Congress International Conference. The workshop was co-convened with the World Bank and the Korea Maritime Institute. Mayor Hubbert Dolor of Puerto Galera presented on “Sustainable Development in the World’s Center of Marine Biodiversity: Puerto Galera’s PPP Experience.” Mr. Mark Tom Mulingbayan of the Manila Water Company, Inc., a partner of PEMSEA and WB in the Pollution Investment Fund, also gave a presentation on “Experience in the Development of Water and Sewerage Services in Metro Manila.”

PEMSEA also uses various media for its information and education campaigns (IEC). Print media is utilized through the biannual publication of the *Tropical Coasts Magazine* which aims to stimulate exchange of information and sharing of experiences and ideas with respect to environmental protection and the management of coastal and marine areas. The PEMSEA website at pemsea.org offers updated information on PEMSEA programmes, projects and partnerships. Most PEMSEA publications are available online. Its multimedia library contains photos and videos on environmental subjects which can be used without prior written permission for education and non-profit purposes. Its Knowledge Center has many useful links to marine and coastal topics and organizations in its member countries and the region. The Virtual PPP Center contains information on environmental infrastructure investment opportunities in the EAS region.

The project also produced a series of papers related to environmental investment policies, practices and sources of financing in the region, including:

1. An Overview of Public and Private Sector Capacities in Five East Asian Countries (2005);
2. An Overview of Public and Private Sector Capacities in the Philippines (2005);
3. Is it a good time to go into environmental investments? (2005);
4. The East Asian Region: Environmental Problems, Opportunities and Financial Instruments (2006);
5. Financing Environmental Investments in PR China (2008);
6. Finance and Investments for Environmental Infrastructure in the East Asian Region: Notes from Meetings with Experts (2008); and
7. Sources of Finance for Environmental Investments in East Asia (2008).

2 Project Outcomes

According to the Project Results and Resources Framework in the Project Document, the following are the Project Objective or Intended Outcome, the Indicator, Target and Strategy. Summary of the information gathered on whether or not the Indicator and Target were met will be presented at the end of this section.

Outcome 1:

Support for identified priority environmental infrastructure improvement projects from local governments and communities at selected PEMSEA sites in the EAS region secured, thereby ensuring commitment and mitigating risks arising from political uncertainties.

Indicator 1.1:

Staff hired and project inception report submitted to UNDP.

Target 1.1.1:

Establishment of a project office in the first month of the project.

Professional and administrative staff hired for PEMSEA Regional Programme Office were also mobilized for MSP-PPP.

MOAs/sub-contracts negotiated and signed with technical experts/technical support team at each selected location.

The following Monitoring Reports were submitted to UNDP: (a) Four (4) APR/PIRs submitted covering the period from June 2004 to June 2009 (including the Final APR/PIR for 2009); and (b) Sixteen (16) Quarterly Operational Reports (QORs) covering the period from 1st Qtr 2005 to 4th Qtr 2008 submitted to UNDP.

Indicator 1.2:

Five (5) environmental infrastructure improvement projects identified and established as priority investment projects by participating local governments

Target 1.2.1:

Inventories of environmental infrastructure improvements at five selected locations.

Target 1.2.2:

Priority ranking for environmental infrastructure improvement projects at each site.

Seven (7) participating local governments identified priority environmental infrastructure investment projects through the conduct of stakeholder consultations and surveys. Six of the seven local governments drew up the inventories of proposed environmental infrastructure improvements as part of their Coastal or Environmental Strategies. Five of the six are ICM demonstration or parallel sites of PEMSEA (Bali, Danang, Sihanoukville, Bataan and Haikou) while one (Puerto Galera) is a project site of SCOTIA (a USAID-funded project for Sustainable Coastal Tourism in Asia) which requested

PEMSEA support after it had identified a sewerage treatment system as its most urgent need. The seventh (San Fernando City) drew up its list of priority projects while preparing its Comprehensive Land Use Plan and submitted its proposed SWM project for PEMSEA support under the Manila Bay Environmental Management Program.

Two of the above local governments identified two priority projects each. Support for the proposed programs was obtained or strengthened through public awareness campaigns and consensus building activities on the need for change. Information and education campaigns (IEC) on the PPP process were also conducted..

Indicator 1.3:

Five (5) pre-feasibility studies and contingent valuation surveys, including analysis of policy, legal/regulatory, technical, social, financial, economic and environmental issues, presented to national and local governments for review and approval.

Target 1.3.1:

Five (5) pre-feasibility studies for environmental infrastructure projects completed addressing the legal/regulatory, technical, financial, economic, and social issues of the concerned projects, and the options, benefits and risks associated with public-private partnership arrangements as a means to deliver and sustain the projects..

Eight (8) pre-feasibility studies were completed in six localities: one each in Bataan and San Fernando City, Philippines; two each in Bali, Indonesia and Danang City, Vietnam; one each in Haikou City, China and Puerto Galera, Philippines.

Target 1.3.2:

Five (5) contingent valuation (willingness-to-pay) surveys completed.

Willingness-to-pay (WTP) surveys using the contingent valuation method (CVM) were completed in five of the six localities mentioned above: Bataan, San Fernando City and Puerto Galera in the Philippines; Bali in Indonesia; and Danang City in Vietnam. CVM surveys were also conducted in Malabon City in the Philippines and Klang and Kuala Langat in Malaysia. WTP questions were also included in the baseline survey done for the Community-based SWM pilot project done in Sihanoukville, Cambodia.

CVM surveys were conducted using enumerators and encoders from local governments (Puerto Galera, Bali) and universities (Bali), all of whom were trained first. Through workshops, valuable inputs were provided by local government officials and NGOs to develop the questionnaire and the approach to be used in conducting the interviews.

Target 1.3.3:

Policy/regulatory and administrative review to identify/address government rules, procedures, incentives and constraints to priority projects, environmental investment process and public-private partnerships.

Research was initiated on the gaps and constraints in public and private sector capacities for environmental infrastructure investments in five East Asian countries (Cambodia, China, Indonesia, Philippines, Vietnam).

Review of national legislation, policies and programmes as incentives or constraints to private sector participation in environmental infrastructure projects was conducted for the Philippines and Vietnam.

Consultations were conducted and technical assistance provided for the drafting of a municipal ordinance for the establishment of an Environmental Users' Fee System and Trust Fund in Puerto Galera. Municipal Ordinance 06-03 was approved on 24 January 2007.

The Environmental Impact Assessment approval process in Puerto Galera was completed in June 2009 and the Environmental Compliance Certificate released in October 2009 after public hearings and submission of documents.

Indicator 1.4:

Letters of Intent signed with LGUs and local stakeholders confirming commitments to the development and implementation of the proposed projects.

Target 1.4.1:

Five local government ordinances/resolutions calling for investment in the priority projects and partnership arrangements with the private sector.

In February 2004, the Bataan Provincial Council approved the proposed Integrated SWM Project for the Province of Bataan and authorized the Governor and Vice Governor to enter into agreements for the financing and implementation of the Project under a PPP arrangement.

On 19 March 2003, the San Fernando City Council passed a resolution endorsing the proposed Integrated SWM project. On 26 March 2004, the San Fernando City Council passed a resolution authorizing the Mayor to enter into a MOA with the winner of the public bidding for the city's Integrated SWM System.

The pre-feasibility report on the Hoa Khanh wastewater treatment facility was approved by the People's Committee of Danang City through Decision 944/QD-UB dated 18 February 2003.

The Governor of Sihanoukville issued a Warrant in November 2007 to establish the SWM Coordinating Group of Sihanoukville to ensure effective implementation of the PPP Agreement between the municipal government and its private sector partner.

On 20 December 2007, the Municipal Council of Puerto Galera enacted Resolution No. 07-230 prioritizing the implementation of the Sewerage Collection and Treatment Plant in the municipality.

On 31 March 2008, the Provincial Development Council of Mindoro Oriental enacted Resolution No. 02, Series of 2008, endorsing the construction of sewerage and wastewater treatment plan at Big Lalaguna, Sabang, Puerto Galera.

On 30 June 2008, the Municipal Council of Puerto Galera enacted Resolution No. 2008-117 to approve the Sewerage Collection and Treatment System Project and Request for Proposal and to authorize the Mayor to proceed with the procurement and competitive bidding processes in accordance with the BOT Law of the Philippines.

On 10 December 2008, the MIMAROPA Regional Development Council enacted Resolution No. 026-137-2008 endorsing the implementation of the proposed Sewerage and Wastewater Treatment Project in Barangay Sabang, Puerto Galera through LGU-Private Sector Partnership.

On 6 August 2009, Barangay Sabang issued Resolution NO. 01-10 approving the establishment of a jetty pier and use of foreshore area for main sewerage pipelines in accordance with the contract of the Municipality of Puerto Galera for a wastewater treatment plant.

Target 1.4.2:

Agreements signed among local government units, relevant agencies of central government, local communities, NGOs, and/or local private sector in support of the investment projects.

In May 2003, a letter of intent was signed by the Governor and Vice Governor of Bataan, the heads of the Bataan League of Municipalities, Municipal Councilors' League and Association of Barangay Captains, Bataan ICM-PCC, Bataan Coastal Care Foundation and Region III Executive Directors of the Department of Environment and Natural Resources (DENR) and National Economic and Development Authority (NEDA).

On 30 April 2003, a Letter of Intent (LOI) was signed by the mayor and *barangay* (village) captains of San Fernando City, the chair of Region III Development Council, and regional directors of DENR, NEDA, Department of Finance and other concerned national government agencies. The signatories agreed to carry out their assigned roles and responsibilities for the development and implementation of the proposed Integrated SWM System for the city.

An LOI for cooperation between PEMSEA and the City Government of Haikou to facilitate a PPP arrangement for environmental infrastructure improvements in Haikou was signed on 15 July 2006.

In November 2007, the Chief of the Commune Council of Sangkat 4 signed a Joint Declaration with the Community Chiefs of its five villages to ensure that solid waste generated within Sangkat 4 is managed in accordance with the terms and conditions of the PPP Agreement between the Municipal Government and its private sector partner, CINTRI Co., Ltd. In particular, they would jointly undertake primary waste collection, waste segregation and reduction schemes, collection of user fees, promotion of social acceptability and monitoring, evaluation and documentation of lessons learned.

Outcome 2:

Investment potential in environmental improvement reinforced with the creation of a global network of private sector investors and companies engaged in PPP development in the region, thereby enhancing coastal and marine resource development and management.

Indicator 2.1:

Investors Network established and providing private sector, financial institution, and investor group inputs to development, promotion, and implementation of investment projects.

Target 2.1.1:

A virtual center for environmental investments set up on the Internet, providing information on investment opportunities in pollution prevention and reduction projects.

PEMSEA website was developed to serve as information center for PPP. The website initially contained the Opportunity Brief and a fact sheet on Puerto Galera's Sabang Sewerage System and Wastewater Treatment Facility.

Target 2.1.2:

National/regional networks of operating companies and investment groups operationalized and participating in Investors Roundtables at sites.

Concept paper and TOR on the formulation of a regional network of investors and operating companies was completed in February 2005.

Call for investors networking was announced on the PEMSEA website.

Discussions/presentations with major corporations and business associations (e.g., Coca Cola Ltd., Atlanta, USA; Management Association of the Philippines; Hainan Affluence Investment Ltd; Onyx (Guangzhou) Ltd.) conducted and networking with the Philippine Business for the Environment and Global Environment Technology Foundation (Washington, D.C.).

Indicator 2.2:

Partnership proposals submitted by private sector and investors for environmental infrastructure projects at each site.

Target 2.2.1:

Five Investors Roundtables conducted with the participation of private sector operating companies and investment groups.

PEMSEA's Investors Round Table was held in Xiamen, PR China on 24-25 September 2002. Investment Opportunity Briefs were presented for the following countries: China (5), Indonesia (2), Malaysia (2), Philippines (4), Vietnam (2).

On 6 May 2003, an Investors Roundtable was hosted by the Development Bank of the Philippines (DBP) for Bataan and San Fernando City. Representatives of 38 private companies attended.

An Investors Roundtable was held in Danang City, Vietnam, on 9 September 2003, with representatives of eight private companies in attendance. Two joined the site visits the following day.

Representatives from two private companies participated in a visit to the proposed locations of the two proposed facilities in Danang City and the Investors Roundtable with local stakeholders held on 10-11 May 2005.

The Pre-Bid Conference was held in Puerto Galera on 7 August 2008 after bid documents and request for proposals were issued in July 2008. Five companies attended.

Target 2.2.2:

Partnership proposals submitted by members of the Investors Network to local government units promoting PPP projects.

Five partnership proposals were submitted to the Province of Bataan in October 2003, of which three submitted updated proposals in September 2004.

Four partnership proposals were submitted to San Fernando, Pampanga in July 2003.

Five partnership proposals were submitted to Puerto Galera in October 2008.

Note: None of the private companies that sent representatives to the Investors Roundtables and site visits held in Danang City in September 2003 and May 2005 submitted partnership proposals.

Target 2.2.3:

Private sector partners and/or investors selected by three local governments.

On 18 September 2003, the Pro-Environment Consortium was chosen by San Fernando City as the proponent with the most economical and responsive proposal for its SWM project and notified on 27 October 2003.

A joint declaration was signed in November 2007, the Commune Council of Sangkat 4 and the five villages through their respective SWM Committees agreed to take responsibility for primary waste collection and implementation of waste segregation and reduction schemes including recycling and composting. The SWM Coordinating Group of Sihanoukville was established to ensure effective implementation of the PPP Agreement between the municipal government and its private sector partner. The PPP Agreement was also signed in November 2007 between Sihanoukville Municipal Government and the Cintri Waste Management Company, Ltd.

On 28 January 2009, Municipality of Puerto Galera enacted Resolution No. 001, Series of 2009, approving contract award to the winning bidder, Puerto Galera Water Consortium. Notice of Award was given on 29 January 2009.

A number of other projects, were initiated under the PPP process, but proceeded to completion through other processes, including:

- The Danang City Government decided to proceed with the proposed projects through two state-owned enterprises (Danang Industrial Zones Infrastructure Development and Exploitation Company and Danang Urban Environmental Company);
- PT. Navigat Organic Energy Indonesia was selected as private sector partner of SARBAGITA Waste Management Agency in May 2004 through negotiated bidding from among six qualified proponents through a locally organized bid and tender process;
- A full management contract was signed by Haikou City with Veolia Water for upgrading a wastewater treatment plant after negotiated bidding (without PEMSEA's involvement).

On the other hand, in Bataan (Philippines), a new administration decided not to pursue the project even after updated partnership proposals were submitted by three of the five original bidders.

Outcome 3:

Established Public-Private Partnerships effective in developing, financing, implementing and managing environmental facilities/services.

Indicator 3.1:

At least three mixed ownership operating companies or joint venture arrangements established to plan, develop, finance, construct and manage environmental facilities.

Target 3.1.1:

MOAs negotiated and signed between local governments and their respective private sector partners.

On 26 March 2004, the Mayor of San Fernando City signed an MOA with the Pro-Environment Consortium for the implementation of an Integrated SWM System for the city.

PPP Agreement signed in November 2007 by the Governor of Sihanoukville, Cambodia, and its existing contractor for solid waste collection (Cintri Waste Management Company, Ltd.) to improve the coverage and efficiency of the SWM system. Cintri would focus on secondary collection of waste while primary collection would be overseen by the Commune Council of Sangkat 4 and its five villages. A SWM Coordinating Group was established to include the concerned government departments and several District Governors.

Contract between Municipality of Puerto Galera and Puerto Galera Water Consortium was signed on 4 April 2009 and notarized copy of the contract released on 3 July 2009.

Target 3.1.2:

Comprehensive feasibility studies/business plans developed/finalized for three investment projects.

The winner of the public bidding for the San Fernando City's Integrated SWM System submitted a validation and feasibility study to the city in January 2005. The report was presented to the City Council during a workshop on 21 January 2005.

There was no need for Cintri Waste Management Company to come up with a comprehensive feasibility study or business plan since it had an existing contract with Sihanoukville. The new PPP agreement with Sihanoukville and the new arrangements with the Commune Council of Sangkat 4 were meant to improve the collection of solid waste as well as user fees from the households.

A business plan for the Sabang Sewerage Collection and Treatment Plant Project in Puerto Galera was prepared in September 2008. The business plan was approved by the Municipal Council, and the Notice of Award of Contract was issued in January 2009. Because of changes in location of the plant and financial projections, a revised business plan will be pursued after the 2010 local elections.

Target 3.1.3:

Partnership arrangement negotiated/company incorporated.

Agreement reached between the Commune Council of Sangkat 4, its five villages and the existing contractor for solid waste collection (Cintri Waste Management Company, Ltd.) on the amount of

the monthly user fee per household and on the location of the rubbish bins and temporary storage containers for the secondary collection by Cintri.

Notice to Proceed in Puerto Galera still being awaited. Construction of jetty pier and terminal has started.

The San Fernando City Council decided not to pursue the proposed Integrated SWM project and instead entered into a service contract for transporting all the waste out of the city.

Target 3.1.4:

Monitoring and evaluation of the partnership arrangement reported.

A case study on Sihanoukville was completed, documenting difficulties met and lessons learned.

The implementation of Solid Waste Management in Sangkat 4 was further expanded to include a revolving fund for sanitation. This came from the realization that a complimentary initiative on sanitation needs to be undertaken to improve human health as well as improve environmental conditions in the community.

Geographically, the project was also scaled up and experiences in Sangkat 4 are already being replicated in Tomnob Rolok Commune, Stung Hav District, Preah Sihanouk, where there is essentially no secondary waste collection. The commune has adopted a capacity development and information campaign for 42 students and 23 teachers in Hun Sen High School in Stung Hav.

A case study on Puerto Galera was published and circulated during the EAS Congress in 2009. The report highlighted the lessons learned and the remaining challenges, particularly financing and cost-recovery mechanisms. A second case study is under preparation, focusing on the lessons learned from the development and implementation of an environmental users fee in Puerto Galera. The experience and lessons learned in Puerto Galera are now being used to develop EUF systems in support of environmental management projects in Bali (Indonesia) and Sihanoukville (Cambodia).

Outcome 4:

National and local capacities in environmental investments and PPP projects allowed for increased involvement of ICM practitioners in PPP processes more effectively.

Indicator 4.1:

Integrated Coastal Management (ICM) certification programmes initiated by national and local governments to leverage private sector investment in environmental infrastructure projects.

Target 4.1.1:

Case studies, guide and policy briefs on facilitation of PPP prepared and disseminated to local governments.

Seven case studies were prepared on PPP projects proposed or implemented in Batangas, Philippines; San Fernando, Philippines; Danang, Vietnam; Bali, Indonesia; Guangzhou, China;

Xiamen, China; Sihanoukville, Cambodia; and Puerto Galera, Philippines. A summary of the issues raised and lessons learned from the first six case studies was also prepared.

The case studies were generally very informative, providing detailed information on the PPP projects that were planned but not implemented in Batangas and San Fernando City (Philippines), the PPP projects being implemented in Puerto Galera (Philippines) and Sihanoukville (Cambodia), and the environmental infrastructure projects in Danang City (Vietnam), Bali (Indonesia), Xiamen and Guangzhou (China). The latter two provided specific examples of different PPP arrangements that have been tried in China with varying degrees of success. Many of them drew lessons and conclusions that could be very useful in planning and implementing future investments in environmental infrastructure, using PPP or more traditional approaches.

The case studies were prepared by local project personnel. They could have been even more interesting if they had been edited so that the messages that their authors wanted to impart could be more clearly expressed and understood. An executive summary or abstract for each case study would also be useful in communicating the main ideas. For the two PPP projects that are ongoing in Sihanoukville and Puerto Galera, follow-up case studies would be able to show if the changes that had been put in place or started have been institutionalized or fully implemented.

PEMSEA's Guide to Environmental Investments was prepared in 2008. The Revised Guide to Environmental Investments was completed in 2009 and distributed to local governments. A Training Manual was prepared based on the Guide to Environmental Investments. It was designed for use in a four-day workshop. It has nine modules to be taught in five sessions including a field visit. An MS PowerPoint presentation was prepared for each of the nine modules.

A policy brief based on the outcome of the preparatory workshop for the Second Intergovernmental Review Meeting (IGR-2) of the GPA was prepared by PEMSEA, COBSEA and UNEP EAS/RCU. It highlighted the key GPA-related national legislation, policies and strategies put in place as well as action plans, projects and other initiatives implemented at the national and regional levels between 2002 and 2006. Actions and partnership opportunities to overcome constraints in GPA implementation were also identified in a general manner. A report on implementation of GPA in the East Asian region was prepared for submission to the IGR-2 held in Beijing, China in 2006. Copies of the policy brief were also distributed during the meeting and the EAS Congress in December 2006.

Target 4.1.2:

International certification among RNLG members initiated, providing recognition of local government commitment to environmental protection and management.

The ICM Code of Good Practice for Local Governments was drafted to provide local governments with a systematic approach to developing, implementing and sustaining ICM programs. The Code features core elements of an ICM system. It incorporates the essential management elements of two prevailing international standards in Environmental Management Systems and Quality Management Systems – the ISO 14001:2004 and ISO 9001:2000, respectively. Local governments can use the same management system, or at least elements of the “ICM system” developed using the ICM Code, when seeking certification or ensuring compliance with ISO 14001:2004 and ISO 9001:2000.

Comments of ICM experts on the draft were compiled into a matrix.

Draft mechanics for awarding Certificates of Recognition for ICM Good Practices to local governments have been prepared. Two categories have been proposed. Under the “Governance” category, local governments should be able to demonstrate the presence of different governance elements specified in the criteria. Under the “Sustainable Development Aspects” category, the local government should demonstrate successful implementation of programs to address the challenges in its significant sustainable development aspects, which includes pollution reduction and waste management.

Indicator 4.2:

Pipeline projects for environmental infrastructure improvements developed for each ICM and hotspot site, and submitted to PPP Investors Network for follow-on PPP activities.

Target 4.2.1:

Private sector associations, operating companies and investment groups partner with PEMSEA to develop pipeline projects and build capacity among local governments.

An MOU was signed on 16 December 2005 with the League of Cities of the Philippines (LCP) as a basis for collaboration in future activities, i.e., co-organizing seminars aimed at strengthening the capacities of LCP member cities and identifying opportunities for investments in environmental infrastructure.

On 31 March 2006, PEMSEA signed an MOU with the Louis Berger Group, Inc. as the technical assistance contractor for the implementation of USAID’s Sustainable Coastal Tourism in Asia Project in the Philippines (SCOTIA–Philippines). SCOTIA offers technical assistance on coastal resource management and environmental management to local governments and resort operators in six project areas in the Philippines. PEMSEA and SCOTIA agreed to collaborate on the identification and assessment of potential projects addressing municipal sewage and solid waste problems in coastal areas and to facilitate the development of investment opportunities at one or two sites through the application of PEMSEA’s PPP process. The sewerage collection and wastewater treatment plant in Puerto Galera was the first project.

Training Workshop and LGU Sharing Forum on Financing Sustainable Environmental Projects was held in Manila, Philippines on 26-28 April 2006 in cooperation with the LCP. There were over 90 participants from various cities, municipalities and provinces, including seven municipal mayors. Staff from the Department of Environment and Natural Resources (DENR) also attended.

A Training Workshop on Financing Sustainable Environmental Projects through PPP was held in Hanoi, Vietnam, on 27-29 June 2007. The workshop was co-sponsored by PEMSEA and UNEP/GPA and co-organized by PEMSEA with the Vietnam Environment Protection Agency. There were 60 participants from the various provinces implementing ICM, ministries, state-owned companies, private sector companies and financing institutions. The provincial participants were mostly planning and investment officers, and environment and natural resource officers.

A National Workshop for Local Governments Implementing ICM in China was held in Xiamen on 10-11 November 2008. The workshop was co-organized by the State Oceanic Administration (SOA) of China, the Municipal Government of Xiamen and PEMSEA. Representatives of seven ICM parallel sites in China shared their progress, plans and needs in implementing ICM and environmental

infrastructure projects and learned from the experiences of Xiamen, PEMSEA and SOA. A paper on “Financing Environmental Infrastructure Investments in PR China” was prepared and presented by an international consultant of PEMSEA.

The workshop on Local Government Financing for Water, Sewage and Sanitation was held as a part of the International Conference on Coastal and Ocean Governance: One Ocean, One People, One Vision. The East Asian Seas Congress was held on 12 to 14 December 2006.

Target 4.2.2:

PPP approach identified as an alternative financing mechanism, nationally and regionally.

Special recognition was accorded to PEMSEA for its support in promoting coastal tourism through PPP at the Sustainable Coastal Tourism Conference in Manila, Philippines in May 2008.

Brochures on the Call for Projects for PPP Implementation with Application Guide and Forms were distributed at the 4th Forum of the Regional Network of Local Governments (RNLG) held in Bali, Indonesia on 26-28 April 2005.

The MSP-PPP was also presented during the Bali ICM Workshop held on 29 April 2005.

Target 4.2.3:

PPP pipeline projects identified in each participating country.

After above presentations, the ICM PCC in Bali, Indonesia proposed the following projects: Integrated SWM for the Jembrana, Buleleng, Klungkung and Karangasem regencies in Bali, a Hazardous Waste Management Facility for Benoa Bay and a Treatment Facility for Hospital Waste.

The Government of the Regency of Gianyar, Bali also proposed a project to improve its solid waste management facility.

The ICM PMO of the Province of Cavite and the Science City of Muñoz in the Province of Nueva Ecija (Philippines) also developed proposals for Integrated SWM facilities in their localities. (The latter eventually got a loan from a government financial institution, the Land Bank of the Philippines.)

As described earlier, the Province of Bataan and the City of San Fernando, Pampanga in the Philippines had been considering integrated SWM projects under their previous local chief executives, with the assistance of PEMSEA. An Integrated Hazardous Waste Management Project for the National Capital Region, the neighboring provinces of Cavite, Laguna and Batangas, and the whole of Region V had also been proposed earlier and discussed with the DENR. The Malabon River System Integrated Development Project had also been proposed during PEMSEA's Investors Roundtable held in Xiamen, China, on 24-25 September 2002.

Also presented in that roundtable were two projects in Malaysia: a Pilot Sewerage Development Project in Klang and Shah Alam in the State of Selangor and an Integrated Solid Waste Management System in Klang and Kuala Langat. In July-August 2002, a willingness-to-pay survey using the CVM was conducted in Klang and Kuala Langat for the proposed solid waste and sewerage systems.

Four local governments in PR China also presented in the Xiamen roundtable projects which would reduce the pollution load of Bohai Sea and the rivers which flow into it. These are the: (1) Artificial

Fish Reefs Demonstration Project in the Waters of Changxing Island in Bohai Sea; (2) Demonstrative Ecology Engineering for Chao River Sewage Disposal of Zhanhua County; (3) the Technology of Resource Harnessing of Industrial Sewage of Hebei Province; and (4) Comprehensive Utilization of Waste Liquor in the Salt Industry in Tianjin Binhai New Area.

The Integrated Environmental Management and Development Project for Maluan Bay was also proposed by the Xiamen Municipal Government in the PEMSEA Investors' Roundtable that they hosted. The proposed project had five components: resettlement of aquaculture farms, dredging and cleanup of alluvial deposits, shore embankment, construction of roads surrounding the bay, and upgrading of facilities in Maluan Dam to improve control of tides and floods. Four expressions of interest and company profiles were received in November 2003.

In Haikou City, the PEMSEA Task Force that visited in April 2006 had also looked into projects other than the one implemented in partnership with Veolia Water. In the sewerage sector, these were the construction of two new sewage treatment plants, completion of a separate sewer collection system and water recycling. In the solid waste sector, the upgrading of sanitary landfill, leachate treatment plant, transfer station and collection system and a new recycling facility were proposed.

Indicator 4.3:

National policy and financing reforms developed and adopted, facilitating private sector participation in environmental infrastructure projects.

Target 4.3.1:

National strategies/action plans for institutionalization of PPP as an alternative delivery mechanism.

A paper on "Financing Environmental Infrastructure Investments in PR China" was prepared and presented by an international consultant of PEMSEA at the National Workshop for Local Governments Implementing ICM in China held in Xiamen on 10-11 November 2008. It made some candid assessments of the prevailing challenges as well as opportunities for the implementation of the PPP approach in China and recommends some initial steps that can be taken to facilitate this. If combined with the two very informative case studies on investments in environmental infrastructure in Xiamen and Guangzhou, problems encountered in moving forward with the projects proposed for Maluan Bay and Bohai Sea, and experiences related at the National Workshop by the local governments implementing ICM in China, a more specific strategy or action plan for having more environmental infrastructure projects in China done using the PPP approach could be drawn up. Most of the legislation at the national and local levels are already in place. Taking a close look at the problems being encountered in implementing them and at the relative degrees of success being achieved under the different PPP schemes could show the way for moving forward on PPP in China.

On 15 January 2009, the same consultant submitted to PEMSEA a paper entitled "Towards a Work Programme in Finance and Investment for Environmental Infrastructure in the EAS Region." It proposes activities that PEMSEA can undertake to help attain its objective of promoting PPP for environmental infrastructure projects for water supply and sanitation, clean and efficient energy, biodiversity conservation, and climate change adaptation and sustainable livelihood management. It encourages partnerships with other regional initiatives to develop the capacity of local governments to integrate ICM into their municipal development plans and to access financial markets for their

investments in environmental infrastructure. It also proposes the creation of an Infrastructure Investment Facilitation Unit within PEMSEA.

The reviews of the policy and regulatory frameworks mentioned under Target 1.3.3 for Cambodia, Indonesia, the Philippines and Vietnam could also be used as starting points for drawing up national strategies to facilitate PPP. They can be supplemented by the case studies done on the projects assisted by MSP-PPP in these four countries. However, experiences with other similar projects in these countries would need to be looked into as well, together with many other relevant studies on financing reforms, promotion of PPP and investments in environmental infrastructure.

SUMMARY

As mentioned in the beginning of this section, data gathered to determine if the project objective or intended outcome was achieved would be presented at the end of the section. To determine if the indicator below has been met, the projects that have been assisted by MSP-PPP have been grouped into three categories and a table prepared for each category.

Project Objective/Intended Outcome:

Increased investment opportunities for environmental improvement and coastal and marine resource development and management.

Indicator:

More than US\$ 600 million in environmental infrastructure improvements identified as investment opportunities.

Annex D presents the projects for which pre-feasibility studies were prepared with PEMSEA support and which have been implemented. The table shows that the total amount of financing from the private sector is US\$ 78.65 million while the total from the public sector is US\$ 99.10 million for a total of US\$ 177.754 million.

Annex E presents the projects that are being implemented under the GEF/IBRD Partnership Investment Fund with the support of MSP-PPP, as described in the earlier section on Component 3: PPP Networking. MSP-PPP facilitated the GEF grants totaling US\$ 20.00 million and implementation of the projects with budgetary allocations from the Governments of China and the Philippines and loans that they obtained from the World Bank, for their respective projects. The budgetary allocations amounted to US\$ 379.47 million while the IBRD loans totaled US\$ 441.20 million. The private sector proponent for the Manila Third Sewerage contributed US\$ 3.35 million. Total financing mobilized for the four projects under the Partnership Investment Fund is US\$ 844.02 million.

Annex F presents the projects that were presented at the PEMSEA Investors' Roundtable in Xiamen, China in September 2002 or identified during the April 2006 visit of the PEMSEA Task Force to Haikou City, China but have not yet been implemented. The names and locations of the projects were mentioned under Target 4.2.3. The table shows that the total financing expected from the private sector is US\$ 839.298 million with government contributions of at least US\$ 2.9 million, for total investments of at least US\$ 842.198 million.

Considering all of the above environmental infrastructure projects and their actual or estimated costs, the investment opportunities identified under MSP-PPP total over US\$ 1,863 million, more than three times the indicative amount of US\$ 600 million.

3 Lessons Learned

Analysis of the PPP projects assisted by MSP-PPP at some point in their project development or implementation has led to the following lessons learned. Some of the lessons learned were also mentioned in the case studies written on these projects as part of the MSP-PPP.

Lesson 1:

A comprehensive approach is needed for packaging and promoting environmental investment projects, including detailed technical evaluations of alternative sites, all possible technological options, and desired project outcomes.

In packaging and promoting environmental investment projects, more integrated and comprehensive approaches and studies can provide a better understanding of the needs of the area, help local governments develop bankable projects, and provide better references for potential private sector partners in coming up with proposals for innovative and integrated solutions (such as establishing SWM facilities that incorporate water recycling and renewable energy technologies, or integrating hazardous waste treatment within a landfill facility). Careful evaluation of alternative project sites at the beginning of project preparation will avoid unnecessary delays or even non-implementation of proposed projects. This approach will not only provide more technological options for the project but will also be more cost and operation-efficient for both the local government and the private sector.

Bataan, Philippines

In the Province of Bataan, a previous unsolicited proposal from a private company had suggested the construction of a landfill that would receive waste not only from the Province but also from Metro Manila. This proposal was no longer considered since it had met strong opposition from the public. However, when the PPP process was initiated for a landfill that would serve the Province only and a new governor assumed office, resistance to the earlier unsolicited proposal was still strongly felt. The opportunity brief prepared for the new project presented two options for general consideration, namely a centralized facility for Province-wide use, or three small landfills for use by clusters of municipalities. Specific locations were not identified for the two options, but were merely placed at existing dump sites in the Province, in order to estimate the financial and economic benefits of the two options. This was misinterpreted as an attempt to forego public review and approval of the project sites and became an issue during the local election. The end result was that the project was terminated under the new administration. Although every effort was made to explain the PPP process and the three partnership proposals submitted by private companies, the new governor would not consider any of them. The lesson learned here is that site selection, even at the pre-feasibility stage, needs to involve the general public and be well communicated. It should be noted that the Province of Bataan is still without a municipal solid waste management system that complies with national laws.

Puerto Galera, Philippines

In the investment opportunity brief, the proposed site was a large undeveloped area that was said to be “perennially flooded, presenting lower cost options, such as lagoons, polishing ponds and engineered reed beds.” The municipal government had actually purchased the land already. But the selected

private sector partner observed that while this would be useful, a dry area would still be needed for the wastewater treatment plant itself since a lagoon system and reed beds would not be adequate to treat the volume of wastewater generated. The private sector partner identified another nearby lot on higher ground that the municipal government will still have to purchase. The right of way will also have to be obtained for appropriate access roads since those currently identified have sharp 90 degree turns, which are difficult for trucks to negotiate.

Additional ROW is also needed in the foreshore area for the interceptor pipes that will catch the sewage currently being discharged into Sabang beach. The pipes will bring the sewage to the pump room to be located in the jetty pier terminal proposed by the private sector partner as an enhancement to the project. The foreshore will be developed into a pedestrian boulevard that tourists and residents alike can enjoy.

These requirements for additional land and ROW are helping to delay project implementation.

These two instances illustrate weaknesses in the understanding of the purposes of pre-feasibility studies. While they were intended merely to provide the local government with a good indication of the type of technology and related costs and the private sector was to be given flexibility in the choice of project site and technology to achieve desired conditions/outcomes, problems were created when the sites and technologies used in the pre-feasibility studies to establish baseline costs were interpreted as recommendations, despite repeated explanations about the purpose and limitations of the pre-feasibility studies. Given the limited financial and human resources that LGUs have for project preparation, they rely a great deal on the pre-feasibility study to make their decision to proceed with a proposed project or not. The study should therefore be as comprehensive and consultative as possible.

Bali, Indonesia

The invitation to bid was based on a feasibility study (not funded by PEMSEA) that did not explore all technical and contract options that could have resulted in a more realistic project design and cost. Without the additional revenues from CDM which were identified only after the contract had been signed with the private investor, the IRR of the project would have been only 2.53 percent. The need to bring in the CDM revenues led to substantial delay in the project. Without the CDM revenues though, the project would not even be feasible.⁴

The contract with the investor stated that unsorted waste shall be delivered to the designated waste processing plant. However, this contradicted reality since a 3Rs program was already being implemented in some areas of the city and some settlement and residential areas had already been practicing separation or segregation at source.⁵ These should be encouraged rather than discouraged in any program to improve solid waste management.

⁴ Case Study on Investments in Environmental Infrastructures in Bali, Indonesia, compiled by Yuyun Ismawati for PEMSEA ICM, October 2007.

⁵ *Ibid.*

Lesson 2:

Credible and sustainable cost-recovery mechanisms are critical in getting investor confidence.

Danang City, Vietnam

Hoa Khanh Industrial Park (IP) is one of the major industrial zones in Danang City. As of July 2003, it had 57 industrial establishments in operation while another 21 were under construction. After its completion, it is expected that a total of 130 enterprises would be operating there. Volume of wastewater discharged was estimated to be 10,000 m³/day by the end of 2005 and 20,000 m³/day by 2010.

As mentioned earlier, the wastewater treatment facility in Hoa Khanh IP has been built using state budget. It is being operated by DAIZICO, a state-owned enterprise. The facility was designed for a capacity of 5,000 m³/day. The current operation capacity is only 1,000-1,200 m³/day because many enterprises have not yet connected to the system. There are no sanctions yet for these enterprises.⁶

Puerto Galera, Philippines

In the pre-feasibility study done in 2006, estimated revenues from the proposed Environmental User Fee (EUF) for tourists were based on annual tourist arrivals provided by the local tourism office of 1,387,266, of whom 1,331,775 were local tourists. These were assumed to increase at 3 percent annually. The figures were largely based on tourist arrivals of 137,728 in 2002; 637,100 in 2003; 1,072,873 in 2004; and 3,993,427 estimated for 2005 (a four-fold increase). Local tourists were proposed to be charged PhP 30 each while EMF for foreign tourists would be PhP 150 with annual 5 percent increase.

Municipal Ordinance 06-03 approved in January 2007 established the EUF System in the Municipality of Puerto Galera. The EUF was set at PhP 50 per tourist, whether local or foreign.

According to the current mayor, Mayor Hubbert Dolor, EUF collections in 2008 amounted to around PhP 10 million. This went down to around PhP 7 million in 2009, partly due to the global financial crisis and resulting weak domestic economy. At PhP 50 per tourist, the numbers indicate that the EUF was collected from around 200,000 tourists in 2008 and 140,000 in 2009, only around 15 percent and 10 percent, respectively, of the estimated annual tourist arrivals of close to 1.4 million.

Of the total EUF collections, only around 60 percent is being allocated for the Sewerage Collection and Wastewater Treatment Project. This translates to PhP 6 million in 2008 and PhP 4.2 million in 2009. In the investment opportunity brief prepared in November 2008, annual revenues from the EUF for the Project were estimated at PhP 14 million. This shortfall has been mentioned as one of the issues that need to be resolved in order to get a loan for the project from the Development Bank of the Philippines or other government or private banks.

⁶ Case Study on Investments in Environmental Infrastructure in Danang, Vietnam.

Lesson 3:

Although the levels of ODA, particularly for middle-income countries, have been declining in recent years and can be expected to decline further, they are still available and remain an attractive option for some countries and their local governments.

Danang City, Vietnam

Since a replacement landfill was already being constructed in Kahn Son as part of the Danang Sanitation Project (DSP) funded by a loan from the World Bank and grants from the governments of Australia and Vietnam, it would have been more viable if the hazardous waste disposal facility had been integrated into the project. However, the local government preferred a stand-alone facility even if it would have to be operated jointly with an industrial wastewater treatment plant to reduce administrative costs. Unfortunately, even this was not feasible since the loadings of industrial and hazardous wastes were still too low. The hazardous waste that is not being incinerated is currently being disposed at the new landfill but this needs to be upgraded since it was not designed to handle hazardous waste.

For that matter, the Government of Vietnam also requires some big cities like Hanoi and Ho Chi Minh to finance their public works including environmental infrastructure from the ODA budget sourced from Government loans from foreign banks and organizations like the ADB, JBIC and IBRD.⁷

Bali, Indonesia

The Denpasar Sewerage Development Project had been first identified by a study funded by the Japan International Cooperation Agency (JICA). A loan agreement had been signed between the governments of Japan and Indonesia and was about to close without the project being implemented. When interest in the project was revived, partly through the ICM process promoted by PEMSEA, having the project implemented by a national government agency with a loan from JBIC was found to be more financially advantageous than getting a private sector partner who would have to secure financing at a higher interest rate and shorter maturity.

Lesson 4:

In some countries, the role of the private sector and need for transparency and competition in the procurement process are not so clearly defined in law, in policy or in practice.

Bali, Indonesia

In Indonesia, Presidential Decree No. 7 (1998) about Public-Private Partnership provides guidance for private sector involvement in the SWM sector. The steps to be followed were basically the same as those advocated by PEMSEA. And yet, as the case study⁸ notes, the investor selection process followed by the local government (without PEMSEA involvement) was not as accountable and transparent as it should

⁷ Institutional Framework for Private Sector Participation in Environmental Infrastructure Projects in Vietnam.

⁸ Case Study on Investments in Environmental Infrastructures in Bali, Indonesia, compiled by Yuyun Ismawati for PEMSEA ICM, October 2007.

have been. Invitation letters sent to prospective investors were very general without detailed requirements. Investor proposals were just as brief (mostly just 2-3 pages) and general. Investor presentations were scheduled with only two weeks notice (difficult for foreign investors who need to find flights and get visas). Evaluation of proposals was also made in general, using simple scoring, by a selection committee that did not include investment or financial experts.

Haikou City, China

In China, there are national, provincial and local laws, regulations and institutional arrangements governing the preparation and conduct of PPP projects. At the national level, the Government Procurement Law 2002 sets open tendering as the primary mechanism for government procurement but other mechanisms may be used under certain conditions specified in the law. The Tender Law 1999 contains specific provisions pertaining to the transparent and open processes of tendering, bidding, the opening of bidding documents, review and selection. The provincial and local laws, regulations and ordinances seek to implement the national laws and are allowed to be more stringent if warranted by local conditions. The pro-investment policies adopted by Hainan Province as a special economic zone are also applicable in Haikou City, the capital. There are many city government agencies involved in the various stages of PPP project preparation, approval, implementation and evaluation⁹. Although the PEMSEA Regional Task Force that visited Haikou in April 2006 explained the benefits of open tendering to the city's decisionmakers¹⁰, they preferred to select the private sector partner for the upgrading of the sewage treatment plant through negotiated bid rather than competitive bid.

Lesson 5:

In some countries, even those that are supposed to have decentralized structures, the local governments are not as autonomous as they might appear on paper. National government agencies still have a big role in approving some local government projects, particularly those related to the environment. Definitely, national government agencies continue to have a role to play in enforcing national environmental laws and standards and in providing technical and financial support to local governments.

Philippines

In the Philippines, the Ecological Solid Waste Management Act (ESWMA) was passed in 2001. It set a February 2004 deadline for shifting from open to controlled dumpsites and a February 2006 deadline for having sanitary landfills only. To date, there are less than ten sanitary landfills in the country and still many open dumpsites including in Bataan and San Fernando City. No mayor has been put in jail despite the penal provisions in the ESWMA. Similarly, the Clean Water Act signed into law in 2004 has gone largely unimplemented. If the concerned national government agencies show that they are serious about enforcing these laws, the local governments would be motivated to undertake the investments needed to comply with the laws.

⁹ Project Report on Development of Improved Environmental Infrastructure in the City of Haikou, Hainan Province, PR China, "Legal, Regulatory and Institutional Framework," 17-29 April 2006.

¹⁰ Confidential Report of the PEMSEA Regional Programme Office on the Development of Improved Environmental Infrastructure in the City of Haikou, Hainan Province, PR China, May 2006.

Vietnam

In Vietnam, the Law on Environmental Protection was passed in 2005 but sanctions for violations of the law have also not yet been put in place. National guidelines and mechanisms for hazardous waste management have also not yet been issued. There is a need to increase capital for the Environmental Protection Fund to support environmental investments at the local level. National regulations on incentives for private investors in environmental infrastructure and diversification of investment capital sources still have to be formulated.¹¹

Indonesia

In Bali, Indonesia, project coordination and implementation improved when the central government through the Ministry of Public Works became actively involved in the Denpasar Sewerage Development Project as the agency responsible for the JBIC loan and the project during the construction stage. After the wastewater treatment plant was commissioned, its operation and maintenance was turned over to a management body set up by the Governor of Bali but still supported by the Ministry of Public Works. The guidance from central government gave the provincial, city and municipal governments a better understanding of their roles and responsibilities in the operation and maintenance of the project. This is to ensure that an investment costing millions of US dollars is safeguarded and provides the maximum benefits for the people and the environment.¹²

Lesson 6:

Institutional arrangements that clearly define lines of authority and communication among the concerned local governments and national government agencies lower risks and transactions costs for private investors.

Bali, Indonesia

In 2001, Denpasar City and the Regencies Badung, Gianyar and Tabanan established an agency called the Badan Pengelola Kebersihan (BPK) SARBAGITA to manage their municipal solid waste. The agency reports directly to the Mayor of Denpasar and the three Regents. It also works closely with the Provincial Planning Authority (BAPPEDA). The agency is the main channel of communication between the private investor and the concerned local governments. From the point of view of the private sector, this setup is more efficient than their having to communicate directly with the five local governments.

Danang City, Vietnam

One environmental investment project had several public sector partners who did not coordinate with one another and were also often changed, leading to overlaps, confusion and project delays.¹³

¹¹ Case Study on Investments in Environmental Infrastructure in Danang, Vietnam.

¹² Case Study on Investments in Environmental Infrastructures in Bali, Indonesia, compiled by Yuyun Ismawati for PEMSEA ICM, October 2007.

¹³ Case Study on Investments in Environmental Infrastructure in Danang, Vietnam.

Lesson 7:

Capacity building for local government officials and local stakeholders promote better understanding and appreciation of and commitment to the proposed environmental projects.

Building local ownership is crucial to the successful implementation of PPP projects. Capacity building must be a part of a long-term strategy to provide an enabling environment at the local level, focusing not only on legal, policy and technical aspects but also on instilling the proper attitudes (e.g., waste segregation by households, willingness to connect to and pay for environmental infrastructure services) and values (e.g., transparency in procurement procedures) in the communities and local governments. These are essential for creating conditions where PPPs can be initiated and sustained by the trust and cooperation among key stakeholders. To bring about effective partnerships, the local governments have to understand the potential benefits of private sector participation and what are needed to make these possible.

Lesson 8:

Not only can the PPP approach be applied at all levels, including the village or community level, the success of projects using the PPP approach rests ultimately on the commitment and support they get from the communities involved. This can be facilitated through the promotion of Integrated Coastal Management.

Getting households and establishments to pay for improvements in environmental services usually requires a combination of strong political will on the part of the national and local governments to enforce environmental laws and of awareness on their part of the consequences of doing nothing and letting environmental degradation continue. These can be accomplished through the ICM framework and the support of projects/agencies like PEMSEA that can help to bring all the stakeholders together. In Danang City, Vietnam, an ICM demonstration site, PEMSEA contributed significantly to the enhanced awareness of stakeholders of the value of coastal natural resources and their sustainable use and protection.¹⁴

Through well-designed and analyzed surveys of prevailing environmental challenges and conditions and of willingness and capacity to pay for improvements in environmental services, cost-effective and affordable solutions can be found for SWM and other environmental problems. In Sihanoukville, Cambodia, the baseline survey asked respondents not only how much they are willing to pay but also what else they are willing to do to improve solid waste management in their locality.

Whether or not the sewerage treatment project in Puerto Galera in the Philippines will eventually get built rests largely in the hands of its residents as they decide on their local leaders in the coming elections and on whether or not they want to stop discharging their wastewater into the bay that has defined their ecology, economy and patrimony.

PPP can be facilitated within the framework of ICM. Integrating PPP within the larger ICM framework can help to generate community support and strengthen local government commitment and capacity to partner with the private sector. The emphasis of ICM on integration also provides a good framework for the PPP process to adopt a more integrated approach in developing and implementing environmental investment projects.

¹⁴ Case Study on Investments in Environmental Infrastructure in Danang, Vietnam.

Lesson 9:

Projects such as the MSP-PPP that promote PPPs at the local level for environmental infrastructure projects and that require multi-stakeholder consultations, awareness-raising and commitment should be given enough time and resources to achieve their objectives.

The MSP-PPP's strategy and design for achieving its objectives correctly included the building of multi-sectoral partnerships between governments, civil society and the private sector at the regional, national and local levels and capacity development for all concerned sectors. However, the time needed to undertake these activities was underestimated with project duration initially set at only two years. The project was extended by three and a half years with no additional grant funding. This was made possible partly by the non-hiring of two full-time staff mentioned in the Project Document. On hindsight, filling up at least one of the two full-time positions could have led to greater continuity and accountability in the delivery of outputs particularly the pre-feasibility studies.

4 Recommendations

For Promoting Public-Private Partnerships:

Undertaking environmental infrastructure projects through public-private partnerships entails a lot of risks for both the public and private sector partners. For the local political leaders, there are the risks of raising public expectations and not being able to meet them or of facing the ire of the people because of the need to instill discipline or to increase taxes or fees to raise revenues for financing the proposed project. These risks can become real through failure in the next elections or facing court cases for real or imagined transgressions. For the private sector companies, they invest time and money in the preparation of partnership proposals and feasibility studies with no assured returns. If they are chosen, they are sometimes made to take risks over things that are beyond their control. PPP can be facilitated when all of the following are in place:

Thorough and proper preparation and packaging of proposed environmental infrastructure projects

The pre-feasibility studies must provide comprehensive information on the status in the area as well as the desired results or outcomes of the projects so as to become more useful references for the private sector in coming up with options for innovative and feasible technologies. A comprehensive review and assessment of the needs of project sites will also enable both the public and private sectors to identify/develop integrated solutions to address interrelated concerns (e.g., waste, water, energy). The current volume and nature of wastes and the assumptions that can be safely made about their rate of increase during the life of the project should be clearly stated. Realistic estimates of the demand and likely revenues from any by-products of the waste reduction process (e.g., recyclable materials, compost, biogas) as well as from the collection of user fees or pollution charges should be provided in the pre-feasibility study. The suitability of sites proposed for the environmental facilities to be constructed should also be ascertained early on. All these information need to be provided to prospective private sector partners so that they can propose the technology that is most appropriate and affordable for the locality involved.

The pre-feasibility studies should also present the available financing options with enough detail so as to guide the local government in deciding if PPP is the best approach and which of the PPP arrangements might be the more suitable ones. The various risks facing the project should be clearly identified and options given for mitigating those risks. The appropriate arrangements for sharing project risks and rewards should already be proposed. If a private sector partner is chosen, the information contained in the pre-feasibility study should be updated and complete enough to be useful in the preparation of the feasibility study and in exploring specific financing options.

Good pre-feasibility studies with the above characteristics lay a solid foundation for the concerned government entity to work with interested private investors in implementing the proposed environmental infrastructure investment. Projects that are well-prepared and adequately meet recognized environmental concerns will have a better chance of being implemented even with subsequent changes in political leadership that are inevitable given the long gestation and economic life of environmental infrastructure.

Committed and capable local government officials and communities

The concerned local government officials led by the local chief executive should have a real desire to improve the local environmental conditions through the proposed project and are willing to face opposition or better yet, win over those who are skeptical or threatened by the new facility or system. They should not be participating in the project just to please a donor but have real desire for and ownership of the project.

Governance issues such as clear delineation of responsibilities and decisionmaking powers among the concerned local government officials and national government agencies should be addressed early on. There should be only one lead public sector partner for every environmental investment project. That entity should have the authority and ability to coordinate with the other concerned government agencies.

Procurement processes should be made as transparent and competitive as possible. This is to get the greatest possible benefits from the partnership with the private sector for the community and to protect the reputation of all involved parties.

The ability of the local government to pass and enforce ordinances imposing or increasing user fees and mandating/prohibiting certain actions should be proven and demonstrated preferably before the private sector is brought in.

The host communities, target beneficiaries and other local stakeholders should be ready to accept the project and contribute towards its success, both financially and otherwise. Environmental protection is not achieved through the mere setting up of environmental infrastructure. The communities themselves have to do their part in making sure that the waste they generate gets into the waste processing facility. For solid wastes, segregation needs to be done at the household and community levels and fees paid for garbage collection. For wastewater, households and commercial establishments have to agree to connect to sewer lines to get their wastewater into the sewage treatment plants and also pay reasonable fees. Most environmental infrastructure investments are lumpy and costs per connection are lowered through greater volume. The cooperation of all target beneficiaries is therefore essential. This can be secured through a combination of enforcement of laws and ordinances and IECs to make them understand better the benefits of participation and where appropriate, tangible support from the national and local governments.

While both formal and informal leaders have a big role to play in starting up projects, sustainability should be ensured through the setting up of appropriate institutional arrangements where there will be orderly transition of power and authority to other generations of leaders and managers. Sustainability and succession plans should be prepared in the early stages of project implementation.

National government agencies that enforce environmental laws, promote policies that encourage private sector participation in the provision of public infrastructure, and provide the needed technical and financial assistance to local governments

Even in countries which have decentralized structures, the priority that the national leadership gives to good environmental governance and practices can affect the motivation and decisions of the local leaders in undertaking environmental programs and projects. Because of the externalities involved, local governments will tend to do as the others do and as the national government does. In places

where the local governments concerned do not have the financial or human resources to make a much needed investment in environmental infrastructure, the national government should provide the financial resources and technical support required to make the investment feasible, sustainable and where appropriate, conducive for private sector participation.

In the Philippines, for example, the Constitution and the Local Government Code provide that the preservation of ecological balance is a shared responsibility of the national and local governments. Decentralization cannot be used as an excuse for the national government to not carry out its responsibilities to protect the environment. There should be clearly identified, capacitated and committed champions at the national level for the reduction of pollution from both solid and liquid wastes, so-called hazardous or not. All types of waste, if left untreated, eventually become hazardous to the health of the human, animal and plant populations and to the land, air and water bodies themselves.

National oversight agencies should also ensure that government agencies, corporations and financial institutions do not crowd out the private sector, either as project proponents or financiers, from undertakings that they feel comfortable enough with. Particular care should be taken that ODA is not used for that purpose. The national government should instead work with its ODA providers to help bring in private sector participation and capital into infrastructure development including environmental infrastructure. The national government should help to reduce private sector risks by enforcing laws and contracts, putting in place a stable and transparent regulatory framework, providing technical support and advice to local governments as well as access to loans and grants (as appropriate).

Private investors that are committed to helping protect the environment and building up local capacity

Although private companies are by their very nature motivated by profit, environmental infrastructure is a public good, and private sector participation in the provision of public infrastructure will be better accepted by other stakeholders if private sector partners are perceived to have a sincere desire to help protect the environment and respect for community values. They should uphold high standards of professionalism and healthy competition. They should promote technologies that are affordable and adapted to the local situation. They should also be willing to train local professionals, community leaders and officials of the local government on the proper maintenance and operation of the environmental infrastructure that they construct.

Development partners that support the national and local governments in the above efforts by using their funds and expertise to bring in contributions from the public and private sectors

Development partners should make sure that their ODA is not used to displace or crowd out the private sector either as project implementers or financiers. They should instead work with the concerned national government agencies and/or local governments to find ways of using their long-term funds and concessional rates as well as international experiences to reduce the risks inherent in PPPs. This can be done by setting up financing facilities through which local governments and their private sector partners, and where appropriate, the concerned national government agencies or corporation, can avail of funds at the terms and rates that will make the investment in environmental

infrastructure viable and sustainable. They can also set up mechanisms that will encourage co-financing from domestic private and government institutions or provide credit enhancements. ODA providers are also in a good position to strengthen the regulatory frameworks and capacities that will make the tariff-setting process transparent and predictable, the foremost requirement for private sector participation in the provision of public infrastructure. Development partners can also play a key role in supporting IEC and capacity-building activities for all stakeholders including the entities that will be maintaining and operating the environmental facility after construction.

For PEMSEA's Future Roles and Strategies

With PEMSEA now having an international legal personality as the regional mechanism for the implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), the following recommendations for PEMSEA's future roles and strategies are submitted for consideration:

Building on its experience and expertise in ICM implementation, PEMSEA can act as service provider for or facilitator of environmental investment projects that focus on improving governance, capacity development and environmental infrastructure. PEMSEA can promote a more integrated approach to PPP by building it within the larger framework of ICM and sustainable environmental financing.

The mission of PEMSEA could be rephrased as “to promote the sustainable development of the countries in the East Asian Seas region by assisting in the formulation and implementation of the ICM Framework at the regional, national and local levels and by helping to build intergovernmental, interagency and inter-sectoral partnerships.” If the necessary conditions mentioned in the section above are present, public-private partnerships may be considered appropriate for implementing some of the priority environmental infrastructure projects identified through the ICM process.

PEMSEA's experience and expertise in ICM implementation can help in establishing PEMSEA as a service provider, facilitator or “honest broker” in developing and implementing PPP projects using ICM as the general framework. The experiences and lessons learned from the implementation of MSP-PPP have also provided PEMSEA with a deeper understanding of the strengths and limitations of PPP.

It would be more strategic, for example, and ultimately lead to greater success if PPPs are identified and supported within the ICM framework in three phases. The first step is to introduce the ICM framework and institutional arrangements at the local level and help to raise the awareness of local stakeholders and build consensus on the major environmental concerns and priority investment projects. The second step is to determine if the necessary conditions mentioned above for PPP are present in the proposed project area. If PPP is deemed to be appropriate, the public sector partner will decide if it will choose its private sector partner in a transparent and competitive manner. If it is ready to do so, then PEMSEA would proceed with the third step which is to provide the necessary technical assistance, investment advice and capacity building to prepare and package the project for private sector participation.

PEMSEA to focus on the identification, prioritization and packaging of environmental infrastructure projects within the ICM framework as its core competency. PEMSEA to provide an in-house capacity to prepare and evaluate pre-feasibility studies that will present alternative technical and financing options and institutional arrangements based on a realistic assessment of the types and levels of risks facing the proposed projects.

As noted in other documents¹⁵, the major problem in East Asia is not the lack of funds but the lack of well-prepared projects to be implemented, particularly in environmental infrastructure. Getting local communities and governments to decide to do something about an environmental problem is the first major challenge. The ICM framework with its emphasis on multistakeholder participation has been proven to be useful in breaking down the barriers to community consensus and action. These have been facilitated by PEMSEA through the conduct of stakeholder consultation workshops and surveys as well as information and education campaigns. Other international organizations and donor-driven projects do similar things to develop a common vision of how things can be improved environmentally in a project site. The next major challenge is transforming that vision into reality.

It has been noted that whereas most other ICM programmes in the region have ended up only with plans, PEMSEA was the first to actually try to implement projects. Lessons learned from the Xiamen and Batangas demonstration sites were considered valuable for planning and implementing future projects in controlling marine pollution.¹⁶

Identifying the environmental infrastructure projects that can bring about the desired improvements and choosing which of them can be implemented in the short, medium and long term require technical and financial expertise which are often not found in local governments. They would also need training and guidance on how to conduct studies and surveys to determine the capacity and willingness of intended beneficiaries to pay for the improved environmental services. The magnitude of the environmental challenge being faced and the objective conditions that will need to be considered in identifying and evaluating alternative technologies that can be used, financing facilities that can be availed of, and the appropriate roles for the national and local governments, local communities, private sector and NGOs will need to be adequately reflected in a pre-feasibility study. PEMSEA can provide the experts who will provide good advice on how to address the technical, investment and institutional issues facing the proposed projects.

The pre-feasibility study will then need to be discussed in depth with the local and national stakeholders in order to decide on the proposed course of action. PEMSEA can assist them in choosing from among the options presented and preparing a project strategy paper. If PPP is deemed the best possible option, only then will an investment opportunity brief be prepared and presented to investors in a roundtable with key stakeholders. If the project will be undertaken by the local or national government, PEMSEA can provide whatever technical assistance will be requested from it. In either case, PEMSEA can assist in getting any necessary support from international development agencies or financial institutions.

¹⁵ Annex B of 5 July 2008 document discussed at the 2nd EAS Partnership Council on the GEF/World Bank Partnership Investment Fund for Pollution Reduction in the East Asian Seas.

¹⁶ Review and Synthesis of Donor Projects in the East Asian Seas Region by Hansa Chansang, 1 May 2005. Paper prepared for the First Regional Partners Workshop on Regional Coordination Mechanisms in the East Asian Seas Region held in Bangkok, Thailand on 9-10 May 2005.

To ensure the good quality and thoroughness of the pre-feasibility studies, it is highly recommended that these be done by in-house teams that can tap external consultants on an individual or firm basis only for specific parts of the studies. The responsibility and accountability for the studies themselves should rest with full-time staff members of PEMSEA whose performance shall be evaluated partly on how well they are able to identify the risks facing the proposed project and mitigate these risks through appropriate design of the project. The teams should have experts from different disciplines who have experiences not only in planning but also financing or implementing infrastructure projects. They should be able to think 'outside of the box' in coming up with creative but practical solutions tailored to meet the unique needs and particular challenges of the proposed project. The pre-feasibility studies should be reviewed and approved by an inter-disciplinary committee composed of individuals who have distinguished themselves in their respective fields, including engineering, environmental science, economics, banking and finance, public administration and community organizing.

After PEMSEA has made a name for itself in providing the above-mentioned services, it can offer them to other international organizations or local and national governments for a fee. There would be a growing demand for it as more consensus is built in the region on the need to invest in environmental infrastructure. As mentioned above, there would be very few, if any, organizations at the regional or national levels that could rightfully claim to have the kind of expertise and experience needed to prepare and package such projects. PEMSEA already has a head start. It can learn from its experiences to date and position itself as the market leader while also helping to create the market for environmental infrastructure. Packaging implementable ICM projects can be PEMSEA's unique selling proposition. This can become PEMSEA's major source of revenues as an international organization with its own legal personality, after ceasing to be a GEF-supported project.

PEMSEA to engage in more policy dialogue with national government policymakers overseeing financing, development planning and budgeting, and investment and tourism promotion to convince them to invest more financial and human resources of the national government into environmental infrastructure and to put in place the appropriate financing policies and facilities and regulatory framework including those that will promote PPPs.

Environmental infrastructure investments are lumpy, have long gestation and have a lot of externalities. It would be unrealistic to expect that their cost will be fully shouldered by the direct beneficiaries because there are other indirect beneficiaries. Also, both the national and local governments are already collecting a lot of taxes from their constituents. Some of these taxes, especially those related to land ownership, should be used to keep up the value of the land by protecting the environment. Even in Japan, around half of the cost of sewerage projects was given as grants by the national government. More countries should be encouraged to set up an Environmental Protection Fund like Vietnam. In the Philippines, various funds have been created by law under the Ecological SWM Act, Clean Air Act and Clean Water Act but none of these funds have been made operational. Some loan facilities have been set up by ODA providers but the uptake is slow and low, partly because of the felt need for capital grants, either from the national government or its development partners. Not all projects need to be undertaken by the government itself. It can provide budgetary support directly as grants or indirectly through tax incentives and other forms of preferential treatment for private companies to encourage them to undertake investments in environmental infrastructure. The national and local governments also have to make sure that stable and transparent regulatory frameworks and agencies are in place to bolster investor confidence and to protect consumers and the environment.

It is not enough to have a few examples of success at the local level and hope that they will be replicated elsewhere. It would be more strategic and better in the long run to help set up an enabling environment at the national level, with champions from the environmental and financial sectors, that will make possible success at the local level, in different places at the same time.

Without sizable and meaningful support from the national government, it is difficult to implement projects at the local level since local government funds are generally quite limited, capacity and willingness to pay of local residents are also limited, and tourists are willing to pay only so much per visit (they cannot be expected to subsidize the whole effort to manage waste in an area that they visit only once in a while). In some countries like the Philippines, the terms of local officials are only for three years, so there is less continuity of policies and priorities. It would also be unfair to put most of the burden on the private sector. Waste management projects generally need large volumes of waste to be viable and these can be generated only in the medium to long term. But the waste that is already being produced needs to be properly disposed of. Government would need to come up with appropriate measures and absorb any losses in the short term. The private sector can come in later, after bigger projects become economically and financially viable. There are also usually many complex institutional issues at the beginning of a project. These include permits to be obtained from many government agencies, need for a new entity to manage the project, starting or improving a user fee system. As was shown in several of the projects assisted by MSP-PPP, particularly in Danang (Vietnam) and Bali (Indonesia), the involvement of the national government made possible the implementation of the projects that were not yet feasible at the local level.

PEMSEA to work more closely with other development partners in assisting the national and local governments put in place the financing policies and facilities and regulatory frameworks that will support investments in environmental infrastructure including from the private sector.

In the Philippines, the multilateral financial institutions (World Bank and Asian Development Bank) are engaged in policy dialogues with the Department of Finance and other oversight agencies on mechanisms for leveraging ODA with private capital. There are also working groups under the Philippines Development Forum in which the development partners, national government oversight agencies and league of local governments discuss issues on decentralization and on water supply and sanitation. As an international organization, PEMSEA can participate in these groups and thereby strengthen its working relationships with the key stakeholders and decisionmakers. There are probably similar groups in the other member countries that PEMSEA can work with.

With PEMSEA now an international organization with its own legal personality, it can explore and establish partnerships with other ODA providers (ADB, JBIC, KfW) to foster synergies in their projects in the region. ADB finances many of the environmental infrastructure projects currently being implemented in developing countries in the East Asian Seas region, including Cambodia and Vietnam. JBIC and KfW have the long-term funds and concessional rates that are particularly helpful for environmental infrastructure projects which generally become viable only after long periods of gradually increasing their volume of customers and the wastes that they generate. JBIC is a major provider of ODA in South East Asia including the Philippines and Indonesia. KfW has strong links with the private sector in Germany and the rest of Europe who have much of the technology that is currently available in the field of waste management and recycling waste into energy.

To promote PPP as a viable financing option and institutional arrangement, PEMSEA can work more closely with the Public-Private Infrastructure Advisory Facility (PPIAF) administered by the World Bank, which has recently launched a number of initiatives in the region to promote private sector participation (PSP) in the water sector and solid waste management.

PEMSEA to work with ODA-providers in increasing the number and capacity of local private companies ready and willing to undertake environmental infrastructure projects, reducing the risks involved for them, and increasing the financing options available to them.

Most of the environmental infrastructure projects that are already being implemented are being funded by national and local governments, usually with ODA. There are also usually very few, if any, local companies who have the technical and financial capability to bid for and implement environmental infrastructure projects. While some of the big local companies are involved in public infrastructure, these are mostly toll roads, power plants, telecommunications, and transportation. Very few, if any, are involved in environmental infrastructure. As a transition, ODA-providers can involve local private companies in environmental infrastructure projects through the more traditional design-build contracts, possibly in consortium with foreign companies, to familiarize them with these types of projects and increase their confidence and capacity to undertake similar projects in the future. The involvement of ODA-providers in an environmental investment project can also provide confidence, implicitly or explicitly, to private companies that the project will be implemented by the public sector partner in a timely and transparent manner.

Private sector companies involved in environmental infrastructure projects will need access to medium to long-term funds, preferably at lower than market interest rates, which are not available from regular commercial sources. PEMSEA can work with the ODA-providers and concerned government agencies in setting up the needed financing facilities or expanding existing ones to cover environmental infrastructure. It would be ideal if PEMSEA could also come up with a mechanism, together with other ODA-providers, for compensating private companies who make and win bids or potential financiers for projects that do not get implemented for some reason. This would be useful to continue to attract serious bidders who invest time and money to tailor fit their partnership proposals to a particular project and not just 'cut and paste' them. When project development risks are lower, financing costs can also be lowered.

PEMSEA to strengthen cooperation among its member countries and with other regional organizations and programmes in order to realize their shared vision under the SDS-SEA

Within the East Asian Seas region and among the Country and Non-Country Partners of PEMSEA, there is a huge amount of technical expertise and innovations in sustainable development and management of coastal areas that can be tapped in order to find the technological and management solutions that will be appropriate for a particular locality. Some Partner Countries of PEMSEA may also be willing to provide grants and concessional loans for projects in other Partner Countries that will reduce pollution in the East Asian Seas (e.g., China; Japan, RO Korea, Singapore).

While PEMSEA assists local governments and communities in formulating ICM programmes and implementing environmental infrastructure projects, other regional organizations and programmes, such as ASEAN, APEC, COBSEA, NOWPAP, WESTPAC focus on socioeconomic and scientific

assessments of the conditions and causes of the quality of marine life and have built databases on these that would be useful in planning coastal management programmes and projects as well as monitoring their long-term impacts. The scientific research supported by these regional organizations and programmes, as well as donor-supported regional projects in the Yellow Sea, Sulu-Sulawesi Seas, Arafura-Timor Seas and Coral Triangle, can also help to identify and develop technologies to prevent or control marine pollution while the scientists and technicians that have been trained under these programmes can be tapped by PEMSEA for its capacity-building activities. PEMSEA can also support these regional programmes in planning and implementing their projects.

For Future UNDP Projects:

For future projects in environmental investments, based on the outcomes of this project, the following are recommended:

Outcome indicators that measure not only quantity of outputs but also their quality

In particular, the good quality of CVM surveys, pre-feasibility studies and investment opportunity briefs must be assured since they will have a large impact on the feasibility and acceptability of the projects that are being proposed to be undertaken. They should feed into each other in sequence for consistency and give the selected private sector partner a good basis for preparing the feasibility study and environmental impact assessment.

A protocol or manual with detailed guidelines and checklists can be prepared to guide the consultants who will conduct the CVM surveys and prepare the pre-feasibility studies and investment opportunity briefs. A quality assurance officer can be hired to ensure that these outputs comply with the scope and standards expected of them.

Adequate resources made available to achieve the project's objectives within a realistic timeframe

This applies to the project as a whole as well as the individual activities in the project (e.g., preparation of pre-feasibility studies).

While the non-hiring of an Environmental Investment Technical Officer and an Environmental Investment Specialist may have made it possible for MSP-PPP to be extended for three and a half years without an additional budget allocation from GEF, there may have been benefits in hiring them on a full-time basis so that the Senior Technical Officer and Economist could oversee their work.

A project development schedule that considers the electoral and budgetary cycles

While a committed local chief executive is in office, as many agreements and ordinances should be signed to bring the project into more advanced stages. This can be facilitated by streamlining internal review and approvals processes. When there is a new local chief executive, private sector

risk can be minimized by getting to know his priorities and concerns and securing support for the proposed project before undertaking the next stage of project preparation particularly if it involves investment of time and money (e.g., feasibility study).

The budgetary cycle of the local government should also be considered if contributions in cash or in kind will be needed for the preparation or implementation of the proposed project.

For Puerto Galera:

For the ongoing PPP in Puerto Galera which is still facing many issues before actual construction of the sewerage collection system and wastewater treatment plant can begin, the following are strongly recommended:

Additional technical assistance be given by PEMSEA to help resolve the issues holding up the issuance of the Notice to Proceed, to continue the IEC, and to set up the contract management office and monitoring and evaluation system for the project.

Given the urgent need for the proposed project to protect the people and economy of Puerto Galera and the biodiversity of the Verde Island Passage as well as the strong commitment of the local government and private sector partners to continue working together, the pending issues should be addressed immediately to avoid further delays in project implementation. Although municipal elections are coming up in May 2010, with the current Mayor and Vice Mayor (the former Mayor) vying for the mayoral position, both have shown strong support and leadership for the project at different stages of its planning and preparation. The remaining months before the elections and assumption of office by the newly elected mayor can be put to good use by preparing a complete and updated feasibility study that can be used to get the necessary financing, additional land and right-of-way, and public support. The total project cost should cover all the land, right-of-way and facilities for sewerage collection and treatment as well as the enhancements proposed and partially being implemented already by the private sector partner.

The financing plan should show how the following sources of funds and revenues can be put together in a realistic manner so as to make the project financially feasible and sustainable:

1. Environmental User Fee from tourists;
2. User fees from households, tourist and other commercial establishments;
3. Loans from government and private banks, to be taken out either by the local government or private sector partner;
4. Grants from the National Government (if any);
5. Grants from other countries (including PEMSEA member countries) or international organizations (government or non-government); and
6. Budget allocation or collateral from the local government.

With technical assistance from PEMSEA, another information and education campaign (IEC) should also be conducted to strengthen support for the project among the residents of Puerto Galera and even its neighboring municipalities. It can be explained that Puerto Galera is currently at a

crossroads. It can decide to immediately address the sewerage problem that is degrading its coastal environment and realize its full potential as a viable and competitive destination for local and foreign tourists, including families, and serve as entry point for other parts of Mindoro Island that can cater to tourists who wish to pursue adventure or cultural undertakings. Or it can let the environmental degradation continue, which can lead to social degradation as well should it find itself depending on the desirable types of tourists when other tourists look for safer and healthier places to visit with their families. Should it choose the former, it can even use its wastewater treatment system as a demonstration project from which students, tourists and even other local governments in the country and in the region can learn how to take better care of their environment.

Even after the construction of the sewerage pipes and wastewater treatment plant, many matters would still need to be looked after including the collection and utilization of the EUF and user fees, maximizing the positive impacts of the project on tourism and other sectors of the local economy, and compliance with the stipulations of loan and grant agreements and the contract with the private sector partner. Capacity of the local government and communities to monitor project implementation and gathering information on which to base project evaluation would also need to be built up, preferably with technical support from PEMSEA.

Re-assessment of the EUF and tapping of additional financial resources be facilitated by PEMSEA to support the needed initial capital cost of the proposed project

In view of the lower than expected number of tourist arrivals, partly due to the global financial crisis, and other environmental projects that need to be financed from collections of the EUF from tourists, PEMSEA can provide assistance in facilitating the review and re-assessment of the EUF after the forthcoming elections as well as identification of possible sources of a capital grant that would help to get the project implemented. In addition to possible grants from the national government, PEMSEA can provide assistance in exploring grants from the other member countries of PEMSEA (e.g., Japan, Brunei) or other Non-Country Partners or donor agencies. These grants could be fully justified by the possible effects of continued pollution in Puerto Galera/Verde Island Passage on the seas surrounding these countries.

Annexes

About the Evaluator

Dr. Ma. Cecilia G. Soriano holds a Ph.D. in Economics from the University of California at Berkeley. She is a member of the Steering Committee of the Global Water Partnership (GWP) – South East Asia and the Regional Coordinator for the GWP ToolBox on Integrated Water Resources Management (IWRM). She is also a member of the Steering Committee of the AguaJaring-South East Asia Capacity Building Network for IWRM. She is the co-founder and treasurer of PhilCapNet, the Philippine Capacity Building Network for IWRM.

Dr. Soriano was the Convenor of the Ateneo Research Network for Development and is presently a lecturer at the Ateneo School of Government. At the same time, she chairs the Honors and Awards Committee of the Board of Trustees of the Ateneo de Manila University and the Department of Finance (DOF) Women's Movement for an Empowered Nation (WOMEN) Incorporated.

As Undersecretary of Finance from 1991 to 1998, Dr. Soriano oversaw the Domestic Finance, International Finance and Corporate Affairs Groups as well as the Bureau of Local Government Finance, among others. She spearheaded the formulation and adoption of the Local Government Units (LGUs) Financing Policy Framework which seeks to facilitate LGU access to private capital and has guided the flow of official development assistance (ODA) to LGUs. As a consultant for the Department of Finance (DOF), Department of Interior and Local Government (DILG), League of Cities of the Philippines (LCP), International Bank for Reconstruction and Development (IBRD) and the Asian Development Bank (ADB), she has reviewed the implementation of the Framework and recommended new strategies for pursuing the intended reforms and applying them to particular sectors and LGUs.

As a member of an international and inter-disciplinary team of consultants, she contributed to the study which led to the issuance in February 2004 of Executive Order (E.O.) 279 on Instituting Reforms in the Financing Policies for the Water Supply and Sewerage Sector and Water Service Providers and Providing for the Rationalization of the Local Water Utilities Administration's Organizational Structure and Operations Thereof. The E.O. seeks to increase the participation of LGUs and government and private banks in financing water and sanitation projects. She has done related work on water sector reforms for the IBRD and GTZ and on new water and sanitation financing initiatives for AusAID and USAID.

She has organized and participated in many national and international conferences and training workshops on water resources management and PPP, among others. She has authored or co-authored many papers, case studies and publications on decentralization, performance-based grants, LGU and other sub-national financing, payments for environmental services, and credit and investments in the water sector.

Terms of Reference

I. Introduction

The Development and Implementation of Public-Private Partnerships in Environmental Investments Project is a Global Environment Facility (GEF) supported medium-size project (MSP) implemented by UNDP and executed by the International Maritime Organization (IMO). The project is in line with GEF Operational Programme No. 8, "Water-body based program" and No.10, "Contaminant-based program." The East Asian Seas countries – Cambodia, China, Indonesia, Malaysia, RO Korea, Philippines, Thailand and Vietnam – endorsed the Project. The Project commenced in 2004 and was completed in 2008.

This initiative/project aims to build confidence and capabilities in public-private sector partnerships (PPP) as a viable means of financing and sustaining environmental facilities and services for the protection and sustainable use of the marine and coastal resources of the East Asian Seas region. In particular, the expected main project outcomes are as follows:

- a. At least three new self-sustaining public-private partnership arrangements in environmental infrastructure/services (sewage/sanitation) serving as working models/training grounds for local governments of the region;
- b. A series of land-based pollution prevention and reduction pipeline projects identified among the participating countries;
- c. A tested set of guidelines, training materials and case studies on PPP, supporting national and local government planners and decisionmakers in implementing sustainable environmental management programmes;
- d. National policies and instruments encompassing the financing and management of environmental facilities and services, including revenue collection, revenue sharing and cost recovery, the development of borrowing capacities of municipalities and partnerships with the private sector;
- e. PPP process acknowledged as an acceptable alternative delivery system, enabling PPP project access to loans, loan guarantees and other forms of financing; and
- f. A replicable approach to facilitating private sector investments in environmental infrastructure and services is promulgated.

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: (i) to monitor and evaluate results and impacts; (ii) to provide a basis for decisionmaking on necessary amendments and improvements; (iii) to promote accountability for resource use; and (iv) to document, provide feedback on, and disseminate lessons learned. Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify/document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

This final evaluation is conducted in accordance with established UNDP and GEF procedures and is to be undertaken by the project team/PEMSEA and the UNDP CO, who will commission an independent

consultant/specialist, with support from UNDP/GEF. The Logical Framework matrix provides performance and impact indicators for project implementation along with their corresponding means of verification. These, along with the objectives, procedures and tools described in the M&E plan presented in the project document will form the basis on which the proposed final evaluation of this project will be built.

The final evaluation will entail: (1) a desk review of all available project documents, including monitoring reports (i.e., Annual Performance Reports and Project Implementation Review, mission reports, report to Programme Steering Committee Meetings, auditing reports), case studies, and other project-related publications/articles; and (2) a field visit to one PPP site, i.e., Puerta Galera, Philippines.

II. Objectives of the Evaluation

The final evaluation will be conducted to assess the relevance, suitability, impact and effectiveness of the strategies, project design and management, implementation methodologies, communication and other related activities adopted and undertaken for the purpose of achieving the objectives stated in the project document.

In particular, the evaluation aims to:

- Identify and evaluate the effectiveness, lessons learned and outcome of strategies and activities of the project.
- Identify and evaluate the constraints and problems, which have been or are being encountered, the effectiveness of resource utilization and the delivery of project outputs.
- Assess progress towards attaining the project's global environmental objectives per GEF Operational Programme concerned (OP Nos. 8 and 10).
- Review and examine the process, outcome and extent to which project impacts have reached the intended beneficiaries (local government and concerned stakeholders), both within and outside project sites;
- Assess the approach and instruments which have been identified or applied at various sites to ensure long-term sustainability of project-initiated activities beyond the life of the project.
- Assess the likelihood of continuation of project outcomes and benefits after completion of GEF funding;
- Provide recommendations that might improve the design and implementation of other UNDP/GEF projects.

In line with the above objectives, the following key issues or areas will also be considered:

1. Changes in the enabling environment such as policy or priority changes, local government framework and leadership, and stakeholders involved;
2. Prevailing laws, processes or schemes on environmental investments and infrastructures in project sites;
3. Direct and indirect impacts or outcomes of the project or the application of the PPP process, such as government buy-in; influence on local and national environmental management and policies; fostering of synergy between public and private sector; enhancement of local governments and stakeholders' capacity and awareness; recognition of the project results and catalyzing positive actions; and scaling up of initiative.

III. Products Expected from the Desk Review/Evaluation

The Consultant/Specialist is expected to deliver the following outputs:

- Work plan
- Draft and Final Evaluation Report

The draft Final Evaluation Report will be circulated to project sites to confirm or validate information, together with the comments of PEMSEA and UNDP/GEF. The Consultant/Specialist will consolidate the comments and finalize the report addressing the comments gathered.

IV. Approaches and Methodology

The approaches and methodology to be employed by the consultant/specialist in undertaking the evaluation will include:

1. **Preparation of work plan and schedule.** The Consultant/Specialist will develop the work plan and schedule for the implementation or conduct of the desk review.
2. **Data gathering.** The Consultant/Specialist will gather data through desk review of the available and relevant documents, and a field visit to a PPP site in Puerto Galera, Philippines, with assistance from the PEMSEA project team.
3. **Analysis and evaluation.** The Consultant/Specialist will evaluate the effectiveness of the overall project management strategies, approaches and methodology adopted in relation to the project development objectives.
 - Effectiveness of PPP as a process in planning, developing, implementing and managing an environmental facility/service;
 - Viability of PPP as an alternative to conventional means of procurement;
 - Effectiveness and sustainability of the established PPP projects;
 - Adequacy of efforts in promoting the application of PPP in developing and implementing environmental investments (including efforts on awareness building/trainings, stakeholder consultations/involvement, socio-economic assessments, surveys, etc.); and
4. **Preparation of Final Evaluation Report.** The Consultant/Specialist will prepare, complete and/or refine the Final Evaluation Report.

V. Qualification of the Evaluation Consultant

The Consultant/Specialist must have an expertise on environmental investments and M&E. He/She should have proven experience in project development and management in areas of agricultural, municipal and

industrial waste management, environmental policy, financing mechanisms, and policies and regulations impacting on investments. He/She should possess the following qualification:

- A postgraduate degree in Economics, Business Administration, Engineering, or relevant field;
- At least 15 years professional experience in environmental infrastructure and related financing arrangements, preferably with international exposure;
- Familiarity with GEF principles and expected impacts in terms of global benefits;
- Familiarity with operating styles , policies and programmes of local and national governments involved in the project;
- Excellent writing and analytical skills and excellent knowledge of spoken and written English; and
- Demonstrated ability to assess complex situations in order to succinctly and clearly distill critical issues and draw forward-looking conclusions.

VI. Implementation Arrangements

Management arrangements – The PEMSEA Office shall be the main operation point for the evaluation, which shall be responsible for providing all available project documents for review as well as facilitate arrangements and coordination for the evaluator’s field visit.

Time frame – The evaluation will be conducted for a period of 17 days commencing on January 18, 2010.

VII. Work Plan and Outputs

The consultant/specialist is expected to deliver the following outputs:

Output	Description
	Signing of the Contract
1	Workplan
2	Draft Final Evaluation Report
3	Final Evaluation Report

Project Identification and Financial Data

I. Project Identification

GEF Project ID: 00039367

GEF Agency Project ID:

Countries: Cambodia, China, DPR Korea, Indonesia, Malaysia, Philippines, RO Korea, Thailand, Vietnam

Project Title: East Asian Seas Region: Development and Implementation of Public Private Partnerships in Environmental Investments

GEF Agency (or Agencies):

II. Dates

Milestone	Expected Date	Actual Date
CEO endorsement/approval		8 June 2004
Agency approval date		
Implementation start		
Midterm evaluation		
Project completion	June 2006	31 December 2009
Terminal evaluation completion	May 2010	31 August 2010
Project closing	June 2006	

III. Project Framework

Intended Outcome as stated in the Country Results Framework: Increased investment opportunities for environmental improvement and coastal and marine resource development and management
<p>Outcome indicator as stated in the Country Programme Results and Resources Framework, including baseline and target: More than US\$ 600 million in environmental infrastructure improvements identified as investment opportunities.</p> <p>Baseline: Limited knowledge/capacity among national and local governments of the region to develop/promote environmental infrastructure projects to leverage private sector investment.</p> <p>Target: Three (3) self-sustaining public-private partnership arrangements developed/operating as working models/learning centers for governments of the region.</p>
Applicable Strategic Area of Support (from SRF) and TTF Service Line (if applicable): Sub-goal 2 Regional and global instruments for environmentally sustainable development that benefit the poor
Partnership Strategy: Build national and sub-national capacities to create a policy and investment climate that is conducive to private sector investment and the forging of multi-sectoral partnerships for the implementation of the SDS-SEA.
Project title and number: Development and Implementation of Public-Private Partnerships in Environmental Investments

Annual Output Targets

Year 1 – Local governments identify and promote investment opportunities to network of private sector investors and operating companies.

Intended Outputs	Output Targets for 2004-2005	Indicative Activities	Nature of Input	Input (US\$)
Output 1: Priority environmental infrastructure improvement projects identified, and supported by local governments and communities at selected PEMSEA sites in the EAS region.				
Output 1.1: Project office established and operationalized. Indicator: Staff hired and project inception report submitted to UNDP.	Establishment of a project office in the first month of the project.	4.3.2: Hire professional and administrative staff for PEMSEA Regional Programme Office	Staffing by PEMSEA	Project Management \$6,500
		1.1.2 Identify and delineate roles and responsibilities of local institutions for project management and implementation at each selected sites	Confirmation of representation on Project Steering Committee	Project Steering Committee \$20,000
			Negotiation with local government units regarding staff support	Operation and maintenance \$2,500
			Delineation of roles and responsibilities of all participants	Evaluation mission \$15,000
			Subtotal	\$44,000
Output 1.2: Potential environmental investment projects identified and public consultations undertaken. Indicator: Five (5) environmental infrastructure improvement projects identified and established as priority investment projects by participating local governments.	Inventories of environmental infrastructure improvements at five selected locations, including Bohai Sea (China), Manila Bay (Philippines), Xiamen (China), Bali (Indonesia), Klang (Malaysia), and Danang (Vietnam). Priority ranking for environmental infrastructure improvement projects at each site.	1.2.1: Gather data on existing environmental infrastructure facilities and services.	PEMSEA technical support	Technical/expert support \$20,000
		1.2.2: In collaboration with NGOs and POs, where available and appropriate, assess the social, economic and environmental risks posed by the current situation, re: pollution; public health; employment; development; food security; etc. on different sectors of society.	Meetings/consultations;	Meetings/consultations \$1,000
			Local government units (LGUs) review coastal strategy and define priorities;	Duty Travel \$10,000
			Duty travel	
		1.2.3: Undertake public consultation/consensus building on the need for change and the selection of priority projects.	Subtotal	\$31,000
Output 1.3: Pre-feasibility studies for environmental infrastructure projects completed Indicator: Five (5) pre-feasibility studies and contingent valuation surveys, including analysis of policy, legal/regulatory, technical, social, financial, economic and environmental issues, presented to national and local governments for review and approval.	Five pre-feasibility studies for environmental infrastructure projects completed addressing the legal/regulatory, technical, financial, economic, and social issues of the concerned projects, and the options, benefits and risks associated with public-private partnership arrangements as a means to deliver and sustain the projects;	1.3.1: Gather/analyze information on existing and forecast user requirements (20-25 years), technical options for meeting needs, existing capacities, options for improving capacities, and the financial, economic and social implications and risks of each option.	Local/national technical expertise to conduct pre-feasibility analysis;	Five (5) pre-feasibility studies \$75,000
			PEMSEA technical support/training of local personnel;	Five (5) public awareness/contingent valuation surveys \$25,000
		1.3.2: Review the existing policies, regulations, enforcement capabilities and practices at the national	Human resources to conduct surveys from national and local governments and institutions;	
			National consultant/legal expert to conduct regulatory/policy review.	

Intended Outputs	Output Targets for 2004-2005	Indicative Activities	Nature of Input	Input (US\$)
	<p>Five contingent valuation surveys (willingness-to-pay) completed.</p> <p>Policy/regulatory and administrative review to identify/address government rules, procedures, incentives and constraints to priority projects, environmental investment process and public-private partnerships.</p>	<p>and local government levels, specifically with regard to environmental management and control mechanisms, and private sector participation and investment in environmental infrastructure projects.</p> <p>1.3.3: Present/select appropriate options for governments, including the roles and responsibilities of national and local governments, local stakeholders, and the private sector in delivery of identified projects, including institutional reforms.</p> <p>1.3.4: Implement public awareness programmes and community consultations, designed to inform the concerned communities and sectors about the project and its purpose.</p> <p>1.3.5: Conduct contingent valuation surveys, designed to determine the willingness of households and other sectors of communities to pay for the proposed changes in services.</p> <p>1.3.6: Organize national workshops to identify and address legal and procedural issues arising from the projects and the proposed partnership arrangements.</p>	Local government units and NGOs to develop strategies and action programmes for mobilizing civil society	
			Subtotal	\$100,000
<p>Output 1.4: Local governments and communities make commitments to environmental infrastructure improvement (e.g., sewage; sanitation) projects.</p> <p>Indicator: Letters of Intent signed with LGUs and local stakeholders confirming commitments to the development and implementation of the proposed projects.</p>	<p>Five local government ordinances/resolutions calling for investment in the priority projects and partnership arrangements with the private sector.</p> <p>Agreements signed among local government units, relevant agencies of central government, local communities, NGOs, and/or local private sector in support of the investment projects.</p>	<p>1.4.1: Initiate a risk management/risk reduction plans of action designed to address and overcome identified constraints and bottlenecks to the proposed projects and partnership arrangement processes.</p> <p>1.4.2: Clarify and confirm concrete commitments and inputs required from local governments, communities and concerned stakeholders, as well as private sector partners, in order to reduce/manage all identified risks.</p>	<p>Local government, community and NGO workshops to identify concerns and constraints;</p> <p>Local government resources draft/adopt ordinances and agreements; technical support from PEMSEA</p> <p>Roles, responsibilities and benefits sought by communities and NGOs as partners in the development and implementation of the project delineated and confirmed.</p>	<p>Workshops \$5,000</p> <p>Reporting/Publications \$7,000</p>

Intended Outputs	Output Targets for 2004-2005	Indicative Activities	Nature of Input	Input (US\$)
		1.4.3: Build consensus, develop agreements, identify roles and responsibilities, and mobilize actions among local governments, communities and concerned stakeholders to fulfill the required commitments.		
			Subtotal	\$12,000
Output 2: Global network of private sector investors and companies engaged in PPP development in the region.				
Output 2.1: National, regional and global networks of operating companies, investment groups, contractors, and foundations established. <u>Indicator:</u> Investors Network established and providing private sector, financial institution, and investor group inputs to development, promotion, and implementation of investment projects.	A virtual center for environmental investments set up on the Internet, providing information on investment opportunities in pollution prevention and reduction projects. National/regional networks of operating companies and investment groups operationalized and participating in Investors Roundtables at sites.	2.1.1: Develop a virtual investment center on the Internet, where interested investors and operating companies can register, and thereby access information on investment opportunities in the region.	PEMSEA programming and webpage development	Project management \$6,500
		2.1.2: Promote linkages with other private sector networks operating among IFIs, UNDP, UNEP, UNIDO, and private sector associations, such as the Global Compact Initiative (ICI).	Linkages with PPP proponents Inaugural meeting of PPP Network, including investors and operating companies PPP Network engaged to address/strengthen PPP process in each participating country Equipment/software purchase	Duty travel \$10,000 Global networking \$50,000 Equipment/software \$23,000
		2.1.3: Identify pertinent business associations, companies, investment organizations, banks and donors operating in each location, nationally and internationally.		
		2.1.4: Develop agreements with business associations and banks to co-organize the Investors Roundtable and to promote the investments to their respective networks.		
			Subtotal	\$89,500
Output 2.2 Investors Network engaged in PPP projects. <u>Indicator:</u> Partnership Proposals submitted by private sector and investors for environmental infrastructure projects at each site.	Five Investors Roundtables conducted with the participation of private sector operating companies and investment groups. Partnership Proposals submitted by members of the Investors Network to local government units promoting PPP projects.	2.2.1: Prepare investment opportunity briefs on the five projects, summarizing the technical, financial, economic and social aspects of each project	PEMSEA technical expertise in preparation of investors opportunity briefs PPP Network co-organizes Investors Roundtables	Technical/expert support \$25,000 Training \$10,000
		2.2.2: Disseminate the investment opportunity briefs utilizing the virtual investment center and linkages with other PPP networks.	Training of local/national professionals National and local government approvals of investment opportunity briefs	Investors Roundtables \$50,000 Sundry \$5,000

Intended Outputs	Output Targets for 2004-2005	Indicative Activities	Nature of Input	Input (US\$)
	Private sector partners and/or investors selected by three local governments.	<p>2.2.3: Organize an Investors Roundtable at each location, providing a forum for exchange of information on the projects, the local stakeholders commitments to the projects, the expected inputs from the private sector partners; the process for selecting partners, the proposed partnership arrangements, and calls for Partnership Proposals.</p> <p>2.2.4: Systematic and transparent process for receiving and evaluating Partnership Proposals developed and confirmed among local governments and Investors Networks.</p> <p>2.2.5: Organize multi-sectoral teams, representing the local project proponents, to review and evaluate Partnership Proposals, including representatives from local and national governments, local communities, and financial and technical institutions.</p>	Organization and implementation of Investment Roundtables	Reporting \$2,000
			Subtotal	\$92,000
			Total Budget Year One:	\$368,500

Annual Output Targets

Year 2 – Multi-sectoral partnerships established; PPP confirmed as a viable alternative delivery mechanism; PPP pipeline projects identified at country level.

Workplan for Year 2

Intended Outputs	Output Targets for 2005-2006	Indicative Activities	Nature of Input	Input (US\$)
Output 3: Public-private partnerships for developing, financing, implementing and managing environmental facilities/services established				
Output 3.1: Partnership arrangements established for environmental infrastructure improvement projects.	MOAs negotiated and signed between local governments and their respective private sector partners.	3.1.1: Develop and implement a negotiating forum/procedure among the concerned parties at each site, producing MOAs on the roles, responsibilities, outputs and schedules for confirming the projects and the partnership arrangements.	<p>PEMSEA technical advice/support in MOA negotiations and conduct of feasibility studies</p> <p>Legal support to prepare MOA</p>	<p>Project management \$31,500</p> <p>Technical/expert support \$25,000</p> <p>MOA preparation \$45,000</p>

Intended Outputs	Output Targets for 2005-2006	Indicative Activities	Nature of Input	Input (US\$)
Indicator: At least three mixed ownership operating companies or joint venture arrangements established to plan, develop, finance, construct and manage environmental facilities.	Comprehensive feasibility studies/business plans developed/finalized for three investment projects.	3.1.2: Define the main issues or uncertainties that need to be addressed in comprehensive studies, along with the key benchmarks for determining partnership and project viability.	Technical, financial, administrative, legal, socio-economic assessment by local governments and stakeholders	Duty Travel \$10,000
	Year 2: Partnership			Training Workshops \$10,000
	Partnership arrangement negotiated/company incorporated.	3.1.3: Oversee the conduct of the joint feasibility studies to be undertaken jointly by the two parties.	Review /evaluation by Project Steering committee	Sundry \$5,500
	Monitoring and evaluation of the partnership arrangement reported.	3.1.4: Identify and negotiate the principles underpinning the project and partnership, including the coverage provided to the poor, and the roles of communities and NGOs in the partnership arrangement, as well as the modus operandi for its long-term operation with the parties and supporting financial institutions/ investors.		Project Steering Committee \$20,000
		3.1.5: Confirm resource needs, revenue streams and financial arrangements for raising/guaranteeing the required capital.		
		3.1.6: Formalize the partnership arrangement and delineate technical, financial and socio-economic indicators of achievement and success for the partnership and the project.		
		3.1.7: Set up/implement a monitoring system to determine the progress, involving communities and other members of civil society in the monitoring and reporting process.		
			Subtotal	\$147,000
Output 4: National and local capacities in environmental investments and PPP projects developed.				
Output 4.1: Awareness and capabilities of national and local governments and the private sector to develop and implement PPP projects strengthened.	Case studies, guide and policy briefs on facilitation of PPP prepared and disseminated to local governments.	4.1.1: Prepare a series of case studies on the development of PPP projects and partnerships, lessons learned, and guidelines implementation of PPP process.	Coordinate/develop case studies, training materials, policy briefs, regional and national training programmes;	Project management \$31,500 Technical/expert support \$30,000

Intended Outputs	Output Targets for 2005-2006	Indicative Activities	Nature of Input	Input (US\$)
Indicator: ICM certification programmes initiated by national and local governments to leverage private sector investment in environmental infrastructure projects.		4.1.2: Review financial barriers to implementing land-based pollution prevention and reduction programmes that would benefit the East Asian Seas. 4.1.3: Formulate policy briefs and good practices in creating a policy and investment environment to leverage public and private sector participation in environmental infrastructure improvement projects, particularly for small and medium-sized projects.	Negotiate collaborative arrangements with the Regional Network of Local Governments (RNLG), UNEP, FIDIC, ICLEI, Global Compact Initiative, and other international agencies and business associations. Co-organize/implement national and regional training programmes on PPP development and EMS certification of ICM sites.	Case studies/policy briefs \$25,000 Training Programme Development \$60,000 Regional/National Training Workshops \$115,000 Duty Travel \$10,000 Reporting/publications \$4,000
	International certification among RNLG members initiated, providing recognition of local government commitment to environmental protection and management.	4.1.4: Conduct a regional workshop for senior government officials on strengthening local government capacity in integrated environmental management, sustainable development and creating a policy climate and social consciousness that is conducive to leveraging private sector support. 4.1.5: Regional workshop organized and conducted on strengthening local government capacity in integrated environmental management and creating an internationally-recognized certification among local governments implementing ICM within the region.		
			Subtotal	\$275,500
Output 4.2: Pipeline project proposals developed by regional network of local governments implementing integrated environmental management programmes.	Private sector associations, operating companies and investment groups partner with PEMSEA to develop pipeline projects and build capacity among local governments.	4.2.1: Develop guidelines, standards and/or procedures for development of PPP projects using skills and expertise of business associations, banks and investor groups and apply the guide to identify and evaluate pipeline projects in land-based pollution prevention and reduction projects.	Preparation of standards/protocols for PPP development and application National/regional training of PPP evaluators Inventory/evaluation of environmental infrastructure projects across ICM and hotspot sites	Technical/expert support \$50,000 Training Workshop \$25,000

Intended Outputs	Output Targets for 2005-2006	Indicative Activities	Nature of Input	Input (US\$)
Indicator: Pipeline projects for environmental infrastructure improvements developed for each ICM and hotspot site, and submitted to PPP Investors Network for follow-on PPP activities.	PPP approach identified as an alternative financing mechanism, nationally and regionally.	4.2.2: Organize national and regional workshops on the development and implementation of investment opportunities for public-private partnerships and mechanisms for sustaining PPP as an alternative financing mechanism.	Listing of pipeline projects in regional virtual investment center	
	PPP pipeline projects identified in each participating country.	4.2.3: Identify and assess PPP pipeline projects in each participating country, in collaboration with RNLG members, and national and regional private sector networks.		
			Subtotal	\$75,500
Output 4.3: PPP confirmed as a viable alternative mechanism for sustainable financing of environmental infrastructure improvement. Indicator: National policy and financing reforms developed and adopted, facilitating private sector participation in environmental infrastructure projects	National strategies/action plans for institutionalization of PPP as an alternative delivery mechanism.	4.3.1: Delineate national policies and regulations impacting investments in pollution prevention and reduction programmes – including pricing of environmental goods and services; policies and legislation impacting on private sector participation in such programmes. 4.3.2: Develop country consensus on strategies and action plans for implementing reforms designed to establish PPP as an alternative delivery mechanism.	Technical/professional support in drafting model policies, regulations and private sector incentive programmes	Technical/expert support \$15,000
			National workshops/consultative meetings	Project Steering Committee \$20,000
				Workshops/Consultative meetings \$25,000
			Total Budget Year Two:	\$557,500

IV. Co-financing

Source of Co-financing	Type	Project Preparation		Project Implementation		Total	
		Expected	Actual	Expected	Actual	Expected	Actual
Host government contribution				\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
GEF Agency (ies)							
Bilateral aid agency (ies)							
Multilateral agency (ies)							
Private sector				\$200,000	\$78,650,773		\$78,650,773
NGO							
Other (in-kind co-financing government)				\$143,500	\$99,103,509		\$99,103,509
Total cofinancing				\$343,500	\$178,754,282		\$178,754,282

Projects Implemented with Assistance from MSP-PPP

Project Site/ Country	Environmental Facilities	Year Started	Private Sector Financing	Government Contributions
Danang City, Vietnam	Danang Sanitation Project (DSP) including replacement Kahn Son landfill	August 2002 (CVM survey conducted)		US\$ 43,500,000 <ul style="list-style-type: none"> Loans from the World Bank: US\$ 32M for DSP and US\$ 2.9M for Kahn Son landfill: US\$ 32 million Non-refundable fund from Australian government: US\$ 1.6M Fund from Vietnam government: US\$ 7M
	Industrial Wastewater Treatment Plant for Hoa Khanh Industrial Park	February 2003 (approval of pre-feasibility report by the People's Committee of Danang City)		State Budget: VND 18,153,117,000 (US\$ 982,630) <ul style="list-style-type: none"> Construction and installation: VND 11,097,358,000 Equipment: VND 5,860,197,000 Expense for preparing investment: VND 1,086,875,000 Standby expenses: VND 108,687,000
Bali, Indonesia	Integrated solid waste management in SARBAGITA (Suwung landfill)	November 2002 (completion of pre-feasibility study); May 2004 (awarding of contract to private company)	US\$ 20,000,000	
	Denpasar Sewerage Development Project (DSDP)	August 2002 (CVM survey conducted); 2003 (tendering process)		US\$ 54,620,879 <ul style="list-style-type: none"> JBIC loan: US\$ 45.5 Gov't of Indonesia: USD 7,296,703 Bali Province: US\$ 131,868 (land for wastewater treatment plant) Denpasar City: US\$ 967,033 plus land for Sanur pumping station Badung Regency: US\$ 725,275 for Kuta pumping station
Haikou City, China	Process optimization and upgrading of sewage treatment plant	July 2006 (signing of Letter of Intent between PEMSEA and Haikou City)	US\$ 56,250,000	
Sihanoukville, Cambodia	Community-based solid waste collection system	March 2006 (Baseline survey and willingness to pay survey completed)	US\$ 238,400 (Total investment capital for a period of 15 years plus advance deposit of US\$ 5,000)	
Puerto Galera, Philippines	Sabang Sewerage Collection and Treatment System	December 2007 (enactment of resolution prioritizing the implementation of Sewerage Collection and Treatment Plant)	PhP 99,880,009 (US\$ 2,162,373)	
Total			US\$ 78,650,773	US\$ 99,103,509
Grand Total			US\$ 177,754,282	

Projects Implemented under GEF/IBRD Partnership Investment Fund with Assistance from MSP-PPP (in Million US Dollars)

Project Site/Country	Project Name	GEF Grant	IBRD Loan	Public Sector	Private Sector
Metro Manila, Philippines	Manila Third Sewerage	5.0	64.0	20.46	3.35
Ningbo, China	Ningbo Water and Environment	5.0	57.2	82.90	
Shandong, China	Second Shandong Environment	5.0	147.0	129.11	
Liaoning, China	Second Liaoning Medium Cities	5.0	173.0	147.00	
Total		20.0	441.2	379.47	3.35
Grand Total		US\$ 844.02 M			

Source: GEF/World Bank Partnership Investment Fund for Pollution Reduction in the East Asian Cities, 5 July 2008

Projects Identified with Assistance from MSP-PPP

Project Site/Country	Environmental Facilities	Private Sector Financing	Government Contributions
Bataan, Philippines ¹⁷	Integrated Solid Waste Management System (MRFs and landfill)	US\$ 4.40 M	US\$ 2.2 M (land for sanitary landfill)
San Fernando City, Pampanga, Philippines ¹⁸	Integrated Solid Waste Management System (MRF, composting facility and transfer station)	US\$ 6.12 M	US\$ 0.7 M (land)
National Capital Region, Cavite, Laguna, Batangas, Region V*	Integrated Hazardous Waste Management Project	US\$ 45.00 M	Land for treatment, storage and disposal facility
City of Malabon*	Malabon River System Integrated Development Project	US\$ 21.65 M	US\$ 21.65 M
Haikou City, PR China**	Separate Sewer Lines and Water Recycling	US\$ 145.00 M	National government budget for flood control Local government budget for complementary projects
Haikou City, PR China**	Upgrading of sanitary landfill, leachate treatment plant, transfer station and collection system; New recycling facility	US\$ 66.125 M	
Xiamen, PR China*	Integrated Environmental Management and Development Project for Maluan Bay	US\$ 394.00 M	
Changxing Island, PR China*	Artificial Fish Reefs Demonstration Project in the Waters of Changxing Island in Bohai Sea	US\$ 51.78 M	
Zhanhua County, PR China*	Demonstrative Ecology Engineering for Chao River Sewage Disposal	US\$ 6.00 M	
Hebei Province, PR China*	The Technology of Resource Harnessing of Industrial Sewage of Hebei Province	US\$ 73.00 M	
Tianjin Binhai New Area, PR China*	Comprehensive Utilization of Waste Liquor in Salt Industry	US\$ 3.00 M	
Klang and Shah Alam, State of Selangor, Malaysia*	Pilot Sewerage Development Project	US\$ 4.743 M	
Klang and Kuala Langat, Malaysia*	Integrated Solid Waste Management System	US\$ 18.48 M	
Total		US\$ 839.298 M	US\$ 2.9 M
Grand Total		US\$ 842.198 M	

¹⁷ From PEMSEA Investment Opportunity Brief, May 2003

¹⁸ From Draft Feasibility Study, October 2004

* From Investment Opportunity Briefs prepared for PEMSEA's Investors Round Table, 24-25 September 2002

** From Confidential Report of the PEMSEA RPO on Development of Improved Environmental Infrastructure in the City of Haikou, Hainan Province, PR China, May 2006

List of Persons Interviewed

PEMSEA Regional Programme Office

Mr. Raphael P.M. Lotilla
PEMSEA Executive Director

Mr. Stephen Adrian Ross
Chief Technical Officer
PEMSEA Resource Facility

Ms. Kathrine Rose Gallardo
Technical Officer Events Management
and SDS-SEA Monitoring and
Evaluation

Mr. Rainier Requinala
Corporate Social Responsibility
Coordinator

Ms. Ma. Corazon Ebarvia
Former Economist

Field Visit to Puerto Galera 20 January 2010

Hon. Hubbert A. Dolor, M.D., M.P.A.
Mayor
Municipality of Puerto Galera

Ms. Edilberta Garcilan
Officer
Municipal Environment and Natural
Resources Office

Mr. Michael Datinguinoo
BAC Secretariat

Ms. Gracita Pelino
Coordinator
Fishery/Magbabantay Dagat

Engr. Rodrigo Manongsong
Municipal Engineer

Ms. Paulita Aileen Bakeng
Tourism Officer

Mr. Benjamin De Chavez
Barangay Captain
Barangay Sabang

Mr. Juergen Lorenz
Puerto Galera Water Consortium/
JL Business and Technology
Consultancy, Inc.

Mrs. Tet Lorenz
JL Business and Technology
Consultancy, Inc.

Timeline of the Sabang Sewerage Collection and Treatment Plant Project of the Coastal Resources Conservation and Management Board of the Municipality of Puerto Galera

2004

November 17

Enactment of Ordinance No. 04-14 creating the Coastal Resources Conservation and Management Board (CRMB) of Puerto Galera

2005

June

Formulation of Puerto Galera Coastal Resources Management Plan 2006-2010 “Building Strength for Sustainable Fisheries and Tourism” with assistance from WWF-Philippines

December 5–6

Visit of PEMSEA environmental and investment specialists to Puerto Galera upon invitation of then Mayor Aristeo E. Atienza

2006

March 31

Execution of Tripartite Memorandum of Agreement between the Municipality of Puerto Galera, PEMSEA and SCOTIA

April 19

Stakeholders Consensus Building and Action Plan Workshop held in Puerto Galera

July 25

Training workshop conducted in Puerto Galera for the enumerators, facilitators and encoders for willingness-to-pay (WTP) survey

July 26–August 1

Conduct of WTP survey by Municipality of Puerto Galera, PEMSEA, SCOTIA and WWF-Philippines using contingent valuation method (CVM)

August 2–14

Encoding of results of WTP survey by LGU staff

August 28

Completion of pre-feasibility study by PEMSEA technical team for Sabang Sewerage Collection and Treatment Plant Project covering Sabang Beach, Big Lalaguna and Small Lalaguna with a total composite sewer area of 127,697 m².

2007

January 24

Enactment of Municipal Ordinance 06-03, establishing the Environmental Users' Fee (EUF) System in the Municipality of Puerto Galera

December 20

Enactment of Municipal Resolution No. 07-230, prioritizing the implementation of the Sewerage and Wastewater Treatment Plant in the Municipality

2008

March 5

First Sabang Public Consultation and Dialogue concerning the proposed Sewerage and Wastewater Treatment Plant to be located in Big Lalaguna area

March 31

Enactment of Provincial Development Council Resolution No. 02, Series of 2008, endorsing the construction of a Sewerage and Wastewater Treatment Plant at Big Lalaguna, Sabang, Puerto Galera

May 16

Second Sabang Public Consultation and Dialogue concerning the proposed Sewerage and Wastewater Treatment Plant to be located in Big Lalaguna area

June 30

Enactment of Municipal Resolution No. 2008-117 approving the Sewerage Collection and Treatment System Project in Barangay Sabang and Request for Proposal, and authorizing Mayor Hubbert Christopher A. Dolor, M.D., M.P.A., to proceed with the procurement and competitive bidding processes in accordance with the BOT Law

July 2–23

Publication of Invitation to Bid/Request for Proposals

July 22

Issuance of Bid Documents, with registration of 5 proponents

August 7

Pre-Bid Conference

August 8

Formal launching of the project, public consultation and municipal-wide publicity campaign

October 20

Submission of Proposals

October 20–November 15

Evaluation of Proposals

December 10

Enactment, MIMAROPA Regional Development Council of RDC Resolution No. 026-137-2008 endorsing implementation of the proposed Sewerage and Wastewater Treatment Project in Barangay Sabang, Puerto Galera, through LGU–Private Sector Partnership.

2009**January 5**

The CRMB was re-organized by Executive Order No. 17.

January 28

Enactment of Municipal Resolution No. 001, Series of 2009, approving contract award to the winning bidder, Puerto Galera Water Consortium (now Puerto Galera Infrastructure Corporation) upon recommendation of the PBAC, including enhancement components, with exercise of option to appoint winning proponent to operate, manage and maintain the Sewerage Collection and Treatment System Project.

January 29

Issuance of Notice of Award to winning proponent.

April 4

Execution of Contract with the private sector proponent

July 3

Release of notarized copy of contract.

August 6

Issuance of Barangay Resolution No. 01-10, approving the establishment of a jetty pier in Barangay Sabang and use of foreshore area for main sewerage pipelines and pier in accordance with the contract of the Municipality of Puerto Galera for the wastewater treatment plant.

CURRENT STATUS

For issuance of Notice to Proceed, pending:

1. Finalization of land transaction for location of STP and right-of-way (ROW);
2. Acquisition of foreshore lease and waiver from affected landowners for ROW for sewerage pipeline, enhancement components of the project: upgrade of sewerage pipeline ROW to utility/pedestrian boulevard and Sabang pier;
3. Acquisition of Environmental Compliance Certificate (ECC) for the project*; and
4. Financial closing.

* obtained in October 2009

List of Project Outputs Reviewed

	Intended Outputs	Nature of Input
Output 1: Priority projects identified		
1. Investment opportunity briefs	11.1 Manila Bay, Philippines	<ul style="list-style-type: none"> ✓ 4 September 2002 Draft – Integrated Hazardous Waste Management Project for NCR, CALABARZON and Region VI ✓ 4 September 2002 Draft – Malabon River System Integrated Development Project
	1.2 Port Klang, Malaysia	<ul style="list-style-type: none"> ✓ 10 September 2002 Draft – Pilot Sewerage Development Project ✓ September 2002– Integrated SWM System
	1.3 Bohai Sea, China	<ul style="list-style-type: none"> ✓ September 2002 – Artificial Fish Reefs Demonstration Project in the Waters of Changxing Island in Bohai Sea ✓ September 2002 – Demonstrative Ecology Engineering for Chao River Sewage Disposal in Zhanhua County ✓ September 2002 – The Technology of Resource Harnessing of Industrial Sewage of Hebei Province ✓ September 2002 – Comprehensive Utilization of Waste Liquor in Salt Industry
	1.4 Maluan Bay, Xiamen, China	<ul style="list-style-type: none"> ✓ September 2002 Draft and March 2003 – Integrated Environmental Management and Development Project for Maluan Bay
	1.5 Bali, Indonesia	<ul style="list-style-type: none"> ✓ 15 September 2002 Draft – Bali Sewerage Development Project (Badung and Denpasar) ✓ March 2003 – Integrated Solid Waste Management System (SARBAGITA)
	1.6 San Fernando City, Philippines	<ul style="list-style-type: none"> ✓ March 2003 Draft and May 2003 – Integrated SWM System (Roundtable held in DBP)
	1.7 Bataan, Philippines	<ul style="list-style-type: none"> ✓ May 2003 – Integrated SWM System
	1.8 Danang City, Vietnam	<ul style="list-style-type: none"> ✓ 15 September 2002 – Industrial Wastewater Treatment Plant for Hoa Khanh Industrial Park ✓ 15 September 2002 Draft – Hazardous Hospital Waste Treatment Project ✓ July 2003 – Integrated Industrial Wastewater and Hazardous Waste Treatment System
	1.9 Puerto Galera, Philippines	<ul style="list-style-type: none"> ✓ November 2008 – Sabang Sewerage Collection and Treatment System
2. Pre-feasibility studies	2.1 Maluan Bay, Xiamen	<ul style="list-style-type: none"> ✓ July 2002 – Integrated Environmental Management and Development Project
	2.2 Port Klang, Malaysia	<ul style="list-style-type: none"> ✓ July 2002 – Pilot Sewerage Development Project in Klang and Shah Alam ✓ 6 September 2002 – Integrated SWM System in Klang and Kuala Langat
	2.3 Bataan, Philippines	<ul style="list-style-type: none"> ✓ 2002 – Integrated SWM Project

	Intended Outputs	Nature of Input
	2.4 San Fernando City, Philippines	✓ 16 September 2002 – Ecological SWM Program
	2.5 Malabon, Philippines	✓ September 2002 – Malabon River System Integrated Development Project
	2.6 Danang City, Vietnam	✓ August 2002 – Hazardous Hospital Solid Waste Treatment in Danang ✓ August 2002 – Construction of a Wastewater Treatment Plant in Hoa Khanh IP, Danang City ✓ October 2002 – Hazardous Solid Waste Treatment in Danang ✓ October 2002 – Construction of a Wastewater Treatment Plant in Hoa Khanh IP, Danang City
	2.7 Bali, Indonesia	✓ November 2002 – Bali Integrated SWM Scheme ✓ November 2002 – Denpasar Sewerage Scheme Development
	2.8 Bohai Sea	✓ January 2003 – The Technology of Resource Harnessing of Industrial Sewage of Hebei Province ✓ April 2003 – Demonstrative Ecology Engineering for Chao River Sewage Disposal of Zhanhua County ✓ 2003 – Artificial Fish Reefs Demonstration Project in the Waters of Changxing Island in Bohai Sea ✓ 2003 – Comprehensive Utilization of Waste Liquor in Salt Industry in Tianjin Binhai New Area
	2.9 Haikou City, China	✓ 25 October 2005 letter from PEMSEA to Haikou City Deputy Mayor ✓ 6 May 2008 – Appraisal Mission Report on Haikou City Wastewater Management ✓ May 2008 – Development of Improved Environmental Infrastructure in Haikou City
	2.10 Puerto Galera, Philippines	✓ 28 August 2006 – Sabang Sewerage Collection and Treatment System
	3. Contingent Valuation Surveys	
	3.1 Bataan	✓ July-August 2002
	3.2 San Fernando	✓ July-August 2002
	3.3 Bali	✓ July-August 2002
	3.4 Danang	✓ July-August 2002 – Draft Report on Preliminary CVM Survey Results of the Demand for Improved Sanitation Services in Danang ✓ July-August 2002 – Draft Report on an Application of the CVM on the Demand for Improved Sanitation Services in Danang
	3.5 Malabon	✓ July-August 2002
	3.6 Klang and Kuala Langat	✓ July-August 2002 – Draft Report on Preliminary CVM Survey Results
	3.7 Summary of above six CVM studies	✓ 2002
	3.8 Sihanoukville	✓ March 2006 – Baseline Survey Report including Willingness to Pay
	3.9 Puerto Galera	✓ July-August 2006

	Intended Outputs	Nature of Input
4. Policy and regulatory review	4.1 Report on Five Countries (Cambodia, China, Indonesia, Philippines, Vietnam)	√ Overview of Gaps and Constraints Regarding Public and Private Sector Capacities for Environmental Infrastructure in Five East Asian Countries
	4.2 Philippines	√ Overview of Public and Private Sector Capacities for Environmental Infrastructure in the Philippines
	4.3 Vietnam	√ Institutional Framework for Private Sector Participation in Environmental Infrastructure Projects in Vietnam
	4.4 Haikou City, China	√ Legal, Regulatory and Institutional Framework
5. Local government ordinances/resolutions for investments	5.1 Bataan (1)	√
	5.2 San Fernando (1)	√ 26 March 2004
	5.3 Danang (1)	√
	5.4 Sihanoukville (2)	√
	5.5 Puerto Galera (4)	√
6. Agreements signed with stakeholders	6.1 Bataan	√ LOI
	6.2 Haikou	√ LOI
	6.3 Puerto Galera	√ 31 March 2006 MOA with PEMSEA and SCOTIA
	6.4 Sihanoukville	√ contract
Output 2: Global Network of Investors		
7. Virtual investment center	7.1 Puerto Galera	Refer to Virtual PPP Center in PEMSEA website
8. Network of investors participating in PPP roundtables	8.1 Private sector database	√
	8.2 PPP initiatives around the world	√
	8.3 Sources of financing for PPPs	√
	8.4 Private sector companies participating in PPPs in the Philippines	√
9. Roundtables	9.1 Manila Bay (Bataan and San Fernando)	√ Proceedings of 6 May 2003 Roundtable at DBP
	9.2 Puerto Galera	√ Proceedings of 7 Aug 2008 Pre-Bid Conference
	9.3 Danang	√ Mission Report of the Sr. Programme Officer √ Report on 9 September 2003 Investors Roundtable √ Executive Summary of Mission Report of Sr. Programme Officer on 10-11 May 2005 site visit and roundtable
10. Proposals submitted by the private sector	10.1 Bataan	√ 5 on October 2003, 3 updated September 2004
	10.2 San Fernando	√ 4 on July 2003

	Intended Outputs	Nature of Input
	10.3 Puerto Galera	√
11. Partnership Investment Fund	11.1 World Bank Brief	√ 28 September 2005
	11.2 Paper for 2nd EAS Partnership Council Meeting	√ 5 July 2008
Output 3: PPP arrangements established		
12. MOAs negotiated and signed	12.1 San Fernando	√ 26 March 2004
	12.2 Sihanoukville	√ November 2007 with Cintri
13. Feasibility studies completed	13.1 San Fernando	√ October 2004 draft, final December 2004
Output 4: National and local capacity development		
14. Case studies on Investments in Environmental Infrastructures	14.1 Philippines (Batangas and San Fernando City)	√
	14.2 Bali, Indonesia	√
	14.3 Danang, Vietnam	√
	14.4 Guangzhou, PRC	√
	14.5 Xiamen, PRC	√
	14.6 Sihanoukville, Cambodia	√
	14.7 Summary of above six case studies	√
	14.8 Puerto Galera, Philippines	√
15. Guide to Environmental Investments	15.1 Guide to Environmental Investments	√ 2008 and March 2009
16. Training on Developing Environmental Investments through PPP	16.1 Training syllabus and manual	√ 2008
17. Policy brief	17.1 UNEP GPA, UNEP EAS/RCU, COBSEA	√ Partnership Opportunities for Enhancing GPA Implementation in the East Asian Region (2007-2011)
	17.2 MOUs with UNEP GPA and Final Report	√ 6 June 2005 and 20 June 2006, 31 March 2007
18. MOUs on capacity building	18.1 League of Cities of the Philippines	√ 16 December 2005
	18.2 SCOTIA	√ 31 March 2006
	18.3 World Bank	√ 25 November 2009
19. Regional workshop	19.1 EAS Congress 2006	√ 12 to 14 December 2006. (hard copy)
20. National training workshops	20.1 Philippines	√ 26-28 April 2006

	Intended Outputs	Nature of Input
	20.2 Vietnam	√ 27-29 June 2007
	20.3 China	√ 10-11 November 2008
21. ICM Code and Recognition System	21.1 Draft ICM Code of Good Practice for Local Governments	√ May 2009
	21.2 Experts' Comments on Draft ICM Code	√
	21.3 Draft Mechanics for Recognition System	√
22. Develop strategies for institutionalizing PPP	22.1 China strategy paper	√ 10-11 November 2008
	22.2 Regional strategy paper	√ 15 January 2009
	22.3 Philippines	√ Draft GEF Project Document: Accelerating Investments in Metro Manila's Sewerage and Sanitation Services (AIMMS) 20 March 2006