

Global Environment Facility  
United Nations Development Programme  
International Maritime Organization

**Regional Programme for the  
Prevention and Management of Marine Pollution  
in the East Asian Seas  
(RAS/92/G34)**

**FINAL PROJECT EVALUATION**

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## **CONCLUSIONS AND RECOMMENDATIONS**

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### **Introduction**

This project has focused on a highly relevant problem: rapid population increase coupled with overexploitation of natural resources and pollution in coastal regions. This set of problems will increase in importance in this region in the future.

This evaluation was undertaken by Angel Alcala, Brian Davy and Olof Linden from 03-16 August 1998. The team visited the project sites at Xiamen People's Republic of China and Batangas Republic of the Philippines. Staff from the Straits of Malacca project visited Manila to brief the evaluation team. Full briefings were given by the PDMO in Manila including provision of all relevant project documents.

### **Demonstration Projects**

This project has demonstrated the practical application of ICM at the two sites in the region. Strategically, we feel that China and the Philippines were the best initial country choices. In both countries, the chosen sites had put in place functional management structures, including the Marine Management Coordination Group of Xiamen Government and Batangas Bay Integrated Coastal Management Council.

Capacity building has been effectively undertaken through training courses, internships, study tours, etc. The demonstration sites provided clear models of ICM in operation for managers, technical staff and decision-makers. PDMO has played a catalytic role in the design of this capacity building in the programme by effectively utilizing the advantages of integrated management structures in the demonstration sites ("The ICM approach").

We were impressed by the strong political will and awareness of the value of ICM evident in both demonstration sites. The fact that the local government leaders have taken ownership of these activities should ensure long-term sustainability of this approach.

The ICM concept is already replicated in China (Hainan, Guangdong, Guangxi) and soon in the Philippines (Masinloc Bay, Luzon; Ormoc Bay, Visayas; and Macajalar Bay, Mindanao). This will provide an important base for expansion in the follow-on Phase reflecting the different socio-economic, political, cultural and ecological features of the region.

Concerns were voiced regarding the financial limitation of the existing and future ICM sites especially in the case of Batangas. This problem will require a stronger proactive approach, including awareness building at higher government levels and the application of the "polluter pays" principle on polluters. It is essential that the local government which will normally bear the cost of environmental management be adequately compensated and supported by central government or resources obtained from local sources.

Presently there are a few minor staffing problems at the project sites but we expect these problems will increase in the future as the project expands to other sites using mainly staff under local government compensation schemes. Continued emphasis on further capacity building coupled with specific incentives to keep high quality staff working in the demonstration sites will be necessary.

Most of the projected activities, as outlined in the work plan, should be completed on schedule particularly as the programme has been extended for another six months.

The Malacca Straits project has an inherently different approach and it covers land-based and ship-based pollution risk assessment and risk management including oil spills. These are transboundary issues which concern the three littoral states. The development of a fully functional interactive database will likely extend to the June 1999 programme completion date. The development of the electronic highway concept looks promising but details will only be available after the conference planned for April 1999 in Malaysia.

### **Pollution Monitoring and Information Management**

Pollution monitoring programs are already operational in Xiamen and Batangas (the two ICM demonstration sites) and we were impressed that the results were being used for management purposes. The database development and intercalibration activities both nationally and regionally have made important progress in improving the quantity and partly the quality of the available data. However, more effort is required to produce cost-effective high quality data sets focused on specific management goals. We note that the development of databases with longer than 10-year time frames will likely be required for many management purposes. National governments will need to give careful thought to the requirements for establishing and maintaining such databases.

Some progress has already been made in the development of the pollution monitoring information management network but regional sharing of data is still somewhat problematic for some participating countries.

As noted elsewhere in this report capacity building is critically important, and training workshops and intercalibration exercises have been effectively used to improve the quality of pollution monitoring; however, this will require continuing priority support.

### **International Conventions**

The project has been successful in increasing the awareness (among the 11 nations) of the importance of the marine related international conventions. We noted that several countries have now ratified an increasing number of conventions based on the guidance of the programme. This is noteworthy considering the difficulties in dealing with the higher levels of government. In addition, the programme has played an important role in

assisting legal staff in the participating countries in the process of national legislation review including preparation of national guidelines on model legislation.

### **Sustainable Financing**

The project has made progress in developing concepts and approaches for sustainable financing mechanisms involving private sector-public sector partnerships focusing on solid waste, agricultural waste, industrial waste and ship-borne waste. Particularly in Batangas, private sector involvement has been effectively developed with promising modular initiatives underway for treatment of some of this waste. China presents a special case where the public sector-private sector partnership is blurred but waste treatment programs have effectively been put in place by the Xiamen authorities.

### **Progress since the Mid term Evaluation**

In general, we believe that the recommendations of the Mid-Term Evaluation Team are being effectively implemented and should be completed within the scheduled extension period of June 1999, if not earlier. Similarly, the activities of the specified 1998 work plan appear to be on schedule. Financial delivery as of June 1998 was 80.03%. We understand that the remaining budget are already programmed and will be expanded before the end of June 1999.

### **General Conclusions**

We conclude that this programme has made substantial progress towards meeting its objectives and should complete all projected activities on schedule. We wish to emphasize the critical importance this programme played in operationalizing the ICM concept in the region. However, given the diversity of conditions in this region, we believe that continued support will be required to further test this concept in the differing mix of socio-economic, political, cultural and ecological setting of the region.

### **Recommendations**

We strongly recommend support for the proposed follow-on programme. The following are our specific recommendations to the concerned parties:

#### **(a) To the participating governments**

The Programme has developed useful working models on ICM application for addressing land-based pollution resource use conflicts. In addition, effective risk assessment methodologies and risk management approaches for addressing marine pollution in the Straits of Malacca has also been developed.

We recommend that the participating countries adopt ICM approaches for marine pollution prevention and management and replicate the working models by establishing national and parallel sites and take advantage of the legal network and technical expertise in the project for ratification and implementation of the marine-related

international conventions. In addition, countries should actively participate in the activities of the regional networks developed or being developed by the project, especially the regional network on environmental monitoring and its related database development.

**(b) To GEF and UNDP**

There is a clear need for the development of adequate national and regional capability for effective management of the coastal areas. We agree that this capability needs to build on the existing governmental and non-governmental organizations but in a new mode of intersectoral partnerships. This is the ICM approach, the foundation for which has been effectively laid by the present project.

GEF and UNDP are urged to approve and to provide financial support for the implementation of the follow on project "Building Partnerships for Environmental Protection and Management of the East Asian Seas" which has already been endorsed by the participating nations of the region.

In addition, we recommend that GEF/UNDP examine how to make this Programme a lead ICM activity for the wider Asian region and then globally for all related ICM projects supported by GEF.

**(c) To IMO**

In view of the successful implementation of the pilot phase programme by PDMO and the demonstrated management capability of the project staff, we recommend that the executing agency allow more operational flexibility to the PDMO especially in terms of increasing the maximal limits for contracts, subcontracts, other service contracts and purchase orders. In addition, we recommend that IMO provide timely administrative support to ensure smooth operation of the programme until its completion in June, 1999. Finally we suggest that IMO review the present personnel compensation scheme for both international and local hired staff to determine whether a competitive package is being offered to meet the needs of all staff.

**(d) To Host Government/Institution**

The host institution has provided critically important office space, facilities, local counterpart staff and logistic support, all of which have enabled the smooth operation of the PDMO. In meetings with the Secretary of Department of Environment and Natural Resources, full support was promised for a follow on programme. We recommend that the host government/institution confirm in writing its intention to continue this support at an expanded level in the follow on project. We note the planned three-fold expansion of project activities, staff and budget of the follow on project.

**(e) To PDMO**

In addition to its role in implementing action of this complex programme, we wish to highlight:

1. The need to put in place a continued support programme for demonstration sites moving from programme support to national operation. This support should include continued capacity building as well as access to back-up technical support such as conference/workshop attendance, consultant guidance, publications, etc.
2. As the programme moves from a focus on marine pollution to a wider series of critical issues impacting on coastal and marine development, a more broadly based approach will be needed and planning for this should start soon. This shift should include the development of a comprehensive staffing plan with emphasis on hiring certain staff with backgrounds in the social sciences.
3. As noted in several parts of this report, considerable funding has been allocated to training and capacity building. We recommend a detailed review of the impacts (and problems) of this capacity building support, subject to the availability of funding. Suggested components could include tracer studies, trainee-trainer and awareness building components.

## **1. INTRODUCTION**

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### **1.1 Programme Background and Rationale**

The maritime countries of East Asia have one-third of the world's population with more than half concentrated along the coastal zone. The populations of these countries continue to increase at a substantial rate.

Diversification and intensification of economic activities to meet the growing demand for food, employment and shelter of expanding populations have placed tremendous pressures on the coastal and marine environments. Pollution is one of the manifestations of such pressures; the coastal waters of the region are contaminated predominantly by untreated sewage, garbage, sediments, oils, pesticides and hazardous wastes from land-based and sea-based activities.

Many valuable and productive ecosystems are being degraded by direct physical destruction or by toxic effects of chemicals. While the open seas and oceans are still relatively clean, increasing maritime activities such as offshore oil exploration and production activities, maritime traffic make the oceans vulnerable to pollution, especially oil and chemical spills and discharges.

Unfortunately, many countries in the region are unable to adequately address the marine pollution problems within their jurisdiction. This is largely due to the lack of financial resources and the technical and management capabilities to plan, implement and manage anti-pollution programs. As well, transboundary management of marine pollution requires a regional effort. The differing water quality standards and pollution regulations among East Asian countries, apart from the existing problems they face, make it imperative to initiate such a regional effort.

Thus, in response to a request from a number of East Asian countries for financial and technical support to address the increasing marine pollution problems, the United Nations Development Programme (UNDP) took the lead in the formulation of a regional programme on the prevention and management of marine pollution in the region to be funded under the Global Environment Facility (GEF). This UNDP-implemented regional programme known as the Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (RAS/92/G34) is executed by the International Maritime Organization (IMO).

### **1.2 Programme Objectives and Strategies**

The Regional Programme is designed to demonstrate how marine pollution can be controlled and managed in developing countries through the application of appropriate policy, institutional and technological interventions. Its vision is that adverse impacts of marine pollution can be prevented or minimized without compromising desired

economic development through the concerted efforts of stakeholders to collectively address pollution from land-based and sea-based sources. Thus, the Regional Programme has the objective to support the efforts of the participating East Asian governments in the prevention, control and management of marine pollution, at both national and subregional levels on a long-term and self-reliant basis. In articulating its objective, the Regional Programme has the following strategies:

- Develop and demonstrate working models on marine pollution reduction/prevention and risk management.
- Assist countries in developing the necessary legislation and technical capability to implement international conventions relating to marine pollution.
- Strengthen institutional capacity to manage marine pollution problems.
- Develop a regional network of stations for marine pollution monitoring and information management.
- Promote public awareness and participation in the abatement of marine pollution.
- Facilitate standardization and intercalibration of sampling and analytical techniques and environmental impact assessment procedures.
- Promote sustainable financing for activities requiring long-term commitments.

The Technical Session of the Fourth Programme Steering Committee (PSC) Meeting held in Hanoi, Vietnam on 15-18 December 1997 recommended that the Programme be extended to 30 June 1999 at no additional cost to enable the conduct of an international conference, the completion of technical reports and dissemination of the Programme's results. This recommendation was adopted by the Tripartite Review Meeting. The Tripartite Review Meeting of the Fourth PSC also recommended that a final evaluation of the Programme be conducted in 1998 and that evaluation modalities be discussed among GEF, UNDP and IMO.

### **1.3 Terms of Reference for Project Evaluation**

#### **1.3.1 Purpose**

The purpose of the evaluation is to determine, in a systematic and objective manner, the relevance, efficiency, impact and sustainability of activities which are being implemented under the GEF project (RAS/92/G34) in East Asia, with specific assessment of progress and outputs being made towards the stated objectives of the project. The review will consider four major components of the Regional Programme, namely:

- a) demonstration project (Batangas Bay; Xiamen and the Malacca Straits);
- b) pollution monitoring and information management;
- c) ratification of international conventions; and
- d) sustainable financing mechanism

The review will also include the strategies, relevance and effectiveness of the project in building national and regional capacity; and whether or not the components, individually and collectively, are effective in fulfilling the goals of the Regional Programme.

Particular attention will be given to the strategies that have been adopted within each component, how those strategies are being developed, linkages among the components and any measurable outputs that are available to indicate the success or failure of the adopted approaches. The evaluation will examine the implications that adopted strategies have on the efficiency with which the project is implemented, the resource allocations and timelessness of outputs. The evaluation will focus on the progress and outputs being achieved by the project for the period after the Mid-term review in March 1997.

The review will also assess the extent at which the relevant recommendations of the Mid-Term Review are being implemented.

### **1.3.2 Specific Objectives**

The specific objectives of the evaluation are as follows:

1. To review and assess the strategies, project design, implementation methodologies and resource allocations that have been adopted and put into place under the Programme for the purpose of achieving the project objectives;
2. To identify and evaluate the progress and achievements of the project over the past three years with specific reference to; i) development of institutional frameworks; ii) capacity building; iii) sustainability of programmes; iv) relevance and impact with respect to the project objectives; v) applicability and potential for replication in other coastal and marine areas;
3. To identify and evaluate relevant constraints and problems which have been or being encountered in the project, the utilization of resources and the delivery of the project within the identified time schedule;
4. To identify and evaluate the level of participation by the participating nations during the project development and implementation phases and to assess the impact and benefits derived by the countries as a result of the project;
5. To evaluate the project success in forging links and support from concerned international agencies, donor groups, NGO's and the private sector in cooperative and collaborative activities related to the project objectives;
6. To assess economic, financial, institutional and policy instruments which have been identified and developed in the course of the project to insure the long-term sustainability of Programme-initiated activities beyond the life of the project;

7. To identify the manner and extent to which the project has leveraged co-financing, policy changes and duplication/replication of activities among the countries in the region;
8. To evaluate the degree to which the project has fostered intergovernmental cooperation;
9. To consider the need and merit of extending activities being implemented within the existing Programme to a second phase, utilizing the framework strategies and capacities that are founded during the ongoing activity to attain the goal of reducing marine pollution region-wide on a long-term and self-reliant basis.

#### **1.4 Acknowledgements**

We would like to acknowledge the assistance in this review of Ms. Sarah Timpson, UNDP Representative in Manila; Ms. Clarissa Arida, UNDP Programme Manager, GEF; Mr. Jorge Reyes, Sustainable Development Advisor, UNDP; Dr. Chua Thia-Eng, Regional Programme Manager; Dr. Huming Yu, Senior Programme Officer; Mr. Adrian Ross, Senior Programme Officer; Ms. Socorro C. Guerrero, Head, Finance and Administration and all persons who briefed us on the various aspects of the programme both in Batangas City, Philippines and in Xiamen, China.

## **2. APPROACH AND ACTIVITIES**

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The approach adopted for this evaluation had to be tailored to the limited time available and the large amounts of information given to the team on arrival. The agreed approach was to build on the work of the mid-term evaluation and focus most resources on the work from this point onwards including the proposed follow on phase. Full briefings were given to the evaluation team in Manila by the staff of the PDMO. This was coupled with site visits and interviews in Xiamen and Batangas plus a full briefing at the PDMO by the Malaysian team of the Malacca Straits project. This report is structured using the specific objectives of the terms of reference as the format.

The evaluation was made by Angel Alcala, Brian Davy and Olof Linden on 03 – 16 August 1998 (See Appendix 1 for schedule). During this period of time, the Evaluation team met and was briefed on the various aspects of the programme by the PDMO and by others, including the provision of relevant documents (see Appendix 2). We discussed the Programme with more than 50 persons involved in the Programme representing some 10 organizations/agencies both in the Philippines and China (see Appendix 3).

### **3. STATUS OF IMPLEMENTATION OF MID-TERM PROJECT EVALUATION RECOMMENDATIONS**

The projects and activities recommended are being implemented, and all of them will be completed by June 1999. Below is a summary of the status of implementation.

<b>No.</b>	<b>Conclusion/Recommendation</b>	<b>Status and Evaluation Team Comment</b>
1	PDMO to consult with the three littoral states on output expectations	Subprojects to be completed by April 1999  Progress of the Malacca Straits Demonstration Project reported to 4 <sup>th</sup> PSC Meeting consisted of 16 subprojects participated in by three universities in the littoral states, subprojects focused on regional database and GIS for sea-based and land-based sources of marine pollution refined with assessment, valuation of resources, benefit-cost appraisal, oil spill modeling, sustainable financing, packaging of lessons learned and environmental atlas packaged in CD-ROM format.
2	Sponsor conference on key international conventions and the idea of "electronic highway"	To be complied with by April 1999.  An international conference on sustainable management of the Straits of Malacca is scheduled for October 1998 in the Universiti Putra Malaysia. A workshop on the marine electronic highway concept will be held in Singapore.
3	Extend training opportunities to senior executives, middle and senior management officials of central and local government responsible for ICM.	Completely complied with by October 1998 when these officials will be given study tours in Batangas and Xiamen.
4	Continue forging public-private partnerships and publish manual/guidebook on sustainable financing mechanisms	Compliance on-going.  Letters of intent already signed to organize companies dealing with municipal solid waste, agricultural waste and ship and port waste for Batangas Bay.  A manual is scheduled for completion in September 1998.

<b>No.</b>	<b>Conclusion/Recommendation</b>	<b>Status and Evaluation Team Comment</b>
5	Arrange regular intercalibration exercises between “official” laboratories in participating countries. These laboratories, in turn, to assist other laboratories.	Compliance completed.  The 2 <sup>nd</sup> Technical Workshop of the Regional Network for Marine Pollution Monitoring and Information Management (1997) confirmed the mechanisms for implementing a regional network of monitoring sites. Training of staff and provision of materials and linkages are priorities. A number of intercalibration exercises have been conducted.
6	Review coastal atlas model for Xiamen, Batangas, etc. and consider alternative models	Compliance completed.  Environmental atlas for Batangas Bay region has been completed, published and used and has received praise. A CD-ROM is in the works. A similar atlas has been developed for Xiamen.
7	Collate advice on the mechanisms for public involvement, and produce a handbook or manual on participation in coastal management	Compliance on-going.  Case studies on ICM in Xiamen and Batangas are being prepared. These will contain mechanisms employed in the successful application of ICM. Public awareness building and public participation will be highlighted in these studies. Case studies preparation could be given to academics.
8	Assist Vietnam and DPR Korea to set up model ICM sites	ICM sites have been proposed for these countries in the new GEF regional project proposal.

<b>No.</b>	<b>Conclusion/Recommendation</b>	<b>Status and Evaluation Team Comment</b>
9	Set up an EAS roster of experts comprising of experts from PDMO project staff, but mainly from local individuals involved in the demonstration projects at Batangas and Xiamen. The list should be available to render assistance in ICM model sites in other countries	<p>Compliance substantial.</p> <p>A roster of experts who have worked in the sub-projects of the Programme has been maintained.</p> <p>A regional directory of institutions and agencies and their technical capacities has been developed for publication in 1998.</p> <p>Individuals working at the two ICM sites and those working on risk assessment/management will be listed and incorporated in the regional roster of experts for use in new GEF project.</p>
10	Organize a regional conference on international conventions	<p>Will be complied with by March 1999.</p> <p>A regional conference entitled "Challenges and Opportunities in Managing Marine Pollution in the East Asian Seas" is scheduled for Manila on 22-24 March 1999. The conference will include international conventions.</p>
11	Convene a working group on sustainable financial mechanisms for ICM comprising members from the participating countries and experts from the region and outside.	<p>Will be complied with by November 1998.</p> <p>A Round Table on Public-Private Sector Partnerships will be held in Manila on 11 November 1998. There are four targeted outputs dealing with development and sustainability of ICM and the environmental industry in the region.</p>

## **4. EVALUATION OF PROGRAMME WORK PLAN FOR 1998**

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### **4.1 Xiamen Demonstration Project**

Three of the four main activities identified for this project have been completed, except for one (monitoring and assessment) which is due for completion in January 1999. One of the significant activities is the establishment of a planning and coordination mechanism; this was done with the institutionalization of the marine management and coordination office which will help ensure sustainability of the project. We find no reason why completion of these activities cannot be expected by January 1999.

### **4.2 Batangas Bay Demonstration Project**

There are four activities in this project. One of them is the institutionalization of the PG-ENRO as the operational arm of the Council. This has been done. The PG-ENRO should now take active role in the implementation of the monitoring program, making use of the earlier outputs of the project (e.g. the Environmental Management Atlas of Batangas Bay Region), the newly established control "laboratory" and the trained local people. One of the aims of ICM is to train local teams to assess pollution; consultants should transfer skills to these teams. Another area that should be looked at is the involvement of community organizations, including those of the diving industry, in the adjacent bay.

### **4.3 Malacca Straits Demonstration Project**

Six activities are covered in this project. The outputs (reports, CD ROM, etc.) expected from these activities are supposed to be completed before December 1998. Among these are final reports on economic valuation of resources in the Straits of Malacca, cost-benefit analysis of marine pollution management interventions, environmental atlas in CD ROM format, and strategies for marine pollution management in the Straits. Given the nature of this project where three countries have to work together, the expected accomplishments appear to be reasonable.

### **4.4 Marine Pollution Monitoring and Information Management**

There are six activities planned for 1998. Monitoring of marine pollution and information management may be looked at from two perspectives: local and regional. Both should be given equal emphasis. From the local viewpoint, the concerns include training of local monitoring teams by academic institutions, and monitoring for management of marine pollution and general public awareness. For the regional, such concerns as regional marine pollution information exchange, networking, intercalibration of methods are important.

#### **4.5 International Conventions**

The four activities focus on developing guidelines for a model coastal policy for a model national coastal management act, facilitating national legislation for implementation of international conventions, and training national personnel in the implementation of marine pollution legislation.

#### **4.6 Sustainable Financing**

The four activities of this project include mobilization of in-country and external resources, including financial resources, for marine pollution management. Much has already been accomplished toward this end through private sector-public sector partnerships. The present financial turmoil in Southeast Asia will certainly affect the project but hopefully the various industries in the bay will provide some financial support in addition to what external agencies have thus far made available. All the activities are targeting the end of 1998 for completion, although the drive for financial sustainability has to be continued beyond the current project phase.

## **5. PROJECT EVALUATION**

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In general, we find that this programme has been efficiently implemented with clear successes. We feel that these successes provide a clear rationale for follow on support and we strongly recommend continued support for the work of this programme to build on these successes.

### **5.1 SPECIFIC OBJECTIVE 1**

#### **5.1.1 General Project Strategies**

The East Asian Seas Region is characterized by diverse socio-economic, political, cultural, and ecological features. Because of this, the Programme adopted strategies that can be described as demonstrative, catalytic, and cost-effective.

The demonstration sites (Xiamen and Batangas Bay) serve as laboratories for learning allowing hands-on training on ICM for coastal planners, managers, economists and natural scientists. Working models have been developed at these sites as well as the Straits of Malacca. Enabling activities form a focus of the Programme through its established networks of specialized programs and institutions, such as the legal, monitoring, and ICM networks. Such activities have also increased the capacities of the stakeholders. The catalytic role of the Programme in enhancing cooperation and collaboration among the littoral states to address common transboundary environmental problems within the risk assessment model is well documented. The use of local human resources and the participation of stakeholders have contributed to the greater public awareness on pollution problems in coastal and marine areas as well as the cost-effectiveness of the Programme (e.g. by minimizing the need for consultants).

#### **5.1.2 Project Design**

##### **5.1.2.1 ICM demonstration sites**

The two demonstration sites, Batangas Bay and Xiamen, have been described in the Mid-Term Project Evaluation Report. They were selected to demonstrate the effectiveness of the ICM concept for marine pollution control and management of coastal resources. These sites provide clear examples of the ICM concept in action and these sites should be built upon as effective tools for capacity building under the regional network. The development of detailed criteria for this selection was a useful activity. In both sites, the local governments are fully participating together with other stakeholders through interagency and/or intersectoral partnerships. The project has facilitated the cooperation among stakeholders and the integration of issues in order to achieve more sustainable development in the two demonstration sites. What is significant in these partnerships is the sharing of information and resources to combat water pollution and environmental degradation.

### **5.1.2.2 Risk assessment and management**

The assessment and management of risks in connection with land-based and ship-based pollution is conducted in the Malacca Straits. This project has been described in the Mid-Term Project Evaluation Report. Its aim is to assist the three littoral states of Malaysia, Singapore, and Indonesia to manage potential pollution risks in an international body of seawater that is being used by them as well as by other nations. The project promotes intergovernmental cooperation to address a common concern – water pollution which can adversely affect the marine resources of the three littoral states. Because of the economic importance of the waterway to many nations, the project focuses on the involvement of users, including those nations which are benefiting but are outside of the area. Resource database and economic values of resources are being developed into an interactive database; however as the database was still not complete it was difficult to evaluate its exact usefulness. We agree that this may become an essential element in the pollution management of the Straits; however, the interactive database and environmental management atlas need to be reviewed carefully to determine if they meet the specific needs of the identified users. These users should be consulted in the development of the final product.

### **5.1.2.3 International conventions**

The project promotes awareness of the value of marine-related international conventions among nations. But more importantly, it seeks to develop national capacity to ratify and implement these conventions through database, marine legislation training, and opportunities for public sector-private sector partnerships. As a direct service to national governments, the project provides guidelines on national legislation that would facilitate the implementation of international conventions. We felt that this work was important and should be satisfactorily completed as planned with specific products such as the Legal Information database and handbook for the network of legal advisors.

### **5.1.2.4 Environmental monitoring**

The aim of this project is to demonstrate the effectiveness of management-oriented monitoring programs and the possibility for a regional monitoring network. Management-oriented monitoring is particularly important in the region because marine environmental monitoring in the past was largely unfocused and not coordinated. A well-designed monitoring program focusing on critical environmental parameters is a cost-effective tool in coastal management. Both in Batangas and in Xiamen coastal monitoring programs have been initiated. In Xiamen data has been available since 1986. The usefulness of the information generated from these monitoring programs is already obvious. Data indicates that in Xiamen, despite a significant increase in the population and economic activities, the efforts in pollution control seems to have been rather effective. In Batangas data have been used in the environmental management decisions concerning the bay. However, it should be emphasized that the training of staff and the strengthening of the analytical capability need to be carried out continuously. Training workshops and intercalibration exercises are important tools that will have to be repeated with some frequency. The monitoring program should be

designed so that it may provide answers not only to today's questions but also to those of tomorrow. Hence the program will have to be anticipatory in nature, taking into account the probable trends in development and the consequent needs for environmental monitoring. This has been done in some regions in the industrialized north, and PDMO could strengthen the sharing of experience through organizing workshops at the demonstration sites with invited experts from abroad as advisors.

#### **5.1.2.5 Sustainable financing**

For the ICM demonstration projects and the Malacca Demonstration Project, efforts have been made through a variety of mechanisms for financing environmental improvement projects through the identification of opportunities for investment, public sector-private sector partnerships, and economic instruments for use by local government units. A good deal of emphasis has been placed on the participation of the private sector in ensuring the financial sustainability of marine management projects. We support the Mid-Term Evaluation Report comments on administrative mechanisms for sustainable financing based on the principle of user-pays. In general, we found it difficult to make substantive recommendations here as most of these activities are not yet complete.

#### **5.1.2.6 Capacity building**

Capacity building is integrated into all components of the Regional Programme and it represents a significant portion of the budget (e.g. \$1.073 million have been spent on training/workshops 1994-98 and including purchase of equipment [see Appendix 10]). The following strategies are being implemented:

- (1) increasing specialized skills for planning and implementing prevention and management projects;
- (2) strengthening technical capability to implement international conventions;
- (3) assisting national agencies and institutions in need of developing appropriate programs and methodologies for marine pollution control projects;
- (4) assisting local government units develop the facilities needed to undertake marine pollution prevention/management activities; and
- (5) assisting national research institutions and non-government organizations in the use of interdisciplinary approach in marine pollution control and prevention research.

An important part of this has been achieved through the ICM Training Courses (to date involving over 300 candidates including professionals from Africa and Latin America). We feel that this emphasis on capacity building has played a critical role in the programme to date. We wanted to particularly draw attention to the use of Interns from participating countries (see Appendix 4) as an important example of capacity building in the early stages of developing new country projects. Additionally using the ICM laboratories at Xiamen and Batangas provided excellent training and awareness

building sites for most individuals involved in the network. These approaches should continue in the future.

### **5.1.3 Implementation Methodologies**

The Programme delivery framework and organization was extensively discussed in the Mid-Term Project Evaluation Report (MTPER). The Executing Agency is the IMO. The Programme Steering Committee (PSC), composed of country representatives of participating countries as well as UNDP and IMO, provide policy guidance, programme direction and support to the executing agency and the Programme office. Selected international agencies, NGOs, the private sector, institutions and regional bodies are invited as observers. The PSC met for the fourth time in Hanoi, Vietnam on 15-18 December 1997.

The Programme Development and Management Office (PDMO) manages the Programme (Appendices 5-7). The staff profile of PDMO (Appendix 8) shows a total staff complement of 30, with 4 core Project staff, 3 IMO-funded staff, 10 Philippine Government (GOP)-funded staff, 10 full-time contract staff and 3 part-time contract staff. The MTPER has acknowledged the hard and efficient work of PDMO, despite the large number of projects. This can be partly attributed to the strong project leadership of the Programme Manager and the multidisciplinary training of the project staff.

The PDMO formulates an annual workplan which is reviewed and approved in the Technical and Tripartite Review (TPR) during the PSC meeting. During the Fourth PSC meeting, the workplan for 1998 and the January-June 1999 extension of the Programme were approved.

An important element in the implementation by the PDMO is the allowance of reasonable degree of operational flexibility to respond to the often changing situations.

### **5.1.4 Resource allocations**

The Programme has effectively used financial resources in its budget by keeping its staffing pattern lean (e.g. only 20.5 % of the budget goes to administrative overhead; with the remainder (79.5 %) going to actual operations (Appendix 9). The Programme has catalyzed an increasing number of collaborative and cooperative working agreements with donor and international agencies. This commendable effort has mobilized in-country and external financial resources for specific projects and activities, many of which are co-sharing arrangements.

## **5.2 SPECIFIC OBJECTIVE 2**

### **5.2.1 Institutional framework**

The ICM framework in Xiamen and Batangas has five elements in common: (a) institutional arrangements and mechanisms for decision-making; (b) legislation and

enforcement; (c) environment monitoring and assessment; (d) scientific and technological backstopping; and (e) sustainable financial mechanisms.

In Xiamen, an interagency management committee to coordinate marine uses and integrated management of the marine environment has been set up. The municipal government has formed its marine management and coordination office as the operational arm of the interagency committee. The Committee coordinates with not only marine related agencies but also with those dealing with land-related issues.

In Batangas, the Batangas Bay Integrated Coastal Management Council comprising representatives of national government agencies, coastal municipalities, industries and NGOs has been set up for coordination and consultation on coastal development policies and for the implementation of the strategic environmental plan for the Bay. The Provincial Government Environment and Natural Resources Office (PG ENRO) serves as the secretariat and operating arm of the council.


Another aspect of institutionalization is the ratification of International Conventions relating to marine pollution in the East Asian Seas region. Good progress has been made; the number of ratifications by the 11 countries in 1997 stands at 64, almost double the number in 1994 (Table 1). One reason for this substantial progress is a new awareness of the benefits of the global instruments as well as the increased political will and public interest in the protection of the marine environment. The Programme has contributed to this increased awareness through the holding of workshops, the setting up of an information database and the organization of a regional network of interested legal practitioners.

The Programme has developed an approach focused on the practical aspects of convention implementation in addition to providing information on the requirements for ratification. The approach is based on the fact that the decision to ratify a convention depends on the technical capability of implementation of the convention in question, making the two processes very much interrelated. The Programme therefore worked with national administrations to formulate plans for the initial steps to be made before progressing towards improved implementation of conventions. The benefit to countries for taking these initial steps cannot be overestimated, for too many countries the prospect of implementing the technical aspects of pollution conventions is an intimidating hurdle. This is very well illustrated by a review of the requirements for the Philippines to implement the International Convention for the Prevention of Pollution from Ships, or MARPOL. There were many requirements which the country was not prepared to meet. However, ratification is well on the way as a result of the Programme's intervention.

**TABLE 1. Ratification in East Asia of International Conventions Relating to Marine Pollution**

COUNTRY	C O N V E N T I O N S																	
	U N C L O S 82	MARPOL			London Convention		Intervention		CLC			Fund			S A L V A G E 89	O P R E C 90	B A S E L 89	
		73/78 Annex I/II	Annex			CONV 72	PROT 96	CONV 69	PROT 73	CONV 69	PROT 76	PROT 92	CONV 71	PROT 76				PROT 92
			III	IV	V													
Brunei Darussalam	96	86								92	92							
Cambodia		94	94	94	94					94								
China	96	83	94		88	85		90	90	77	86					94	98	92
DPR Korea		85	85	85	85													
Indonesia	86	86								78			78					93
Malaysia	96	97			97					95			95				97	93
Philippines	84					73						97			97			93
Republic of Korea	96	84	96		96	93				78	92	97	92		97			94
Singapore	94	90	94							81	81	97			97			96
Thailand																		
Vietnam	94	91																95

Number of Boxes refer to year of ratification/accession

 ratified 1994 and after

### 5.2.2 Capacity building

Capacity building is integrated into all components of the Regional Programme through internships, short-term technical trainings, in-service training, staff exchanges, and study tours. These activities benefited national professionals who were involved in the implementation of over 90% of project activities. Almost all training courses were in collaboration with academic institutions (University of the Philippines, University of Singapore, City University of Hong Kong); this university involvement makes sense in terms of drawing these institutions into the work of the programme. A good indicator of

the value of these courses is the additional support from donor agencies (Swedish International Development Cooperation Agency, International Development and Research Centre of Canada) for participants from developing nations outside the region to attend the Programme's training courses. An example of such a course is the Third Regional Training Course on the Application of Integrated Coastal Management System in Marine Pollution and Management was conducted on 6-26 October 1997. This was participated in by 22 participants from 11 countries from the East Asia region, East Africa and Latin America. The participants received training at Batangas and Xiamen and visited Singapore to learn the latter's experience in river clean up. Additionally, two training courses on oil spill preparedness were conducted (44 participants) in the Gulf of Thailand and South China Sea.

In total, more than 1,000 participants benefited from such training programs, workshops and conferences. In Table 2 are the contributions and benefits of the 11 participating countries.

**TABLE 2. Participating Country Contributions and Derived Benefits**

	Burma/Thailand	Cambodia	PR China	DPR Korea	Indonesia	Malaysia	Philippines	RO Korea	Singapore	Thailand	Vietnam
<b>1. Training</b>											
Oil Spill Response	■	■			■	■			■	■	
ICM		■	■	■	■	■	■	■	■	■	■
IEIA	■	■	■	■	■	■	■	■	■	■	■
Internship/staff exchange		■	■	■	■	■				■	
<b>2. Workshops and conferences</b>											
Marine pollution monitoring		■	■	■	■	■	■	■	■	■	■
Marine legislation		■	■	■	■	■	■	■	■	■	■
ICM Technical		■	■	■	■	■	■	■	■	■	■
Risk assessment/risk management		■	■	■	■	■	■	■	■	■	■
International conventions	■	■	■	■	■	■	■	■	■	■	■
Sustainable financing		■	■	■	■	■	■	■	■	■	■
Resource valuation				■	■			■			
Oil spill modelling		■	■	■	■	■	■	■	■	■	■
Public awareness and education		■	■			■					
<b>3. Equipment</b>		■	■			■				■	
<b>4. Publications</b>											
Newsletters/Updates	■	■	■	■	■	■	■	■	■	■	■
Technical Reports/Conferences	■	■	■	■	■	■	■	■	■	■	■
<b>5. Host of Programme events</b>	■	■			■	■	■	■	■	■	■

### **5.2.3 Sustainability**

Two main factors are considered critically important to ensure sustainability of the projects: institutional arrangements and sustainable financial support. The setting up of the marine management and coordination office under the interagency Committee in Xiamen and of the Batangas Bay Integrated Coastal Management Council should ensure continuity of leadership and program directions. The linkages of the Programme with educational institutions constitute another supporting mechanism to strengthen the institutional arrangements already in place. The more than 30 ratifications would help ensure the continued efforts of governments to implement international conventions. Among the financial mechanisms, public sector-private sector partnerships appear to hold promise as sources of revenue for marine pollution control and management given the current interest in investment opportunities in wastes as a resource.

The interactive databases of the Malacca Strait – a joint effort of the three littoral states – can serve as common instrument to ensure sustainability of the projects. However, in the follow-on phase, the databases need to be designed to meet the specific needs of identified users. Those users should be consulted in the development of the final product.

### **5.2.4 Relevance and impacts with respect to project objective**

The primary objective of the Regional Programme is to support the efforts of the 11 participating governments in the East Asian region to prevent and manage marine pollution at the national and subregional levels on a long-term and self-reliant basis. Most of the project activities are being implemented by professionals from the countries of the region, including PDMO. This has been achieved through capacity building and training, and is one indication that the project design and implementation is realistic, practical and relevant to attaining the specific objectives of the Programme.

The project outputs and accomplishments, particularly at the two ICM sites, in terms of the institutionalization of implementing and enforcement bodies for control and management of water pollution, the catalytic role in the working arrangements among the three littoral states, the technical assistance to participating countries for ratification and implementing international conventions, the various networking activities, and the production of databases, management atlases and printed materials on ICM and other studies are all relevant to developing nations.

The concept for the management of wastes developed at the three demonstration sites may serve as working models for the rest of the region and beyond. This illustrates the shift in concept and approach to address marine pollution problems that have been practiced more and more in the industrialized countries. This shift is illustrated below.

Conventional in the Region	Current Project
<b>Concept</b>	
Pollution management is the responsibility of the public sector and does not generate income for government.	Pollution management is the responsibility of both public and private sectors as well as the individual and can create investment opportunities.
Central government addresses pollution problems through national policies, programs and capability building.	Local government is provided with the framework, tools and skills for addressing marine pollution problems at the local level.
Wastes has never been viewed as a resource.	Wastes generated in one area may constitute a resource in another area.
<b>Approach</b>	
Routine removal of waste. Response to pollution crises.	Total management approach trying to minimize waste at the source by applying ICM and risk assessment/management frameworks and processes.
Heavily relies on legislative controls including EIAs.	Preventive and management framework installed at the local and subregional levels.
<b>Methodology</b>	
Management instruments are applied in isolation and in loose coordination.	Integrates various institutional, legal, monitoring, scientific, communication and enforcement tools to maximize efficiency, effectiveness and incremental benefits.

### **5.2.5 Applicability and potential for replication**

The ICM working models developed in Xiamen and Batangas are already being applied or about to be applied elsewhere in the region. Three parallel sites have been established in China. Three similar sites in the Philippines are about to be established. The risk assessment approach provides an entry point for environmental management in the Malacca Straits. However, the interactive database need further development to become useful. The management atlas for Batangas Bay is a valuable tool to enable local governments to do integrated planning. The financial investment mechanism established at the two demonstration sites promote public sector-private sector partnership and is replicable elsewhere. The use of ICM demonstration sites as “laboratory” for coastal management should be replicated in all countries of the region. The model legislation on “Framework for national legislation for marine pollution” is a

useful tool for countries wishing to improve their legislative framework to improve environmental management.

### **5.3 SPECIFIC OBJECTIVE 3**

#### **5.3.1 Relevant Constraints and Problems**

The Programme is complex and complicated in implementation details and therefore requires strong project management with adequate technical and administrative personnel. These requirements are met by the present project management staff. There are, however, as can be expected, constraints to smooth management Technical problems in communication (e.g. E-mail is still not fully operational throughout the entire region), poor skills in the use of the English language, slow response by some focal points, bureaucratic procedures in several countries as well as the executing agency and inadequate facilities provided by the host country are examples of difficulties experienced in the implementation of the Programme. Some of these constraints, no doubt, are unavoidable and inherent to the circumstances. The region consists of countries with large differences in political systems and economic development. However, it may be reasonable to expect that the problems caused by unnecessary bureaucratic procedural requirements on behalf of the executing agency may soon be solved.

### **5.4 SPECIFIC OBJECTIVE 4**

#### **5.4.1 Level of participation by the participating countries and impacts**

Table 3-6 shows that all 11 countries of the region have participated in many of the projects and activities of this programme . The major impacts of this participation are as follows:

- (1) Through training and capacity building the number of experts to conduct ICM in the region has increased significantly;
- (2) Through awareness building and information, there has been an increase in the ratification and implementation of marine pollution-related conventions;
- (3) The national efforts to replicate ICM in parallel sites, has resulted in the decision to establishment of three sites in the Philippines and three sites in China;
- (4) The beginnings of a regional network for management-oriented monitoring of water quality; and
- (5) The development of the “marine electronic highway in the Malacca Straits” could be a useful approach to improve shipping safety and reduce environmental risk.

**TABLE 3. Composition of Participants in Programme Training Activities, 1995-1998**

	National Govt.	Local Govt.	Industry	Univ.	Res Inst	TOTAL
Brunei Darussalam	9		3			12
Cambodia	13				1	14
DPR Korea	11		1		1	13
Indonesia	7	1			1	9
Malaysia	4	10				14
PR China	12	33	1	7	2	55
Philippines	20	26	2	5	3	56
R of Korea	4		1		1	6
Singapore	2		2	7		11
Thailand	13	2	7	2		24
Vietnam	17	2	5		16	40
Other Countries	4					4
<b>TOTAL</b>	<b>116</b>	<b>74</b>	<b>22</b>	<b>21</b>	<b>25</b>	<b>258</b>

**TABLE 4. Number of Participants in Programme Training Activities 1995-1998**

	ICM	IEIA	OPRC	MONITORING	STUDY TOUR	GIS	INTERNSHIP	TOTAL
Brunei Darussalam		2	10					12
Cambodia	5	2	2	4			1	14
DPR Korea	4		4	3			2	13
Indonesia	6	2					1	9
Malaysia	6	2	4		2			14
PR China	19	3	8	10	6	7	2	55
Philippines	18	11	3	2	14	8		56
R of Korea	2		4					6
Singapore	4	4	3					11
Thailand	7	3	12		2			24
Vietnam	8	2	3	25			2	40
Other Countries	4							4
<b>TOTAL</b>	<b>83</b>	<b>31</b>	<b>53</b>	<b>44</b>	<b>24</b>	<b>15</b>	<b>8</b>	<b>258</b>

**TABLE 5 : NUMBER OF PARTICIPANTS IN PROGRAMME WORKSHOPS 1994-1998**

Country/Item	ICM	OIL SPILL	SUS FIN	MALACCA	MONIT	MARPOL	LEGAL	CLC	RISK	YOUTH	SUB-TOTAL
Brunei			1	1							<b>2</b>
Cambodia	4	2	2	6		2	2	1			<b>17</b>
DPR Korea	4	2				1					<b>7</b>
Indonesia	6	5	5	9	2	3	75	3		9	<b>112</b>
Malaysia	12	3	3	17	2	2		2		17	<b>55</b>
PR China	75	3	3	9		5		1			<b>94</b>
Philippines	55	2	2	77		6	47	3	34		<b>225</b>
R of Korea	6	31	31	2		3		2			<b>44</b>
Singapore	5	2	2	8	3	2	4	2		4	<b>30</b>
Thailand	10	1	1	8		3		1			<b>23</b>
Vietnam	8	2	2	8		6	133	1	20		<b>178</b>
Other Countries	34			24	3		2	2		5	<b>70</b>
<b>TOTAL</b>	<b>219</b>	<b>54</b>	<b>54</b>	<b>169</b>	<b>10</b>	<b>33</b>	<b>263</b>	<b>18</b>	<b>54</b>	<b>35</b>	<b>857</b>

**TABLE 6. Participation in Programme Workshops 1994-1998**

	National Govt.	Local Govt.	Industry	Univ.	Res Inst	TOTAL
Brunei Darussalam	2					<b>2</b>
Cambodia	17					<b>17</b>
DPR Korea	7					<b>7</b>
Indonesia	72		26	12	2	<b>112</b>
Malaysia	17	15	5	18		<b>55</b>
PR China	38	41	1	9	5	<b>94</b>
Philippines	112	18	62	8	25	<b>225</b>
R of Korea	35		1	8		<b>44</b>
Singapore	13		3	12	2	<b>30</b>
Thailand	12	1	1	8	1	<b>23</b>
Vietnam	109		54	12	3	<b>178</b>
Other Countries	17		19	16	18	<b>70</b>
<b>TOTAL</b>	<b>451</b>	<b>75</b>	<b>172</b>	<b>103</b>	<b>56</b>	<b>857</b>

## **5.5 SPECIFIC OBJECTIVE 5**

### **5.5.1 Links and supports from international agencies, NGOs, donors, private sector**

The Programme has developed various types of working relations and agreements with a number of different parties involved in environmental management in the region. The most important of such links are the following:

#### **5.5.1.1 Private Sector**

The programme has organized the “Sustainable Financing Workshop” where several representatives from the private sector participated. The Workshop contributed to an increase in the interest among private industry in engaging in waste management and pollution control. Indications of this interest is the development of the Public Sector-Private Sector Partnership Program, the voluntary agreements between industries in Batangas and the development of agriculture waste treatment facilities.

#### **5.5.1.2 Donors**

Cooperative links have been developed with agencies such as Sida, Sarec, DANCED, IDRC, ASEAN-Canada Center, Norwegian Government, Netherlands Government and ADB. These agencies have contributed financial support to several of the activities under the Programme.

#### **5.5.1.3 International Agencies**

Collaborative relations have been developed with several international and regional organizations and agencies. Examples are FAO on pesticide risk assessment, IOC on workshop on oil spill modelling, UNEP/COBSEA on public awareness contest for the youth and joint sponsorship of a workshop and UNDP on private sector-public sector partnership development.

#### **5.5.1.4 NGOs and Professional Organizations**

Collaborative relations have been developed with professional bodies including Coastal Management Center (CMC) on a number of joint projects, WASTE on integrated waste management program in Batangas, World Conservation Monitoring Center (WCMC) on Malacca Straits database, International Petroleum Industry Conservation Association (IPIECA) on linkage with oil industry and preparation of a document on impacts of oil on fisheries, World Wildlife Fund (WWF) on sustainable financing, Foundation for the Philippine Environment (FPE) and the Philippine Business for the Environment (PBE) on environmental issues including waste exchange programs.

In addition, through South-South Cooperation, professionals from countries of East Africa, South Asia and Latin America have benefited from the training programs, etc.

Furthermore, experts from developed nations (U.S., UK, Norway, Netherlands, Canada, Sweden and Japan) have participated in project activities through consultancies.

## **5.6 SPECIFIC OBJECTIVE 6**

### **5.6.1 Economic, financial, institutional and policy instruments for sustainability**

For the ICM sites, sustainability of project efforts to control, prevent and manage marine pollution can be ensured by (1) putting in place institutional mechanisms, (2) identifying and developing investment opportunities in coastal and marine management, and (3) promotion of public sector-private sector partnerships.

The manual of economic instruments, now being developed for use by local governments in ICM and marine pollution programs, could help promote economic incentives for sustainability. A methodology, contingent valuation to assess willingness to pay, to financially support marine pollution management programs has been tried in Batangas Bay.

## **5.7 SPECIFIC OBJECTIVE 7**

### **5.7.1 Leverage co-financing**

The Programme has been successful in leveraging external resources. A total of US\$11.3 million has been mobilized since the beginning of the Programme in 1994. This was due mainly to the commendable efforts of the Programme Manager. These external resources were used for replication of ICM sites, strengthening training courses (ICM, IEIA, south-south cooperation) implementation of MARPOL, development of public sector-private sector partnership and sponsorship of conferences.

For the Malacca Straits, these partnerships and the development of a marine electronic highway are steps in the right direction. However, the project has yet to operationalize the marine electronic highway idea. This may take more time to accomplish, probably beyond the timeline of the project and most likely into the next phase.

## **5.8 SPECIFIC OBJECTIVE 8**

### **5.8.1 Intergovernmental cooperation**

The Programme has catalyzed closer cooperation between participating governments, as evidenced by the following:

- (1) experts of the three littoral states of the Malacca Straits work together on common themes and methodologies agreed by their official representatives;
- (2) the three countries have cooperated to produce an environmental information system for the Malacca Straits involving 33 scientific staff in three universities;

- (3) the development of marine electronic highway project; and
- (4) the active participation at the annual intergovernmental meetings on project design, work plan, budget, and project review (tripartite meeting).

This represents good progress to date but this objective will require a much stronger effort in the coming years.

## **5.9 SPECIFIC OBJECTIVE 9**

We reviewed the project brief for the follow-on phase “Building Partnerships for the Environmental Protection and Management of the East Asian Seas”, with the following summary:

The project will enable the heavily populated countries of the East Asian Seas region to collectively protect and manage their heavily stressed coastal and marine environments through intergovernmental, interagency and intersectoral partnerships. Building upon the strategies, approaches, networks and lessons learned from the pilot phase, the project will enhance national and international efforts by lowering or removing critical barriers regarding policy, investments and capacity, which exert a negative effect on environmental management. The project will employ a programmatic approach to address multi-focal environmental concerns of the region, and build national and regional capacity to: (1) implement integrated coastal management programs; (2) promote multi-country initiatives on priority transboundary issues; (3) create environmental investment opportunities through public-private sector partnerships, bank loans and other development assistance; (4) establish an enabling framework to advance the concerns of non-government and community organizations and marginalized groups, especially youth and women; (5) promote regional commitment for implementing international conventions; and (6) strengthen regional and subregional cooperation and collaboration through a sustainable regional mechanism. The net results shall lead to incremental marine environmental improvements, the cumulation of which shall add to the global environmental benefits.

The following discussion addresses the following concerns for the follow on phase.

### **5.9.1 *Framework within which GEF activities are catalytic and provide exit strategy***

Activities in the pilot phase project are catalytic. But no regional framework was developed to allow immediate GEF exit in view of the complexity, magnitude and geographical size of the project site, which will require substantial efforts in order to build policy environment, working models, innovative approaches and methodologies. However, the proposed activities of the second phase are also clearly catalytic in nature, but a well defined regional mechanism is proposed which will provide for a reasonable exit for GEF at the end of the project phase.

### **5.9.2 Replication of demonstration projects**

The Xiamen-ICM site has been replicated in three parallel sites in Hainan, Guangdong and Guangxi. Three new ICM sites have been chosen in the Philippines to replicate the Batangas Bay model. Furthermore, good ICM practices have been published in 10 languages. Further demonstration is needed because the two initial ICM sites in the pilot phase deals only with marine pollution prevention and management. More demonstration sites are needed for application of ICM for a related series of issues such as biodiversity, sustainable fisheries and aquaculture, sea level rise, port and harbor development, ecotourism, etc. Because of the diverse socio-economic, political, cultural and language traditions, the two demonstration sites, though shown to be effectively and efficiently working, are not sufficient for the whole region. There is a need to move from testing the ICM working models to their application and further development across the region to provide an adequate coverage to reflect this local variation.

### **5.9.3 Memorandum of agreements/understanding**

More than 30 MOAs/MOUs have been signed to implement specific projects or activities with short duration. Other agreements have longer terms such as those with Xiamen and Batangas governments. The Regional Mechanism as proposed in the follow-on phase is not an MOA but rather a special intergovernmental agreement which commits governments to implement the provisions of the international conventions ratified by them. Once the Regional Mechanism is established, the commitments will be implemented in a similar fashion to other regional collaborative arrangements such as the HELCOM framework of the Baltic Sea.

### **5.9.4 Operational shortcomings**

Almost all of the project staff are overloaded and overworked. They work almost six days a week. Some of the international staff were not able to take advantage of their annual leave. The project leaders and staff have a strong team spirit and are dedicated to their work. This is because the project leaders are also involved in the implementation of project activities and not just management duties. Existing operational shortcoming can be overcome for the follow-on phase.

### **5.9.5 Suitable foundation for activities in the follow-on phase**

The current Programme has built a strong foundation for the activities in the follow-on-Phase based upon the working model, strategies, approaches, methodologies and lessons learned. It has also created a strong and supportive environment for intergovernmental cooperation in addressing the marine problems of the East Asian Seas region. It is the only project in which there is complete participation of all countries bordering the regional seas. The project office in Manila is increasingly being used to serve as a regional focal point for the development of the Marine Electronic Highway project, for technical support for ratification of international conventions, and for building regional capacity. This centrality of the project office is an asset for the implementation

of the follow-on phase project activities. Also, the current project staff has proven their technical and management capacity and are also valuable assets for the follow on phase.

## **APPENDIX 1 : EVALUATION TEAM SCHEDULE AND ITINERARY**

### **PROGRAMME EVALUATION 03 – 16 August 1998**

#### **Itinerary**

#### **Evaluation Team:**

**Dr. Angel Alcalá** (Team Leader)  
**Dr. Brian Davy** (member)  
**Dr. Olof Linden** (member)

<b>DATE</b>	<b>TIME</b>	<b>ACTIVITY</b>
August 03 (Mon)	08:30	Meeting with UNDP
	10:30	Briefing by Regional Programme Manager a. TOR b. Itinerary c. Documentation d. Background of Project e. Mid-Term Evaluation f. Others
	12:00	Lunch
	13:30	General project progress, achievements and outputs (CTE)
	14:30	Progress made after Mid-Term Review to-date
	14:35	ICM (Huming Yu)
	15:30	Coffee break
	16:00	Information Management & GIS (James W. Paw)
	17:00	Sustainable Financing (Adrian Ross)
	18:00	End of day 1
August 04 (Tues)	08:00	Marine Pollution Monitoring (Gil Jacinto)
	09:00	International Conventions (Antonio La Viña/Adrian Ross/Gina Bernad)
	10:00	Malacca Straits (Adrian Ross)
	11:00	Malacca Strait Interactive Database Demonstration (Abdul Rani Abdullah/Lee Chak Khiam)
	12:00	Lunch
	13:30	Capacity building (Huming Yu)

<b>DATE</b>	<b>TIME</b>	<b>ACTIVITY</b>
	14:30	Financial delivery & administration (Cory Guerrero/Mary Ann dela Peña)
	15:30	Coffee break
	16:00	General discussion
August 05 (Wed)		Departure for Xiamen (MNL-XIA) via CZ 380 (Olof Linden/Brian Davy/Huming Yu)
	15:00	Arrival in Xiamen
	16:30	Briefing (Chen Guoqiang)
August 06 (Thur)	08:00	Meeting with subproject Team Leaders
	10:00	Boat Ride: Briefing on Functional Zoning (Gu, D.)
	12:00	Lunch in Gulangyu Islet
	14:00	Maluanwan Bay: Briefing on water quality improvement project (Lin, Y.)
	16:30	Yuandang Lagoon Project Office: Briefing on the lagoon cleaning up (Hao, S.)
	17:30	Yuandang Lagoon Tidal Inlet
August 07 (Fri)	08:30	Third Inst. of Oceanography: Briefing on pollution monitoring (Xu, K./Yuan, D.)
	10:00	Xiamen University: Briefing on Impact Assessment (Hong, H.)
	11:00	Nanputuo
	13:30	Departure for Airport (XIA-MNL)
	18:25	Arrival at NAIA via CZ 377
August 08 (Sat)	09:00	Evaluation Meeting
August 09 (Sun)	17:00	Departure for Tagaytay (Day's Hotel)
August 10 (Mon)	07:30	Departure for Batangas City
	09:00	Briefing (Estigoy, E./Abansy, C.)
	11:00	Chemical Lab: Briefing on water quality monitoring
	12:00	Lunch
	13:30	Shell Batangas: Brief on BCRMF
	15:00	Port Authority: Briefing by PPA/Coast Guard
	17:00	Departure for Manila
August 11 (Tues)		Evaluation Meeting
August 12 (Wed)		Evaluation Meeting
August 13 (Thur)		Evaluation Meeting & Reporting
August 14 (Fri)	10:00	Evaluation Meeting & Reporting (Debriefing) (Shun-Ichi Murata)
August 15 (Sat)		Debriefing (PDMO)
August 16 (Sun)		Departure

## **APPENDIX 2: LIST OF DOCUMENTS PROVIDED BY PDMO**

### **Conference Proceedings**

MPP-EAS Conference Proceedings No. 6 Sustainable Financing Mechanisms: Public Sector – Private Sector Partnership, Proceedings of the Regional Conference on Sustainable Financing Mechanisms for the Prevention and Management of Marine Pollution: Public Sector – Private Sector Partnership, Metro Manila, Philippines, 14-16 November 1996.

### **GEF Project Brief**

Building Partnerships for the Environmental Protection and Management of the East Asian Seas. July 30, 1998.

### **Information Series**

MPP-EAS/Info/93/3 GEF/UNDP Programme Document on Prevention and Management of Marine Pollution in East Asian Seas. 1993.

MPP-EAS/Info/96/92 Mission Report of the Network Coordinator Training Course on Marine Water Sampling and Field Measurements. 10-15 March 1996.

MPP-EAS/Info/97/115 First Quarter Progress Report. January-March 1997.

MPP-EAS/Info/97/117 Malacca Straits: Initial Risk Assessment. March 1997.

MPP-EAS/Info/97/127 Second Quarter Progress Report. April-June 1997.

MPP-EAS/Info/97/141 Third Quarter Progress Report. July-September 1997.

MPP-EAS/Info/97/142 Report on the Third Regional Training Course on the Application of Integrated Coastal Management System in Marine Pollution Prevention and Management in the Philippines, PR China and Singapore. 6-26 October 1997.

MPP-EAS/Info/98/157 Highlights of the Second Technical Workshop of the Regional Network for Marine Pollution Monitoring and Information Management. 9-10 November 1998.

MPP-EAS/Info/98/162 First Quarter Progress Report. January-March 1998.

MPP-EAS/Info/98/163 1998 Training Programs.

MPP-EAS/Info/98/175 Second Quarter Progress Report. April-June 1998.

### **Meeting Report Series**

MPP-EAS Meeting Report No. 2 Proceedings of the Second Programme Steering Committee Meeting, GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (RAS/92/G34), Phuket, Thailand, 11-13 December 1995.

MPP-EAS Meeting Report No. 3 Proceedings of the Third Programme Steering Committee Meeting, GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (RAS/92/G34), Kuala Lumpur, Malaysia, 10-12 December 1996.

MPP-EAS Meeting Report No. 4 Proceedings of the Fourth Programme Steering Committee Meeting, GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (RAS/92/G34), Hanoi, Vietnam, 15-18 December 1997.

### **MOA/MOU/Sub-projects**

Fisheries Resource Assessment and Project Development for the Batangas Bay Region. 1996.

Establishment of an Agricultural Waste Management System for the Batangas Bay Region Draft Final Report. 13 October 1997.

Marine and Coastal Resource Valuation for the Straits of Malacca (Malaysia). 1997.

Regional Workshop on the Protection and Management of the East Asian Seas. Subic Bay International Hotel, Olongapo City, 4-6 July 1997.

Technical Study on the Establishment of a Solid Waste Management System for the Batangas Bay Region Final Report (Draft). November 14, 1997.

Technical Study on the Establishment of a Solid Waste Management System for the Batangas Bay Region Final Report (Draft Two). January 9, 1998.

### **Newsletter**

Tropical Coasts July 1997, Volume 4, Number 1

Tropical Coasts December 1997, Volume 4, Number 2

## **Programme Document**

Global Environment Facility United National Development Programme, Programme Document, RAS/92/G34/B/IG/19 Prevention and Management of Marine Pollution in East Asian Seas, Xiamen, 11-13 November 1993

## **Programme Updates**

Updates March 1996, Volume II, Number 1.  
Marine Pollution Updates. Volume III, Number 1. March 1997.  
Marine Pollution Updates. Volume III, Number 2. June 1997.  
Marine Pollution Updates. Volume III, Number 3. September 1997.  
Marine Pollution Updates. Volume III, Number 4. December 1997.  
Marine Pollution Updates. Volume IV, Number 1. March 1998.

## **Project Performance Evaluation Report (PPER)**

PSC/97/DOC/26 1997 Project Performance Evaluation Report GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (RAS/92/G34). 1997

## **Technical Report Series**

MPP-EAS Technical Report No. 6 Coastal Environmental Profile of Xiamen by the Integrated Task Team of the Xiamen Demonstration Project (1996).

MPP-EAS Technical Report No. 7 The Strategic Management Plan for Marine Pollution Prevention and Management in Xiamen (1996).

MPP-EAS Technical Report No. 8 Marine Pollution Prevention and Management in the East Asian Seas: From Planning To Action Annual Report 1996.

MPP-EAS Technical Report No. 9 Integrated Waste Management Action Plan for the Batangas Bay Region (1996).

MPP-EAS Technical Report No. 10 Malacca Straits Environmental Profile (1997).

MPP-EAS Technical Report No. 12 Manual of Practice: Contingent Valuation Survey for Integrated Coastal Management (ICM) Applications (1997).

MPP-EAS Technical Report No. 13 Integrated Coastal Management (ICM) Contingent Valuation Survey in Batangas Bay, Philippines (1997).

MPP-EAS Technical Report No. 15 Pollution Prevention and Management in the East Asian Seas: A Paradigm Shift in Concept, Approach and Methodology (1997).

MPP-EAS Technical Report No. 16 Initial Environmental Risk Assessment of Pesticides in the Batangas Bay Region, Philippines and the Xiamen Seas, China (1998).

### **Workshop Proceedings**

MPP-EAS Workshop Proceedings No. 4 Proceedings of the Consultative Meeting on the Malacca Straits Demonstration Project, Cebu, Philippines, 12-13 March 1997.

MPP-EAS Workshop Proceedings No. 5 Oil Spill Modeling in the East Asian Region with Special Reference to the Malacca Straits, Proceedings of the Regional Workshop on Oil Spill Modeling, Pusan, Republic of Korea, 31 May to 3 June 1996.

MPP-EAS Workshop Proceedings No. 7 Proceedings of the National Workshop on IMO Conventions for the Prevention and Management of Marine Pollution, Hanoi, Vietnam, 21-24 April 1997, Ho Chi Minh City, Vietnam, 24-25 April 1997.

MPP-EAS Workshop Proceedings No. 9 Summary Report of the Batangas Bay Demonstration Project Evaluation Workshop, Batangas City, Philippines, 24-25 July 1997.

MPP-EAS Workshop Proceedings No. 10 Regional Workshop on Partnerships in the Application of Integrated Coastal Management, Burapha University, Bangsaen, Chonburi, Thailand, 12-14 November 1997.

Proceedings of the Workshop on the Implementation of the Local Government Code in Relation to Integrated Coastal Management in the Batangas Bay Region, Alpa Hotel, Batangas City, 19-20 November 1997.

MPP-EAS Workshop Proceedings No. 11 Proceedings of the National Workshop on the Implementation of MARPOL 78/78 in Indonesia: Cost-Effective Shore Reception Facilities, Jakarta, Indonesia, 14-15 January 1998.

### **Other References**

Development of a Hydrodynamic and Pollutant Dispersal Model for Batangas Bay. Final Report . October 1997.

Marine Pollution Monitoring and Assessment in Batangas Bay. Progress Report. 1997.

MIMA Report on the Frame of National Legislation on Marine Pollution Prevention and Management for East Asian Countries. 1997.

A 20 year Forecast Model for Pollutant Loading into the Malacca Straits from Singapore. February 1998.

Marine and Coastal Resources GIS database Final Report: Singapore. February 1998.

Marine Pollution Sources GIS Database Final Report: Singapore. February 1998.

Natural Resource Damage Assessment and the Straits of Malacca (Draft). 24 April 1998.

Publications Brochure. GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas (MPP-EAS). February 1998.

Sustainable Financing for Ship-Based Pollution Prevention and Management in the Malacca Straits (Draft). 9 March 1998.

Water Use Zoning for the Sustainable Development of Batangas Bay, Philippines. 1998.

Assessment of National Marine Pollution Legislation in East Asia.

Manual on Economic Instruments for Integrated Coastal Management Programs Inception Report.

The Development of China's Marine Programs, Information Office of the State Council of the People's Republic of China.

## **APPENDIX 3 : PERSONS AND ORGANIZATIONS MET AND CONSULTED**

### **➤ MANILA, PHILIPPINES**

#### **United National Development Programme (UNDP)**

Ms. Sarah Timpson, Resident Representative  
Ms. Clarissa C. Arida, Programme Manager, GEF  
Mr. Jorge L. Reyes, Sustainable Development Advisor

#### **Programme Development and Management Office (PDMO)**

Dr. Chua Thia-Eng, Regional Programme Manager  
Mr. Adrian Ross, Senior Programme Officer  
Dr. Huming Yu, Technical Advisor  
Mr. James Paw, Technical Programme Officer  
Dr. Gil Jacinto, Coordinator Monitoring and Information Management  
Atty. Stella Regina Bernad, Assistant Coordinator International Conventions  
Ms. Socorro C. Guerrero, Head, Finance and Administration  
Ms. Mary Ann dela Peña, Finance Assistant  
Atty. Antonio La Viña, Honorary Coordinator, International Conventions

#### **Batangas City**

Honorable Hermilando I. Mandanas  
Governor, Province of Batangas

#### **PG-ENRO, Batangas City**

Engr. Evelyn L. Estigoy, Department Head, ENRO  
Dr. Corazon Abansi, Project Officer, Batangas Bay Demonstration Project  
Mr. Sonny Saniano, Supervisory Management Specialist/ICM Coordinator

#### **Batangas Coastal Resources Management Foundation (BCRMF)**

Mr. Rico Bersamin, President, BCRMF  
Mr. Erick Contreras, Secretary, BCRMF

#### **Philippine Ports Authority**

Atty. Ed Pilar, Manager  
Mr. Victor Arellano, Port Service Division Manager  
Mr. Raul Cornejo

#### **Department of Environment and Natural Resources (DENR)**

Honorable Antonio Cerilles, Secretary, DENR  
Mr. Elmer Mercado, Undersecretary  
Mr. Roberto Hara  
Ms. Betty Dar

➤ **XIAMEN, P.R. CHINA**

**Meeting with Team Leaders of Subprojects, 6 August 1998**

- Dr. Chen Gang, Member of subproject on mariculture carrying capacity, Assistant Professor, Oceanographic Department, Xiamen University, Ministry of Education, Xiamen
- Mr. Du Qi, Member of subproject on mariculture carrying capacity, Associate Research Fellow, Deputy Director, Fujian Fisheries Institute, Ministry of Agriculture, Xiamen
- Mr. Gu Deyu, Member of subproject on environmental profiling and strategic management plan, Research Fellow, The Third Institute of Oceanography, State Oceanic Administration, Xiamen
- Mr. Guo Yumou, Team leader of subproject on environmental profiling and strategic management plan, Research Fellow, Fujian Institute of Oceanography, Xiamen
- Mr. Hao Songqiao, Team leader of subproject in case study of Yuandang Lagoon clean-up, Senior Engineer, Director, Yuandang Lagoon Management Office, Xiamen
- Mr. Lin Yanqian, Team leader of subproject on Xinlin Sea water quality improvement, Senior Engineer, Acting Director, Xinlin Branch of Municipal Environment Protection Bureau, Xiamen
- Mr. Lin Zhiwen, Member of subproject on Xinlin Sea water quality improvement, Xinlin Branch of Municipal Environment Protection Bureau, Xiamen
- Mr. Xu Kuncan, Team leader of subproject on marine pollution monitoring and assessment, Research Fellow, The Third Institute of Oceanography, State Oceanic Administration, Xiamen
- Mr. Xu Xiangqiang, Member of subproject on marine functional zoning, Economist, Assistant Manager, Engineering Consulting Center, Municipal Planning Commission, Xiamen
- Mr. Xue Xiongzhi, Team leader of subproject on waste assessment, Assistant Professor, Environmental Science Research Center, Xiamen University, Xiamen
- Mr. Zhuang Shijian, Team leader, Senior Engineer, Deputy Director, Environment Monitoring Station, Municipal Environment Protection Bureau, Xiamen

**Meeting with Subproject Team on Marine Pollution Monitoring and Assessment, 7 August 1998**

Mr. Xu Kuncan, Team leader of subproject on marine pollution monitoring and assessment, Research Fellow, The Third Institute of Oceanography, State Oceanic Administration, Xiamen

Dr. Yuan Dongxing, Professor, Deputy Director, Environmental Science Research Center, Xiamen University, Xiamen

Mr. Gao Chentie, Senior Engineer, Deputy Director, Environment Monitoring Station, Municipal Environment Protection Bureau, Xiamen

Ms. Yang Huihui, Associate Research Fellow, Lab of Marine Chemistry, Fujian Institute of Oceanography, Xiamen

Ms. Li Xiuzhu, Engineer, Deputy Director, Lab of Fisheries Environment, Fujian Fisheries Institute, Xiamen

Mr. Ji Weidong, Associate Research Fellow, Lab of Marine Chemistry, The Third Institute of Oceanography, State Oceanic Administration, Xiamen

**Meeting with Subproject Team on Impact Assessment, 7 August 1998**

Dr. Hong Hua Sheng, Team Leader, Vice-Chair of Fujian Provincial People's Congress, Dean and Professor, Environment Science Research Center, Xiamen University, Xiamen

Mr. Zhang Louping, Associate Professor, Environment Science Research Center, Xiamen University, Xiamen

Mr. Xue Xiongzhi, Assistant Professor, Environmental Science Research Center, Xiamen University, Xiamen

**Xiamen Municipal Government**

Mr. Zheng Jialin, Director-General, Economic Structural Reform Office, Xiamen Municipal Government

Mr. Zheng Zhuanmao, Director-General, Law and Political Affairs, Xiamen Municipality

Mr. Chen Guoqiang, Director, Xiamen Demonstration Project Office, Integrated Management Division, Marine Management Office, Xiamen Municipality

Mr. Shijian, Section Chief, Xiamen Demonstration Project Office, Integrated Management Division, Marine Management Office, Xiamen Municipality

Mr. Huang Wenzhan, Xiamen Demonstration Project Office, Official, Staff Division, Xiamen Municipality

Mr. Lin Rongsheng, Xiamen Demonstration Project Office, Integrated Management Division, Marine Management Office, Xiamen Municipality

➤ **MALAYSIA**

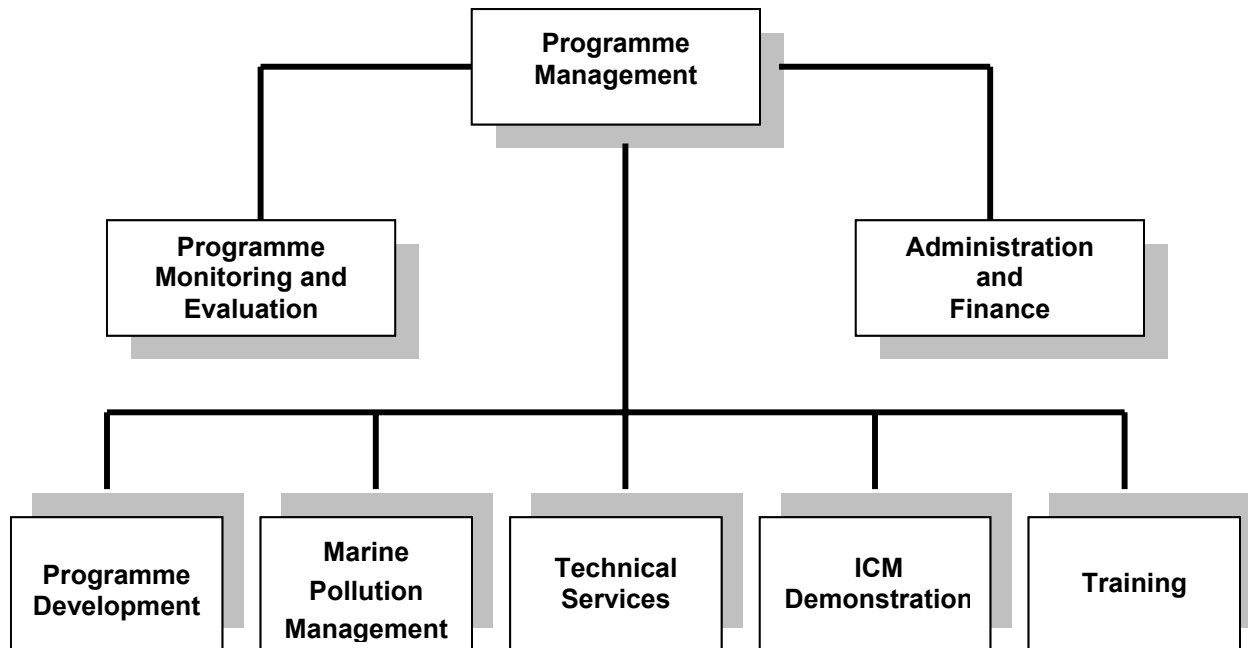
Dr. Abdul Rani Abdullah

Mr. Lee Chak Khiam

## APPENDIX 4 : PARTICIPANTS IN THE INTERSHIP PROGRAMME PDMO, MANILA, 1995-1998

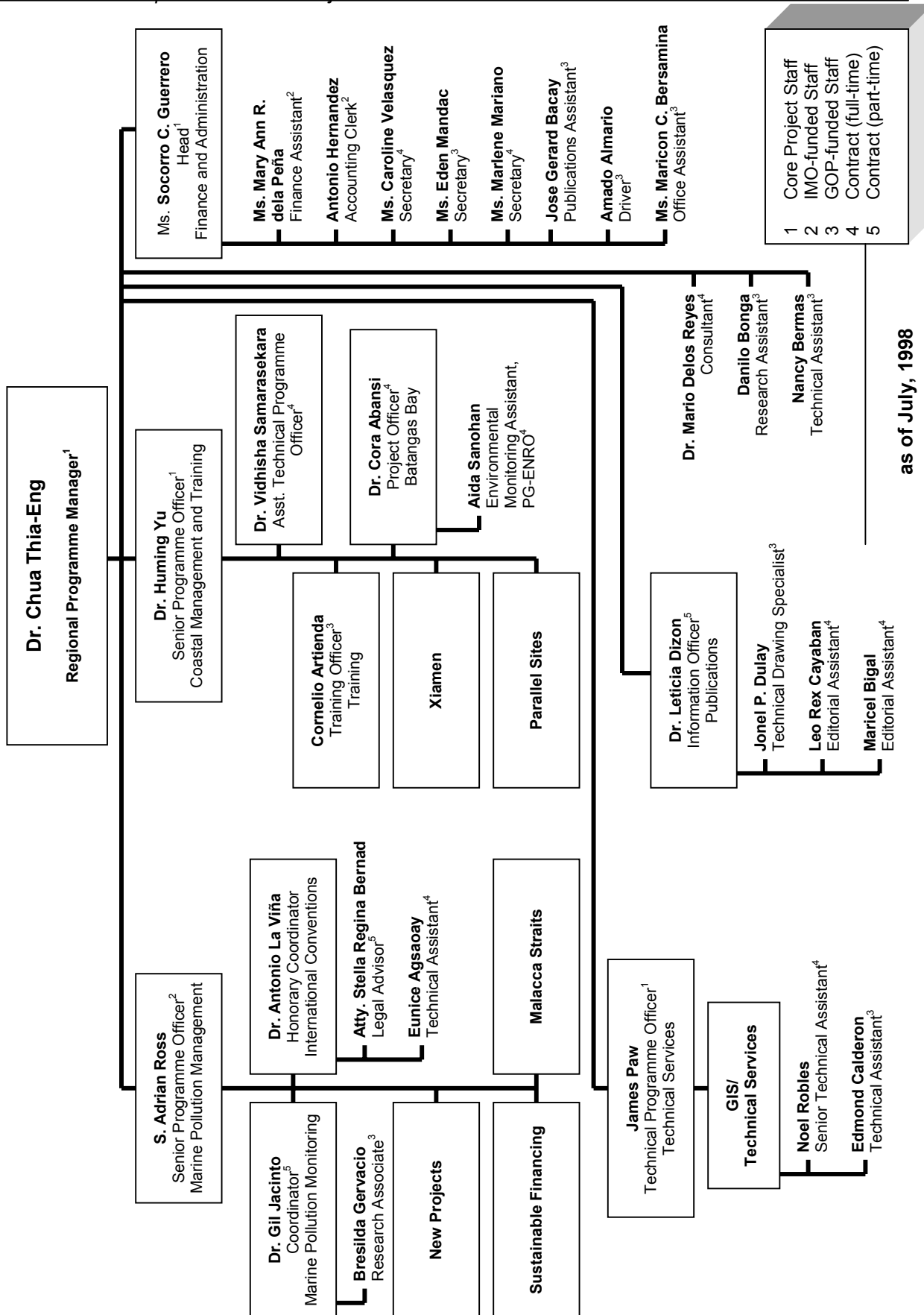
DURATION	COUNTRY	PARTICIPANT	ASSIGNMENT
15/07/95 to 15/12/95	Cambodia	<i>Mr. Long Rithirak</i> Technical Adviser Ministry of Environment	Formulation of coastal environment profile and ICM project proposal for Sihanoukville
11/03/96 to 22/06/96	DPR Korea	<i>Mr. Ryang Chol</i> Deputy Division Chief State Hydro-meteorological Administration	Review of national marine pollution monitoring activities; preparation of a proposal for developing marine pollution monitoring programme for the Nampo region
11/03/96 to 22/06/96	DPR Korea	<i>Mr. O Ryang Pyong</i> Scientist West Sea Oceanographic Institute	Review of national marine pollution monitoring activities; preparation of a proposal for developing marine pollution monitoring programme in Nampo region
03/11/97 to 28/06/98	Indonesia	<i>Mr. Aceng Hidayat</i> Economist Bogor Agriculture University	Economic modelling for Malacca Straits pollution risk assessment and application of ICM in the Batangas Bay region
17/02/97 to 31/08/97	PR China	<i>Mr. Fan Zhijie</i> Scientist Institute of Marine Environment Protection	Comparative study of clean-up activities in Yuandang Lagoon (China), Pasig River (Philippines) and Singapore rivers
17/11/97 to 31/05/98	PR China	<i>Ms. Zhang Haiwen</i> Scientist Institute of Marine Development Strategies	Review of draft national model legislation on marine pollution; developing training programme for legal aspects of marine pollution
11/03/96 to 11/09/96  24/09/96 to 21/03/97	Vietnam	<i>Nguyen Minh Son</i> Scientist Center for Mar. Environ. Survey, Research and Consulting Services	Preparation of regional oil spill modelling workshop; technical editing of the workshop proceedings; and developing joint action plan among the littoral countries of Malacca Straits in oil spill modelling and application
17/11/97 to 31/05/98	Vietnam	<i>Mr. Tran Dinh Lan</i> Scientist Haiphong Institute of Oceanography	Preparation of computer based coastal environment profiling system; updating waste management profile for Vietnam

## APPENDIX 5 : IMO PROGRAMME DEVELOPMENT AND MANAGEMENT OFFICE FUNCTIONAL CHART

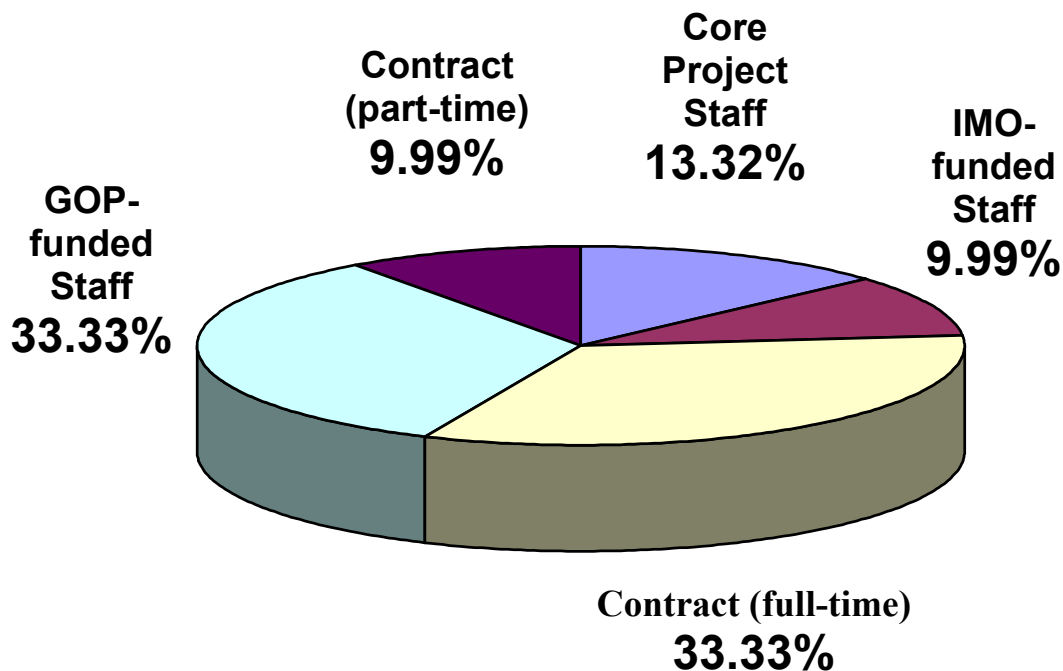


<b>Interagency Cooperation</b>	Malacca Straits Demonstration Project	Geographic Information System	Batangas Bay Demonstration Project	ICM
Intergovernmental Cooperation	Marine Pollution Monitoring	Information and Publications	Xiamen Demonstration Project	Marine Pollution Monitoring
Proposal Development	Sustainable Financing	Networks	Parallel Sites	Waste Management
Fundraising	International Conventions			Oil Spill Response
Regional Planning	New Projects			Integrated EIA
				Staff Exchange
				Internships

**APPENDIX 6 : IMO PROGRAMME DEVELOPMENT AND MANAGEMENT OFFICE ORGANIZATIONAL CHART**



**APPENDIX 7 : STAFF COMPOSITION AT THE PROGRAMME DEVELOPMENT MANAGEMENT OFFICE**



**Total : 30 staff**

<b>Core Project Staff</b>	<b>4</b>
<b>IMO-funded Staff</b>	<b>3</b>
<b>GOP-funded Staff</b>	<b>10</b>
<b>Contract (full-time)</b>	<b>10</b>
<b>Contract (part-time)</b>	<b>3</b>

## **APPENDIX 8 : PROGRAMME DEVELOPMENT AND MANAGEMENT OFFICE BRIEF STAFF PROFILE AS OF JULY 1998**

<b>Core Project Staff – Total = 4</b>	<b>IMO-funded Staff – Total = 3</b>
<ol style="list-style-type: none"> <li>1. Dr. Chua Thia-Eng Regional Programme Manager Ph.D. in Zoology University of Singapore</li> <li>2. Dr. Huming Yu Senior Programme Officer Ph.D. in Marine Policy University of Delaware</li> <li>3. Mr. James N. Paw Technical Programme Officer Master in Aquaculture University of the Philippines in the Visayas</li> <li>4. Ms. Socorro C. Guerrero Head, Finance and Administration Bachelor of Arts in Secretarial Science St. Scholastica's College</li> </ol>	<ol style="list-style-type: none"> <li>1. Mr. Adrian Ross Senior Programme Officer Professional Engineer (Civil) University of Ottawa</li> <li>2. Ms. Mary Ann R. dela Peña Finance Assistant BSBA – Accounting University of Manila</li> <li>3. Mr. Antonio D. Hernandez, Jr. Accounting Clerk Bachelor of Science in Commerce Saint Louis University</li> </ol>
<b>Contract Full-time – Total = 10</b>	
<ol style="list-style-type: none"> <li>1. Dr. Mario delos Reyes Doctor in Natural Science University of Hamburg</li> <li>2. Dr. Corazon Abansi Officer for the Batangas Bay Demonstration Project Ph.D. Agro-Economics University of the Philippines</li> <li>3. Dr. Vidhisha Samarasekara Asst. Technical Programme Officer Ph.D. Ecology School of Oriental and African Studies (Univ. of London)</li> <li>4. Mr. Noel Robles Senior Technical Assistant (GSI) Bachelor of Science in Commerce Western Institute of Technology</li> <li>5. Ms. Caroline Velasquez Secretary Bachelor of Arts in International Studies Miriam College</li> </ol>	<ol style="list-style-type: none"> <li>6. Eunice Agsaoay Technical Assistant Bachelor of Laws University of the Philippines</li> <li>7. Ms. Aida Sanohan Environmental Monitoring Assistant B.S. Chemistry Pablo Borbon Institute of Technology, Batangas</li> <li>8. Leo Rex Cayaban Editorial Assistant B.S. Forestry University of the Philippines, Los Baños</li> <li>9. Maricel Bigal Editorial Assistant B.S. Development and Communication University of the Philippines, Los Baños</li> <li>10. Marlene Mariano B.S. Management Secretary</li> </ol>

<b>GOP-funded staff – Total = 10</b>	
1. Ms. Nancy A. Bermas Technical Programme Assistant MS Biology University of the Philippines	5. Mr. Danilo A. Bonga Research Assistant MS in Marine Science University of the Philippines
2. Mr. Jonel P. Dulay Technical Drawing Specialist Architecture Far Eastern University	6. Mr. Edmund Titus Alista Calderon Technical Assistant (GIS) B.S. in Commerce Western Institute of Technology
3. Ms. Bresilda Gervacio Research Associate Masters in Environmental Mgmt. & Development Australian National University	7. Ms. Eden O. Mandac Secretary Bachelor of Science in Commerce St. Scholastica's College
4. Mr. Cornelio A. Artienda Training Officer B.S. Industrial Education Technological University of the Philippines	8. Mr. Jose Gerard Bacay Publications Assistant
	9. Ms. Ma. Concepcion B. Nepomuceno Office Cleaner
	10. Mr. Amadeo Almario Utility Person / Messenger
<b>Contract (part-time) – Total = 3</b>	
1. Dr. Gil Jacinto Coordinator for the Regional Network on Environmental Quality Monitoring and Information Management Ph.D. Marine Chemistry Marine Science Institute, University of the Philippines	2. Ms. Stella Regina Q. Bernad Assistant Coordinator: International Conventions Bachelor of Laws University of the Philippines
	3. Dr. Leticia B. Dizon Information Officer Ph.D. Communications University of the Philippines

**APPENDIX 9 : TOTAL ADMINISTRATION OVERHEAD (PDMO)  
AS OF JUNE 1998**

13.01 Admin. Assistant/Secretary	91,073.70
13.03 Other Administrative Support	15,997.62
41.01 Expendable Equipment	26,431.62
42.01 Non-Expendable Equipment	116,662.60
51.01 Maintenance/Upgrade/Operation	34,390.09
51.05 Communications/courier Service/Mail	51,706.09
53.01 Sundry	11,549.63
<b>TOTAL</b>	<b>347,811.29</b>
IMO 13% overhead	598,915.08 (13% of YTD expense as of June 1998)
<b>Overall Total</b>	<b>946,726.37</b> <b>(20.5% of YTD expense as of June 1998)</b>

## APPENDIX 10 : CAPACITY BUILDING: TRAINING/EQUIPMENT, 1995-1998

ACTIVITY	DESCRIPTION	PARTICIPANTS	HOST
OPRC Training Courses	Level 3: Training Seminar for Senior Managers and Administrators on Oil Pollution Preparedness, Response and Cooperation 23-25 June 1998 Dalian, PR China (3 days)	DPR Korea, RO Korea, PR China, Vietnam (20 pax)	Ministry of Communication, China National Marine Environment Monitoring Center, State Oceanic Administration PR China
	Level 2: Subregional Training Course on OPRC for the Gulf of Thailand 15-20 June 1997 Bangkok, Thailand (6 days)	Cambodia, Malaysia, Vietnam, Thailand (30 pax)	The Harbour Department, Ministry of Transport and Communications Thailand
	Level 2: Subregional Training Course on OPRC for the Southern South China Sea 22-27 June 1997 Brunei Darussalam (6 days)	Brunei, Malaysia, Philippines, Vietnam (30 pax)	Marine Department Brunei Darussalam
Regional Training Course on the Application of Integrated Coastal Management System for Marine Pollution Prevention and Management	Fourth Regional ICM Training Course 7-26 September 1998 Philippines (1 week) PR China (1 week) Singapore (1 week)	Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, RO Korea, Thailand, Vietnam, Kenya, South Africa, Tanzania (26 pax)	Philippines Provincial Government of Batangas, Environment and Natural Resources Office  PR China Xiamen Demonstration Project Office  Singapore Department of Biological Sciences, National University of Singapore

ACTIVITY	DESCRIPTION	PARTICIPANTS	HOST
Regional Training Course on the Application of Integrated Coastal Management System for Marine Pollution Prevention and Management	Third Regional Training Course 6-26 October 1997 Philippines (1 week) PR China (1 week) Singapore (1 week)	Cambodia, Indonesia, Malaysia, PR China, Philippines, Thailand, Vietnam, Kenya, Sri Lanka, Uruguay (24 pax)	Philippines Provincial Government of Batangas, Environment and Natural Resources Office
	Second Regional Training Course 4-28 October 1996 Philippines (1 week) PR China (1 week) Singapore (1 week)	Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, Thailand, Vietnam, Kenya, Sri Lanka (22 pax)	PR China Xiamen Demonstration Project Office
			Singapore Department of Biological Sciences, National University of Singapore Philippines Provincial Government of Batangas, Environment and Natural Resources Office PR China Xiamen Demonstration Project Office Singapore Department of Biological Sciences, National University of Singapore
	02 – 25 October 1995 Philippines (1 week) PR China (1 week) Singapore (1 week)	Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, RO Korea, Thailand, Vietnam, Kenya, Tanzania (22 pax)	Philippines Provincial Government of Batangas, Environment and Natural Resources Office PR China Xiamen Demonstration Project Office Xiamen University Singapore Department of Biological Sciences, National University of Singapore

<b>ACTIVITY</b>	<b>DESCRIPTION</b>	<b>PARTICIPANTS</b>	<b>HOST</b>
Legal Training Programme on Strategies, Tools and Techniques for Implementing International Conventions on Marine Pollution in the East Asian Region	21-23 September 1998 Bangkok, Thailand (3 days)	Brunei Darussalam, Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, RO Korea, Singapore, Thailand, Vietnam (45 pax)	The Harbour Department, Ministry of Transport and Communications Thailand
Training Programme on Environmental Risk Assessment and Natural Resources Damage Appraisal for Tropical Ecosystems	21-29 October 1998 SEAMEO-RELC Singapore (9 days)	Brunei Darussalam, Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, RO Korea, Singapore, Thailand, Vietnam (27 pax)	GEF/UNDP/IMO/ MPP-EAS
Regional Training Workshop on Integrated Environmental Impact Assessment for Coastal and Marine Areas	Second Regional Training Workshop 16-21 November 1998 National University of Singapore (6 days)	Brunei Darussalam, Cambodia, DPR Korea, Indonesia, Malaysia, PR China, Philippines, RO Korea, Singapore, Thailand, Vietnam (22 pax)	National University of Singapore
Regional Training Workshop on Integrated Environmental Impact Assessment for Coastal and Marine Areas	First Regional Training Workshop 02 – 07 December 1997 City University of Hongkong (6 days)	Brunei Darussalam, Cambodia, Indonesia, Malaysia, PR China, Philippines, RO Korea, Singapore, Thailand, Vietnam (22 pax)	City University of Hongkong PR China
In-Service Training (Marine Pollution Monitoring)	1-31 April 1998 Dalian PR China (1 month)	DPR Korea (3 pax)	Institute of Marine Environmental Protection, SOA, PR China
	15 March – 15 April 1998 Xiamen, PR China (1 month)	Cambodia (4 pax)	Xiamen Demonstration Project Office Xiamen, PR China
	26 November – 23 December 1996 Xiamen, PR China (27 days)	Philippines (2)	Xiamen Demonstration Project Office Xiamen, PR China
	12-15 March 1996 Vietnam (6 days)	Vietnam (25 pax)	Don Son Marine Monitoring Station Vietnam

<b>ACTIVITY</b>	<b>DESCRIPTION</b>	<b>PARTICIPANTS</b>	<b>HOST</b>
In-Service Training (GIS/Application Software)	1-10 December 1997 PDMO, Philippines	PR China (1)	PDMO Philippines
	24 August – 13 Sept 1997 PDMO, Philippines	PR China (1)	PDMO Philippines
	18-23 December 1996 Xiamen, PR China	PR China (4 pax)	Xiamen Demonstration Project Office Xiamen, PR China
	27-31 May 1996 Xiamen, PR China	PR China (4 pax)	Xiamen Demonstration Project Office Xiamen, PR China
	PDMO, Philippines	Philippines (4)	PDMO Philippines
Internship Programme	5 months – 1 year (1995 –1998)	Indonesia, DPR Korea, PR China, Vietnam (9 pax)	PDMO Philippines
Study Tour	ICM Demonstration Sites 14 – 22 October 1998 (9 days)	Cambodia, DPR Korea, Indonesia, Vietnam (8 pax)	PG-ENRO, Philippines and Xiamen Demonstration Project Office PR China
	Xiamen Delegation to the Philippines and Singapore (Sea Use Planning) October 1998	PR China (4 pax)	PG-ENRO, Philippines and Singapore
	ICM Demonstration Sites 27 June – 4 May 1998 (9 days)	Malaysia, Philippines, Thailand, Nigeria (9 pax)	PG-ENRO, Philippines and Xiamen Demonstration Project Office PR China
	Philippine Delegation to Xiamen (Sanitary Landfill) 04 – 08 March 1998 (5 days)	Philippines (4 pax)	Xiamen Demonstration Project Office PR China
	Comparative Study of River Clean-Up in the Philippines and Singapore 20 – 27 July 1997 (8 days)	PR China (5 pax)	PG-ENRO, Philippines and Singapore
	Philippine Delegation to Xiamen 10 – 13 November 1995 (4 days)	Philippines (6 pax)	Xiamen Demonstration Project Office PR China
Transfer of Equipment	Pollution monitoring equipment	Cambodia, DPR Korea, Philippines, Vietnam	PDMO

## **APPENDIX 11 : LIST OF ACRONYMS**

ADB	Asian Development Bank
ASEAN	Association of South East Asian Nations
BCRMF	Batangas Bay Coastal Resources Management Foundation
CIDA	Canadian International Development Agency
CLC	Civil Liability for Oil Pollution Damage
CMC	Coastal Management Center
COBSEA	Co-ordinating Body on the Seas of East Asia
DANCED	Danish Cooperation for Environment and Development
DENR	Department of Environment and Natural Resources
EAS	East Asian Seas
FAO	Food and Agricultural Organization
FPE	Foundation for the Philippine Environment
FUND	Establishment of an International Fund for Compensation for Oil Pollution Damage
GEF	Global Environment Facility
GIS	Geographic Information Systems
GOP	Government of the Philippines
ICM	Integrated Coastal Management
IDRC	International Development Research Centre
IEIA	Integrated Environmental Impact Assessment
IMO	International Maritime Organization
IPIECA	International Petroleum Industry Conservation Association
MARPOL	International Convention for the Prevention of Pollution from Ships
MEH	Marine Electronic Highway
MOU/MOA	Memorandum of Understanding (Agreement)
MTPER	Mid-Term Project Evaluation Report
NGOs	Nongovernment Organizations
OECF	Overseas Economic Cooperation Fund
OPRC	Oil Spill Response and Coordination
PBE	Philippine Business for the Environment
PDMO	Programme Development and Management Office
PG-ENRO	Provincial Government Environment and Natural Resources Office (Batangas)
PPP	Public-Private Partnerships
PSC	Programme Steering Committee
Sarec	Sida Research Department
Sida	Swedish International Development Corporation Agency
TPR	Tripartite Review
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
WCMC	World Conservation Monitoring Center
WWF	World Wildlife Fund