



## **TERMINAL REPORT**

**February 2002 to December 2008**

**of the  
Project Director  
to**

**THE UNITED NATIONS ENVIRONMENT PROGRAMME  
THE GLOBAL ENVIRONMENT FACILITY**

**AND**

**THE PROJECT STEERING COMMITTEE  
FOR THE UNEP/GEF PROJECT  
ENTITLED:**

**REVERSING ENVIRONMENTAL DEGRADATION TRENDS IN  
THE SOUTH CHINA SEA AND GULF OF THAILAND**



**United Nations  
Environment Programme**

**[Project No GF/2730-02-4340]**



**Global Environment  
Facility**

**J.C. Pernetta, Project Director.  
25<sup>TH</sup> February 2009**

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## **ACKNOWLEDGEMENTS**

In conformity with past practice this document is entitled "*Report of the Project Director*" and as such I personally take complete responsibility for all omissions and errors of fact. In reality this report summarises the work and achievements of numerous individuals whose personal and collective contributions, both substantive and social, have resulted in those successes that the project has achieved. Without these contributions there would be no 'content' for this report.

Remarkably a number of the members who are still active in the network today were contributors to the planning process that commenced in 1996 and remain strong supporters of the project and its outcomes. In 1996 only around twenty or so people were involved in initial project preparation but ten years later the network had expanded to include many hundreds of individuals. The South China Sea family is well represented in numerous institutions and government departments in all seven participating countries, and at the community and local government levels in some 21 locations around the South China Sea.

Inevitably, some individuals have made greater contributions to the project than others, which is not surprising given that all participation in project activities has been unpaid and voluntary and that the only persons paid for in the framework of the project were the staff of the project Co-ordinating Unit. To these hard working and dedicated professionals I should like to apologise for all the times when I cracked the whip and expected twice as much from you as could have been reasonably demanded. That you all, without exception rose to the challenge was a reflection of your dedication and commitment which was seminal in encouraging the members of the network to behave in a similar manner.

At the country level the National Technical Focal Points provided critical co-ordination functions without which activities would have at best been over-lapping and at worst in conflict with one another. Similarly the individual component and sub-component focal points were vital in ensuring involvement of national level organisations and individuals having appropriate expertise and experience in the work at the national level. I hope that the analysis of the national level execution of activities truly reflects what you have achieved in this regard.

At the regional level particular thanks are due to the independent expert members of the Regional Working Groups and Task Forces and the Regional Scientific and Technical Committee who gave freely of their time and expertise to help ensure that the project activities were scientifically and technically sound. It is a feature of this project that the only experts used in implementing activities came from the countries of the region reflecting the high international standing of the scientific community bordering the South China Sea.

In compiling the information for this report and in analysing the data Chris Paterson, Khun Saranya and Khun Unchalee made very significant contributions for which I thank them, without that assistance and support the report would not have been completed on time.

I take considerable pride in having been associated with the implementation and execution of this project and in working closely with all the members of the network. I hope that you feel that you have derived benefit from your active participation in project activities and that the experience has been worthwhile, I know I do.

John C. Pernetta,  
Bangkok, Thailand  
25<sup>th</sup> February 2009

**TERMINAL REPORT OF THE UNEP/GEF PROJECT ENTITLED  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”**

**1. INTRODUCTION**

**1.1 Development of the Project**

During 1996, the Co-ordinating Body for the Seas of East Asia (COBSEA)<sup>1</sup> requested assistance from the United Nations Environment Programme (UNEP) to prepare a proposal for grant assistance from the Global Environment Facility (GEF) in addressing the water related environmental problems of the marine environment in the region (UNEP, 1996). The GEF provided a project development facility grant of 325,000 US dollars to undertake an analysis of the water-related issues and problems of the South China Sea and to design an appropriate multi-country intervention to address the agreed priority issues.

During the project preparation phase (1997-1998) each of the seven participating countries<sup>2</sup> nominated a national focal point from within the ministries responsible for the environment. The focal points were charged with responsibility for co-ordinating the work of other individuals and institutions in the preparation of a national review of priority, water-related environmental issues and problems. Three expert meetings involving the national focal points and invited experts from the region were convened during this period (UNEP, 1997; 1998a; 1998b) to review the draft national reports, and determine priority areas of intervention. The seven national reports<sup>3</sup> were published in 1999 (UNEP/EAS/RCU, 1999a; 1999b; 1999c; 1999d; 1999e; 1999f; and 1999g) and formed the basis for the compilation of a Transboundary Diagnostic Analysis (TDA), (Talaue-McManus, 2000) and a draft Strategic Action Programme (SAP), (UNEP, 1999h). The Transboundary Diagnostic Analysis included a prioritisation of the identified issues and problems prepared on the basis of a Delphi-type exercise conducted during the second expert meeting. The Strategic Action Programme outlined the priority actions required over the subsequent five-year period, to address the issues and problems identified and quantified in the TDA.

The Country Reports, the Transboundary Diagnostic Analysis and the draft Strategic Action Programme were presented to the thirteenth meeting of COBSEA (UNEP, 1998c), which took note of the Country Reports and TDA and analysed and approved in detail the draft Strategic Action Programme (UNEP, 1999h).

**1.2 Project Document**

On the basis of this draft SAP, the project brief was prepared for consideration by, the GEF Council meeting in March 1999. Only six of the seven countries had endorsed the proposal by that time however, and the project brief was withdrawn from the work programme. Subsequently the problems were reported to the fourteenth meeting of COBSEA in November 1999 (UNEP, 1999i). There followed an extensive period of negotiation between UNEP and the non-signatory country during which changes to the document were made to accommodate the concerns of that country. A revised version of the project brief was presented to, and endorsed by the fifteenth meeting of COBSEA in September 2000, which was preceded by an expert meeting of national co-ordinators (UNEP, 2000). This project brief took account of the desire of participating countries to retain full control over the management and execution of the project without involvement of outside parties. The document was included in the GEF Work Programme presented to, and endorsed by the GEF Council in December 2000 for grant support.

The project brief (UNEP, 2000, Appendix) contained only a brief outline of the proposed management framework and did not contain details of the instruments that would be used to transfer funds to the national executing agencies. An elaborated management framework and Memoranda of Understanding, together with the terms of reference for, and details of, the proposed membership of the national and regional bodies listed in the management framework were prepared in consultation with the focal ministries in each country during 2001. They were annexed to the operational project document submitted to the GEF Secretariat for final CEO endorsement in December 2001 (Annex G of the Project Document and Annex VI of UNEP, 2001a). Prior to this submission the full project document was presented to, and approved by the first meeting of the Project Steering Committee in October 2001 (UNEP, 2001a) and approved by the sixteenth meeting of COBSEA (UNEP, 2001b). The project

<sup>1</sup> Member States of COBSEA include: Australia, Cambodia, China, Indonesia, Korea, Malaysia, Philippines, Singapore, Thailand and Viet Nam (UNEP, 1981).

<sup>2</sup> Cambodia, China, Indonesia, Malaysia, Philippines, Thailand and Viet Nam.

<sup>3</sup> All project related documents cited in this paper can be found on the project website at [www.unepscs.org](http://www.unepscs.org).

became operational at the time of final signature of the project document by, UNEP on January 21<sup>st</sup> 2002, and with the transfer and reassignment of the then Deputy Director of the Division of Global Environment Facility Co-ordination, to Bangkok as Project Director. The full chronology of milestones during the development and appraisal phases are contained in Appendix 1 of this document.

### **1.3 Project Goal, Medium-Term Objectives, Anticipated Outputs and Outcomes**

The overall goals of the project were stated as being:

*to create an environment at the regional level, in which collaboration and partnership in addressing environmental problems of the South China Sea, between all stakeholders, and at all levels is fostered and encouraged; and to enhance the capacity of the participating governments to integrate environmental considerations into national development planning.*

The medium term objective of the project was:

*to elaborate and agree at an intergovernmental level, the Strategic Action Programme encompassing specific targeted and costed actions for the longer-term, to address the priority issues and concerns.*

More specifically the proposed activities were designed to assist countries in meeting the environmental targets specified in the framework SAP that had been developed over the period 1996-1998. The activities were grouped into four components: habitat degradation and loss; land-based pollution; fisheries; and regional co-ordination. The habitat degradation and loss component was the largest at \$8.8 million US from a total grant allocation of \$16.4 million.

The “overall objectives” listed in the Logical Framework (Annex B of the Project Document) were:

- *Improved regional co-ordination of the management of the South China Sea marine and coastal environment*
- *Improved national management of the marine and coastal habitats*
- *Improved integration of fisheries and biodiversity management in the Gulf of Thailand*

The anticipated outcomes of the project were listed as being:

- *Adoption of improved mechanisms for regional co-operation in the management of the environment of the South China Sea;*
- *jointly agreed actions relating to fisheries and environment in the Gulf of Thailand;*
- *adoption of the SAP at a regional level;*
- *acceptance of the TDA and SAP at a national level; implementation of components of the SAP*

The anticipated outputs are listed in the logical framework as results<sup>4</sup> and included:

- seven sets of national management plans and databases for four specific habitats (mangroves, non-oceanic coral reefs, seagrass and coastal wetlands);
- an adopted portfolio of priority habitat projects within the region;
- four (4) national and one regional management plans to establish a system of *refugia* to maintain important transboundary fish stocks;
- educational and public awareness materials on sustainable fisheries practices and fish stock conservation in the Gulf of Thailand;
- evaluation of a blast fishing detection device;
- regionally adopted water quality objectives, water quality and effluent standards; and a regional review of country's obligations under global conventions.

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<sup>4</sup> The Logical Framework for this project was prepared according to the GEF specifications and requirements in 1999 that do not necessarily coincide with the format and usage by other parties at that time.

## **1.4 Timing of, and Linkage between, Project Activities**

Originally the project work plan envisaged a preparatory phase of two years during which the countries would review, revise and up-date the content of the national reports and Transboundary Diagnostic Analysis (TDA) developed and published in 1999, followed by elaboration of the SAP and implementation of the demonstration sites as models of interventions to be undertaken during SAP implementation. This latter phase, the operational phase was envisaged as being undertaken over a period of three years, hence the total project implementation time was foreseen as being five years.

Initial delays in the preparatory phase resulted from the need to develop a non-controversial method of selecting the demonstration sites that could be implemented in a fully consensual manner. The process for site selection was discussed and finalised only during the second RSTC and PSC meetings and application of the agreed procedure took approximately 18 months since it involved careful compilation of data and information that could be verified and accepted by all parties. In addition the outbreak of SARS during this period resulted in delays to some regional meeting with the consequence that the preparatory phase took two and one half (2.5) years rather than 2 years as originally planned. Following the agreement regarding the choice of demonstration sites by the project Steering Committee in the first quarter of 2004 (UNEP, 2004a) the agencies responsible were required to produce acceptable operational project documents that could be used as the basis for fund transfer.

During the process of developing the operational documents that showed clear linkages between costs and activities and the work plan it became apparent that the capacity of national institutions to prepare such documents in English was limited and the PCU organised and ran a series of informal consultative workshops to assist the proponents in completing project documents that met the standards of the United Nations. This process took much longer than envisaged such that the first demonstration sites became operational only during the first half of 2005 and subsequently the Project Steering Committee decided to lengthen the operational phase to accommodate the delays in commencement of demonstration site activities (UNEP, 2005a). The operational phase was extended at the national level from June 2007 to June 2008 to allow sufficient time for implementation of the demonstration site activities and consequently ensure that the lessons learned would be available for use in implementing the SAP.

At that time it was envisaged that the national activities would be completed by June 30<sup>th</sup> 2008, that the final meetings of the regional Scientific and Technical Committee would be convened in August 2008 to consider the final reports from the demonstration sites, together with the first draft of the Terminal Evaluation prior to closure of the accounts by January 2009<sup>5</sup>.

## **2. THE PARTNERSHIP NETWORK**

### **2.1 The Management Framework**

The project was designed to be implemented over a period of five years and involved the signing of Memoranda of Understanding (MoUs) between UNEP as the GEF Implementing Agency and seven focal Ministries, (the Ministries responsible for Environment in each country) and thirty-one Specialised Executing Agencies (SEAs) in the seven participating countries. Each Specialised Executing Agency took responsibility for one or more component(s) or sub-component(s) within each country<sup>6</sup>. These institutions and organizations comprised fourteen government departments, eleven research institutions, five universities and one Non-Governmental Organisation (NGO). A number of the SEAs established institutional sub-contractual links with other organizations at the national level, such that the network of institutions directly involved in the project exceeded one hundred, whilst the number of institutions indirectly involved through individual participation on National Committees and Sub-committees and Regional Working Groups exceeded four hundred.

<sup>5</sup> Since the operational accounts of the project are maintained by UNESCAP in Bangkok, whilst the definitive accounts are maintained in UNEP headquarters in Nairobi there was a need to reconcile the two sets every half year hence the need to run into the 2009 financial year and ensure that the two sets of records contained no inexplicable anomalies.

<sup>6</sup> In the case of Cambodia the limited human capacity in the country resulted in the coral reef and seagrass sub-components being combined under responsibility of a single Specialised Executing Agency, the Department of Fisheries. The mangrove and wetlands sub-components were similarly combined resulting in the creation of only four rather than six national committees in Cambodia.

As a consequence of the expressed desire of the participating countries that regional or international organisations other than UNEP not be involved in project implementation it was necessary for UNEP to establish a Project Co-ordinating Unit that: acted as the Secretariat for each of the regional level structures established under the project; served as the main conduit for reporting on project implementation to the GEF Council and UNEP Governing Council, via the UNEP Global Environment Facility Co-ordination Division; and was responsible for due diligence monitoring of project execution and financial management. Through direct interaction with the East Asian Seas Regional Co-ordination Unit (EAS/RCU), synergy and complementarities were ensured with the work of the UNEP Division of Environmental Conventions (UNEP/DEC), in accordance with the decisions of the UNEP Governing Council (UNEP GC).

The Project Brief, as approved by the Sixteenth meeting of the GEF Council, formally established the Project Steering Committee (PSC) for the UNEP/GEF Project entitled “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”. This committee was established as “the supreme decision-making body of the project,” and was responsible for “reviewing and approving, on an annual basis, project activities, including the location of demonstration sites to be funded by the GEF project” (UNEP, 2001a).

The wide ranging and comprehensive nature of the proposed activities necessitated the creation of regional and national management structures that supported the Project Steering Committee in the achievement of this overall responsibility. The structure was designed to ensure that decisions of the Project Steering Committee were based on country requirements and priorities and reflected the requirements of the GEF that, activities achieve regional and global environmental benefits. The overall framework is illustrated in Figure 1<sup>7</sup>, which outlines the national and regional level structures and their relationships to one another. The responsibilities of the Project Steering Committee were further amplified in Paragraph 40 of the Project Brief which states: “The Project Steering Committee’s primary responsibility will be to ensure synergy and integration in the planning and execution of the project sub-components.”

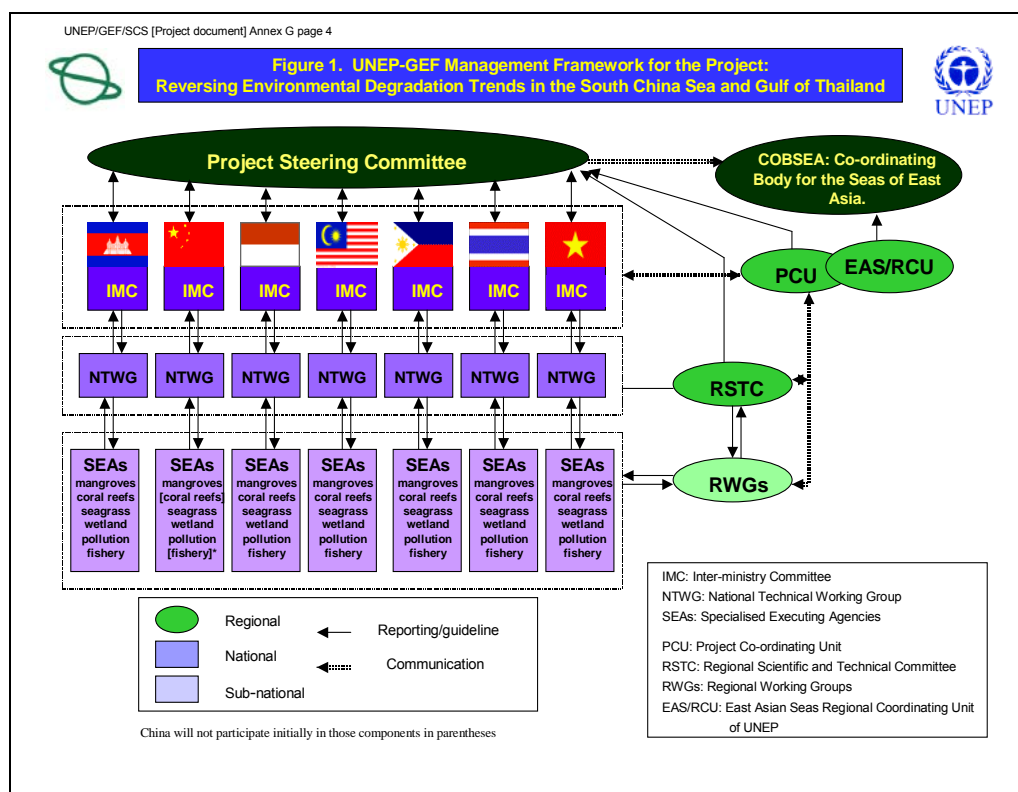


Figure 1 Management framework for the co-ordination of regional and national actions in implementing the UNEP/GEF Project entitled “reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand.

<sup>7</sup> Figures 1, and 2 of this document are taken unchanged from Annex G of the project document (UNEP, 2001a).

## 2.2 National Level Co-ordination

At the national level, individual national co-ordinators or focal points for each component were responsible for convening regular (quarterly) meetings of a national committee or sub-committee with membership drawn from the government and national level stakeholder groups having interests in, or responsibilities for, the habitat or issue, at the national level. Terms of Reference for these committees were approved at the time of project document review by the first meeting of the Project Steering Committee (UNEP, 2001a. Annex VII). Thus, the focal point for mangroves from one country, for example, was supposed to chair a group of specialists within the country having interests in research, management and use of mangrove habitats and resources. In some instances such as mangroves, national committees<sup>8</sup> existed in some countries before the project commenced, for other issues new bodies were established.

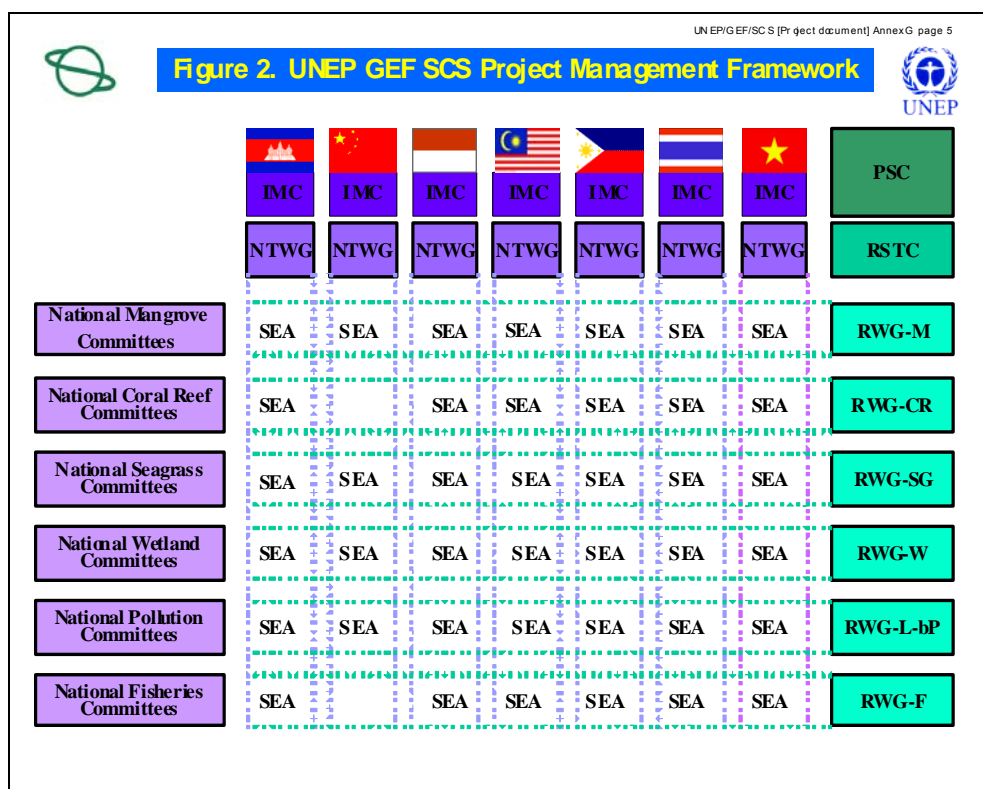


Figure 2 Diagrammatic representation of the linkages provided through the individual national focal points for each component or sub-component between: the national component committees, the national technical working group and inter-ministry committees; and the regional working groups, regional scientific and technical committee and the project steering committee

In each country, a government designated senior official served as the National Technical Focal Point with responsibility for convening and chairing meetings of a National Technical Working Group<sup>9</sup>, comprising representatives of the National Committees or Sub-Committee together with additional experts and representatives drawn from the public and private sectors and civil society. This working group was intended to provide sound scientific and technical advice to the Inter-Ministry Committee regarding national priorities and actions as the basis for national level decisions regarding project activities. A primary function of this group was to ensure synergy and complementarities among and between the actions proposed at the national level within each component and sub-component of the

<sup>8</sup> National Mangrove Committees were established in each country participating in the UNESCO COMAR Mangroves project, which ran from the 1980's to the early 90's. The fact that such committees were still functioning in some countries ten years after the completion of this project is a testament both to their usefulness and to the foresight of the UNESCO programme.

<sup>9</sup> In view of the fact that China did not participate in the initial phases of the coral reef and fisheries components and Malaysia did not participate in the fisheries and mangroves components, national committees were not formed in those countries for these components. In contrast to the other countries, only four sub-groups of the National Technical Working group covering the remaining components were formed.

overall project. This relationship is illustrated in Figure 2, which further shows the relationships among the national level committees for each component and the respective regional working groups. Each regional working group was comprised of the national focal points for the component or sub-component. A major task for the regional working groups was to ensure that the national priorities determined by the National Committees for each component and sub-component were adequately taken into consideration in determining regional priorities for action.

At the national level, each Inter-Ministry Committee (IMC) included within their membership, the National Technical Focal Point and the National Focal Point for the project, the latter serving as Chairperson of the Committee. In addition this committee included high level representatives of other, sectorial ministries and government agencies having interests in, and responsibilities for, the management of the marine environment and resources. As noted above, the National Technical Focal Point was a senior official with operational level responsibilities whilst the National Focal Point was a more senior official or Minister with responsibility for overall policy within the marine sector. Terms of reference for the national committees, the National Technical Working Groups and the Inter-Ministry Committees were agreed inter-governmentally prior to the commencement of the project (UNEP, 2001a. Annex VII).

The primary role of the Inter-Ministry Committees in each country was to function as the national equivalent of the regional Project Steering Committee and to ensure co-ordination across sectors and stakeholder groups at the national level. The Chairperson of the Inter-ministry Committee served as a member of the regional level Project Steering Committee, thus ensuring that decisions taken by all participating countries accorded with the priorities and requirements at the national level.

### **2.3 Regional Level Co-ordination**

At the regional level, the structure included six regional working groups that reflected the primary components and sub-components of the project, namely mangroves, coral reefs, seagrass, wetlands, land-based pollution and fisheries. Each working group was composed of the national focal points for the component or sub-component from each of the seven countries, together with up to four internationally recognised experts from the region. Each group had agreed Terms of Reference (UNEP, 2001a. Annex VIII) and a set of Rules of Procedure, which stated that each group should elect its' own Chairperson, Vice-Chairperson and Rapporteur from among the members. The Officers were to serve for one year with the possibility of re-election for one further year. The regional working groups were responsible for developing criteria during the first phase of the project (2002 to 2004) that were used in the selection of the various demonstration activities to be executed during the operational phase of the project (2005-2007). In addition, the working groups were responsible for assembling information and data, and inputting these into a regional GIS and meta-database, and for conducting the analyses required to demonstrate the regional and global significance of the demonstration sites proposed to the Project Steering Committee.

To ensure that the results of each working group were mutually supportive and that the recommendations and activities did not result in overlap or conflict, a Regional Scientific and Technical Committee, was created. The membership of that committee consisted of the Chairpersons of the six regional working groups, the chairpersons of the seven National Technical Working Groups and up to six additional senior marine and social scientists of recognised international standing drawn from the participating countries. The primary function of this committee was to provide sound scientific and technical advice to the Project Steering Committee. Terms of Reference for this group and rules of procedure were approved by the Project Steering Committee (UNEP, 2001a. Annex VIII); and the members elected the officers annually.

The Terms of Reference for each of the national bodies provided guidance regarding the types of individuals and/or organisations that should be included amongst the membership of each body. Thus it was envisaged that the national committees having responsibility for executing each component in the country would include legal specialists and economists to provide appropriate inputs during the work of the national committees. It became apparent quite early on during project execution that the focal points responsible for constituting the national committees had difficulty in identifying appropriate specialists, and outputs were correspondingly weak in the areas of economic valuation and legal instruments.

In recognition of this problem the Regional Scientific and Technical Committee recommended to the Project Steering Committee that two Regional Task Forces be created one on legal matters (RTF-L) and one on economic valuation (RTF-E) constituted by nomination of experts from each participating country. The Project Steering Committee approved the creation of these two additional bodies in December 2002 just eleven months following the commencement of project activities and each had specific terms of reference and work-plans designed to complement and strengthen the work of the national committees and regional bodies. In discharging their responsibilities under the terms of reference the Task Forces provided advice regarding national levels of analysis in each area of the project to the national committees and sub-committees whilst at the same time providing advice regarding the regional level of analysis to the Regional Scientific and Technical Committee and the Project Steering Committee directly. The membership of the RSTC was amended to include the chairpersons of the two regional task forces from 2003 onwards.

## **2.4 Inter-linkages between National and Regional Structures**

The relationships originally envisaged among the national and regional management structures are illustrated in Figures 1 and 2 above. The specialised executing agencies in each country were to assemble national data and information in the light of national priorities and plans. National priorities were integrated into a regional approach through the work of the six regional working groups responsible for managing each of the major components and sub-components of the project. The relationships between the Regional Task Forces created in late 2002 and the other regional entities are illustrated in Figure 3, which represents the management structure at the completion of the project.

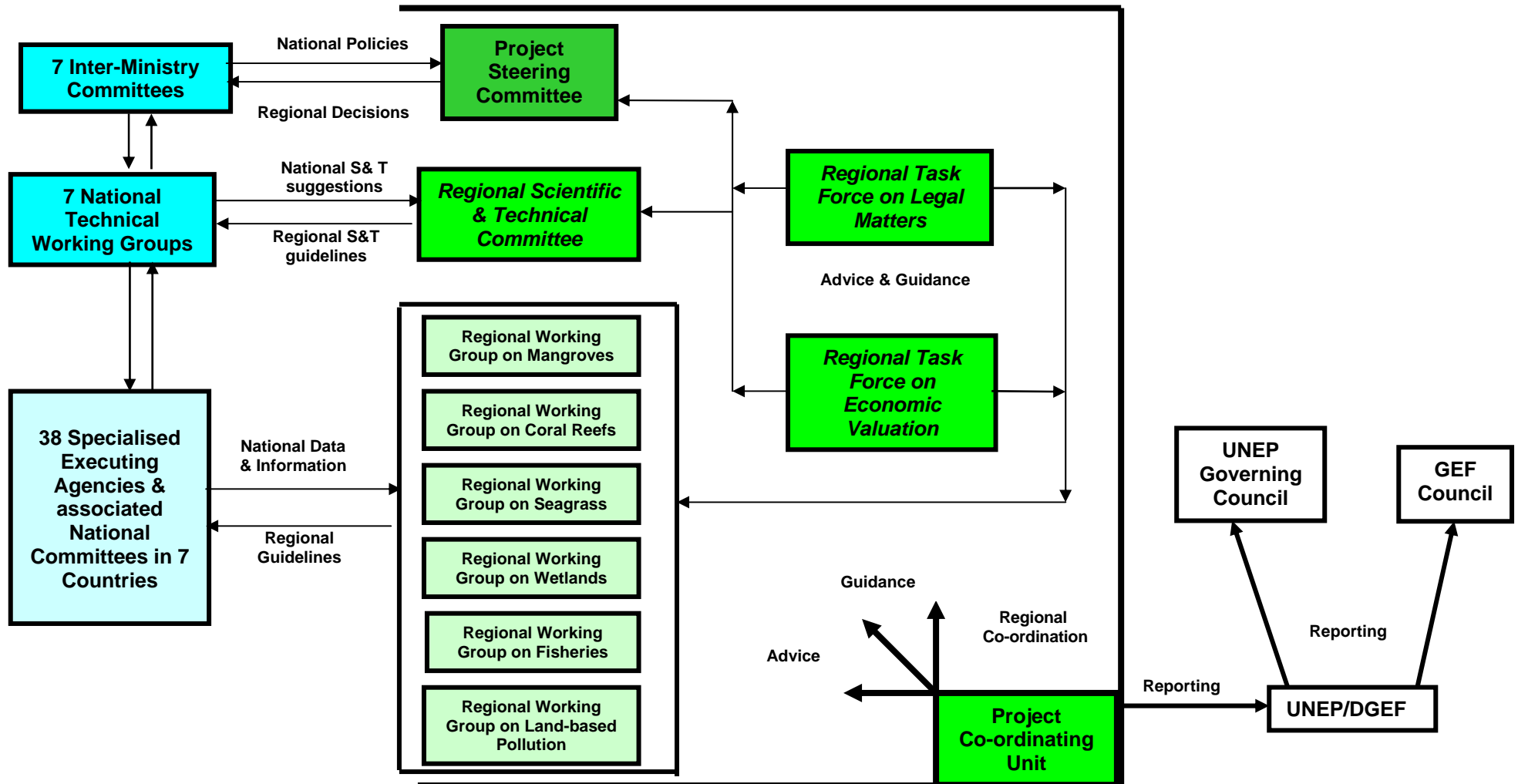
The specialised executing agencies in each country interacted via the National Technical Working Groups that, in turn, fed national information to the Regional Scientific and Technical Committee, which reconciled the national priorities of each participating country with the overall regional and global priorities for action within the project as a whole. Overall decision-making at the national level, was taken via, the Inter-Ministry Committees that in turn, provided national inputs to regional, policy level decision-making by the Project Steering Committee.

The existence of these two bodies at the national level, and their counterparts at the regional level, provided for a clear separation between scientific and technical issues and concerns, and the higher level policy and principles that, govern interactions between sectors at the national level, and between participating countries at the regional level. Ultimately, decisions were taken, both at the national and regional levels, by an appropriately constituted body having authority and responsibility for policy level decision-making. These bodies, the Project Steering Committee and Inter-Ministry Committees, were advised by, the Regional Scientific and Technical Committee and the National Technical Working Groups respectively on matters of substance relating to the scientific and technical soundness of the alternative courses of action before each body, for decision. This allowed for a better integration of scientific and technical data into the decision making process than would be possible with a single, joint forum that would have resulted in confusion between the purely scientific and technical decisions on the one hand and the policy related issues and concerns on the other.

## **2.5 Growth and Expansion of the Network**

At the outset of project activities the network members were limited to individuals serving as the National Focal Point (7) or National Technical Focal Point (7) for the project in each country together with the component and sub-component focal points six in five countries and four in two countries (38) plus the expert members of the various regional bodies (22). This quickly expanded as the component and sub-component focal points created national committees that became operational and engaged in project activities at the national level.

Figure 3 Current Management Framework Illustrating the Relationships between the Regional Task Forces and Other Project Entities



Over the first two years 2002-2003 inclusive the regional groups met separately four times within the confines of their discipline or project component until the convening of the first of the Regional Scientific Conferences in January 2004. This was the first occasion on which network members from all parts of the project came together in a single location and at the same time representatives from partner organisations in the region including SEAFDEC, SEAPOL, SEA-START, FAO, UNESCO and IOC participated. The conference culminated in a half day partnership workshop. Two further regional scientific conferences were organised in October 2005 and in November 2007.

The conference in 2005 was preceded by a half day "Mayor's Round-table" to which the Mayor's or Provincial Governors of locations selected as demonstration sites for the South China Sea Project were invited together with the managers of these sites. This proved an effective and popular event and was replicated annually thereafter. A total of four such round-tables were convened the last in Nha Trang Viet Nam in November 2008. The first and third Mayor's Round tables were convened immediately prior to the second and third regional scientific conferences making it possible to bring people to both events and to expose provincial level decision makers to good regional scientific data and information.

Not only did the Scientific Conferences and Mayor's Round tables result in an expansion of the number of individuals exposed to and aware of project activities but it significantly increased the range of individuals directly involved in project execution since each of the eleven demonstration sites was managed by a cross-sectorial management board with representatives from the local community and stakeholder groups such as fishers associations, local government, private sector, NGOs and community groups.

Recognising the need to expand the connections between project activities and local communities the Project Steering Committee took the decision in 2007 to transfer funds to the GEF Small Grants Programme specifically to support coastal community groups in activities designed to implement the approved Strategic Action Programme. Two NGO *fora* have been convened in association with the last two Mayors' Round-tables in which the national small grants co-ordinators and an NGO representative from each of the national committee have participated.

### **3. THE SPECIALISED EXECUTING AGENCIES (SEAs)**

#### **3.1 Types or organisation appointed as SEAs**

The Specialised Executing Agencies (SEAs), namely the national organisations responsible for the execution and management of project tasks in the South China Sea project, were a critical element of this regional environmental project that, depended upon co-ordination of actions by diverse organisations, agencies, non-governmental organisations, the private sector, government entities and community and local stakeholder groups. The SEAs of the South China Sea project represented a diverse range of government ministries, both agriculture/forestry/fisheries ministries and natural resources/environment ministries, as well as specialised institutes or centres, universities, and non-governmental organisations.

The blend of Specialised Executing Agency type varied by country and project component, mainly due to inter-country and inter-discipline differences in the roles and responsibilities of different kinds of organisation in resource and environmental management in the different countries. For instance, in Cambodia, SEAs were derived solely from government, with equal representation of both agriculture/forestry/fisheries and environment ministries. In contrast, a diverse mix of government agencies, specialised institutes or centres, and non-governmental organisations served as SEAs in Indonesia. Half of Thailand's SEAs were universities, largely due to the highly regarded role of academia in the science and management of coastal and marine resources in Thailand. The mix of SEA type also varied considerably between project components, with SEAs in the fisheries component being all government fisheries agencies, while for the wetlands component SEAs included environment ministries, universities, and one non-governmental organisation (NGO). The SEAs by country and component, and the overall proportional contribution of SEA type to project execution are summarised in Tables 1 and 2, respectively.

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Table 1 Type of Specialised Executing Agency by Country. Numbers in normal text are the number of components; those in italics and parentheses represent the number of SEAs concerned, for example in Cambodia each ministry was responsible for three components.

	Government Ministry		Specialised Institute or Centre	University	Non-Governmental Organisation)	Total No SEAs
	Agriculture – Forestry - Fisheries)	Natural Resources – Environment				
Cambodia	3 (1)	3 (1)				2
China		1	2	1		4
Indonesia	1	1	3 (2)		1	5
Malaysia	2 (1)	2 (1)				2
Philippines	1	3 (1)		2 (1)		3
Thailand	1	2 (1)		3		5
Viet Nam	1		4	1		6
<i>Total</i>	9(6)	12(6)	9(8)	7(6)	1	27
<i>Percent of the Number of MoUs</i>	24	32	24	18	3	
<i>Percent of the Number of SEAs</i>	22	22	30	22	4	

## 3.2 Specialised Executing Agency Approach to Task Execution

A total of 31 government-designated organisations signed a total of 38 Memoranda of Understanding (MoU) with the United Nations Environment Programme as SEAs. These MoUs defined the responsibilities of the SEAs with respect to the completion of project tasks. In the original MoUs, there were sixteen preparatory phase tasks for which the SEAs were responsible. These tasks related to:

- Establishing/revitalising and contributing to national and regional committees and working groups,
- Provision of scientific and technical advice to the regional level,
- Reviewing and updating existing information,
- Developing a South China Sea metadata-base and geographical information system,
- Summarising legal frameworks,
- Review of decision-making criteria for future uses of habitat,
- Preparation of criteria for selection of demonstration sites,
- Synthesising regional data and information, and a review of threats,
- Development and implementation of National Action Plans and a Strategic Action Programme, and
- Demonstration site planning.

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Table 2 The Specialised Executing Agencies by Country and by Component

	<b>HABITATS</b>				<b>FISHERIES</b>	<b>LAND-BASED POLLUTION</b>	<b>REGIONAL TASK FORCES</b>	
	<b>Coral Reefs</b>	<b>Seagrass</b>	<b>Mangroves</b>	<b>Wetlands</b>			<b>Economic Valuation</b>	<b>Legal Matters</b>
<b>Cambodia</b>	Department of Fisheries - Ministry of Agriculture, Forestry and Fishery	Department of Fisheries - Ministry of Agriculture, Forestry and Fishery	Department of Nature Conservation and Protection – Ministry of Environment	Department of Nature Conservation and Protection – Ministry of Environment	Department of Fisheries - Ministry of Agriculture, Forestry and Fishery	Department of Pollution Control – Ministry of Environment	Department of Nature Conservation and Protection – Ministry of Environment	Department of Planning and Legal Affairs – Ministry of Environment
<b>China</b>		South China Institute of Oceanology – Chinese Academy of Sciences	Guangxi Mangrove Research Centre	Institute of Environmental Sciences – Zhongshan University		South China Institute of Environmental Sciences – State Environmental Protection Administration	South China Institute of Environmental Sciences – State Environmental Protection Administration	Department of Policy and Law – State Environmental Protection Administration
<b>Indonesia</b>	Puslitbung Oceanologi Lipi	Puslitbung Oceanologi Lipi <sup>10</sup>	Institute of Mangrove Research and Development	Wetlands International (Asia Pacific Indonesia Programme)	The Directorate General of Capture Fisheries	Ministry of Environment	Budi Luhur University, Jakarta	The Lawencon Foundation
<b>Malaysia</b>	Department of Fisheries, Ministry of Agriculture	Department of Fisheries, Ministry of Agriculture	Department of Forestry <sup>11</sup>	Conservation and Environmental Management Division, <i>MOSTE</i>	Department of Fisheries, Ministry of Agriculture <sup>12</sup>	Department of Environment, <i>Ministry of Natural Resources and Environment</i>	University Putra Malaysia, Selangor	The Maritime Institute of Malaysia
<b>Philippines</b>	Marine Science Institute, University of the Philippines	Marine Science Institute, University of the Philippines	Department of Environment and Natural Resources	Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources	Bureau of Fisheries and Aquatic Resources, National Fisheries Research and Development Institute, Department of Agriculture	Environmental Management Bureau, Department of Environment and Natural Resources	Department of Environment and Natural Resources	Department of Environment and Natural Resources
<b>Thailand</b>	Ramkhamhaeng University	Mahidol University	Department of Marine and Coastal Resources, Ministry of Natural Resources and Environment <sup>13</sup>	Kasetsart University	Department of Fisheries, Ministry of Agriculture	Pollution Control Department, Ministry of Natural Resources and Environment	Kasetsart University	Office of Natural Resources and Environmental Policy and Planning
<b>Viet Nam</b>	Institute of Oceanography, Nha Trang	Haiphong Institute of Oceanology	Forest Science Institute of Vietnam	Vietnam National University, Hanoi	Research Institute for Marine Fisheries, Ministry of Fisheries	Centre for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST	The Centre for Environment Research, Education and Development (CERED)	Vietnam Environmental Protection Agency

<sup>10</sup> Also referred to in the same MOU as Puslit Oseanographi Lipi or Pusat Penelitian Oseanografi Lembaga Ilmu Pengetahuan Indonesia.

<sup>11</sup> Although the Department of Forestry did not sign an MoU with UNEP, they were represented during all working group meetings from 2005 onwards

<sup>12</sup> Although the Department of Fisheries did not sign an MoU with UNEP, they were represented during all working group meetings from 2005 onwards

<sup>13</sup> Original SEA was the Royal Forestry Department.

Table 3 presents the tasks outlined in the original MoU (16 tasks) and amended MoU (22 tasks). The MoUs were amended during 2004 to reflect the new and additional roles and responsibilities of the SEAs during the operational phase of the project. From Table 3 it can be seen that these modifications were focused on translating the capacity built during the preparatory phase into action, specifically in relation to the:

- Updating of the regional GIS and meta-database,
- Preparation of a regional directory of legislation and best practice,
- Contributions to the economic valuation of habitats,
- Refinement of criteria used for decision making with respect to future uses,
- Synthesis of information at the regional level,
- Development of the National Action Plan and the Strategic Action Programme, and
- Development and co-ordination of the regional network of demonstration sites and pilot activities.

Table 4 presents data on the personnel (research assistants) hired by the SEAs; numbers of consultants hired to execute specific tasks; and, the number of Institutions sub-contracted to assist in the execution of tasks contained in the Memoranda of Understanding. These data provide a measure of the total human resource limitations (capacity) of the institutions (personnel hired); the extent of specialist expertise accessible by the SEA (consultants); and, the extent of the national networks established (sub-contracts). Of the 310 contracts let by the SEAs during the period of project implementation, 47 percent were sub-contracts with supporting organisations. This led to the establishment of large national level networks of organisations contributing to the achievement of project goals and objectives. There was a significantly lower dependence of the SEAs on individual consultants for the execution of project tasks (only 26 percent of all sub-contracts).

The greatest numbers of institutional and individual contracts related to the assembly of data and information, reflecting the presently disaggregated nature of data and information holdings at the national level. The greatest numbers of personnel hired were in Cambodia and the least in Malaysia. In terms of the numbers of consultants used, Thailand had the highest number (29) and Malaysia the least (0) with the average being around 11 per country. On average more than 20 supporting organisations were sub-contracted within each country to assist with the execution of project tasks. A total of 36 supporting organisations participated in the project in Viet Nam, with the lowest number being in Malaysia (11).

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Table 3 MoU tasks grouped by type for the preparatory and implementation phases.

Preparatory Phase MOU Tasks	Implementation Phase MOU Tasks
<b>National Committees and Regional Working Groups</b>	
Chair and convene National Coral Reefs Committee (NCRC)	Chair and convene National Coral Reefs Committee (NCRC)
Serve as a member of the National Technical Working Group (NTWG)	Serve as a member of the National Technical Working Group (NTWG)
Act as member of the Regional Working Group (RWG-CR)	Act as member of the Regional Working Group (RWG-CR)
<b>Provision of Scientific and Technical Advice</b>	
Ensure that the NCRC serves as an effective source of Scientific and Technical advice to the NTWG (to PSC)	Ensure that the NCRC serves as an effective source of Scientific and Technical advice to the NTWG (to PSC)
Ensure that the NCRC serves as an effective source of Scientific and Technical advice to the RWG-CR (to RSTC)	Ensure that the NCRC serves as an effective source of Scientific and Technical advice to the RWG-CR (to RSTC)
Provide data and information to the RWG-CR and/or the RSTC	Provide data and information to the RWG-CR and/or the RSTC
<b>Review and Update Existing Information</b>	
Review and update existing information relating to the component	
<b>Develop a South China Sea Meta-database and GIS</b>	
Assemble a national meta-database	Maintain the national meta-database
	Update data contained in the Regional GIS
<b>Legal Frameworks for Habitat Management</b>	
Summarise all existing national legislation	Work with the Regional Task Force on Legal Matters regarding national legislation and the preparation of a regional directory of legislation and best practices
<b>Economic Valuation of Habitats</b>	
	Work with the Regional Task Force on Economic Valuation regarding national level economic valuation of habitats
<b>Decision-Making Criteria for Future Uses of Habitat</b>	
Review criteria in use for decision making with respect to future uses	Update criteria used for decision making with respect to future uses of marine habitats
<b>Criteria for Selecting Demonstration Sites</b>	
Prepare criteria for use in site selection	
<b>Assist in Regional Synthesis of Data and Information</b>	
Assist the RWG in preparing a regional synthesis of data and information, together with a review of threats	Assist the RWG in preparing a regional synthesis of data and information, together with a review of threats for publication in early 2007
<b>Develop and Promote National Action Plans</b>	
Develop National Action Plans	Further develop the preliminary National Action Plans
	Facilitate the process of formal government approval of the NAPs
Promote the National Action Plan among stakeholders	Promote the NAP and SAP among stakeholders
<b>Strategic Action Programme Development</b>	
Guide IMC re SAP implementation	Guide IMC re SAP implementation Critically review from the national perspective, the targets and goals set by the draft SAP, and prepare concrete proposals concerning actions at the national level required to meet these targets
<b>Demonstration Site Planning and Management</b>	
Prepare and submit Demonstration Site proposals	Based on the criteria and ranking processes for the selection of sites of national and regional significance, prepare and submit proposal(s) for the coral reef specific site(s) to be adopted by the government for sequential intervention
	Manage & execute the activities planned for demonstration sites as approved in the operational plan.
	Co-ordinate national involvement in the regional programme for co-ordination, dissemination of experiences, and personal exchange between demonstration sites
	Prepare and submit additional Demonstration site proposals
<b>Other</b>	
	Complete any outstanding tasks, listed in articles 5.i to 5.xvi of the original MoU.

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**Table 4** Number of contracts between Specialised Executing Agencies and Project Personnel, Consultants, and Sub-Contracted Organisations within each participating country for tasks defined in the Memoranda of Understanding during the implementation of the Project.

Activity	Budget line	Cambodia		China		Indonesia		Malaysia		Philippines		Thailand		Viet Nam		Total	
		N	USD	N	USD	N	USD	N	USD	N	USD	N	USD	N	USD	N	USD
1. Administrative Tasks	1100 - Project Personnel	16	47,668	8	32,500	3	15,344	1	2,942	8	33,142	5	54,358	7	9,997	48	195,951
	1200 - Consultants	2	12,000	0	0	0	0	0	0	0	0	1	1,000	1	1,488	4	14,488
	2200 - Sub-Contracts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2. Update Existing Information	1100 - Project Personnel	5	14,280	3	12,337	3	4,300	3	15,622	5	44,526	7	43,562	0	0	26	134,627
	1200 - Consultants	7	33,100	6	8,709	0	0	0	0	7	14,150	13	27,816	2	8,95	35	84,670
	2200 - Sub-Contracts	10	39,850	8	80,405	10	105,839	3	32,004	5	64,279	6	72,370	14	43,080	56	437,827
3. Assemble GIS and Meta-Databases	1100 - Project Personnel	0	0	1	6,500	1	10,670	0	0	2	8,480	2	11,528	0	0	6	37,178
	1200 - Consultants	0	0	2	7,000	1	400	0	0	1	2,800	3	9,834	5	17,957	12	37,991
	2200 - Sub-Contracts	1	9,000	4	40,564	4	17,899	2	12,003	2	14,175	1	15,000	3	14,440	17	123,081
4. Summarise National Legislation	1100 - Project Personnel	1	5,000	1	7,000	1	948	0	0	0	0	0	0	0	0	3	12,948
	1200 - Consultants	2	12,000	2	2,484	4	12,515	0	0	1	400	4	9,496	0	0	13	36,895
	2200 - Sub-Contracts	1	10,000	1	5,100	3	28,500	1	5,000	1	8,582	0	0	7	20,674	14	77,856
5. Review Decision Criteria	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1200 - Consultants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2200 - Sub-Contracts	1	5,600	0	0	0	0	0	0	0	0	2	14,000	0	0	3	19,600
6. Prepare Criteria for Site Selection	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1200 - Consultants	0	0	0	0	0	0	0	0	0	0	1	3,000	3	15,000	4	18,000
	2200 - Sub-Contracts	2	13,900	0	0	4	31,720	1	21,053	1	5,717	2	11,000	2	9,662	12	93,052
7. Develop National Action Plans	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1200 - Consultants	3	17,500	2	1,800	0	0	0	0	0	1,149	0	0	0	0	6	20,449
	2200 - Sub-Contracts	3	30,800	2	19,400	6	68,148	4	23,524	4	28,756	6	50,480	10	65,924	35	287,032
8. Guide IMC re SAP implementation	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1200 - Consultants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2200 - Sub-Contracts	0	0	0	0	2	7,429	0	0	0	0	0	0	0	0	2	7,429
9. Promote National Action Plans	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1200 - Consultants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2200 - Sub-Contracts	2	11,000	0	0	0	0	0	0	2	13,900	1	4,098	0	0	5	28,998
10. Prepare Demo Site Proposals	1100 - Project Personnel	0	0	0	0	0	0	0	0	0	0	1	5,547	0	0	1	5,547
	1200 - Consultants	0	0	0	0	0	0	0	0	0	0	7	20,500	0	0	7	20,500
	2200 - Sub-Contracts	0	0	0	0	0	0	0	0	0	0	1	4,670	0	0	1	4,670
	<b>Total</b>	<b>56</b>	<b>261,698</b>	<b>40</b>	<b>223,799</b>	<b>42</b>	<b>303,712</b>	<b>15</b>	<b>112,148</b>	<b>40</b>	<b>240,056</b>	<b>63</b>	<b>35,8259</b>	<b>54</b>	<b>199,117</b>		
	1100 - Project Personnel	22	66,948	13	53,387	8	31,362	4	18,564	15	86,148	15	114,995	7	9,997	84	386,251
	1200 - Consultants	14	74,600	12	19,993	5	12,915	0	0	10	18,499	29	71,646	11	35,340	81	232,993
	2200 - Sub-Contracts	20	120,150	15	145,469	29	259,535	11	93,584	15	135,409	19	171,618	36	15,3780	145	1,079,545
	<b>US\$/Contract</b>	<b>4,673</b>		<b>5,595</b>		<b>7,231</b>		<b>7467</b>		<b>6,001</b>		<b>5,687</b>		<b>3,687</b>		<b>5,480</b>	
	1100 - Project Personnel	3,043		4,491		3,908		4641		5,743		7,666		1,428		4,598	
	1200 - Consultants	5,329		1,666		2,583		0		1,850		2,471		3,213		2,876	
	2200 - Sub-Contracts	6,008		9,698		8,949		8508		9,027		9,033		4,272		7,445	

#### 4. OUTPUTS AND OUTCOMES OF THE PROJECT COMPONENTS AND TASK FORCES

##### 4.1 Habitat Degradation and Loss

The first actions of the regional working groups for the habitat sub-component involved reaching agreement at the regional level regarding the data and information needed to characterise individual sites and the compilation of such data and information nationally and regionally for use in both the national reviews and the site selection process (UNEP, 2007a)<sup>14</sup>. This process was initiated during the first meeting of the Regional Scientific and Technical Committee (RSTC) (UNEP, 2002a) during which specific guidance was developed for each regional working group regarding the “types” of data that should be considered and selected within each habitat sub-component.

The first meeting of each Regional Working Group (RWG) (UNEP, 2002b, 2002c, 2002d, 2002e) defined the data and information required to characterise specific sites which included physico-chemical, biological and environmental state indicators together with social, use and stress information, and economic values. In all instances, these initial lists were comprehensive and overly ambitious, listing properties and variables that were difficult to obtain from published information and existing databases. Subsequent to this, a regional GIS meeting was convened (UNEP, SEA START, 2002) and SEA START RC<sup>15</sup> prepared GIS data formats based on the lists of properties and variables prepared by each regional working group. During the inter-session, six month, period between the first and second regional working group meetings, national focal points in each SEA commenced the process of assembling site-specific data sets from existing published and unpublished sources<sup>16</sup>.

The second meeting of each regional working group (UNEP, 2002f; UNEP, 2002g; UNEP, 2003a; UNEP, 2003b) reviewed the initial data sets that had been compiled and, in most instances, agreed to drop from consideration properties and variables that were either generally unavailable throughout the region or which were too difficult to standardise across countries. In addition, clarification of the exact interpretation of defined properties and variables was required<sup>17</sup>. During its second meeting, the RSTC (UNEP, 2003c) reviewed the properties and variables selected by each working group and provided some comments and guidance to the RWGs. Following the agreement of the RSTC and PSC in December 2002 to adopt a three step process for the selection of priority demonstration sites in the region the focal points in the SEAs assembled the necessary data which were verified and substantiated prior to cluster analysis being conducted by the Regional Working Groups to determine the similarity (and difference) between the sites identified. Such cluster analyses were conducted for all four habitat sub-components by the Regional Working Groups concerned.

In the case of mangroves, 12 properties and variables for a total of 26 sites were used in the cluster analysis; for seagrass and coral reefs, 11, and 8 properties and variables and 26, and 44 sites respectively were included in the final analyses. In the case of the wetlands sites, the analysis was based of wetland types, namely estuaries, inter-tidal mudflats, coastal lagoons and peat and non-peat swamp. The data for the first three habitats included six properties and variables for 15 estuaries; 12 properties and variables for inter-tidal mudflats and 7 properties and variables for coastal lagoons.

Schemes for assignment of rank scores to identified environmental and biological criteria and indicators were developed, discussed and agreed at the level of the Regional Working Groups and reviewed by the Regional Scientific and Technical Committee (UNEP, 2003c) prior to their completion and application to the site data. Priority sites in each of the three main clusters for each habitat sub-component were then developed into demonstration site proposals that were reviewed by the fourth meetings of the Regional Working Groups UNEP, 2004b; 2004c; 2004d; 2004e). The full set of twenty seven demonstration site proposals were then reviewed scientifically and technically by the RSTC and a prioritised list for funding and implementation prepared by the RSTC for approval by the Project Steering Committee (UNEP, 2004f). The PSC agreed to the funding of 11 demonstration sites from

<sup>14</sup> The process of site selection is fully described in the South China Sea knowledge document No. 2

<sup>15</sup> South East Asian Regional Centre for START (SysTem for Analysis, Research and Training).

<sup>16</sup> In the case of China, the absence of any national data sets regarding the distribution and/or diversity of seagrass habitats was addressed through substantial co-financing made available through the central government to enable the SEA to prepare distribution maps based on remotely sensed images and assemble basic data through field surveys. The outcome was the first internationally-available data sets regarding seagrass in China.

<sup>17</sup> For example, mangrove data relating to the density of trees were clearly not comparable between and among countries with some data sets reflecting the occurrence of all classes of “tree” including seedlings, saplings and mature trees. This property was re-defined as the density of mangrove trees exceeding 1.5 metres in height, thereby excluding seedlings but not excluding species with low maximum mature height.

the project grant and the preparation of a further seven as medium sized projects for submission to the GEF (UNEP, 2004a).

The transparency of the process involved, and the two tier consideration of the results at all stages of the process ensured wide acceptance of the outcomes such that this approach could serve as a model procedure for use in other GEF projects implemented both by UNEP, and by the other Implementing Agencies. Other factors contributing to the successful development and application of this process are considered to be the clear separation between scientific and technical issues and political considerations; its transparency; and the fact that it has been developed from the bottom upwards with no external influence or direction such that it was fully owned by the stakeholders involved in the project. One unforeseen outcome has been the application of a similar process at the national level in developing national priorities in two of the participating countries.

The original outcome of the preparatory phase of this component was anticipated as being nine regional priority demonstration sites, three each focussing on mangroves, seagrass and coral reefs. The following were the actual outputs and outcomes:

- Regionally prioritised listings of sites for management intervention as follows:
- 26 mangrove sites;
- 43 coral reef sites;
- 26 seagrass sites; and
- 40 wetlands sites (15 estuaries; 12 inter-tidal mudflats; 7 coastal lagoons; and 6 swamp forest sites)
- Draft proposals for intervention in 23 sites across all habitats types;
- A regional GIS database having an extensive number of sites characterised in geographical and environmental, including biological, terms;
- 11 Operational demonstration sites funded from the project grant (Cambodia, Peam Krasop & Kampot; China, Hepu and Fangchenggang; Indonesia, Belitung & Batu Ampar; Philippines, Masinloc & Bolinau; Thailand, Mu Koh Chang & Trat; Viet Nam, Phu Quoc);
- 7 medium sized project proposals of which three were operational by the time of project closure.
- An inter-governmentally agreed procedure for determining regional priority<sup>18</sup> which can be used to rank sites either nationally or regionally in the future;
- Application of the approach at the national level in two countries to determine national priorities for intervention;
- Decisions taken in an amicable manner through consensus among all participating countries; and,
- A procedure and process that serves as a potential model for replication elsewhere when choices between alternative sites for intervention must be made based on financial limitations;

Additional outputs under this component during the preparatory phase included:

- national reports on the status of the habitats in each country;
- national reviews of past and on-going projects of relevance to the project;
- national reviews of the relevant national legislation;
- creation of national meta-databases and a regional internet accessible meta-database;
- national compilations of data concerning the economic values of goods and services provided by coastal habitats.

The national reviews were published in national languages for in-country distribution whilst English language versions were provided to the PCU and were consolidated into regional volumes and published as part of the UNEP/GEF/SCS Technical Report series (UNEP, 2007b; 2008a; 2008b; 2008c). Short regional overviews of each of the habitat types were published as inputs to the first regional scientific conference (UNEP, 2004g; 2004h; 2004i; 2004j). The data on past and ongoing projects was loaded to a "projects database" on the project website that can be up-dated by national focal points when appropriate as were the contents of the national meta-databases. The contents of the legal reviews were utilised by the Regional Task Force on Legal Matters in their review of

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<sup>18</sup> The Regional Priority is not based solely on national priorities but includes national priority as one indicator of significance.

national legislation whilst the economic data assembled through this component was incorporated into the economic database of the project.

As part of their responsibilities during the operational phase of the project, the SEAs provided scientific and technical advice and oversight to the execution of the 11 demonstration sites fund through the project and the regional working groups reviewed annually, the reports of the results of these activities. The achievements of the demonstration sites are amplified in more detail below.

A major anticipated output from this component of the project during the operational phase was the development and approval of National Action Plans for each of the habitat types that would serve as the national basis for actions designed to support the regional Strategic Action Programme. Work commenced on these during the fourth meeting of the regional working groups (UNEP, 2004b; 2004c; 2004d; 2004e) and the majority of these plans had been finalised by late 2006, early 2007. As these plans went through review at the regional level their content was analysed to identify common concerns and proposals for action that formed the basis for the initial drafts of the Strategic Action Programme. All countries produced action plans which have been submitted to the appropriate Ministries for approval. In China and Cambodia all action plans have been approved, whilst in Indonesia, Malaysia and Thailand the actions contained in the plans are already covered by existing development and sectorial plans and budgets and for Philippines, the actions have been incorporated into the current programmes of the responsible line departments of government.

#### **4.2 Over-Exploitation of Fish Stocks in the Gulf of Thailand<sup>19</sup>**

The fisheries component of the project, entitled “*Over Exploitation of Fisheries in the Gulf of Thailand*”, focused on transboundary fisheries issues in the Gulf of Thailand, specifically those relating the links between fish stocks and habitats. The key activities of the component were designed to:

- Secure agreement on the nature of joint actions required to address identified problems in the Gulf of Thailand,
- Develop criteria to determine the national, sub-regional and transboundary significance of spawning and nursery areas, and to
- Apply these criteria to determine priorities for management action within the Gulf of Thailand.

It was anticipated that these activities would meet the regional need for joint actions relating to fisheries and environment in the Gulf of Thailand, and result in regional and national plans for the establishment of a system of *refugia* to maintain important transboundary fish stocks. The component was aimed at enabling participating countries to contribute to the achievement of one of the overall objectives of the project, specifically “*Improved integration of fisheries and biodiversity management in the Gulf of Thailand*”. The original project design considered this critical to the achievement of the overall goals relating to the creation of partnerships and the development of capacity within the participating governments to integrate environmental considerations into national development planning.

During the preparatory phase of the project five countries (Cambodia, Indonesia, Philippines, Thailand, and Viet Nam) produced national reports on the status of fish stocks of transboundary significance and associated habitats that were published in national languages and consolidated into a regional volume in the UNEP/GEF/South China Sea Technical Publications (UNEP, 2007c). Additional anticipated outputs included local language educational and public awareness materials on sustainable fisheries and fish stock conservation in the Gulf of Thailand, and a report of field test results of the effectiveness of a blast fishing detection device as a deterrent against the use of explosives in fishing. The latter activity was not undertaken since the proposal was deemed scientifically and technically unsound by the Regional Scientific and Technical Committee (UNEP, 2005b).

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<sup>19</sup> A full description of the activities results and outcomes of this component are found in Annex # of this report

The fisheries component of the project was based on an emerging regional understanding of:

- the critical role that habitats such as mangroves, coral reefs, seagrass, and wetlands play in sustaining fisheries production in the South China Sea and Gulf of Thailand, and
- the need to enhance capacity within national fisheries and environment departments and ministries to develop the partnerships required to improve the integration of fisheries and habitat management.

The component was nested with other project components focusing on habitat degradation and loss, land-based pollution, economic valuation, and legal matters within the broader management framework of the multi-lateral, intergovernmental South China Sea project. National activities were executed by departments or research institutes of government Ministries responsible for fisheries in Cambodia, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam. Government nominated focal points for fisheries from these countries led the execution of regional level activities through the Regional Working Group on Fisheries (RWG-F).

Ten meetings and one *ad hoc* meeting to consider national actions for inclusion in the Fisheries *refugia* project) of the RWG-F were convened from 2002-2008 (UNEP, 2002h; 2002i; 2003f; 2004k; 2005c; 2006a; 2006b; 2007d; 2007e; 2008d) and the work of this group benefited from the participation and substantive contributions of 5 regional experts on fisheries, and senior advisors and technical staff of the Southeast Asian Fisheries Development Center (SEAFDEC), the Food and Agriculture Organisation of the United Nations (FAO), the WorldFish Centre, and the International Union for Conservation of Nature (IUCN). The direct linkages and feed-back loops that were established between and among these fisheries experts, and the habitat specialists, pollution scientists, lawyers, and economists involved in the broader project have been acknowledged by International and regional fisheries organisations as having provided the necessary scientific and institutional setting required to address matters relating to improved fisheries habitat management.

The fisheries component of the project was unique in that it represented the first attempt to develop a regional initiative aimed at the establishment of integrated fisheries and habitat management areas (fisheries *refugia*) in Southeast Asia supported by national habitat action plans (NAPs) and fisheries policies. The close collaboration established between the RWG-F and SEAFDEC ensured that fisheries component activities complemented rather than duplicated work being undertaken as part of larger SEAFDEC and FAO fisheries projects and programmes. Of far greater significance however were the scientific and technical inputs to the work of the RWG-F made by the SEAFDEC Senior fisheries officials who participated in all meetings of the group at the expense of SEAFDEC. Additional sharing of information relating to the work of the RWG-F and that of other national regional projects was facilitated through the regular participation of RWG-F members in regional technical and policy meetings including those convened by SEAFDEC in the areas of fishing capacity reduction, licensing, subsidies, information collection and statistics, indicators, co-management, responsible fishing gear and practices, and illegal, unregulated and unreported (IUU) fishing. This participation was financially supported by the Project.

What has resulted from the work of the Regional Working Group on Fisheries is:

- Regionally agreed ranked lists of the occurrence and transboundary significance of 58 pelagic and 29 demersal fish species, 15 cephalopods, and 18 crustaceans in the South China Sea and Gulf of Thailand;
- Regionally agreed list of 82 threatened and near threatened species for the South China Sea and Gulf of Thailand;
- National meta-databases and GIS data relating to available information on fish stock status, fish early life history science, role of habitats as fish nursery and spawning areas, and management;
- National reports on “*Fish Stocks and Habitats of Regional, Global and Transboundary Significance in the South China Sea*” in both English and national languages;
- National and local language awareness programmes and materials on responsible fishing practices and the role of habitats in sustaining fisheries;
- Criteria for defining fisheries *refugia*;
- Intergovernmentally approved guidelines for the establishment of fisheries *refugia* that constitute part of the ASEAN SEAFDEC Regional Guidelines for Responsible Fisheries in Southeast Asia;

- Identification and characterisation of 52 known spawning and nursery areas of which 14 are currently under development as the initial set of *refugia* and a further 9 that have been accorded high priority for development as *refugia* once the initial set have been approved;
- Regional training packages on fish early life history science and fisheries *refugia* management, and a regional network of larval fish scientists;
- A set of 21 regionally agreed resource and institutional indicators for use in assessing the effectiveness of fisheries habitat management measures in the South China Sea and Gulf of Thailand;
- An online Fisheries Refugia Information Portal (<http://refugia.unepscs.org>) for which management responsibility has been transferred to the SEAFDEC Secretariat; and
- Costed regional and national plans for the operation of the regional system of fisheries from 2009-2013, and a GEF project proposal for funding to support the revised fisheries component of the Strategic Action Programme for the South China Sea.

### **4.3 Land-Based Pollution**

In the land-based pollution component agreement was reached during the first year regarding the standards for water quality, biological and sediment contamination (UNEP, 2002j; 2002k) that would be used in the regional comparison of pollution hotspots in the region. The regional working group further agreed that “hotspots” in the context of the South China Sea Project would be taken to refer to concentrations of impacts rather than sources since the latter approach was the one adopted under the regional plan of action to implement the Global Programme of Action for the protection of the Marine Environment from Land-based sources. By taking an impacts approach complementarities was assured between the two initiatives and application of the agreed standards to data from the various sites resulted in a comparative analysis of the regional importance of different contaminants and hot-spots and proposals for pilot activities were subsequently developed.

During the second year the Regional Working Group reviewed a number of initiatives and proposals for intervention including the *Strategic Partnership for a Land-based Pollution Reduction Investment Fund for the LMEs of East Asia – Phase 1 International Water*. (Document UNEP/GEF/SCS/RWG-LbP.4/Inf. 4) and made recommendations concerning their relevance and implementation (UNEP, 2003d; 2004l). The criteria for ranking proposed pilot activities were adopted and three activities selected for intervention.

During the operational phase two pilot activities were initiated, one of which in Batam was highly successful (UNEP, 2007f; 2008e) whereas the second in the Lin Ding Yang catchment of the Pearl Delta failed due to the inability of the Specialised Executing Agency to finalise agreements with the local authorities regarding the land to be set aside for the artificial wetland. The third, in Thailand addressing the prevention of pollution from fishing piers in the South of Thailand was executed using government funds. In addition, modelling of the assimilative capacity of the South China Sea marine basin with respect to nutrient contaminant inputs from land-based sources was initiated in collaboration with SEA-START-RC<sup>20</sup>. This resulted in a simple Excel based model that can be downloaded from the project website and run on a desk-top, at basin or sub-basin scales to generate scenarios of potential impacts consequent on changes in riverine inputs of nutrients to different sections of the South China Sea coastline (UNEP, 2007g). Such a tool is of value to coastal managers in assessing the impacts from potential loadings of nutrient from agriculture or domestic waste that might result in adverse impacts in coastal marine waters and the model enabled sensitive areas of the coastal margins of the South China Sea to be identified.

During the operational phase of the project the focal points commenced work on the development of National Action Plans to address land-based pollution and ultimately six<sup>21</sup> of these were developed iteratively in parallel with the sequential drafts of the Strategic Action Programme (UNEP, 2006c; 2006d). Whilst the national analysis of contaminant loads and hotspots, resulted in a series of national reports published in national languages, and a regional overview (UNEP, 2007f).

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<sup>20</sup> SEA-START-RC: Southeast Asian Regional Centre for the System of Analysis Research and Training of the IGBP, WCP and IHDP

<sup>21</sup> That for the Philippines was never completed.

The outputs and outcomes of the work of the Regional Working Group on Land based pollution include:

- 7 national reports on land based pollution in the participating countries;
- 6 National Action Plans for addressing the issues of Land-based Pollution;
- An overview of land-based pollution problems in the South China Sea;
- A model for riverine inputs of nutrients to the South China Sea that can be used in management decision making; and,
- Identified areas sensitive to inputs of nutrients from rivers bordering the South China Sea

#### **4.4 Regional Co-ordination**

##### **4.4.1 Economic Valuation**

Following the decisions of the Project Steering Committee (UNEP, 2003e) to create two Regional Task Forces, one concerned with economic valuation (RTF-E) and one with legal matters (RTF-L) and the nomination of expert members by the National Focal Points the first meetings of each group were convened in Thailand, in September, 2003 (UNEP, 2003g; 2003h).

The RTF-E commenced work at the end of 2003 with an evaluation of the economic data and information assembled by the national focal points for the project components and concluded that these were superficial and inadequate from the perspective of conducting a cost-benefit analysis of the costs of action versus no action in implementing the regional Strategic Action Programme. The group took a pragmatic approach to the problem and developed an initial listing of all the goods and services provided by specific coastal habitats which were reviewed by the appropriate regional working group before being adopted as the framework for the determination of Total Economic Values.

The task force developed simplified guidelines for use at the demonstration sites in valuing coastal goods and services (UNEP, 2007h) and the impacts of land-based pollution. On the basis of an extensive dataset of national economic values for coastal goods and services the task force developed a method for determining regional economic values that could be used in a cost benefit analysis of regional programmes or activities (UNEP, 2007i). The latter represents a significant intellectual input to economic analysis of ecosystem goods and services at the regional level since the values are derived through application of a formula that takes account of both local and intra-regional variations in market price and relates prices to the total stock. The derived values therefore are highly conservative, but nevertheless enable determination of the regional costs and benefits of actions undertaken at any location without using a benefits transfer approach. The values were used in the cost benefit analysis of actions included within the revised SAP which represents a unique approach within the GEF.

The outputs and outcomes of the work of the task force include:

- Published simple guidelines on the procedures to be used in the economic valuation of coastal goods and services;
- A regional database of empirical data relating to the economic values of coastal ecosystem goods and services;
- A procedure for determination of "regional values of coastal ecosystem goods and services and,
- Application of the regional values to a cost benefit analysis of the actions proposed in the regional Strategic Action Programme.

##### **4.4.2 Legal Matters**

The Regional Task Force on Legal Matters (RTF-L) was given the responsibility of undertaking reviews of national legislation that were applicable to coastal habitats, and of the obligations of member states to co-operate regionally that derived from various global environmental conventions such as UNCLOS, CBD, the IMO maritime Conventions, RAMSAR, and CMS (UNEP, 2007j). In addition, the Task Force commissioned a review of existing institutional arrangements and instruments for joint management of shared water-bodies which was extensively discussed at the level of both the task force and Regional Scientific and Technical Committee prior to identification of the appropriate modes for implementation of the SAP in the region (Lexmond, 2008). The conclusion of the group was that existing regional co-operative mechanisms are not adequate to deal with

transboundary environmental problems in the South China Sea and that a framework for co-operation in the management of the marine environment of the South China Sea and Gulf of Thailand, should be developed based on four “legs”: Principles and Policies; Regional Strategic Action Programme; Sub-regional and bi-lateral Agreements and Existing National Action Plans.

The RTF-L recommended (UNEP, 2008f) and the PSC agreed to recommend to the Ministers responsible for the environment in each country, signature of a Memorandum of Understanding that would indicate to the GEF a high level of political support for the implementation of the SAP in addition to the incorporation of the actions to implement the National Action Plans in support of the SAP into the recurrent budgets of the operational departments of government.

In addition the RTF-L considered and prepared recommendations regarding the operationalisation of the resolution of COBSEA that the COBSEA Secretariat assume responsibility for SAP implementation. These recommendations were reviewed by UNEP senior management and accepted and forwarded to the final meeting of the Project Steering Committee which accepted the recommendations for consideration by COBSEA.

The outputs and outcomes from the work of the Regional Task Force on Legal Matters include:

- a review of the obligations of states parties to the Global MEAs with respect to regional co-operation;
- a review of existing regional and sub-regional agreements and soft laws affecting the marine environment of the South China Sea;
- a comparative analysis of national legislation and regulations as they apply to marine and coastal areas;
- a comparative analysis of alternative instruments and mechanisms for strengthening regional co-operation in the management of the environment of the South China Sea;
- recommended operational structure for SAP implementation under COBSEA.

#### ***4.4.3 Co-ordination of project activities***

Originally it was envisaged that all the activities within the project would be managed by a Project Co-ordinating Unit (PCU) consisting of 3.5 professionals and one support staff. It quickly became apparent that this was not workable and one of the senior posts was abolished at the end of 2002 and split into two lower level posts with no financial implications. In addition for much of the period from 2003 to 2006 one or two interns worked in the Project Co-ordinating Unit providing support to activities whilst learning about project management in a “hands on mode”. Despite this for the first three years the Unit was under-staffed by 30% and the sole recommendation of the mid-term independent evaluation was that the staff of the PCU be strengthened (Bewers, & Su, 2004). This recommendation was acted upon in 2005 when it was agreed that the “half-post” shared with the COBSEA Secretariat would become fully devoted to the project with the remaining half being paid by DGEF from the project fee. At the same time a junior secretary was appointed to assist with project administration. In the event the PCU was fully staffed for only around 24 months of the seven years. The consequence of this situation is reflected in the extent of personal co-financing of the project by staff working long hours and foregoing leave.

In addition to the responsibilities for financial management which are discussed in detail in section 9 of this report the unit was responsible for the convening and organisation of 100 regional meetings (14.3 per year) (Annex 1) involving in excess of 2,200 participants (Annex 2) whose costs were met from the project budget. Hence travel had to be arranged and confirmed by the support staff of the PCU. Since all the meetings were working meetings all discussion and information documents and inputs to the meetings were prepared by the project staff who served as secretariat to the meeting producing the draft reports during the meeting for approval by the meeting prior to closure. This resulted in over 1,800 documents being generated through the project in the seven years of operation with 100 formal publications (Annex 3) including the meeting reports which were published via the web within ten working days of meeting closure. Constant contact was maintained with the network members through regular e-mails and phone calls to ensure that timetables were met and outputs made available as rapidly as possible.

## 5. NATIONAL ACTION PLANS AND STRATEGIC ACTION PROGRAMME DEVELOPMENT

Originally it was intended that there would be sets of national action plans developed by each country for the habitat sub-components: mangroves 7; coral reefs, 6; seagrass, 7; and coastal wetlands 7 for a total of 27. In the event only 26 National Action Plans were developed due to the non-participation of Malaysia in the mangrove sub-component. The original work plan called for the development of the National Action Plans during the preparatory phase of the project in parallel with the assembly of national data and information and the selection of demonstration sites. In the event the work flow was such that initial discussions of the National Action Plans at the regional Working Group level did not commence until the fifth meeting of the Regional Working Groups in the second half of 2004 (UNEP, 2005d; 2005e; 2005f; 2005g) effectively at the commencement of the operational phase of the project. Initial discussions during the fifth round of meetings covered aspects such as the content and general format of such plans and a process of review of the sequential drafts was undertaken by the Regional Working Groups during the sixth, seventh and eighth regional working group meetings.

Although not specified as an output in the original project document National Action Plans for addressing the issues of marine contamination from land-based sources were developed in six of the seven countries (the Philippines NAP for Land-based Pollution was still under finalisation at the time of project closure), national framework plans for the establishment of fisheries *refugia* were developed in Cambodia, Indonesia, Philippines, Thailand and Viet Nam and pilot activities to establish fisheries refugia were initiated in the Philippines and Viet Nam.

During the fifth round of regional working group meetings for the habitat sub-components discussions were undertaken regarding the process of parallel and iterative development of the NAPs and the SAP and the SAP targets and goals (UNEP, 2005d; 2005e; 2005f; 2005g). Inputs to the SAP relating to fisheries were discussed during the sixth, seventh and eighth meeting of the regional working group on Fisheries (UNEP, 2006a; 2006b; 2007d) which also discussed the development of a separate GEF funded project to implement the fisheries component of the SAP. During the sixth round of regional working group meetings for the habitat component (UNEP 2006e; 2006f; 2006g; 2006h) activities for inclusion in the SAP were discussed and following review by the RSTC these were amended during the seventh and eighth meetings and incorporated into the consolidated text of the SAP. The final text of the SAP therefore incorporated the recommended goals and objectives, targets, and activities that had been considered at various levels both nationally and regionally within the management structure.

During the period 2007 to 2008 national level consultations were conducted on both the national action plans and the Strategic Action Programme and a number of national level priorities for action were identified and developed as concepts for further elaboration and funding either from national budgets or from bilateral and multilateral sources.

In Cambodia the NAPs currently provide guidance for sustainable use of coastal resources, while the transboundary waters between Cambodia and Viet Nam are now managed under a Memorandum of Agreement between Kampot (Cambodia) and Kien Giang (Viet Nam) provincial governments. Decentralisation of responsibility to the four coastal provinces in implementing projects for environment and resource management, including Integrated Coastal Management (ICM), community based management have followed good practices from the SCS project (UNEP, 2008g, 5.4).

In China NAPs for four components were finalised and adopted in April 2007. The Shantou GEF funded Medium Sized Project became operational in November 2007 for implementing activities of the wetland NAP. Many actions and efforts related to the SAP, interventions for habitat protection in the Pearl River are already being implemented by different sectors with funding from the Government. Support from provincial governments has been provided to the mangrove and seagrass demonstration sites and this will continue, and wetland conservation at Yelin bay has already received support from the Hainan Provincial Government (UNEP, 2008g).

In Indonesia NAPs of six components have been reviewed by the National Technical Working Group and that although not all had been formally approved at high level the recommended actions have been incorporated into governments planning and recurrent budgets. The SCS demonstration site projects received strong support from local governments and the central government is working with local governments to implement the NAPs in the provinces bordering the SCS. The success of SCS

project activities has served as an attraction to others to support environmental management in the SCS (UNEP, 2008g, para 5.4.3).

In Malaysia the NAPs for the four components will be implemented with national budgets enabling Malaysia to meet the SAP targets. The Philippines has finalised NAPs for all components and these will be implemented and all projects for coastal and marine management in the Philippines were following multi-disciplinary and ecosystem based approaches using sound science.

In Thailand the NAPs have been combined with the National Biodiversity Strategy and Action Plan approved by Cabinet; priority sites have been identified by the national consultation for implementing the habitat NAPs focussing on: protection of biodiversity, enhancement of sustainable use, mitigation of threats, public awareness and promotion of international cooperation.

In Viet Nam NAPs for all components were developed and a comprehensive NAP was expected to be issued soon. The priorities identified in these NAPs have, to some extent, been integrated into national policy and programmes, for example the programme for vulnerability assessment of coastal resources and environments and the government programme regarding international co-operation on marine issues and also in the draft Biodiversity Law. A further important step is the establishment of the Viet Nam Administration for Marine and Islands Affairs that will strengthen implementation of the NAPs.

In summary, it seems likely that the actions contained within the NAPs will in fact be executed at the national level regardless of the fate of the regional SAP.

## **6. OUTCOMES AND LESSONS LEARNED AT THE DEMONSTRATION SITES AND PILOT ACTIVITIES**

### **6.1 Background**

A total of 136 habitat sites, including 26 mangrove, 43 coral reef, 26 seagrass and 41 coastal wetland sites, were characterised in the framework of the South China Sea Project following criteria developed by the Regional Working Groups<sup>22</sup> and the Regional Scientific and Technical Committee (RSTC). Following the process agreed by the RSTC the working groups developed environmental and socio-economic criteria for use in ranking of the sites and selection of habitat demonstration sites that reflect their importance from the perspectives of biological diversity, transboundary relevance, and the regional and global significance or importance of the site.

Eighteen sites were selected as the priority habitat demonstration sites in which to apply regionally accumulated science at the local level. Eleven sites were funded through the grant of the UNEP/GEF South China Sea Project, and seven were selected for financing through the Medium-Sized Project (MSP) mechanism of the Global Environment Facility (GEF). It should be emphasised that all demonstration sites were selected on the basis of regional criteria, and it was anticipated that they would demonstrate good management models and practices for marine environmental management in areas of the South China Sea. All demonstration sites were of global significance, due to their intrinsic biological diversity and the global significance of the ecological systems of the South China Sea. In addition to the habitat demonstration sites, two land-based pollution pilot activities were recommended by the Regional Working Group on Land-based Pollution. Members of the Project Steering Committee agreed to nominate one additional self-funded site per country for inclusion in the regional network of sites. Table 5 provides some basic information regarding all demonstration site and pilot activities in the network.

Despite the agreement in principle of the GEF Secretariat to accept (subject to the normal review process) up to seven MSPs in 2004 it proved difficult to finalise these documents to an acceptable standard and to secure the letters of commitment with respect to co-financing. The moratorium on the submission of projects at the end of the third phase of the GEF also contributed to delays. As a consequence the Local Governments in three instances (Shantou, China; East Bintan, Indonesia; and Ninh Hai, Viet Nam) commenced activities using locally available co-financing and funds from central Government. Regardless of whether or not activities had commenced at the sites individual site managers and local government officials were invited to participate in the four Mayor's Round-Tables

<sup>22</sup> *Regional Working Groups on: Mangroves (RWG-M); Coral Reefs (RWG-CR); Seagrass (RWG-SG0; and Wetlands (RWG-W).*

held from 2005-2008. As of January 2009 three sites, Shantou, East Bintan, and Ninh Hai had been approved by the GEF CEO, as medium sized projects.

Table 5 List of Demonstration Sites and Pilot Projects

No.	Site	Component/Sub-component	Funding source
1	Fangchengang, China	Mangroves	SCS Project grant
2	Trat, Thailand	Mangrove, transboundary	SCS Project grant
3	Batu Ampar, Indonesia	Mangroves	SCS Project grant
4	Busuanga, Philippines	Mangroves	Medium Sized Project
5	Koh Chang, Thailand	Coral Reefs	SCS Project grant
6	Belitung, Indonesia	Coral Reefs	SCS Project grant
7	Masinloc, Philippines	Coral Reefs	SCS Project grant
8	Ninh Hai, Vietnam	Coral Reefs	Medium Sized Project
9	Phu Quoc, Vietnam	Coral Reefs & Seagrass; transboundary	SCS Project grant
10	Hepu, China	Seagrass	SCS Project grant
11	Bolinao, Philippines	Seagrass	SCS Project grant
12	Kampot, Cambodia	Seagrass, transboundary	SCS Project grant
13	East Bintan, Indonesia	Seagrass	Medium Sized Project
14	Peam Krasop, Cambodia	Wetland & Mangroves; transboundary	SCS Project grant
15	Batam, Indonesia	Land-based Pollution	SCS Project grant
16	LingDingYang, China	Land-based Pollution	SCS Project grant
17	Shantou, China	Wetlands	Medium Sized Project
18	Malampaya, Philippines	Wetlands	Medium Sized Project
19	Thale Noi, Thailand	Wetlands	Medium Sized Project
20	Balat, Vietnam	Wetlands	Medium Sized Project
21	LARCM, Cambodia	Wetlands, Seagrass & Mangroves	Self-funded
22	CHARM, Thailand	Wetlands	Self-funded
23	Cu Lao Cham MPA, Vietnam	Coral Reefs	Self-funded
24	Thi Nai Sanctuary, Vietnam	Wetlands	Self-funded

## 6.2 Common Actions at the Demonstration Sites and Pilot Projects

The demonstration site and pilot activities formed a major part of the operational phase of the South China Sea Project, and are mentioned in the project summary as follows:

*“...9 demonstration management activities at sites of regional and global significance; a regional management plan for maintenance of transboundary fish stocks in the Gulf of Thailand; pilot activities relating to alternative remedial actions to address priority transboundary pollutants and adopted water quality objectives and standards. Activities include national level analyses and reviews, management of demonstration activities and regional harmonisation and co-ordination of national level actions”*

The original envisaged purpose of the habitat demonstration sites and pilot activities in land-based pollution management was to serve as demonstration approaches that could be incorporated into the activities undertaken in the framework of the SAP and NAP implementation. It was foreseen therefore that in parallel with the elaboration of the NAPs and SAP, practical, on-the-ground activities would be executed that showed how the actions envisaged in the NAPs and SAP could be implemented over the next ten years.

Three technical publications reviewing the status and achievements of the UNEP/GEF South China Sea Project's suite of habitat demonstration sites were published during the final quarter of 2007 (UNEP, 2007k; 2007l; 2007m). These were based on the outcomes of the mid-term evaluations of the demonstration sites and were used as supporting documents to presentations on the achievements and lessons learned at the demonstration sites delivered during the Third Mayors' Round-Table (MRT) and Third Regional Scientific Conference (RSC) from 26<sup>th</sup> - 30<sup>th</sup> November 2007. These meetings identified activities common to all demonstration sites and pilot activities, including: the creation of inter-sectorial management boards; preparation of management plans and business plans; economic valuation of resources; enhancement of public awareness; and close liaison with and involvement of local communities and stakeholders in the interventions.

Detailed accounts of the activities planned and undertaken at each site can be found in the demonstration site section of the South China Sea website:

- [http://www.unepscs.org/Habitat\\_Demonstration\\_Sites\\_and\\_Pilot\\_Activities\\_Index.html](http://www.unepscs.org/Habitat_Demonstration_Sites_and_Pilot_Activities_Index.html)

### **6.3 Achievements of the Demonstration Sites and Pilot Activities**

The Third MRT (2007) also discussed the key achievements of the demonstration sites and pilot activities, which were recognised as follows:

#### Achievement 1: Establishment and operation of a regional network to ensure information and experience exchange in the region.

The importance of the Mayor's Round Tables and the regional Scientific Conferences in networking and exchange of experiences cannot be under-estimated, whilst it is possible to achieve a great deal through electronic means, face to face contact strengthens personal relationships ensuring more effective exchange through electronic fora. During each of the Mayor's Round Tables the outcomes and experiences of each site were shared and the lengthy periods of plenary discussion resulted in an in-depth evaluation of the successes and failures. By bringing the heads of the Management Boards (Mayor's, Deputy Mayor's and Provincial Governors) into contact with the operational site managers for an extended period of several days provided the opportunity for close interaction and provided the political decision makers with an opportunity to learn from each other and from the operational level individuals.

#### Achievement 2: Establishment of Effective Mechanisms for Local Coordination of Planning and Management of the Environment and Natural Resources.

Each demonstration site was required to establish a cross-sectorial management board composed of representatives from all agencies concerned with maritime affairs in each location. For many local Governments this was a novel way of managing projects and it was widely agreed that the approach had been highly successful resulting in additional leveraging of funds and actions from individual departments and stakeholders that were not originally envisaged. This structure has been adopted by the Beihai Municipal Government amongst others as the standard management arrangement for future project related interventions in the coastal zone, in all cases the Management Board continues to oversee the implementation of the management plans developed through the project.

#### Achievement 3: Capacity building for long term management of coastal resources and environment

A series of training courses funded by the demonstration site and pilot projects have supported strong improvement of human capacity in managing habitats and related resources at the site level. The topics of training have depended on demands from local people, and have included: project management (Peam Krasop), mangrove and silvo-fisheries management (Batu Ampar), and ecological monitoring (Hepu, Kampot, Phu Quoc).

A number of projects have supported local people in managing their resources by providing facilities and equipment for enforcement (Belitung, Masinloc, Bolinao) and coral restoration (Koh Chang, Phu Quoc). It is important to note that the activities under some demonstration site projects have enabled mobilization (leveraging) of additional funds from other sources for management (Koh Chang, Fangchengang, Phu Quoc, Hepu).

#### Achievement 4: Provision of sound scientific information and data as baselines for habitat and resource management

Weak scientific information for development of management plans and sustainable management is a characteristic of many areas in the region. In the framework of the South China Sea project, most demonstration sites have conducted assessments to provide information and data required for management at the site level. Phu Quoc, Kampot, Batu Ampar, Peam Krasop projects conducted surveys on biodiversity, resources and resource uses. The Koh Chang project focussed on assessment of carrying capacity for tourism and the outcome from these studies is being used as the basis for tourism development on the island. Economic valuation has been done in Fangchengang, Hepu, Trat, East Bintan, Kampot, and Phu Quoc. GIS data bases have been developed based on available data and information at the sites as a tool for improvement of management (Batu Ampar, Trat, Phu Quoc). A number of projects (Ninh Hai, Kampot, Phu Quoc, Bolinao) have applied remote sensing techniques for habitat assessment.

#### Achievement 5: Planning for long term, multi-sectorial coordination and management for multiple use of resources

Through the development of management plans at the site level, most demonstration sites have achieved outcomes related to long-term management of habitats and related resources. Wide

involvement of related stakeholders and local communities in the process, and the mechanisms for implementing these management plans ensure multi-sectorial coordination during project execution and suggest that this will continue beyond the project life. Implementation of management plans with involvement of stakeholders and local communities have been applied at a number of sites (Mooring buoy setting in Koh Chang, volunteer groups for coral reef and turtle conservation in Ninh Hai, mangrove urban park with participation of private sector in Fangchengang). Recently, some plans have demonstrated effectiveness as in the case of Koh Chang and Phu Quoc where authorities planning tourism development have incorporated outputs from the demonstration site activities to ensure sustainable development. Demonstration site activities have been integrated into managing production forest for sustainable use in Batu Ampar and for development of the Mangrove Urban Park in Fangchengang.

Achievement 6: Promotion of knowledge and awareness for consensus and support to sustainable management practices

The demonstration site and pilot projects have produced an enormous volume of materials for public awareness and education. Posters, leaflets, CD-ROMs, and newsletters have been distributed to local government agencies and local communities to enhance their awareness on habitat importance and sustainable development.

Some demonstration site projects have created initiatives for the promotion of knowledge and awareness, such as awareness programmes for school children (Trat, Belitung, Fangchengang, Hepu); education campaign (Bolinao); and the development of primary school curricula on coral reef ecology (Belitung). In the latter case the education authority is planning to publish further copies of the materials developed and to introduce this into other schools outside the immediate area of the demonstration site. In addition, public information centres have been constructed in Fangchengang, Batu Ampar, and Hepu with co-financing provided from the provincial governments concerned. Monitoring of public awareness carried out in some localities has indicated that the knowledge and awareness related to habitat management and sustainable development of government officials and local communities has increased (Hepu has quantified this improvement).

Achievement 7: Support for supplementary or alternative livelihoods of local communities

Given that poverty is a critical root cause of habitat degradation and over exploitation of living resources, support for the identification and development of supplementary or alternative livelihoods has been considered by some demonstration site projects. Initiatives include:

- training for charcoal production from coconut shells rather than mangrove timber, in Batu Ampar;
- Improvement in quality and marketing of traditional “danggit” (fermented small rabbitfish) to provide enhanced income to local people in Bolinao;
- Improvement in quality, packaging and marketing of “fish” crackers at Belitung;
- Support for aquaculture of “new” living resources: soft-shell crab in Batu Ampar; sea cucumber in Masinloc;
- Creation of opportunities for local people to be involved in tourism: home stay for 2000 – 3000 visitors in Trat; local guide centre in Koh Chang;
- Eco-farming trials in the Urban Mangrove Park in Fangchengang, which represents the first urban mangrove park, globally; and,
- Production of compost for sale, from domestic organic waste in Batam.

Achievement 8: Encouraged transboundary management of resources and environment between Kampot – Phu Quoc and Trat – Peam Krasop

The management teams of the two transboundary demonstration sites have developed institutional arrangements for long term cooperation between local governments and communities across the provincial and national boundaries. Joint policies for management of habitats and resources in the transboundary waters have been developed and will be adopted by provincial leaders. A Joint GIS database has been established between Phu Quoc and Kampot to support managers of both sites in managing their habitats and related resources. Capacity building have been emphasised in joint activities of partners between Cambodia – Thailand and Cambodia – Vietnam. Training courses on assessment and monitoring and training by working together assist to improve human capacity of local people in long-term environmental management. In March 2008 a formal agreement was signed between the Deputy Governor of Kampot Province, Cambodia and the Vice-Chair of the Provincial

People's Committee of Kien Giang Province in Viet Nam involving a long-term programme of joint action in managing the marine resources of the area.

Achievement 9: Rehabilitation and initial improvement of habitat state

Mangrove rehabilitation has been conducted at all mangrove demonstration sites, including Trat, Peam Krasop, Batu Ampar, and Fangchengang. Nursery gardens built under the project at Fangchengang will be maintained for long term rehabilitation inside and outside the demonstration sites. The endangered species *Heritiera littoralis* population is being rehabilitated in Fangchengang where non-mangrove beach vegetation is also being propagated. Transplantation of corals has been practiced in Koh Chang and Phu Quoc with positive results. Rehabilitation and efforts in management during the 3 years could contribute to an initial improvement in habitat state at a number of demonstration sites bordering the South China Sea and Gulf of Thailand.

Achievement 10: Promotion of linkages between fisheries and habitat management

It should be noted that sectorial approaches to management are the dominant mode of operation in the region. Recognising the ecological inter-connectivity between fish life cycle and habitats, and the need for linkages between fisheries and habitat management, the Regional Working Group on Fisheries has developed regional fisheries *refugia*, using *inter alia* inputs from the demonstration sites. A pilot fisheries *refugia* has been established in Phu Quoc with collaboration between the demonstration site management team, Vietnam Focal Point for Fisheries, and local government, with the assistance of the staff of the PCU.

Achievement 11: Pilot activities to reduce waste discharge to the marine environment

The Batam pilot activity has tested approaches in which the industrial sector has participated actively in managing heavy metals and local communities have been involved in managing domestic waste (both sewage and solid wastes). Composting of organic wastes in the coastal village has resulted in a marketable product that has increased local incomes. The Shantou demonstration site has conducted trials of three species of mangroves for the treatment of effluent from intensive aquaculture.

The lessons learned and examples of best practice in habitat management presented during the Third MRT were synthesised by the PCU and subsequently presented by the Mayor of Bolinao, Mr. Alfonso del Fierro Celeste as important lessons learned and worthy of replication at other sites in the South China Sea and Gulf of Thailand. The outcomes of the demonstration site activities have been summarised in a series of regional brochures covering the lessons learned from 8 demonstration sites and the pilot activity in Land-based Pollution at Batam (UNEP, 2008e; 2008h; 2008i; 2008j; 2008k; 2008l; 2008m; 2008n; 2008o).

A number of the innovative activities have involved the development of supporting mechanisms thus the development of charcoal from coconut shell in Batu Ampar to serve as a fuel source for cooking and as a source of cash income hence reducing the use of mangrove wood for these purposes involved the introduction of appropriate small scale kilns, and the introduction of fuel efficient stoves.

The direct involvement of Provincial, Municipal and local government units at the site level was beneficial not only in leveraging co-financing for demonstration site activities and fostering sustainability in the long term but, more critically, in establishing working relationships with local communities. In Beihai for example the project encouraged the formation of a Management Board with participation of local community leaders that was successful in addressing illegal aquaculture activities through direct action and in fostering additional in-kind support for specific activities not originally envisaged in the operational project document. As noted above the success of this management model has resulted in the Beihai Municipal Government adopting it as a model for the management of other development projects in the area.

## **7. INFORMATION AND DATA MANAGEMENT**

### **7.1 Collation of National Sources of Information and Data**

The first meeting of the Regional Scientific and Technical Committee (RSTC) identified that the achievement of the goals and objectives of the South China Sea project could be constrained by insufficient data and information at both national and regional levels. At that meeting the RSTC instructed the Regional Working Groups (RWGs) to prepare lists of information and data required to characterise specific habitat types. The RSTC also urged the National Technical Working Groups and

national committees in each country to review information and data collated during the preparatory phase of the project, and to regularly provide updated data and information, particularly in relation to data sources which may have been ignored during the preparation of the national reports used in finalising the Transboundary Diagnostic Analysis in 1999.

The complexity of the project which involved seven countries and six major areas of activity resulted in the establishment of a large network of institutions and individuals involved directly and indirectly in project activities (see section 3 of this report). Most SEAs sub-contracted additional national institutions to assist in the completion of specific activities and of the 310 contracts let by the 31 SEAs, 49 percent encompassed tasks related to the compilation and management of national data. This extensive network represented numerous entry points to an enormous number of national level sources of data and information relating to the science and management of habitats, fisheries, and land-based pollution in the South China Sea and Gulf of Thailand. The unique management framework of the South China Sea project facilitated the flow of information and data between and among all partners.

The outputs and outcomes of the South China Sea Project represent a valuable data and information resource for participating governments, communities, and other organisations in the planning and execution of future interventions in environmental management of the South China Sea and Gulf of Thailand. Substantial time was spent by the Project Co-ordinating Unit ensuring that this important information base is accessible in national and regional publications and databases, and easy to update via the South China Sea project website<sup>23</sup>. A review of the development, key features and usage of the project databases and website was published as a South China Sea Knowledge Document in 2007 (UNEP, 2007n) and was considered in detail by the eighth meeting of the Regional Scientific and Technical Committee in December 2007 (UNEP, 2008p). That review also contains a detailed account of the experiences and lessons learned from the project in information and data management.

## **7.2 Achievements of the Project's Information and Data Management Activities**

The number and variety of information and data outputs produced by large multi-lateral, intergovernmental GEF projects is often large and diverse. In the case of the SCS project these include *inter alia*: four regional databases; a repository of more than 1,800 project documents and publications; online modelling tools; a large collection of regionally specific training materials; a catalogue of multi-media public awareness resources; and an extensive index of national language publications. Ensuring ease of online access to such outputs is increasingly becoming an expectation of donors and project partners, and the approach adopted by the SCS project was to make outputs accessible on the Internet via the project website.

These outcome of the information and data management activities of the South China Sea Project are significant in terms of: the volumes of information and data compiled; the establishment of an effective platform for regional sharing of information and experiences online via the South China Sea project website; and commitments from coastal and marine scientists and their institutions to maintain and update national and regional databases with new and additional data as it becomes available. The achievements of the project were recognised by the GEF Secretariat, the Internet company *Google*, and staff of the GEF funded International Waters Learning Exchange and Resource Network (IWLEARN) as being worthy of replication in other projects and being sustained beyond the closure of the South China Sea Project.

The SCS project document did not envisage these outputs and outcomes. The idea of a basic website for the project first arose in 2002 to overcome problems with the electronic distribution of meeting documents caused by unreliable e-mail communication and limited e-mail inbox space at that time. It was only during the early stages of the operational phase of the project (2005) that it became apparent to PCU staff and network members that the website could be used to: improve the flow of project news and information between and among project partners and demonstration sites; enhance accessibility to project outputs; and to facilitate the online sharing of information and experiences relating to project execution. The project website was subsequently redeveloped in the final quarter of

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<sup>23</sup> The South China Sea Project website and associated databases can be accessed at <<http://www.unepscs.org>>

2005 using open source Content Management System (CMS) software which is freely available at <<http://www.joomla.com>>.

### **7.3 Challenges Encountered in Building Regional and Global Awareness of the SCS Project Databases and Website**

#### **7.3.1 Ensuring User-Friendly Online Access to Project Outputs**

During the project's second Regional Scientific Conference in November 2005 it was identified that the continued use of the project's information and data outputs would likely depend on three key factors: (1) the ease of accessibility of the outputs; (2) the user-friendliness of the website and databases in which the outputs were contained; and (3) the general level of awareness of the existence of the project website. The first two factors were initially addressed as part of the redevelopment of the website in 2005, which involved the creation of databases that were intuitive and provided for high speed access to information and data. Accessibility to outputs and the user-friendliness of the project website and its associated databases was progressively enhanced during the period 2006-2008.

Raising the general awareness of the website and databases was addressed at the project level by assigning rights and responsibilities to project partners for the continued revision and update of the website and databases. Ensuring the longer-term success of the website, measured in terms of its profile as an information resource relating to the environmental management of the South China Sea and Gulf of Thailand, as well as its level of use, would require building awareness of its existence at both regional and global levels.

The main questions addressed by the project with respect to building awareness of the SCS website and databases and increasing its level of usage were: (a) how to best promote the SCS project website; and (b) how to provide website visitors with an interactive and engaging insight into SCS project activities, outputs, and achievements. With Internet use growing globally during the period of project implementation, and at a high rate in most participating countries (e.g. >8,500 percent in Viet Nam from 2000-2008), enhancing the online visibility of the project website was identified as a priority activity.

Online visibility of a website is measured most broadly by website "*traffic*" (or number of visits). Traffic is categorised by three sources. The first being "*direct traffic*" which refers to individuals having arrived at the site after entering the site's URL (e.g., <http://www.unepscs.org>) into their web-browser and loading the webpage. The second is traffic from "*referring sites*" which involves visitors arriving at the site after having clicked on a link to the website placed on another website. The third is traffic via search engines. Search engines, such as Google and Yahoo, are information retrieval systems designed to assist in finding information on the Internet and can contribute to a large percentage of overall traffic to an individual website.

#### **7.3.2 Limited Online Promotion of Project Interventions and Outputs by UNEP's Division of Global Environment Facility Coordination**

Web links to project websites from GEF Implementing Agency websites represent an excellent potential source of website traffic and mechanism for building awareness of GEF International Waters project interventions and outputs. Implementing Agency websites experience very high levels of web traffic, such that prominent linkages between them and project websites can be effective in directing large numbers of Internet users to information about project interventions, outputs, and achievements. Unfortunately this technology was not used effectively with respect to this project in that no prominent link from the United Nations Environment Programme (UNEP) website <<http://www.unep.org>> to the SCS project website existed during the operational phase of the project and did not exist at the time project closure.

Similarly not one single reference to any SCS project output existed on the main UNEP website and there were no working links to the project on the website of UNEP's Division of Global Environment Facility Co-ordination (DGEF) <<http://dgef.unep.org>>. The consequence of this is that for the 18 month period to 16th January 2009, few if any visitors to the SCS project website came via a UNEP webpage. This contrasts significantly with the efforts of UNDP to promote GEF project outputs via their "*In the Spotlight*" section of <<http://www.undp.org/gef>>, and similar innovative work being

undertaken by the GEF Small Grants Programme at <<http://sgp.undp.org>>, a highlight being the recent launch of the SGP online training module on persistent organic pollutants <<http://www.sgp-pops.org>>. A similar facility for the dissemination of GEF project information and news exists on the World Bank website at <<http://www.worldbank.org/gef>>, although this does not appear to be updated as frequently as UNDP's GEF web pages. It was identified that effective interlinking between the websites of UNEP, DGEF, and individual project websites could result in significant improvements to the visibility and profile of UNEP implemented projects.

### **7.3.3 Limitations of the IW:LEARN Website as a Tool for the Online Promotion of Project Outputs and Achievements**

The website of the GEF IW:LEARN project was developed to facilitate the integration, exchange and accessibility of data and information between and among GEF IW projects, their partners, and stakeholders. Part of this initiative involved establishment of a central metadata directory of all available IW project data and information, with the aim of serving as a single entry point for access to GEF IW project information. The online repository of IW project information established through IW:LEARN includes *inter alia* a projects database linked to compilations of outputs from individual projects and programmes.

The effectiveness of the IW:LEARN website as a referring site for individual project websites was constrained during the period of SCS project implementation by several factors. The first was the lack of a prominent link to the IW:LEARN website from any of the GEF Implementing Agency websites<sup>24</sup>. Such links would act to guide users of Implementing Agency websites to the IW:LEARN website and ultimately websites of individual projects. This weakness is moderated to some degree through the inclusion of prominent links to IW:LEARN in the main menu of the GEF website and the main GEF IW webpage.

Another constraining factor is the type of information contained in the IW:LEARN website itself. Whilst the IW:LEARN website is ranked highly by Internet search engines for search terms such as "IW:LEARN", "International Waters", and "Waters Projects", the meta-data type information contained in the website for individual projects precludes it from ranking highly in search results for more technical, project specific terms. For example, the search terms "Mangroves Thailand", "Seagrass China", or "Coral Reefs Vietnam" are of high relevance to the SCS project but it is unlikely that Internet users searching these terms will connect with the IW:LEARN website. Whilst it is recognised that the IW:LEARN website was not designed for this purpose, its limitations in terms of attracting Internet users searching for specific information about individual shared water bodies such as the South China Sea was recognised by the PCU and Regional Scientific and Technical Committee<sup>25</sup>.

## **7.4 Enhancing the Online Visibility of the SCS Project Website**

Recognising the above mentioned challenges in promoting the SCS project website and databases online, the SCS project embarked on a two-track approach to: (1) build the online visibility of the information base, measured by the number of visitors to the website and the ranking of the website by key search engines for search terms including "South China Sea", combination of coastal habitat types (e.g. mangroves) and countries (e.g. Thailand), and project demonstration site names; and to (2) provide website visitors with a more engaging and interactive insight into project interventions and achievements.

Enhancing the online visibility of the SCS project website involved implementation of initiatives to improve the ease of searching and ranking of the website by main search engines. The specific constraint addressed was the use of non-Search Engine Friendly URLs by the Content Management System (CMS) software which is based on the PHP coding system. Standard HTML websites are designed such that the URLs for each page reflect the meta-description and content for the pages, and include key search words for the website. The standard URLs used by new CMS software provide for little control over URL keywords, and for example, are presented to search engines and users as "[http://www.unepscs.org/index.php?option=com\\_content&task=view&id=16&itemid=55](http://www.unepscs.org/index.php?option=com_content&task=view&id=16&itemid=55)".

<sup>24</sup> One can locate the IW:LEARN by following 3 links on the UNDP/GEF website

<sup>25</sup> The SCS project acknowledges addition of a prominent link to [www.unepscs.org](http://www.unepscs.org) from the IW:LEARN homepage in late 2007 to assist in overcoming some of these limitations.

In order to enable the use of key search terms in the URLs of the SCS project website, a component that re-writes the CMS style URLs to be search engine and user friendly was installed during the first quarter of 2007. The hierarchical structure and linkages between key sections of the site were also redesigned at this time with the aim of improving the indexing of pages by search engines. The result of this action was that URLs for each page of the site now contain meaningful keywords that relate to the site's key sections, menus, and content items. An example of a redesigned URL is "[http://www.unepscs.org/Fangchenggang\\_Mangrove\\_Habitat\\_Demonstration\\_Site\\_in\\_China.html](http://www.unepscs.org/Fangchenggang_Mangrove_Habitat_Demonstration_Site_in_China.html)".

The main Content Management System files for the site were also optimised in order to obtain higher keyword densities in each of the individual pages. The site's RSS feed was redeveloped to include all content items added to the site's "blog", front page, and project e-newsletter. In addition to its' potential usefulness in syndicating project news, the RSS feed was included on the site to ensure that new content is indexed and searched by search engines promptly after addition to the site.

During the second quarter of 2007, the website's document repository and multi-media library was redeveloped to include all project outputs, which at the time involved addition of approximately 1,400 project documents, 3.5 hours of project videos, public awareness materials, and a large gallery of South China Sea related photos. All new content items were renamed using keyword dense filenames to improve the indexing of content by search engines. This led to an approximate 9-fold increase in the total SCS project content indexed as part of the SCS website by Google, with a total of 10,800 individual pages indexed for <[www.unepscs.org](http://www.unepscs.org)> on 1<sup>st</sup> September 2008 (approximately equal to the total for <[www.iwlearn.net](http://www.iwlearn.net)> at the same time).

This combined strategy of improving the search engine and user friendliness of the website's URLs, combined with a substantial increase in the "content richness" of the website has enhanced the overall visibility of the website significantly. On 1<sup>st</sup> September 2008 the website ranked sixth from 8,220,000 web pages indexed by Google.com for the keywords "South China Sea". At the same time in 2006, the project website did not rank in the top 100 pages of Google search results for the same search terms. Data on the usage of the website from 1<sup>st</sup> October 2006 – 31<sup>st</sup> September 2007 indicates that 242,400 visitors from 119 countries accessed the website during that one year period. These visitors accessed more than 1.35 million pages or content items (e.g. documents, videos) during that year, and all seven countries participating in the project featured in the top 20 countries in terms of the number of visitors during the period (UNEP, 2007n).

## **7.5 Use of Google Earth to Promote Project Outputs and Achievements**

The initiatives described above were effective in increasing the online visibility of the SCS project website. Data relating to the duration of visits and content accessed by visitors during the October 2006 – September 2007 period indicate that the website's content was relevant to approximately 25 percent of visitors. Approximately 18.3 percent of users spent between 15-30 minutes on the site, with nearly seven percent accessing site content for in excess of 1 hour. In contrast, 35 percent of users were recorded to leave the site within 30 seconds of having loaded the homepage.

Experience during the periods April-June 2007 and July-September 2007 indicated that regular additions of new and diverse website content and promotion of this content in a "Highlights" section on the website homepage was an effective means of increasing the number of visitors moving through the site rather than immediately out, after having arrived. Redevelopment and promotion of the South China Sea document repository, and establishment of the online multi-media library and catalogue of community awareness materials during the June-July 2007 period, led to marked increases in the number of visitors accessing these parts of the website.

It was identified in the third quarter of 2007 however, that accessibility to and use of project outputs could be improved by providing visitors with a more engaging and interactive insight into project interventions and achievements. The following outlines the steps taken to do this and highlights several unanticipated outcomes:

### **7.5.1 Selection of the Google Earth Platform**

The Google Earth system <<http://earth.google.com>> was launched in 2005. Since then the freely available Google Earth system has been installed by more than 350 million individuals, has been

made available in 14 different languages, and includes sub-metre high resolution satellite images for 30 percent of the world's land surface and 50 percent of the world's population. It is now a widely used feature of the Internet, and has been developed by Google to enable non-IT specialists to use the system as a Geographical Information System (GIS) by integrating placemarks, textual descriptions, images, video, and 3D models into the global GIS. These features coupled with the interactive 3-dimensional Google Earth browser, led to the selection of the platform as a tool to provide website visitors with a more engaging overview of project interventions, outputs, and achievements.

### **7.5.2 Development of a Project Layer for Google Earth**

Development of content for viewing on Google Earth has been simplified through the creation of the Keyhole Mark-up Language (KML) by Google. Based on the Extensible Mark-up Language (XML) known by most web developers, KML enables the setting of variables (e.g. latitudes/longitudes and altitude) which dictate how content is displayed on Google Earth maps. The KML coding language was developed to be sufficiently flexible such that pure HTML webpage code can be embedded within it. This feature enables the creation of files which combine the interactivity with Google Earth provided by KML with well crafted HTML web pages or "description bubbles" for individual sites or an entire layer of sites for viewing within the Google Earth browser.

This technology was used to create an extensive layer for the SCS project for viewing within Google Earth. The layer provides website visitors with an opportunity to interactively access information about the project's partner network, explore the project's suite of habitat demonstration sites, and access information and data for more than 135 mangrove, coral reef, seagrass, and wetland sites studied during the project. The description bubbles developed for each site also contain links to key project information resources, e.g., publications relating to the project's scientific and project management innovations. The key to this initiative was putting project information and outputs together with 3-dimensional satellite images and Google Earth's rich information base. This technology enables website visitors to view project information in the context of information relating to nearby cities and coastal communities, local terrain, proximity to other projects, and the enormity of environmental issues facing the South China Sea.

### **7.5.3 Unanticipated Outcomes of the Google Earth Initiative**

The development of the Google Earth project layer resulted in several unanticipated outcomes. The first and perhaps most beneficial in terms of outreach was the selection of the SCS project layer by Google for inclusion in the *Google Earth Outreach Showcase*<sup>26</sup> in February 2008. The *Google Earth Outreach* programme was launched in June 2007 to provide non-profit and public benefit organisations with the knowledge and resources required to put the hundreds of millions of Google Earth users into contact with their work. The addition of the SCS project layer to the Google showcase was supported by the posting of a news item on the project in the official online Google Earth news<sup>27</sup>. This news item highlighted the layer as "*a great example of how to connect with a wide audience*", and was widely syndicated across the Internet.

The SCS project was featured as the most recent entry to the *Google Earth Outreach Showcase* for more than one month during the first quarter of 2008, and was one of the six Google Earth layers featured on the showcase homepage for much of the second quarter of 2008. Similarly a notice posted in the environment section of the Google Earth e-forum highlighting the SCS project layer received more than 27,000 views within one week of its posting. This coupled with the wide syndication of the Google news item on the SCS project led to a marked increase in the number of visitors to the project website. Website usage data compiled for the period 1<sup>st</sup> April – 30<sup>th</sup> June 2008 (260,912 visits) indicate that 5 times more individuals visited the website compared to the same period in 2007 (53,566 visits).

A recent positive impact of this has been that a couple based in the United States accessed the project website via Google Earth and have subsequently requested their friends and family to make donations to coral reef related activities of the SCS project in Thailand rather than buy gifts for their upcoming wedding. It was subsequently agreed that donations would be made directly to Thailand's

<sup>26</sup> [http://earth.google.com/outreach/kml\\_entry.html#South China Sea Project](http://earth.google.com/outreach/kml_entry.html#South China Sea Project)

<sup>27</sup> <http://google-latlong.blogspot.com/2008/02/south-china-sea-project.html>

Mu Koh Chang Habitat Demonstration Site and it is anticipated that funding of up to US\$5,000 will be contributed to the project as a result of this.

The Google Earth layer has also subsequently been embedded into the SCS project website and it is anticipated that this will act as the regional GIS database for the South China Sea during the period of Strategic Action Programme (SAP) implementation <<http://gis.unepscs.org>>. This has provided a cost-effective means of filling a long term need of the SCS project, i.e., an interactive and intuitive GIS that can be easily accessed and updated by project partners online via the project website.

## **7.6 Significance and Sustainability**

The SCS project databases and website have been recognised as a rich and extremely valuable source of information, data, databases, training materials, models and other items of relevance to the South China Sea by the PSC, RSTC, RWGs and RTFs. Most members of these committees have made individual and organisational level commitments to ensure the continued updating of the regional databases and sharing of information on National Action Plan and Strategic Action Programme implementation via the project website.

The ninth meeting of the RSTC convened in August 2008 (UNEP, 2008q) considered in detail what would be required to sustain the SCS online databases and website into the future. That meeting noted that information about the usage and effectiveness of the website indicates that full use of the existing range of website features would only likely occur under the scenario of GEF funded SAP implementation and fisheries *refugia* projects. It noted that maintaining the inputs to the site in terms of contributions of content and technical support (e.g. hosting, maintaining software, and data security) would require substantial financial resources.

The ninth RSTC meeting (UNEP, 2008q) also discussed the transfer of responsibility for database and website to individual national organisations following closure of the project. It was agreed that this would likely not be successful as it was unlikely that any single organisation or group of organisations participating in the project would commit the necessary financial resources to ensure the longer-term maintenance of the site<sup>28</sup>. It was agreed further that the benefits of maintaining the website would be perceived as being largely incremental in nature, and that it would be difficult for national agencies to justify the national benefits of unilateral or multi-lateral investment in maintaining the site. It was also difficult for the RSTC to identify at that point in time a single regional organisation with the resources and capacity required to maintain the site across the wide range of content areas, e.g., coastal habitats, land-based pollution, fisheries, and economic valuation.

The RSTC considered the fact that the mangroves, coral reef, seagrass, and fisheries components of the revised SAP include costed actions related directly to the continued updating of the South China Sea databases and the use of the website as a tool for the online sharing of information. It also anticipated that the use of the site as a tool for the dissemination of project news, information, and outputs would be built upon by any future GEF funded SAP implementation and fisheries *refugia* projects, and that adequate resources would be made available for this in any regional co-ordination component of such projects.

It was noted that should such GEF projects become operational then responsibility for the website and databases should be transferred directly to the responsible regional executing agency. The website and databases have been designed for management by non-IT specialists and would be easily updatable by future project staff, especially should some training or support be provided by an individual familiar with the use of content management system software. The website and database user guides developed as part of the SCS project were noted as valuable resources for future website managers and users.

The main issue considered however was what course of action to take should no GEF SAP implementation or fisheries *refugia* projects eventuate. One option considered was closure of the website and databases, and for content to be stored on DVD-ROMs and distributed to all participating organisations. This was not considered a desired option for several reasons, including the potential value of having all outputs easily accessible online for use in the planning and execution of future

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<sup>28</sup> In addition it should be recognised that some countries and institutions would be unwilling to contribute data to a site or database maintained in another country.

interventions in the South China Sea. Similarly, the website is an excellent outreach tool and will continue to be effective in extending information about GEF and national government investments in the South China Sea beyond closure of the project. It was discussed that this may be useful in keeping outputs of the SCS project, particularly the revised SAP in easy reach of staff of regional and national organisations concerned with environment and fisheries matters.

In considering the most appropriate course of action to sustain the website, the RSTC agreed (UNEP, 2008q, para 9.6) that the following recommendation should be delivered to the final and eighth Project Steering Committee meeting:

*The RSTC recognises that the existing project website provides a rich and extremely valuable source of information, data, databases, training materials, models and other items of relevance to the South China Sea. Furthermore the website was recognised internationally by Google Earth, the GEF Secretariat and IW-Learn as being the most comprehensive body of information and data pertaining to any large marine ecosystem or shared water body world-wide. In addition the number of individual visits to the site per month (c110,000); the numbers of document downloads; and the number of countries from which visitors originate (120+ of which the seven participating countries all rank in the top 20) attest to the global and regional significance of the site.*

*In light of this, and recognising that COBSEA has decided to take responsibility for oversight of the implementation of the Strategic Action Programme the RSTC recommends that the Project Steering Committee recommend to COBSEA that the COBSEA Secretariat be charged with responsibility for maintaining a South China Sea website. The COBSEA Secretariat would need to assess the resource requirements both financial and human, bearing in mind that the site would need to be modified to make pages available for the national focal points to provide up-dates of the actions and activities associated with the implementation of the National Action Plans and Strategic Action Programme.*

The Project Steering Committee unanimously agreed with this recommendation (UNEP, 2008r, paras 5.1.5 and 5.1.6) and it was subsequently agreed that COBSEA would assume full responsibility for the maintenance and update of the regional databases and websites. The COBSEA Secretariat, in consultation with the PCU staff responsible for website development and management, identified a suitably qualified individual to facilitate the continued online hosting and updating of the software platform supporting these online resources. This individual was contracted by COBSEA to provide this service for 18 months following project closure. Similarly training was provided to staff of SEAFDEC with respect to the continued updating and maintenance of the fisheries component of the website. All project outputs were also been compiled on inter-active DVD ROMs and were distributed to all project partners.

## **8. TRAINING AND CAPACITY BUILDING**

### **8.1 Development of the Training Programme**

In 2004, the Project Co-ordinating Unit (PCU) prepared a discussion document entitled “*Regional Co-ordination, Dissemination of Experiences, and Personnel Exchange between Sites*”. This document was considered and refined at the level of the Regional Working Groups and RSTC before being considered and approved by the Project Steering Committee and provided operational level details for the programme. Subsequent to the approval of these procedures the Focal Points responsible for the Demonstration Sites were to have produced details of training needs and opportunities for training at each site. In parallel with this process the Regional Working Groups were asked to identify the priority regional training needs within their areas of competence.

These activities are grouped into three broad categories:

- Support for Young Scientists working in the demonstration sites;
- Study Tours to demonstration sites;
- Training courses and workshops.

The training and capacity building activities were originally conceived as being undertaken within each component and sub-component of the project, and in support of the substantive activities. By decision

of the Project Steering Committee (PSC) funds have been allocated and expended in support of in-service training of young individuals from the focal ministries in the management and operation of a complex regional project, through secondment to the Project Co-ordinating Unit. Individuals from: Cambodia, China, Indonesia, Philippines, Thailand and Viet Nam have been seconded by, their governments to work in the Project Co-ordinating Unit (PCU), in order to become familiar with the operation and management of the project and the rules of procedure and operational protocols of the United Nations System. This programme has been remarked upon and commended in both the Mid-term Evaluation and the Specially Managed Project Review completed in 2004.

Training needs and opportunities at the demonstration sites were commented upon only in a few of the demonstration site proposal documents and although substantial funds had been allocated to fund exchange of personnel between demonstration sites in the event no such exchanges were requested. It seems that the demands of operating and managing project activities at the site level precluded the loss of such personnel for extended periods. In contrast a number of study tours were operated for groups of people from the local level to travel to other demonstration sites to assess first hand the activities and their impacts in other countries. Experience with this programme led to the Viet Nam Government to support a large group of individuals from all coastal provinces in Viet Nam to visit Mu Koh Chang and see first hand the work on sustainable tourist development.

The needs and opportunities identified by the regional working groups varied greatly in terms of the subject areas for training, the optimum modes of training, duration and frequency of training, and the anticipated numbers of participants. During the Sixth Meeting of the Regional Scientific and Technical Committee (RSTC) (UNEP, 2006i), a small inter-sessional working group reviewed these inputs and discussed an approach to developing a training programme that would meet the maximum number of identified requirements. The view of the inter-sessional working group was that there was such a diverse range of requests and identified needs for training that it would not be practical for the project to develop a training programme that attempted to meet all needs. In recognition of the complexity of the task, a small sub-committee of the RSTC was formed to prepare a proposal. This sub-committee met in the PCU and prepared a preliminary programme (UNEP, 2006j) that was circulated to the members of the RSTC during the first quarter of 2006, and subsequently reviewed by the members of the Regional Working Groups (RWGs) and Task Forces (RTFs) during the 2006 round of meetings. The training programme and comments from the RWGs and RTFs were considered in detail by the seventh meeting of the Regional Scientific and Technical Committee and the programme was subsequently approved by the sixth meeting of the Project Steering Committee.

## **8.2 Target Audience of the Training Programme**

The RSTC recommended and the PSC agreed that participants in the regional training workshops might include demonstration site managers and associated staff, community leaders at demonstration sites, staff of the Specialized Executing Agencies (SEAs), and members of the national committees (excluding the Chairs as they would already have had opportunities to learn and benefit from the project through participation in Regional Working Group and Task Force meetings as well as the Project's Regional Scientific Conferences). It was agreed also that in order to maximise the number of individuals involved in the training programme, no person should attend more than one regional training workshop. The criteria for the choice of individuals to participate in the regional training events were defined as: ability to speak and write English; participation at or familiarity with demonstration sites; involvement in national level activities of the UNEP/GEF South China Sea Project; ability and willingness to conduct echo seminars/workshops in their country following the completion of the regional training workshops; and commitment to participate in the regional level sharing of experiences and knowledge following conclusion of regional training workshops. It was agreed that regional training workshops should have 3, at most 4, participants per country, and that this would depend on the capacity of the organisations selected to implement the individual training courses and the nature of training to be undertaken.

The Project Co-ordinating Unit made a call for nominations of training workshop participants in December 2006, and all nominations were received at the Project Co-ordinating Unit by 28<sup>th</sup> February 2007. The nominations were reviewed by the 2007 round of Regional Working Group and Task Force meetings, and in several instances changes to the list of nominees for individual workshops were agreed to ensure a high level participation of demonstration site staff and individuals involved in the conduct of project activities at the local government level.

### **8.3 Identification of Organisations to Conduct the Regional Training Workshops**

The RSTC recommended that training courses should be conducted by a group or organisation identified or proposed by, the RSTC members, and subcontracted by the Project Coordinating Unit (PCU) through a Memorandum of Understanding between UNEP and the organisation concerned. It was agreed that the implementing entity should preferably be an existing Specialised Executing Agency, or one associated with the project or, in exceptional circumstances, others. It was suggested that the PCU should call for nominations and that proponents should submit the following information to the PCU: proposed course syllabus; a description of the training course structure and form; a list of experts that would be used as facilitators/lecturers and the anticipated contributions of these individuals in the conduct of the course; venue of the training; an estimate of costs (e.g., International and in-country travel and lodging costs, supplies, consultant and staff fees); and the schedule for the training course.

It was noted by the RSTC that the implementing organisation must compile training materials such as PowerPoint presentations and lecture notes, and provide a list of references and handouts for use during the regional training workshops. It was anticipated that these training materials would be compiled on the South China Sea Project website and would serve as a repository of training materials for use in future training programmes and workshops at both the national and regional level. It was also anticipated that where required the materials could be translated into national languages for use in national or site level training events.

It was agreed that following identification and selection of implementing organisations the PCU would draft an agreement detailing the roles and expectations of the agency, and that the MoU would contain a work plan and budget in UNEP approved format. It was agreed by the Project Steering Committee that the costs associated with organising and conducting the training workshops would be met from the GEF project grant and the implementing organisation would take responsibility either directly or through a third party for organising the travel of participants once these had been identified. All information regarding the selection of implementing organisations, final timetables for the conduct of the training workshops, participant lists, and information for participants was made available on the training portal of the South China Sea Project website at <<http://training.unepscs.org>>.

Following receipt of nominations, a total of seven regional training courses were organised through partner organisations on: Sustainable Use and Management of Mangrove Ecosystems; Larval Fish Identification and Fish Early Life History Science; Management Models and Strategies for Coral Reef and Seagrass Ecosystems; Establishing and Managing Fisheries *Refugia* in the South China Sea; Sustainable Use of Coastal Wetlands Bordering the South China Sea; Economic Valuation of Goods and Services of Coastal Habitats of the South China Sea; and Advanced Larval Fish Identification. The training syllabii, anticipated outcomes, and training materials for each workshop were reviewed during the 2007 round of regional working group and task force meeting and comments were communicated to the implementing organisations.

### **8.4 National “Echo” Seminars**

The interventions of the UNEP/GEF South China Sea Project and those proposed within the framework of the National Action Plans and the revised regional Strategic Action Programme focus on site level actions aimed at reversing environmental degradation trends in the South China Sea and Gulf of Thailand. This necessarily requires a high level involvement of provincial and local government officials and technical staff, as well as community groups and Non-Governmental Organisations in the implementation of SAP and NAP related activities. The RSTC identified that for the regional training programme to have maximum impact on the longer-term sustainability of ongoing interventions and future actions at the site level, there was a need for a mechanism to ensure the effective transfer of knowledge and skills from individuals participating in the regional training events to colleagues involved in the execution of national and local level activities.

The mechanism selected by the RSTC involved the conduct of national “echo” seminars for each regional training workshop in each country. It was recommended that the “echo” seminars be organised and conducted by the participants in the regional workshops in collaboration with the relevant national Specialised Executing Agencies for the project components and sub-components. It

was also recommended that they should be conducted at the project's habitat demonstration sites, and that participants be provided with abridged, local language versions of the regional training materials. Participation was designed to ensure maximal participation of individuals directly involved in the demonstration sites and comparable activities within the country thus contributing to strengthening the capacity of individuals at the local level to manage coastal resources in a sustainable manner.

### **8.5. Outcomes and Outputs of the Regional Training Programme**

The regional component of the UNEP/GEF South China Sea Project Training Programme was operated between April 2007 and June 2008. A total of seven regional training workshops (Table 6) were conducted in Malaysia, Philippines, and Thailand by five implementing entities, namely: the Universiti Sains Malaysia; the Marine Science Institute of the University of the Philippines; the Center for Applied Economic Research, Faculty of Economics, Kasetsart University; the Faculty of Environment and Resource Studies, Mahidol University; and the Southeast Asian Fisheries Development Center.

The operation of the programme involved 104 days of regional training and the participation of 153 individuals from the seven participating countries. A total of 66 resource persons supported the conduct of the workshops, all of whom were nationals of, or in a few instances resident in the participating countries. Without exception they were experts or focal points from the South China Sea Project network. The specific outputs from the regional programme include: 192 PowerPoint presentations containing 5,612 slides; 571 pages of text in 17 lecture notes; 61 recommended readings with a total 2,231 pages of text; 7 training videos; and a package of larval fish identification resource materials. All training materials developed and used in the regional training workshops have been made web-ready and loaded to the training section of the South China Sea project website.

A summary of each regional training workshop and its' specific outputs is included in Table 6, while detailed summary reports from each workshop, including: workshop objectives; training topics; lists of resource persons and participants; detailed lists of all training materials submitted to the Project Co-ordinating Unit; and indexes to the training materials detailing the file structure of the materials can be found on the project website and in the DVD-ROM of training materials that was distributed to the project network.

The total cost for all seven Regional Training Workshops was \$338,164, while the individual cost for each of the regional workshops ranged from US\$34,540 for the workshop on fisheries *refugia* management to US\$73,771 for the workshop on mangroves; daily costs per participant for these workshops ranged from US\$106 to US\$231, respectively. The relatively high cost of conducting the mangrove workshop reflected the fact that conducting the course in Penang required that many participants travelled through Kuala Lumpur, leading to higher than average travel costs compared with other courses which required direct air travel to Bangkok and Manila only.

The low costs associated the two training workshops conducted by the Southeast Asian Fisheries Development Center (SEAFDEC) reflect in part the strong relationships of SEAFDEC with fisheries departments and research institutes within the region, which enabled the national institutions to purchase air tickets at lower cost for subsequent reimbursement. Similarly, the costs of SEAFDEC's own dormitory facilities and caterers used by SEAFDEC for internal courses organised by their Training Department were considerably lower than those for other workshops.

In terms of per participant costs, the workshop on economic valuation was the most costly with a daily per participant cost \$283. This was due to the workshop being conducted for a period of one week only, compared to the 14-21 day duration for other courses. It is important to note further that International travel for participants in the wetlands and economic valuation workshops had to be organised by Project Co-ordinating Unit staff through the United Nations travel system, adding to the administrative costs of these workshops in terms of PCU time and workload. The involvement of the PCU in the organisation of these workshops resulted from the fact that the Faculty of Environment and Resource Studies, Mahidol University and the Faculty of Economics, Kasetsart University had limited capacity to organise travel, and were required by the Thai Government to organise travel through Thai International Airways, which was significantly more costly than travel arranged through the UN travel agent with alternative carriers.

As part of the regional training programme it was intended that participants from each country would return home and conduct national echo-seminars to disseminate their experiences to local trainees hence enhancing the benefit of the programme overall. The content and timing of the national “echo” seminars were planned by project component focal points during the 2007 round of RWG and RTF meetings. The proposed topics, locations, participants, and costs of these seminars were discussed during these meetings and finalised through inter-sessional communication with PCU staff. Funds were subsequently made available to the project’s Specialised Executing Agencies through revision of their operational budgets for the period January 2007 to June 2008. Each regional training workshop provided sessions for participants to prepare programmes and national language training materials for these seminars for discussion with project focal points and review by the relevant National Committee in each country.

A total of 46 national echo-seminars might have been expected to result from participation of nationals from six or seven countries in each of the seven training courses, however no echo-seminars were planned to follow the Advanced Larval Fish Identification course due to its being organised only at the end of May. Of the remaining 40 echo-seminars that might have resulted from the remaining six courses one was combined at the national level (mangroves and wetlands in Malaysia) and a number were not conducted: wetlands in Indonesia; mangroves in Philippines; two fisheries seminars in Thailand and two in Malaysia; economic valuation in Cambodia and Indonesia. In the case of the coral reef and seagrass regional training two echo-seminars focussing on coral reefs and seagrass independently were organised in five countries.

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Table 6 Summary of the Conduct of the Regional Training Workshops of the UNEP/GEF South China Sea Project Training Programme

Regional Workshop	Implementing Entity	Workshop Location	Workshop Duration	Number of Participants	Workshop Outputs	Cost US\$	
						Total	Pers./Day
1. Sustainable Use and Management of Mangrove Ecosystems	USAINS Holdings of the Universiti Sains Malaysia (UNEP/GEF/SCS/Mal/MoU 4a)	Penang, Malaysia	16 days (24th Apr – 8th May 2007)	20	25 PowerPoint Presentations (1,110 slides). Produced by 12 resource persons.	73,771	231
2. Larval Fish Identification and Fish Early Life History Science	Training Department of the Southeast Asian Fisheries Development Center (UNEP/GEF/SCS/SEAFDEC/MoU 1)	Samut Prakan, Thailand	16 days (16th-31st May 2007)	24	5 information notes (68 pages); 6 lecture notes (448 pages); 13 PowerPoint presentations (188 slides); 6 recommended readings (50 pages); 4 texts; catalogue of 73 larval fish images; 15 minute video on workshop; and regional laboratory guide to fish eggs and larvae. Produced by 7 resource persons.	42,429	110
3. Management Models and Strategies for Coral Reef and Seagrass Ecosystems	Marine Science Institute, University of the Philippines (UNEP/GEF/SCS/Phi/MoU2 b/Amendment.3/Add)	Bolinao, Philippines	14 days (28 <sup>th</sup> Oct – 10 <sup>th</sup> Nov 2008)	25	31 PowerPoint Presentations (1,269 slides). Produced by 13 resource persons.	57,321	164
4. Establishing and Managing Fisheries <i>Refugia</i> in the South China Sea	Training Department of the Southeast Asian Fisheries Development Center (UNEP/GEF/SCS/SEAFDEC/MoU 2)	Samut Prakan, Thailand	14 days (28 <sup>th</sup> Oct – 10 <sup>th</sup> Nov 2007)	24	21 PowerPoint Presentations (422 slides and 5 training videos); 21 recommended readings (682 pages); 5 fisheries management simulation exercises; 3 videos on <i>refugia</i> concept. Produced by 8 resource persons.	35,673	106
5. Sustainable Use of Wetlands Bordering the South China Sea	Faculty of Environment and Resource Studies, Mahidol University (UNEP/GEF/SCS/4d/MoU 1)	Nakhon Pathom, Thailand	16 days (5 <sup>th</sup> Nov – 20 <sup>th</sup> Nov 2007)	21	42 PowerPoint Presentations (1,654 slides) and 6 lecture notes (66 pages). Produced by 19 resource persons.	42,789 <sup>29</sup>	127
6. Economic Valuation of Goods and Services of Coastal Habitats	Center for Applied Economic Research, Faculty of Economics, Kasetsart University (UNEP/GEF/SCS/CAER/MoU)	Samut Songkram, Thailand	7 days (23 <sup>th</sup> – 29 <sup>th</sup> Mar 2008)	21	27 PowerPoint Presentations (654 slides); 5 lecture notes (57 pages); 5 practical exercises; and 34 recommended readings (1,499 pages). Produced by 8 resource persons.	41,570 <sup>30</sup>	283
7. Advanced Larval Fish Identification	Training Department of the Southeast Asian Fisheries Development Center (UNEP/GEF/SCS/SEAFDEC/MoU 2)	Samut Prakan, Thailand	21 days (25 <sup>th</sup> May – 14 <sup>th</sup> Jun 2008)	18	33 PowerPoint Presentations (315 slides); repository of 903 images for larval fish identification; 64 technical drawings of larvae of economically important fish; and workshop video (14 minutes). Produced by 4 resource persons.	44,611	118
<b>Totals</b>			<b>104</b>	<b>153</b>	<b>192 PowerPoint Presentations (5,612 slides); 5 information notes (68 pages); 17 lecture notes (571 pages); 61 recommended readings (2,231 pages); 7 training videos; larval fish materials.</b>	<b>338,164</b>	<b>150.5</b>

<sup>29</sup> Travel for participants was arranged by the PCU and ESCAP Travel agent hence the total cost listed does not include these administrative costs.

<sup>30</sup> Travel for participants was arranged by the PCU and ESCAP Travel agent hence the total cost listed does not include these administrative costs.

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Table 7 provides summary details for the thirty seven (37) national “echo” seminars conducted over the period June 2007-June 2008 that, involved a total of 1,592 participants and 111 days of training. The total cost of these national echo-seminars was \$148,405, which computes at a daily cost per participant of \$24.6 or \$28.6 if the wetlands echo-seminar for 250 people is discounted. Table 8 provides a comparative analysis of the costs of the echo-seminars analysed by country from which it can be seen that the costs in Thailand are the highest at 47.8 USD per person per day and those for China the least expensive at 10.7 USD per person per day.

Table 7 Summary of the National “Echo” Seminars of the UNEP/GEF South China Sea Project Training Programme.

Specialised Executing Agency	Location	Number of Participants	Number of Days	Cost
<b>MANGROVES</b>				
Ministry of Environment, Cambodia	Koh Kong, Cambodia	45	2	3,715
Guangxi Mangrove Research Centre, China	Fanchenggeng, China	35	3	4,009
Institute of Mangrove Research and Development	Pontianak, Indonesia	26	2	4,702
Department of Environment and Natural Resources	Busuanga, Philippines	33	3	5,500
Department of Marine and Coastal Resources, Thailand	Trat, Thailand	50	1	1,540
Forest Science Institute, Viet Nam	Balat, Viet Nam	56	2	4,300
<b>CORAL REEFS</b>				
Fisheries Administration, Cambodia (joint with seagrass)	Sihanoukville, Cambodia	43	3	5,064
Research Center for Oceanography (LIPI), Indonesia	Belitung, Indonesia	26	3	0
Department of Fisheries, Malaysia	Malaysia	50	4	2,000
Marine Science Institute, University of the Philippines	Masinloc, Philippines	40	2	4,108
Ramkamhaeng University, Thailand	Koh Chang, Thailand	40	3	4,920
Institute of Oceanography, Vietnam	Nha Trang, Vietnam	28	2	4,101
<b>SEAGRASS</b>				
South China Sea Institute of Oceanology, China	Beihai, China	40	2	4,000
Research Center for Oceanography (LIPI), Indonesia	Bintan/Jakarta	35	4	3,840
Department of Fisheries, Malaysia	Malaysia	15	3	4,994
Marine Science Institute, University of the Philippines	Narra, Palawan, Philippines	22	2	4,910
Mahidol University, Thailand	Burapha University, Chantaburi, Thailand	43	3	5,417
Institute of Marine Environment and Resources, Viet Nam	Phu Quoc, Viet Nam	27	2	4,000
<b>WETLANDS</b>				
Ministry of Environment, Cambodia	Koh Kong, Cambodia	35	3	3,715
Institute of Environmental Sciences Zhongshan University, China	Shantou, China	250	4	2,200
Protected Areas and Wildlife Bureau, Philippines	Malampaya Sound	55	6	6,200
Department of Wildlife and National Parks, Malaysia	Kuala Lumpur, Malaysia	50	3	4,323
Faculty of Fisheries, Kasetsart University	Bangkok, Thailand	45	2	4,815
Vietnam National University, Hanoi	Xuan Thuy National Park, Viet Nam	40	4	4,751
<b>FISHERIES – LARVAL FISH IDENTIFICATION</b>				
Fisheries Administration of Cambodia	Sihanoukville, Cambodia	45	2	3,982
Directorate General of Capture Fisheries	Jakarta, Indonesia	35	3	3,500
National Fisheries Research and Development Institute	Bolinao, Philippines	40	3	2,387
Research Institute for Marine Fisheries	Hai Phong, Viet Name	53	12	2,500
<b>FISHERIES – ESTABLISHING AND MANAGING FISHERIES REFUGIA</b>				
Fisheries Administration of Cambodia	Kampot, Cambodia	40	2	4,000
Directorate General of Capture Fisheries	Jakarta, Indonesia	35	3	3,500
National Fisheries Research and Development Institute	Coron, Philippines	30	3	4,320
Research Institute for Marine Fisheries	Phu Quoc Island, Viet Nam	43	2	3,362
<b>ECONOMIC VALUATION</b>				
South China Institute of Environmental Sciences, China	Guangzhou, China	17	2	2,829
University Putra Malaysia	Kota Kinabalu	20	2	2,185
Department of Environment and Natural Resources	Manila, Philippines	50	2	4,538
Kasetsart University, Thailand	Koh Chang, Thailand	35	4	8,588
National Economics University	Giao Thuy District, Viet Nam	20	3	5,590
		<b>1,592</b>	<b>111</b>	<b>148,405</b>

Table 8 Comparison of echo-seminar costs in each participating country

Country	No Seminars	No part	No days	Total Cost	Person days	cost/pp/d	Cost/seminar
Cambodia	5	208	12	20476	494	41.4	4,095
China	4	342	11	13038	1219	10.7	3,260
China excluding wetlands	3	92	7	10838	644	16.8	3,613
Indonesia	5	157	15	15542	480	32.4	3,108
Malaysia	4	135	12	13502	435	31.0	3,376
Philippines	7	270	21	31963	863	37.0	4,566
Thailand	5	213	13	25280	529	47.8	5,056
Viet Nam	7	267	27	28604	1164	24.6	4,086

## 9. FINANCIAL MANAGEMENT AND CO-FINANCING

### 9.1 Financial Management

The project was operated under the umbrella of UNEP and consequently all financial management procedures and transactions conformed to the United Nations Rules and Regulations. Organisational separation of the Project Co-ordinating Unit from the parent body (the Division of Global Environment Facility (GEF) Co-ordination in UNEP, was secured through the identification of the PCU as a separate organisational unit in the IMIS system with its own organisational unit number, and the delegation of financial authority for the project budget to the Project Director. This obviated the need for constant referrals between Bangkok and Nairobi each time an item of expenditure, was obligated within ESCAP. ***Without such autonomy and delegation of authority it would have been impossible to operate the project in an efficient and cost-effective manner.***

The Project Co-ordinating Unit was established in the UNESCAP in Bangkok and administrative and support services were provided to the project from the ESCAP Administration. These services included payroll for the staff of the Unit, costing of travel for all participants in meetings through the travel Unit with tickets being issued via the UNDP country Offices or through American Express the designated travel agent for ESCAP. Procurement of all services and equipment was handled by the UNESCAP Procurement Office such services included: the printing of the in excess of 100 publications produced in the seven years; the securing of hotel services to the in excess of 16 regional meetings organised each year. ***During the initial period the support provided by ESCAP was exemplary*** since the procurement unit exercised its authority to treat the meeting packages as "low value services" the provision of which was expedited through the use of National Focal Points to identify suitable candidate hotels and provide information to the procurement unit through the PCU. Over the last twelve months this procedure has been unilaterally abrogated, without discussion, resulting in the *per capita* costs of the final meeting in December being considerably more *per capita* per day than for any other meeting convened during the course of the project<sup>31</sup>. Similarly the production of the meeting reports and publications became increasingly difficult as a result of the insistence of the unit concerned on using the cheapest bid without consideration for the capacity of the company to complete the work in an acceptable manner against tight time schedules<sup>32</sup>. In three instances the successful bidders subsequently withdrew when they realised the full scope of the work, and one successful bidder who completed one set of publications refused to make further bids for comparable work at a later date.

The main project accounts were maintained in the IMIS system in Nairobi and periodically UNESCAP would transmit to Nairobi expenditure accounts that would be used to up-date the Nairobi records. Expenditures were made by ESCAP on the basis of twice yearly sub-allotment advice from the FMO in Nairobi, prepared initially by the PCU in Bangkok. In addition at the commencement of project activities the head of ESCAP Administrative requested and the Project Director arranged that a cash advance would be transferred to ESCAP periodically since the envisaged flow of funds represented a significant proportion of ESCAPs liquid funds.

<sup>31</sup> This meeting was convened in one of only two five star hotels in Pattaya with which UNESCAP has particular arrangements.

<sup>32</sup> The printing schedules were dictated by the timing of meetings since all regional meeting reports were tabled in had copy at the annual meetings of the Regional Scientific and Technical Committee and Project Steering Committee at year end.

The financial instruments under which funds were transferred to the national level executing agencies were *Memoranda of Understanding* that had been tailored specifically to the needs and requirements of a GEF project, whilst also conforming to the UN rules. Reporting of progress and expenditures was required on a six month basis rather than a quarterly basis as was the norm under UNEP application of the UN rules at that time. One requirement which proved to be a significant administrative burden was the requirement under the MoUs for annual independent audits of national level expenditures. It became quickly obvious that delays and inefficiencies in the Government Audit Offices meant that to meet the requirement for annual auditing national, executing agencies had to engage the services of internationally recognised and accredited audit companies. This necessitated the re-allocation of funds for auditing to the detriment of project activities. In some years the audit fees cost a significant (up to 20%) of the sums transferred, consequently the Project Steering Committee sought and was granted a waiver from Nairobi in cases where the annual sums transferred were less than \$10,000 US or the audit fee exceeded 10% of the funds transferred.

As part of the responsibilities for project execution the Project Co-ordinating Unit received, reviewed and accepted on behalf of UNEP the six monthly progress and expenditure reports. The operation of in excess of 60 financial instruments required the full time services of a Fund Management Officer who certified expenditures and liaised with the national counterparts regarding financial reports. A considerable amount of work was required on behalf of the PCU staff in checking the outputs and progress reports twice yearly. This task was not made easier by the continued delays in submission by national counterparts that resulted in a constant trickle of reports being received throughout the year.

Project costs were monitored on an annual basis by the Project Steering Committee which approved periodic amendments to the budget on the basis of cost savings and changes to work plans and timetables. Significant sources of variation in project costs resulted from the extension of project duration from five to seven years; significant under-staffing of the PCU for the first 3 years (30% understaffing); significant savings in meeting costs as a consequence of the decision of the Project Steering Committee to convene meetings at the demonstration sites from 2004 onwards. Savings were also realised through the decision not to finance the testing of a blast fishing detection device for technical and scientific reasons.

The decision to extend the project life had no financial consequences in terms of the costs of the project to UNEP or to the GEF, they did have however significant consequences for the in-kind co-financing and personal co-financing by the Project Coordinating Unit staff. Not only did the project deliver all of the anticipated outputs at less than the originally estimated costs but significant additional outputs such as the interactive website were realised and \$750,000 was transferred in 2008 to the GEF Small Grants Programme to support community based interventions at coastal sites identified as priority areas for SAP intervention. In addition significantly more meetings were organised than originally planned. Originally each regional working group was to have met six times, the RSTC and PSC six times for a total of 48 regional meetings; in the event due to project extension and delays primarily at the national level the regional working groups met seven or eight times, the RSTC ten times and the PSC eight times.

## **9.2 Co-financing**

A significant feature of the project at the time of its clearance by the CEO of the GEF was the adoption by the participating countries of a coefficient that could be used to calculate the value of individuals time invested at the national level in project activities. The coefficient was based on the average of the median salary within the ranges of salaries for government employees in the seven participating countries, to which was added 25% to cover the costs of non-salary benefits and office support and communication costs. Thus all individuals time was valued at \$70 per person per day regardless of their individual level.

At the time of consideration of the project document by the First Project Steering Committee meeting held in Pattaya, Thailand from 22-23 October 2001, the participating countries agreed to in-kind co-financing commitments for the preparatory phase of the project as shown the appendix 1 of Annex ##. During the fourth Project Steering Committee convened in Quilin, China in December 2004 estimates of in-kind co-financing for the operational phase of the project were discussed and approved. These were calculated in a manner comparable to that used for the preparatory phase and

used the same coefficient of US\$70 per person per day. These estimates are presented in appendix 2 of Annex ##.

Annex ## of this report presents an in-depth analysis of the co-financing realised between 2002 and 2008. Table 9 presents a summary comparison of the original budget submitted to and approved by the GEF compared with the actual sums realised during the course of project implementation. It should be borne in mind that these figures are a conservative under-estimate. It should also be recognised that the actual GEF grant funds expended in implementing the project do not total the full original grant allocation. The balance of unspent funds reduces the total GEF contribution thereby raising the proportional contribution of Government co-financing to project implementation. The estimate of final expenditures currently stands at around US\$15.9 million compared with the original allocation of US\$16.4 million. The ratio of government co-financing to GEF grant is 1.2:1 and total co-financing to GEF grant is 1.3:1

Table 9      Total Project Financing compared with the original estimates.

	Original Budget		Actual Budget	
	Total	%	Total	%
<i>Cost to GEF Trust Fund:</i>	16,414,000.0	48.2	<b>15,959,172.0</b>	<b>44.12</b>
Cost to Governments (in cash & kind)	10,200,830.0	30.0	<b>19,369,459.0</b>	<b>53.57</b>
Government in-kind co-financing			7,052,461.0	<b>19.50</b>
Gov. in-kind co-financing Regional mtgs Table 7			43,960.0	<b>0.12</b>
Participation in Expert meetings Table 8			55,230.0	<b>0.15</b>
Participation in RSC, MRT, NGO Forum etc Table 9			203,704.0	<b>0.56</b>
Regional Training (Table 10)			157,570.0	<b>0.44</b>
Echo-seminars			367,080.0	<b>1.01</b>
Chinese Government Cash Co-financing			1,800,000.0	<b>4.98</b>
Operational Phase Cash Co-financing			1,230,818.0	<b>3.40</b>
Demonstration site and pilot activities <sup>33</sup>	6,810,000.0	20.0	8,468,576.0	<b>23.41</b>
Personal co-financing (PCU staff)			<b>403,809.0</b>	<b>1.12</b>
Cost to UNEP (in cash & kind)	630,000.0	1.8	<b>431,902.0</b>	<b>1.19</b>
<b>Total Cost of Project</b>	<b>34,054,830.0</b>	<b>100.0</b>	<b>36,168,541.0</b>	<b>100.00</b>

The following generic conclusions may be drawn from this analysis:

- Without initial, proper estimates of the in-kind co-financing, and requirement for reporting at least part of that contribution, it would not have been possible to demonstrate that government in-kind co-financing reached and in fact exceeded the planned amount;
- In the case of this project **all co-financing** has been raised from Government sources at the central, provincial and local (municipal) levels;
- Without an attempt to verify co-financing significant additional amounts would not have been identified;
- The approach adopted in this project would benefit other UNEP and GEF Projects in terms of demonstrating government commitments to the project

A final conclusion is that within the context of effective management of GEF projects the individuals involved in project implementation/execution are called upon to provide services that significantly exceed those that can reasonably be expected, suggesting that the United Nations and the GEF consistently under-estimate the time required to manage complex multi-country projects and programmes.

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<sup>33</sup> Originally it was anticipated that at least part of this sum would be realised via bilateral donor support. In the event this proved unnecessary since the Governments provided the site level co-financing in cash and in-kind.

## **10. KEY PROJECT MANAGEMENT AND SCIENTIFIC INNOVATIONS OF THE PROJECT**

### **10.1 Introduction**

The operation of the South China Sea project resulted in the achievement of a number of project management and scientific innovations. Several of these were recognised by the GEF Secretariat, project evaluators, and the participating governments as being suitable for replication in other projects and regions. These include: the design of the project management framework; the procedure adopted for tracking co-financing; the integration of local governments and communities in project activities through the Mayors' Round-Table meetings and NGO Forums; the procedures adopted for the valuation of the goods and services of South China Sea habitats; development of the fisheries *refugia* concept as a basis for improved fish stock and habitat management; development of a nutrient assimilative capacity model for the South China Sea basin; and the enhancement of information and data flow and exchange online.

The Project Co-ordinating Unit worked closely with the project's Regional Working Groups and Task Forces, Regional Scientific and Technical Committee, and network of regional experts to ensure that the knowledge generated through the project was adequately documented and readily accessible to other projects and programmes. The main mode of knowledge management undertaken by the PCU was the publication of a series of six South China Sea Knowledge Documents in the final quarter of 2007. The key innovations of the project reported on in these documents are summarised below.

### **10.2 Project Management Framework**

The South China Sea project was unique in that it represented the first attempt to develop a regionally coordinated programme of action designed to reverse environmental degradation, particularly in the area of coastal habitat degradation and loss, halt land-based pollution and address the issue of fisheries over-exploitation. The complexity of the project required the establishment of a project management framework that was effective in addressing the problem of managing six components in seven countries. The key issues considered in the design of the project management framework for the South China Sea project included how to: best establish direct links between national specialist institutions and UNEP; ensure money got to the people doing the work; establish effective cross-sectorial collaboration at the national level; create efficient inter-linkages and feed back loops between national and regional priorities and actions; promote adequate coverage of scientific specialisations and ensure that best science was integrated in action planning.

The project management framework designed for the implementation of the UNEP/GEF project entitled "*Reversing Environmental Degradation in the South China Sea and Gulf of Thailand*" proved far more effective than was originally anticipated. It is suggested that the factors contributing to this success include:

- The design of a management framework that permits both "horizontal" (inter-country) and "vertical" (intra-country) interactions and networking between individuals at all levels of project implementation and execution;
- A management framework that includes a body (the Regional Scientific and Technical Committee) that serves as a forum for reconciling both sectoral and national interests and priorities;
- The clear separation between discussions of scientific and technical matters from discussions dealing with policy and principles at both the national and regional levels;
- A management framework that facilitates the incorporation of sound scientific and technical advice and information into politically based decision-making;
- The use of regional experts and consultants from the participating countries;
- Restriction of the membership of the Project Steering Committee to government representatives only, and exclusion of observers from regional and international agencies and institutions other than UNEP;
- The framework allows for adaptive management and is not a rigid unchanging structure; and,
- Adequate time for detailed planning of the execution arrangements.

A detailed account of the design and effectiveness of the project management framework can be found in the first South China Sea Knowledge Document (UNEP, 2005h)

### **10.3 Procedure for Tracking In-Kind Co-Financing**

At the time of consideration of the project document by the First Project Steering Committee meeting held in Pattaya, Thailand from 22-23 October 2001, the participating countries agreed to in-kind co-financing commitments. The problem encountered by the project was how to measure in-kind co-financing as few institutions or organisations in any of the participating countries required individuals to maintain time sheets. The procedure agreed by the project to overcome this problem involved three simple steps: (1) identification of in-kind inputs; (2) agreement on a regional coefficient for the value of time; and (3) reporting by Executing Agencies of time.

The original estimates of co-financing taken from the report of the first Project Steering Committee meeting (UNEP/GEF/SCS/PSC.1/3) show that the bulk of the in-kind co-financing was to be derived from individuals time: contributed either through attendance in meetings, which was not paid for in this project; or in terms of additional work and inputs to preparation of documents; technical backstopping and contribution of specialised knowledge and information; and, national co-ordination activities in each component and sub-component by the focal points in each Specialised Executing Agency.

#### ***Step 1 – Identification of In-kind Inputs***

The Regional Scientific and Technical Committee and Project Steering Committee identified that the elements of in-kind co-financing amenable to independent verification included:

- Costs of individuals' time in meetings of the National Technical Working Group and Inter-Ministry Committee meetings;
- Costs of individuals' time in meetings of the National Committees and Sub-Committees of the components and sub-components; and,
- Costs of individuals' participation in meetings of: the Project Steering Committee; the Regional Scientific and Technical Committee; the six regional working groups; and the two Task Forces.

#### ***Step 2 – Agreement on a Regional Coefficient to Value Time***

It was agreed that the cost of the time given to the project by all nationals from the participating countries would be estimated and costed using a uniform coefficient of US\$ 70 per person per day based on the median of point of the participating government's salary scales. This was considered an inclusive costing of salary and benefits, plus office support costs that was to be applied to all individuals, from all countries, regardless of their level of seniority or actual salary. This coefficient undervalued the real co-financing in some countries and over-valued it in others, but obviated the necessity for maintaining detailed records in seven different currencies, six of which float on the international currency exchange market.

#### ***Step 3 – Reporting of Time by Executing Agencies***

It was a requirement of the Memoranda of Understanding signed with both the focal ministries and each Specialised Executing Agency that each six month report must include a listing of the national meetings convened in the framework of the project, their duration, agenda, report, and list of participants. This information was tracked by the PCU and used to calculate the in-kind co-financing, which was realised through participation of individuals in national level meetings. Similarly participation of individuals in regional level meetings was verified from the meeting reports published by the PCU.

A further requirement under the Memoranda of Understanding was that the component and sub-component focal points in each country would devote 25% of their time to the national activities of the project. Assuming that the number of working days per year is around two hundred and thirty, 25% represents 57.5 working days per year. Whilst it was not possible to objectively quantify the total actual time spent by these individuals on project activities, time spent in meetings of the regional working groups and national level meetings was independently verified. The fact that in almost all cases the entire set of anticipated national outputs were produced at high quality supported the view of the Project Steering Committee that the unverifiable portion of the co-financing was in fact raised.

Two broad conclusions were drawn from the procedure developed and followed by the project. The first was that without proper estimates of the in-kind co-financing, and a requirement for reporting at least part of that contribution, it would not have been possible to demonstrate that government co-

financing reached and in fact exceeded the planned amount. It was also noted that in the case of this project it was possible to demonstrate that all co-financing was raised from Government sources at either the central, provincial and local levels, and that the procedure used represented a simple answer to an accountability problem encountered by all large multi-lateral, intergovernmental projects. A further conclusion is that approach adopted in this project would benefit other UNEP and GEF Projects in terms of demonstrating government commitments to the project.

A full account of the procedure adopted for tracking co-financing and the final estimates of co-financing of the project is included in Annex 4 of the report tenth and final meeting of the Regional Scientific Technical Committee (UNEP, 2009) and is attached as Annex ### to this report :

#### **10.4 Integration of Local Governments and Communities in Project Activities**

The GEF expects that activities conducted within the framework of projects such as the South China Sea project, particularly those at demonstration sites should enhance government support to long-lasting activities, and promote the replication of good practices at both national and regional levels. The operational strategy of the GEF for International Waters during the period of project implementation defined the objective and the catalytic role of the GEF, as follows:

The GEF's objective in the international waters focal area is to contribute primarily as a catalyst to the implementation of a more comprehensive, ecosystem-based approach in managing international waters and their drainage basins as a means to achieve global environmental benefits. The GEF will act as a catalyst to ensure that countries better understand the functioning of their international waters systems, gain an appreciation of how their sectoral activities influence the water environment, and find means for collaborating with neighbouring countries to collectively pursue effective solutions.<sup>34</sup>

To meet the expectations of the GEF, it was agreed during the project that local governments and local communities should play an active role in the execution of project activities by:

- *Providing strong political support* – this is essential in ensuring the integration of environmental consideration into local development policies, in management of coastal resources, and in the wide replication of experiences.
- *Committing financial resources* – the GEF expects to catalyse financial resources for project activities, and eventually phase out its' funding. Local government should actively seek financial resources for the management of coastal habitats and resources.
- *Promotion of the replication of good practices* – local governments should assist in disseminating and promoting good experiences and practices, particularly those generated through site level demonstrations and pilot activities.

As the project entered its operational phase it was also identified that there was a strong need to establish a mechanism for use in facilitating the regional level dissemination of information about lessons learned, experiences, and good practices generated at the site level. There was also a need to ensure that regionally accumulated scientific research and knowledge was made available to local government officials and operational level managers in an easily accessible manner.

The approach adopted by the project was the development of a network of local government officials and operational level project staff that met annually in four Mayors' Round-Table (MRT) meetings convened from 2005 to 2008. These events provided an opportunity for Mayors, Local Government Officials, and Habitat Demonstration Site managers to share experiences and examples of good practice in the implementation of demonstration site activities, and to learn from science at the regional level for improved environmental management at the site level. The events also enabled members of the project network to collegially review the project's overall progress, accomplishments and outputs; and to share their respective implementation experiences, concerns and issues.

Two of the Mayors' Round-Table meetings were convened in conjunction with the project's Regional Scientific Conferences which enabled individuals involved in site level activities to participate in larger

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<sup>34</sup> GEF Operational Strategy on International Waters. [www.gefweb.org](http://www.gefweb.org).

regional discussions relating to: national and regional level benefits and achievements; the use of sound for environmental management of the South China Sea; and planning for successful implementation of the revised Strategic Action Programme for the South China Sea (SAP). This mechanism, coupled with the conduct of regional level meetings at individual project sites, has been highly effective in integrating local government officials in project activities. This was commented on by the then Deputy Executive Director of the United Nations Environment, Dr. Shafqat Kakakhel during the third MRT Meeting as follows:

*“The range of actions undertaken in the 21 demonstration sites promoted under the project is truly great, reflecting not only the diversity of cultures and social and economic conditions found in this region, but also a major feature of the South China Sea Project of course is that it is a multi-lateral project involving the active participation of all seven countries bordering the South China Sea and has forged a strong network of scientists and government officials committed to managing sustainably the marine and coastal environment of the South China Sea.”*

Similarly, NGO Forums facilitated by the GEF Small Grants Programme (SGP) were convened in conjunction with the third and fourth MRT meetings. National Co-ordinators of the SGP, NGO representatives from the National Small Grants Committees, the SGP Programme Specialist, and PCU staff participated in these forums to explore ways in which community groups, supported through the GEF SGP could contribute to the implementation of the revised SAP. This resulted in the development of a GEF Small Grants Programme for the South China Sea in which site level interventions in support of SAP implementation will be funded jointly by funds derived from the SCS project budget and the GEF SGP.

## **10.5 Demonstration Site Selection**

The GEF allocation for demonstration sites was stated in the Project Brief and approved by the Project Steering Committee during its first meeting as being 3 demonstration sites in each of the habitat sub-components of Mangroves, Coral Reefs and Seagrass. The size of each allocation for demonstration sites, by habitat sub-component, was as follows:

Mangroves:	1.2 million US\$ over 3 years
Coral Reefs:	1.2 million US\$ over 3 years
Seagrass:	1.1 million US\$ over 3 years
Wetlands <sup>35</sup> :	no allocation

These funds were “blocked” in the project document and their purpose identified but the sites were not chosen at that time since the preparatory activities during the first two years of project implementation were intended *inter alia* to develop the process of site selection. The consequences were quite clearly that:

- With seven participating countries, no one country could “expect” a demonstration site in each habitat sub-component;
- If the principal of equity were to be applied, each country could “expect” 1.3 demonstration sites (more realistically 5 countries would get one site each and two would get two);
- “Wetlands” would have no demonstration sites unless the Project Co-ordinating Unit (PCU<sup>36</sup>) could raise additional funds.

A potential problem that could have been encountered by the project was that the process of site selection could have been divisive and acrimonious. It might also have resulted in the choice of sites that neither adequately represented the range of biological and environmental conditions of the South China Sea nor, satisfied the achievement of the global environmental benefits anticipated from GEF interventions.

<sup>35</sup> It should be noted that the definition of wetlands in the context of the project excluded the three itemised habitat types and restricted consideration to coastal wetlands, such as estuaries, mudflats, and lagoons.

<sup>36</sup> It should be noted that although the consequences of the original allocations were accepted by the representatives of the participating countries, they resulted in significant lowering of morale amongst the expert focal points who saw their colleagues having the prospect of substantial activities during the operational phase of the project whilst they, on the other hand, could potentially have nothing to show in concrete terms from the preparatory phase activities.

Past practice in regional programmes has generally been based on “equity” considerations such that the available resources tend to be divided equally, or nearly equally, between all participating countries. In addition, decisions on specific site-related activities in the framework of UNEP’s regional seas action plans, for example, has reflected individual national priorities with little attempt being made to either determine, or take into consideration, regional priorities independently of national priorities. Regional priorities have been generally derived from a process of consensus building on the basis of the nationally-defined priorities with each party recognising that they would get “something”. The problem with this approach is that national, regional and global priorities are rarely congruent.

Past experience has shown that, where a limited pool of resources is to be divided amongst a large number of possible recipients, there is a general trend for those with the best command of written English to prepare proposals that are superficially more attractive; if the decision, is taken by “consensus” during an open meeting with few or no guidelines, the individuals with the greatest facility in spoken English (or who shout the loudest) have a higher probability of winning their argument. Selection of demonstration sites in other contexts is therefore frequently based upon “perceptions” of what are good sites; thus, individuals in the Southeast Asian region will quote Apo Island in the Philippines as a good example of community-based coral reef management, even though the site is small and the current operation is no longer as successful as it was initially.

Recognising these problems, it was decided to attempt to construct a more “objective” approach to selecting demonstration sites in the framework of the South China Sea Project. This required that, at the very least:

- All parties accept that the funds were limited and that equitable (equal) division of the resources among all countries would compromise the integrity and success of the demonstration sites<sup>37</sup>;
- The process of site selection be fully transparent and comprehensible to all parties, both technical and political, and that it be based as far as possible on “objective” quantifiable criteria and indicators; and,
- The criteria used for assessing the comparative importance of the sites should reflect their importance from the perspectives of biological diversity, transboundary relevance and the regional and global significance of the site.

Instead of equal shares being given to each of the participating countries, an element of objectivity was introduced to the approach through the assembly of biodiversity and other data followed by cluster analysis and ranking. The process involved regional and national level activities to: define the data and information needs; define the process; compile and evaluate the data; cluster analysis; and identifying priority sites for intervention and agreeing the outcome.

By the end of the fourth round of RWG meetings, each group had produced an agreed data set, an agreed final cluster analysis, an agreed set of criteria and indicators for ranking sites and an agreed ranking of individual sites within each cluster. These agreements were presented to the fourth meeting of the Regional Scientific and Technical Committee together with the recommendations from each group regarding the demonstration sites that should be financed from the GEF Project budget. The RSTC reviewed these recommendations and outcomes making some comments and criticisms regarding some aspects of the application of the process but essentially approved the recommendations for consideration by the Project Steering Committee. The third meeting of the Project Steering Committee considered the recommendations of the RSTC and the RWGs and accepted the recommendations with some minor additions/alterations based primarily on political considerations of “equity”.

The key outcome of the task was the establishment of a procedure that was developed in an open and transparent manner, and was based on an agreed objective set of environmental and social indicators and criteria. The process involved consensus building with all focal points participating such that all parties understood and accepted the final outcomes.

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<sup>37</sup> In this context the GEF Project brief was explicit in stipulating 3 demonstration sites in the three habitat sub-components. The approval of the project budget by the Project Steering Committee at its first meeting resulted in implicit acceptance of this limitation by the participating countries.

The final outcomes of the process included:

1. Regionally prioritised listings of sites as follows:
  - 26 mangrove sites;
  - 43 coral reef sites;
  - 26 seagrass sites; and
  - 40 wetlands sites (15 estuaries; 12 inter-tidal mudflats; 7 coastal lagoons; and 6 swamp forest sites)
2. Draft proposals for intervention in 23 sites across all habitats types;
3. An inter-governmentally agreed procedure for determining regional priority<sup>38</sup> which can be used to rank sites either nationally or regionally in the future;
4. A regional GIS database having an extensive number of sites characterised in geographical and environmental, including biological, terms;
5. Application of the approach at the national level in two countries to determine national priorities for intervention;
6. Decisions taken in an amicable manner through consensus among all participating countries;
7. A procedure and process that serves as a potential model for replication elsewhere when choices between alternative sites for intervention must be made based on financial limitations.

A detailed account of this important scientific innovation of the project can be found in the second South China Sea Knowledge Document (UNEP, 2007a).

## **10.6 Determining Regional Economic Values**

One significant and perhaps unique element of the South China Sea project was the development of detailed economic values for coastal habitat goods and services and their use in determining regionally applicable Total Economic Values. This work undertaken by the project's Regional Task Force on Economic Valuation (RTF-E) was used to value the specific targets of the revised SAP or, more specifically, the value of the incremental benefit derived from achieving SAP targets. This was achieved by the development of a procedure by the RTF-E to compare the costs of implementing the actions defined in the regional SAP with the values saved by achieving the targets through a cost benefit analysis.

This work of the RTF-E is of global significance in that what has resulted from this work is a standardised method for computing national and regional weighted mean values of resources and services that can be applied more widely in handling and manipulating economic valuation data from multiple locations across any time span. The techniques can be applied in any region where multiple currencies, varying exchange rates and widespread inter-locational variation in farm gate prices are found. The work was the key innovation reported on in the International media during the fourth Biennial International Waters Conference of the Global Environment Facility convened in Cape Town, South Africa in July 2007. The work also received significant support from International scientists and stimulated a high level of discussion during the GEF Global Oceans Forum convened in Hanoi, Viet Nam in April 2008.

The extensive dataset developed by the RTF-E for use in completing the economic valuation has been incorporated into a regional database for continued updating by the economists and individuals working at the project's suite of habitat demonstration sites. A comprehensive review of the methods and procedures for the economic valuation of habitat goods and services also resulted in the publication of Regional Guidelines for Conducting Economic Valuation that were subsequently translated into national languages in most countries for use as training materials in government agencies and universities. These guidelines were released as a UNEP/GEF South China Sea Technical publication in 2007 (UNEP, 2007h).

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<sup>38</sup> The Regional Priority is not based solely on national priorities but includes national priority as one indicator of significance.

A detailed account of the procedures through which regionally applicable Total Economic Values of coastal ecotones were determined can be found in the third South China Sea Knowledge Document (UNEP, 2007i).

### **10.7 Integrating Fisheries and Habitat Management**

An important outcome of the UNEP/GEF South China Sea Project has been the development of an innovative approach to integrate fisheries and habitat management for the benefit of regional fish stocks and biodiversity. The approach based on the fisheries *refugia* concept as developed by the project's Regional Working Group on Fisheries (RWG-F) aims to reduce the loss of habitats and biodiversity as a result of fishing. The initiative is focused on improving the level of understanding amongst stakeholders of the intrinsic links between fish production and the quality and extent of coastal habitats.

The intensity of fishing in the South China Sea and Gulf of Thailand is such that it has been identified by the fisheries and habitat working groups of the South China Sea Project as a factor in the continued degradation and loss of marine habitats and biodiversity in the region. The use of inappropriate and destructive fishing gear and practices, such as the use of demersal trawls and push nets in seagrass areas, and the use of poisons and explosives to catch fish in coral reef areas, is of continued concern with respect to habitat loss and future fish production.

The dilemma for the fisheries and environment sectors as identified by the RWG-F is that conservation of habitat does not necessarily result in increased fish stocks; and lowering of fishing effort does not necessarily result in improved habitat condition. In response to this the fisheries *refugia* concept developed by the RWG-F with significant inputs from SEAFDEC focuses on establishing habitat areas in which specific management measures are applied to sustain important species during critical stages of their life-cycle.

The experience of the South China Sea Project is that the *refugia* concept appears to be a successful approach to addressing barriers to the effective management of links between fish stocks and their habitats. Such barriers include the adverse reaction to the Marine Protected Area concept that is elicited from fishing communities and fisheries officers at the local and provincial levels in Southeast Asia. Application of the approach has enabled the identification of 52 spawning and nursery areas, of which 23 have been selected by stakeholders as important fisheries *refugia* for inclusion in a regional system of managed areas. Other important outcomes include: national and regional plans for a regional system of fisheries *refugia*; database of fish egg and larvae distribution and abundance; an online Fisheries *Refugia* Information Portal; and the inclusion of UNEP/GEF regional guidelines on fisheries *refugia* in the intergovernmentally agreed "ASEAN-SEAFDEC Regional Guidelines for Responsible Fisheries in Southeast Asia"<sup>39</sup>.

The work of the group has been recognised by regional and international fisheries organisations, the Departments of Fisheries and Environment in the participating countries, and the GEF Secretariat as a highly suitable conduit for harmonising fisheries and environmental management in order to achieve the sustainable use of fisheries and their habitats in the region. During the Third Mayors' Round-Table convened from 26th-27th November 2007, the Senior International Waters Specialist of the GEF Secretariat, Dr. Alfred Duda, commended the project with respect to the achievements of the fisheries *refugia* initiative. He made the following statement regarding the fisheries during that meeting:

*"This is a very important concept that you are developing here in this project, it has application throughout the world. We support 16 or 17 other Large Marine Ecosystems around the world, with perhaps 105 other countries working together, and I don't believe any of them are doing what you're doing here. So there is a very important potential for what you are getting experience with to share with the whole world."*

It is anticipated that the experiences gained in the South China Sea Project will be suitable for application in other large marine ecosystems such as the Yellow Sea where over-fishing and the use

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<sup>39</sup> The importance of the technical support provided by and the collaboration with SEAFDEC cannot be under-stated. Without support from this organisation it is unlikely that the concept would have become as widely accepted in the region as it in fact has.

of inappropriate fishing gear are significant impediments to more sustainable exploitation of fisheries resources. The concept is also under consideration by members of the Scientific Committee of the Western and Central Pacific Fisheries Commission for use in the management of tuna stocks in the Western Pacific.

A full account of the work of the RWG-F to establish a regional system of fisheries *refugia* aimed at improving the integration of fisheries and habitat considerations is included in the fourth South China Sea Knowledge Document (UNEP, 2007o). An example of the impacts of the fisheries *refugia* at the site level in terms of improving fisheries and habitat management is included in the South China Sea Demonstration Site Brochure Number 2 (UNEP, 2008j). The experience of the project has been also been shared with the broader GEF International Waters community via the GEF International Waters Learning and Exchange Network in an experience note, Paterson, and Pernetta, 2008.

## **10.8 Modelling the Nutrient Carrying Capacity of the South China Sea Basin**

The UNEP/GEF South China Sea Project Document specifies that the Land-based Pollution Component should *evaluate carrying/assimilation capacity of sub-regions and sensitive ecosystems and transboundary movements of contaminants within the South China Sea*. Evaluation of the carrying capacity of an open ecosystem with respect to contaminants can be done in a variety of ways, perhaps the simplest of which is to estimate the 'assimilative' capacity, that is the capacity of the ecosystem to internally absorb or convert some or all of the contaminant through some process, natural or manmade, into forms that have negligible impact on the biological processes of that system and are not exported into neighbouring ecosystems. The ecosystem is said to have a high assimilative capacity if all, or a large fraction, of the contaminant input is removed and the net export to the neighbouring ecosystems is either zero or only a small fraction of the input. The ecosystem is said to have a low or no 'assimilative' capacity if only a small fraction, or none, of the contaminant input is removed within the system and the export of the contaminant to neighbouring ecosystems is equal to, or almost equal to, the input. Some ecosystems may even have a negative 'assimilative' capacity if the export of a contaminant to the neighbouring ecosystems is greater than the total input to the system.

The fifth Meeting of the Regional Working Group on Land-based Pollution agreed to use the ambient concentrations of contaminants in coastal waters as indicators of the input of contaminants derived from riverine sources. Subsequently, the Regional Scientific and Technical Committee (RSTC) endorsed this approach and recommended that SEA START RC of Chulalongkorn University undertake a regional project to estimate the carrying capacity of the open shelf system based on its natural capacity to assimilate contaminants, in particular nutrient inputs from land.

A modelling system was subsequently developed which enabled the estimation of land-based nutrient loading via rivers despite the limited chemical and hydrological data for these rivers. The model enables nutrient loading from particular rivers, stretches of coastline, or catchments to be varied and the distribution of surface chlorophyll in the South China Sea or a sub-region or sub-basin to be simulated for each month of the year. The results, in terms of concentration and horizontal distribution patterns, can be evaluated and the response of the phytoplankton biomass to nutrient input from land can be varied in time and space. The model developed is freely available to anyone; uses US Navy NOGAPS global wind reanalysis to force the POM circulation model; uses the JODC ship drift data to verify surface circulation/current outputs; uses MODIS satellite-based chlorophyll concentration as the frame to calibrate the present monthly nutrient loading from 190+ rivers; and uses national data to verify such loads for some rivers. The modelling system is run entirely in Microsoft Excel and can be accessed by visiting <[http://www.unepscs/nutrient\\_model/](http://www.unepscs/nutrient_model/)>.

The region now has a tool and human resources in each country to model the impacts of nutrient inputs to the South China Sea basin. The model can be run to estimate the monthly 'effective' loading of total nutrient from any catchment, as point or non-point loading, in chlorophyll equivalent units that can be converted to nutrient elements, such as N, using a Chl:nutrient ratio; can simulate the monthly responses of the chlorophyll biomass in any area of the South China Sea (at a resolution  $0.1^\circ \times 0.1^\circ$ ) to different loading scenarios; and can be used to estimate the maximum monthly load of nutrient from any selected catchment to ensure that the chlorophyll-defined biomass remains under a pre-defined limit.

It has been recommended that this regional modelling effort should be continued and linked with other regional programmes such as COBSEA and GPA/LBA; and with development of regional criteria for chlorophyll concentrations in marine waters of the South China Sea. It is anticipated that model improvements, including the linkage between loading and social/economic development in a catchment, will lead to better estimates of loading scenarios for each river, improved treatment of mixing and internal removal kinetics, and use the ambient chlorophyll data or scenario more comprehensively to calculate directly inputs from individual rivers.

A full account of the work of the project to develop this modelling system and its subsequent application and use is included in the five South China Sea Knowledge Document (UNEP, 2007g)

## **10.9 Enhancing Information and Data Flow and Exchange**

The information and data management achievements of the South China Sea project have been well documented in this report and in the sixth South China Sea Knowledge Document (UNEP, 2007n). Amongst these achievements the most innovative was the use of a new technology to enhance global awareness of the projects' interventions. Based on Google's online Geographical Information System (GIS) known as Google Earth, the project created a South China Sea Project layer for inclusion in the Google Earth system. This work of the project was featured in the official Google News and showcased by Google in its *Google Earth Outreach Showcase*.

The layer developed by the project provides Google Earth users with an interactive overview of the regional network of government ministries and departments, research institutes, and universities involved in the implementation of project activities; the project's suite of habitat demonstration sites and pilot activities bordering the South China Sea basin; information and data for 135 mangrove, coral reef, seagrass, and wetlands sites of the South China Sea studied during the project; and links to key information resources and publications available of the project website.

This technology was used by the project to highlight achievements and successes of the project and to bring the world's attention to global environmental problems in the South China Sea region. It used Google Earth as the geographical search engine to provide an in-depth analysis of the South China Sea Project and its' many interventions. A key benefit of the Google Earth platform is that it enables users to get a perspective on the location of project sites, nearby cities, local terrain, and proximity to other projects. The work was highlighted by Google in its official news as "*a great example of how to connect with a wide audience*". It was subsequently used to develop the projects main online GIS to ensure that scientists and local site managers can update that system with new and additional data from their offices as it becomes available – <<http://gis.unepscs.org>>.

The actions of the SCS project to improve ease of access to and general awareness of the SCS website and its databases will contribute to ensuring that existing information resources are used by staff of regional and national organisations concerned with SAP implementation. This is significant as the majority of data and information accessible via the website was used in setting SAP targets and the design of proposed activities, and will act as a baseline in assessing the effectiveness of future interventions. The agreements reached with respect to continued management of the website and databases by COBSEA and SEAFDEC are aimed at ensuring the longer term sustainability and relevance of these important regional information resources.

The objective of this work was to enhance awareness of the SCS website and databases, with the aim of contributing to the longer-term goal of ensuring the continued use of SCS project outputs and information resources. The true significance of the work described in this note could perhaps be best evaluated at regular intervals post project, particularly during the period of SAP implementation, when the use of project information and data can be best measured. A detailed account of the use of Google Earth as a global outreach tool for the project was prepared as a GEF International Waters Experience Note in September 2008 (Paterson, 2008). Connecting GEF Projects with a Global Audience: Outreach Initiatives of the South China Sea Project. GEF International Waters Experience Note, 2008-001.

## 11. SUMMARY OF KEY SUCCESSES, AND FAILURES

Like the GEF itself, the project was operated as a “*networked institution*” with 59 organisations, the Specialised Executing Agencies (SEAs) in the seven countries, and one regional body formally linked by MoUs to UNEP; around 100 institutions sub-contracted by these SEAs; and in excess of 400 institutions involved through individual participation in national and regional level meetings. The network extended horizontally across sectors at the national level and vertically from local governments and civil society groups up to the central government and focal ministries. The national framework was mirrored at the regional level with the PCU serving as the regional co-ordinating node. The management framework of the project, which serves as the skeleton for the network, has been considered by the mid-term evaluation<sup>40</sup>, and two GEF Secretariat operated evaluations<sup>41</sup> **as exemplary and meriting replication in other GEF IW projects**<sup>42</sup>.

In support of the networking, a modern interactive project website has been developed that now receives in excess of 110,000 visits, including approximately 2,100 document down-loads per month, and which is described by the GEF Secretariat as follows: “**as usual you are setting the pace in IW...nice attention to detail, document availability, ease of use, and e-forums**”<sup>43</sup>. This web-site serves as a repository for: the 1800 documents produced by the Project Co-ordinating Unit over the life of the project; as the location for a customised inter-active GIS database of the South China Sea; a dynamic model of nutrient pollution loading in the South China Sea marine basin; and a meta-database containing in excess of 1,428 entries. The meta-database, developed in partnership with SEA START RC and IW-Learn, SEA-RLC is also freely available as a down loadable template for use by other projects.

The day-to-day operation of the network; **the convening of 100 regional meetings in 54 months**; management of all financial matters associated with a budget of 36 million US\$; and due diligence oversight of 59 operational Memoranda of Understanding; placed a heavy burden on the 8 staff of the PCU, which over the first 4 years, had 33% fewer staff months than originally planned. Financial management systems developed by the PCU include a tracking mechanism for in-kind co-financing considered by, the **GEF Secretariat review team as meriting further evaluation for wider use**.

The regional meetings have been extremely valuable in the development of a common regional perspective and in the **formation of an epistemic community of scientists and managers** with a common regional perception of marine environmental problems and potential solutions. The interactions of this community with political decision makers has been strengthened by: the convening of all regional meetings at the demonstration sites; the convening of three regional scientific conferences with 120, 180 and 150 participants; and three Mayors’ Roundtables. During these events scientists, and operational level managers have interacted with political decision makers from the central, provincial and local, government levels.

At the national level over 70 reviews of the state of significant coastal habitats, over fishing and land-based pollution have been published in national languages and the texts in English have been consolidated into regional publications. Based in part on these reviews, in excess of 160 coastal locations have been characterised with respect to their biological diversity, national, regional and global significance using a regionally developed and agreed set of criteria. **From these 160 locations 11 demonstration sites were selected in an objective and politically unbiased manner** using a scientifically based, regionally agreed approach, involving cluster analysis and ranking based on agreed criteria. These are now operational and co-financing from municipal, local and provincial government levels greatly exceeds the original estimates at the time of project approval.

Some **39 sectorial National Action Plans have been developed**, as the basis for the elaboration of the regional Strategic Action Programme (SAP), the final text of which was approved by the 8<sup>th</sup> and final meeting of the Project Steering Committee in August 2008. The SAP was built on the work of the

<sup>40</sup> Bewers, J.M. & Su Jilan, “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” UNEP, Nairobi, July 2004.

<sup>41</sup> The Specially Managed Project Review and the International Waters Portfolio Review conducted in 2004

<sup>42</sup> Managing Multi-lateral, Inter-governmental Projects and Programmes, the case of the UNEP/GEF Project entitled: Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand

<sup>43</sup> Al Duda, e-mail dated 13<sup>th</sup> September 2006

four habitat sub-components, together with that of the fisheries and Land-based Pollution components. In the latter component: national reviews and a regional overview of pollution hotspots have been completed; together with agreement at the technical level regarding water quality standards and their application in prioritising hotspots at a regional level; and the implementation of two pilot activities addressing innovative ways of addressing sewage pollution. Implementation of the NAPs in support of the SAP targets is already underway in all countries.

The project, in partnership with FAO and SEAFDEC, (particularly the latter organisation) has developed and promoted the concept of fisheries *refugia* culminating in the publication of regional guidelines for their establishment as part of the ASEAN/SEAFDEC regional guidelines for implementing the FAO “Code of Conduct for Responsible Fisheries”. ***This concept represents a highly innovative approach to addressing the problems of over-fishing*** and getting fisheries and environmental managers to jointly evaluate mechanisms for maintaining fish stocks in areas where the predominant fishing effort is from the small-scale sector. The *refugia* concept and approach developed over the last 18 months in the South China Sea Project has been adopted and applied in two countries to date and merits more detailed evaluation and application elsewhere in the framework of UNEPs’ regional seas programme.

The Regional Task Force on Economic Valuation has completed specific technical guidelines for the determination of the economic values of habitat goods and services; assembled a regional database of empirical economic values; and developed “***regional total economic values***” for specific habitats. The purpose of this activity was to complete the cost benefit analysis of actions outlined in the Strategic Action Programme as a mechanism for justifying regional actions in addressing the problems of marine and coastal environments.

Two significant contributions to achieving project success were contributed by the Regional Task Force on Legal Matters. The first was the ***development of proposed mechanisms for implementation of the SAP under the umbrella of COBSEA*** and the second was the commissioning of the review of regional seas governance mechanisms including instruments and institutional arrangements and an evaluation of their applicability to the South China Sea. This provides a solid basis for consideration of more formal, long-lasting arrangements for regional co-operation in the management of the South China Sea.

Perhaps the biggest failure lay in the ***serious under-staffing of the PCU*** which compromised its ability to respond in a timely manner to requests for assistance from the network members and did not permit sufficient investment of time in the development of the MSPs. Cutting the staff to three professionals for the final year in line with a perceived decline in activities was mistaken since external delays on the part of non-project entities meant that meetings were delayed and additional meetings had to be inserted into the calendar at short notice.

## **12. PROPOSED MECHANISMS FOR SAP IMPLEMENTATION**

### **12.1 SAP implementation project**

Discussions regarding the implementation of the SAP commenced in 2007 and were based on the assumption that funds for an implementation unit to replace the SCS/PCU would not be readily available from government sources. Initial ideas concerning the possibility of further GEF support were somewhat muted given the perception that the GEF would insist on the inclusion of a negotiation component leading to the adoption of a legally binding instrument as has been done elsewhere. Subsequent correspondence between the Project Director and the Senior Advisor for International waters in the GEF Secretariat resulted in agreement that a SAP implementation project could be supported provided that it contained a negotiation component that resulted in the adoption of more formal long-lasting arrangements for the joint management of the marine environment of the South China Sea.

The development of a GEF proposed project to implement the Strategic Action Programme commenced in 2008 culminating in an agreed text and budget during the last Regional Scientific and Technical Committee meeting in December 2008. This incorporates the operational mechanisms discussed and agreed by the Regional Task Force on Legal matters and subsequently approved by UNEP Senior Management for consideration by COBSEA. These mechanisms include the establishment of a SAP Implementation Committee (SAP-IC) as a permanent sub-committee of

COBSEA composed of representatives from the countries bordering the South China Sea that would meet annually not merely to direct the work of the project but with the broader mandate to oversee SAP implementation. SAP implementation would be supported by a SAP Implementation Unit located in the COBSEA Secretariat that would also serve as the Secretariat for the SAP-IC.

The total costs of the proposed project are \$13.6 million US in GEF grant funds; \$18.2 million US in cash co-financing from the governments and \$10.4 million US in in-kind co-financing by the governments for a grand total of \$42.2 million US dollars. Activities are designed to support national level interventions through the provision of technical assistance via regional training courses, regional and sub-regional working meetings, management of regional exchanges of data, information and experiences, and the compilation and publication of various guidelines and methods for application throughout the region. It is anticipated that the Government Cash co-financing will be invested at the site level in improving management of the priority sites listed in the Strategic Action programme. The in-kind co-financing is estimated using a coefficient of \$95 per person per day derived from the average of the median salary taken from the current salary scales of the seven participating countries to which 25% has been added as representing the costs of non-salary benefits, office space and support costs such as communication and offices supplies. This represents a modest increase from the coefficient of \$70 per person per day used in 1998 to estimate in-kind co-financing of the present project.

This project addresses the habitat, land-based pollution and regional co-ordination components of the SAP the latter including the continuation of the work of the Regional task Force on Economic Valuation. It is anticipated that as a means to meet the condition of the GEF Secretariat that the SAP Implementation project contain a component that will result in more formal, long-lasting arrangements for regional co-ordination of the management of the environment of the South China Sea, the Legal Task Force will work with relevant ministries in each country, including the Ministry of Foreign Affairs to secure agreement on such mechanisms.

## **12.2 The Fisheries *Refugia* Project**

Recognising that, the fisheries component would be more contentious than the remainder of the SAP, both with the countries participating in the SCS Project, and with the remaining members<sup>44</sup> of COBSEA, it was decided that the fisheries component of the SAP would be elaborated in a separate GEF project proposal encompassing only five countries. The Regional Working Group on Fisheries (RWG-F) drafted a Project Identification Form (PIF) for a GEF project entitled "*Establishment and Operation of a Regional System of Fisheries Refugia in the South China Sea and Gulf of Thailand*" in July 2007, which was reviewed by the DGEF and discussed further and revised during the 10<sup>th</sup> meeting of the RWG-F (UNEP, 2008d).

The fisheries *refugia* initiative is recognised by both SEAFDEC and FAO as an important regional activity focused on improving fish stocks and their habitats, and the RWG-F noted that the inclusion of SEAFDEC as the Executing Agency would likely lead to greater political support and enhanced mainstreaming of fisheries habitat and ecosystem considerations in broader fisheries management initiatives in the region. The fisheries *refugia* concept had in part been developed in response to the failures of past attempts to reduce excessive capacity and fishing effort in Southeast Asia, and the resultant over-exploitation of many fish stocks.

The PIF has been finalised and to date a number of countries have sent letters of endorsement and financial commitment to the DGEF. It is anticipated that SEAFDEC through their national focal points will be able to facilitate the securing of the outstanding endorsements and commitment letters and subsequently they will act as the regional executing agency with UNEP serving as the Implementing Agency for the project.

## **12.3 SCS Small Grants Programme**

As noted elsewhere in this report a partnership was established between the SCS Project and the small grants programme of the GEF through which funds were channelled to community based organisations in identified priority sites listed in the SAP. Whilst it is anticipated that all funds will be

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<sup>44</sup> Australia has already expressed the view that COBSEA should not be involved in fisheries related matters.

committed before the end of September 2009 activities are likely to continue beyond that and every effort should be made to ensure that these activities are linked to the SAP Implementation process through the future Mayor's Round Table and NGO Forum meetings. In addition since the small grants programme is an on-going programme of the GEF it is likely that there will be future interventions at the community level which should be harnessed in implementing the SAP.

#### **12.4 Identification of national priority projects**

As reviewed by the eighth meeting of the Regional Scientific and Technical Committee in December 2007, (UNEP, 2008p) the regional actions of the SAP largely aim to provide service functions to management actions at the national and local levels (see paragraph 12.3.2 of UNEP, 2008p). The proposed national and site level actions designed to meet the targets for the habitat components include *inter alia*: the establishment of new areas under protection; improvement to existing habitat management; development of innovative management models for habitat management and the dissemination of experiences and lessons learned; improvement of ecological monitoring systems; and cooperation between local governments and experts in management plan development (see paragraph 12.3.3 of UNEP, 2008p).

The 7th meeting of the PSC noted that the targets of the SAP would not be met through implementing just the SAP alone. To achieve the targets stated in the SAP actions at the national level were required and these had been detailed in the NAPs. It noted further that the process of SAP and NAP development had been an iterative one with developments at the national level (the NAPs) feeding into the regional level (the SAP). Priority sites for intervention at the national level had been identified during the process of selecting demonstration sites within the context of the South China Sea project and these had subsequently been incorporated into the NAPs and SAPs (paragraph 8.4 of UNEP, 2008r).

During 2008 a series of national consultations were held in each country in order to identify national level priorities for intervention in the context of national implementation of the SAP. These proposals were reviewed *in extension* by the PCU and regional experts and recommendations regarding their further development were provided to the proponents. A total of 28 concept papers were received by the PCU, and 26 have been reviewed and edited. The PCU rejected one concept paper submitted from Indonesia as it did not follow the required template and provided insufficient information for it to be edited by PCU staff. Another from Viet Nam regarding the assessment of land-based pollution laws was also rejected as this activity had been conducted by the Regional Task Force on Legal Matters in the framework of the South China Sea Project.

Only 6 of the total 26 concept papers align closely with the SAP targets, and be suitable for delivery to the donors forum following minor revision. Five proposals were partly or indirectly related to the SAP targets and could be re-written to improve their fit with the SAP. It was recommended that 4 of the proposed projects should be executed as national activities in the context of any SAP implementation project and that 3 of the proposals should be included as regional actions in the SAP implementation project. Two proposals regarding fisheries could be included as part of the proposed GEF fisheries *refugia* project. Six concept papers did not relate to the SAP targets and/or were developed based on bad science.

PCU staff revised and commented on all 26 concept papers and these were returned in track change mode to the concerned Focal Points and National Technical Focal Points for revision or re-writing. Following initial revisions further revision was undertaken during a technical workshop that preceded a donors forum convened at the invitation of the Senior Minister for Environment in Cambodia, at which ten concepts were presented which are attached in Annex ### of this report. These provide a basis for the COBSEA Secretariat to approach potential partners and donors with a view to soliciting support for their further development and implementation as national actions in support of SAP Implementation.

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- UNEP. 2004h. Coral Reefs in the South China Sea. UNEP/GEF/SCS Technical Publication No. 2.
- UNEP. 2004i. Seagrass in the South China Sea. UNEP/GEF/SCS Technical Publication No. 3.
- UNEP. 2004j. Wetlands Bordering the South China Sea. UNEP/GEF/SCS Technical Publication No. 4.
- UNEP, 2004k. Fourth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.4/3. 48pps. UNEP, Bangkok, Thailand.
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- UNEP, 2005b. Fifth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RSTC.5/3. 68pps. UNEP, Bangkok, Thailand.
- UNEP, 2005c. Fifth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.5/3. 48pps. UNEP, Bangkok, Thailand.
- UNEP, 2005d. Fifth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-SG.5/3. 32pps. UNEP, Bangkok, Thailand.
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- UNEP, 2006g. Sixth Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”. Report of the meeting, UNEP/GEF/SCS/RWG-W.6/3. 92pps. UNEP, Bangkok, Thailand.
- UNEP, 2006h. Sixth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”. Report of the meeting, UNEP/GEF/SCS/RWG-SG.6/3. 80pps. UNEP, Bangkok, Thailand.
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- UNEP, 2007a. Procedure for Selection of Demonstration Sites in the context of the UNEP/GEF Project Entitled: “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”. South China Sea Knowledge Document No. 2. UNEP/GEF/SCS/Inf.2
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- UNEP, 2008i. Integration of Traditional Wisdom and Practices in the Development and Implementation of a Coral Reef management Plan and Legislation-Belitung. UNEP/GEF/SCS Brochure No.2
- UNEP, 2008j. Fisheries *Refugia* as a Tool for Integrated Fisheries and Habitat Management at Phu Quoc Archipelago, Viet Nam. UNEP/GEF/SCS Brochure No.3
- UNEP, 2008k. Network of Small-Scale Sanctuaries in Masinloc, Philippines. UNEP/GEF/SCS Brochure No.4
- UNEP, 2008l. Sustainable Tourism based on Coral Reefs at Mu Koh Chang Island. UNEP/GEF/SCS Brochure No.5
- UNEP, 2008m. Rehabilitation of Habitats and Sustainable Use of Fisheries Resources in the Con Chim Area, Thi Nai Lagoon, Viet Nam. UNEP/GEF/SCS Brochure No.6
- UNEP, 2008n. Community Involvement, Public Awareness and Education for Mangrove Conservation and Restoration on Trat Province, Thailand. UNEP/GEF/SCS Brochure No.7
- UNEP, 2008o. Transboundary Water Management Between Kampot Province (Cambodia) and Kien Giang Province (Viet Nam) – Importance of Coastal Ecosystems and Resources in the Transboundary Waters of Kampot and Kien Giang Provinces. UNEP/GEF/SCS Brochure No.9
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Chronology of Project development, appraisal and initiation of activities.

<b>Project Development (PDF-B) Phase</b>	
<b>Date</b>	<b>Milestone</b>
1996 - July	Regional expert meeting requests UNEP/GEF assistance to prepare a GEF Project
1996 - October	12 <sup>th</sup> Intergovernmental Meeting of COBSEA approves the PDF-B
1996 - October	GEF Secretariat approves the PDF-B proposal
1997 - January - March	Inter-ministry committees formed in participating countries; National Co-ordinators designated by Ministries of Environment and Contracts signed with UNEP.
1997 - April	First meeting of National Co-ordinators, Bangkok Thailand 31 <sup>st</sup> March - 4 <sup>th</sup> April
1997 - 1998	Visits of regional consultants & EAS staff to countries, preparation of draft national reports
1998 - June	Second meeting of National Co-ordinators, Bangkok Thailand 23 <sup>rd</sup> - 29 <sup>th</sup> June to review draft national reports prepare the outline of the TDA and Framework SAP
1998	National Reports expanded & amended; TDA drafted; Framework SAP prepared.
1998 - November	Second meeting of National Co-ordinators, Bangkok Thailand 15 <sup>th</sup> to 17 <sup>th</sup> November to review and endorse the draft TDA, SAP and Project brief.
1998 - November	13 <sup>th</sup> Intergovernmental meeting of COBSEA endorsed the Framework SAP as a working document to be further elaborated during the full project
1998 December - February 1999	Project brief elaborated and submitted to the GEF Secretariat for inclusion in the Work Programme. Brief endorsed by six countries.
1999 - April	Initiation of bilateral negotiations between UNEP and participating governments
2000 - July	Finalisation of negotiations revised draft project brief prepared & submitted to Governments
2000 - September	15 <sup>th</sup> Intergovernmental meeting of COBSEA endorsed revised project brief
2000 - December	GEF Council adopts the work programme containing the Project
<b>Appraisal Phase</b>	
2001 - February	EAS hires regional consultant and commences round of discussions with participating Governments
2001 - March	UNEP/GEF drafts management framework, MoUs and TOR for Committees and working groups
2001 March to October	Finalisation of elements of the project brief and amendment of MoUs
2001 October	1 <sup>st</sup> Meeting of the Project Steering Committee to clear and approve elements of the UNEP/GEF operational Project Document
2001 - Oct./Dec	Finalisation of signatures to the MoUs for 6 participating countries
2001 - December	Submission of the full project Brief to the CEO of the GEF for final clearance
2001 - December	12 <sup>th</sup> GEF/CEO clearance received by UNEP
2002 - January	21 <sup>st</sup> Chief BFMS, Nairobi signs the Project Document and MoU's on behalf of UNEP.

## LIST OF MEETINGS CONVENED IN THE FRAMEWORK OF THE UNEP/GEF SOUTH CHINA SEA PROJECT

### 2002 Meetings

1. First Meeting of the Regional Scientific & Technical Committee for the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 14 - 16 March 2002, Pattaya, Thailand.
2. First Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 3 - 5 April 2002, Bangkok, Thailand.
3. First Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 24 - 26 April 2002, Phuket, Thailand.
4. First Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 29 April - 1 May 2002, Phuket, Thailand.
5. First Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 6 - 8 May 2002, Bangkok, Thailand.
6. First Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 9 - 11 May 2002, Bangkok, Thailand.
7. First Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 20 - 22 May 2002, Bangkok, Thailand.
8. UNEP/GEF/SCS and SEA START RC, GIS Workshop in support of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 7 - 9 August 2002, Bangkok, Thailand.
9. Second Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 4 - 7 September 2002, Shenzhen, China.
10. Second Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 10 - 13 September 2002, Ho Chi Minh City, Viet Nam.
11. Second Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 18 - 21 September 2002, Batam, Indonesia.
12. Second Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 7 - 11 October 2002, Phuket, Thailand.
13. Second Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 23 - 26 October 2002, Sihanoukville, Cambodia.
14. Second Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 28 - 31 October 2002, Hue, Viet Nam.
15. Second Meeting of the Regional Scientific & Technical Committee for the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 11 - 13 December 2002, Nha Trang, Viet Nam.
16. Second Meeting of the Project Steering Committee for the UNEP/GEF Project "Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand", 16 - 18<sup>th</sup> December 2002, Ha Noi, Viet Nam.

### 2003 Meetings

1. Third Meeting of the Regional Working Group for the Mangrove Sub-component, 3<sup>rd</sup> - 6<sup>th</sup> March 2003, Bali, Indonesia.
2. Third Meeting of the Regional Working Group for the Wetlands Sub-component, 4<sup>th</sup> - 7<sup>th</sup> March 2003, Bali, Indonesia.
3. Third Meeting of the Regional Working Group for the Coral Reef Sub-component, 24<sup>th</sup> - 27<sup>th</sup> March 2003, Kota Kinabalu, Malaysia.
4. Third Meeting of the Regional Working Group for the Seagrass Sub-component, 25<sup>th</sup> - 28<sup>th</sup> March 2003, Kota Kinabalu, Malaysia.
5. Third Meeting of the Regional Working Group for the Fisheries Component, 29<sup>th</sup> April - 2<sup>nd</sup> May 2003, Siem Reap, Cambodia.
6. Third Meeting of the Regional Scientific and Technical Committee, 16<sup>th</sup> - 18<sup>th</sup> June 2003, Phuket, Thailand.
7. Third Meeting of the Regional Working Group for the Land-based Pollution Component, 7<sup>th</sup> - 10<sup>th</sup> July 2003, Phuket, Thailand.
8. First Meeting of the Regional Task Force on Economic Valuation, 11<sup>th</sup> - 13<sup>th</sup> September 2003, Phuket, Thailand.
9. First Meeting of the Regional Task Force on Legal Matters, 15<sup>th</sup> - 17<sup>th</sup> September 2003, Phuket, Thailand.
10. Fourth Meeting of the Regional Working Group for the Mangrove Sub-component, 14<sup>th</sup> - 17<sup>th</sup> October 2003, Beihai, China.
11. Fourth Meeting of the Regional Working Group for the Coral Reefs Sub-component, 27<sup>th</sup> - 30<sup>th</sup> November 2003, Guangzhou, China.
12. Fourth Meeting of the Regional Working Group for the Seagrass Sub-component, 29<sup>th</sup> November - 2<sup>nd</sup> December, 2003, Guangzhou, China.
13. Fourth Meeting of the Regional Working Group for the Wetlands Sub-component, 15<sup>th</sup> - 18<sup>th</sup> December 2003, Kuala Lumpur, Malaysia.

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### **2004 Meetings**

1. First Regional Scientific Conference, 11<sup>th</sup> – 13<sup>th</sup> February 2004, Bangkok, Thailand.
2. Fourth Meeting of the Regional Scientific and Technical Committee, 15<sup>th</sup> – 17<sup>th</sup> February 2004, Pattaya, Thailand.
3. Third Meeting of the Project Steering Committee, 25<sup>th</sup> – 27<sup>th</sup> February 2004, Manila, Philippines.
4. Informal Consultation on Transboundary Demonstration Sites, 17<sup>th</sup> – 19<sup>th</sup> March 2004, Phuket, Thailand.
5. Fourth Meeting of the Regional Working Group for the Land-based Pollution Component, 30<sup>th</sup> March – 2<sup>nd</sup> April 2004, Guangzhou, China.
6. Fourth Meeting of the Regional Working Group for the Fisheries Component, 26<sup>th</sup> – 29<sup>th</sup> April 2004, Manila, Philippines.
7. Second Meeting of the Regional Task Force on Legal Matters, 3<sup>rd</sup> – 6<sup>th</sup> May 2004, Phu Quoc Island, Viet Nam.
8. First Executive Committee of the Regional Scientific and Technical Committee, 19<sup>th</sup> – 20<sup>th</sup> May 2004, Bangkok, Thailand.
9. Second Meeting of the Regional Task Force on Economic Valuation, 31<sup>st</sup> May – 2<sup>nd</sup> June 2004, Siem Reap, Cambodia.
10. Fifth Meeting of the Regional Working Group for the Seagrass Sub-component, 24<sup>th</sup> – 27<sup>th</sup> August 2004, Bintan, Indonesia.
11. Fifth Meeting of the Regional Working Group for the Coral Reef Sub-component, 13<sup>th</sup> – 16<sup>th</sup> September 2004, Koh Chang, Thailand.
12. Fifth Meeting of the Regional Working Group for the Mangrove Sub-component, 27<sup>th</sup> – 30<sup>th</sup> September 2004, Trat Province, Thailand.
13. Fifth Meeting of the Regional Working Group for the Wetlands Sub-component, 5<sup>th</sup> – 8<sup>th</sup> October 2004, Ha Long City, Viet Nam.
14. Fifth Meeting of the Regional Working Group for the Fisheries Component, 11<sup>th</sup> – 14<sup>th</sup> October 2004, Phu Quoc Island, Viet Nam.
15. Fifth Meeting of the Regional Working Group for the Land-based Pollution Component, 24<sup>th</sup> – 27 November 2004, Shenzhen, China.
16. Fifth Meeting of the Regional Scientific and Technical Committee, 9<sup>th</sup> – 11<sup>th</sup> December 2004, Fangchenggang, China.
17. Fourth Meeting of the Project Steering Committee, 13<sup>th</sup> – 15<sup>th</sup> December 2004, Guilin, China.

### **2005 Meetings**

1. Second Executive Committee of the Regional Scientific and Technical Committee, 21<sup>st</sup> – 22<sup>nd</sup> February 2005, Bangkok, Thailand.
2. Third Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 28<sup>th</sup> February – 3<sup>rd</sup> March 2005, Alangapo City, Philippines.
3. Third Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 18<sup>th</sup> – 21<sup>st</sup> April 2005, Fangchenggang, China.
4. Sixth Meeting of the Regional Working Group for the Land-based Pollution Component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 18<sup>th</sup> – 21<sup>st</sup> July 2005, Ninh Hai, Viet Nam.
5. Sixth Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 1<sup>st</sup> – 5<sup>th</sup> August 2005, Busuanga, Philippines.
6. Sixth Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 22<sup>nd</sup> – 25<sup>th</sup> August 2005, Masinloc, Philippines.
7. Sixth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 5<sup>th</sup> – 8<sup>th</sup> September 2005, Sabah, Malaysia.
8. Sixth Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 12<sup>th</sup> – 15<sup>th</sup> September 2005, Sihanoukville, Cambodia.
9. Sixth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 27<sup>th</sup> – 30<sup>th</sup> September 2005, Bolinao, Philippines.
10. Second Regional Scientific Conference UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 13<sup>th</sup> – 16<sup>th</sup> November 2005, Bangkok, Thailand.
11. Sixth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 8<sup>th</sup> – 10<sup>th</sup> December 2005, Batam, Indonesia.
12. Fifth Meeting of the Project Steering Committee for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”, 12<sup>th</sup> – 14<sup>th</sup> December 2005, Batam, Indonesia.

## **Terminal Report of the UNEP/GEF South China Sea Project**

### **2006 Meetings**

1. First Sub-Committee of the Regional Scientific and Technical Committee Meeting, 6<sup>th</sup> – 10<sup>th</sup> February 2006, Bangkok, Thailand.
2. Fourth Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 27<sup>th</sup> – 30<sup>th</sup> March 2006, Xuan Thuy National Park, Nam Dinh Province, Viet Nam.
3. Fourth Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 24<sup>th</sup> – 27<sup>th</sup> April 2006, Shantau, China.
4. Seventh Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 16<sup>th</sup> – 18<sup>th</sup> May 2006, Bangkok, Thailand.
5. The First Joint Meeting between the Management Teams of the Kampot and Phu Quoc Demonstration Sites for the UNEP/GEF Project: “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 29<sup>th</sup> – 31<sup>st</sup> May 2006, Phu Quoc, Kien Giang Province, Viet Nam.
6. The First Joint Meeting between the Management Teams of the Peam Krasop Wildlife Sanctuary (PKWS) and Trat Demonstration Sites for the UNEP/GEF Project: “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 3<sup>rd</sup>– 5<sup>th</sup> July 2006, Trat Province, Thailand.
7. Second Roundtable for Mayor’s Forum, 6<sup>th</sup> – 8<sup>th</sup> June 2006, Beihai, China.
8. Seventh Meeting of the Regional Working Group for the Wetlands Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 19<sup>th</sup> – 21<sup>st</sup> June 2006, Manila, Philippines.
9. Seventh Meeting of the Regional Working Group for the Coral Reefs Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 10<sup>th</sup> – 13<sup>th</sup> July 2006, Kudat, Malaysia.
10. Seventh Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 24<sup>th</sup> – 27<sup>th</sup> July 2006, Beihai, China.
11. Seventh Meeting of the Regional Working Group for the Land-based Pollution Component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 7<sup>th</sup> – 10<sup>th</sup> August 2006, Sihanouk Ville, Cambodia.
12. Fifth Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 21<sup>st</sup> – 24<sup>th</sup> August 2006, Kota Kinabaru, Malaysia.
13. Seventh Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 4<sup>th</sup> – 8<sup>th</sup> September 2006, Pontianak, Batu Ampar, Indonesia.
14. Fifth Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 18<sup>th</sup> – 21<sup>st</sup> September 2006, Batam, Indonesia.
15. Eighth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 30<sup>th</sup> October – 2<sup>nd</sup> November 2006, Belitung, Indonesia.
16. Seventh Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 14<sup>th</sup> – 17<sup>th</sup> November 2006, Siem Reap, Cambodia.
17. Sixth Meeting of the Project Steering Committee for the UNEP/GEF Project “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*”, 20<sup>th</sup> – 22<sup>nd</sup> November 2006, Siem Reap, Cambodia.

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### **2007 Meetings**

1. Sixth Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 22<sup>nd</sup> – 25<sup>th</sup> January 2007, Batam, Indonesia.
2. Seventh Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 12<sup>th</sup> – 15<sup>th</sup> March 2007, Beihai, China.
3. Eighth Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 19<sup>th</sup> – 22<sup>nd</sup> April 2007, Koh Kong, Cambodia.
4. Eighth Meeting of the Regional Working Group for the Wetlands Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 7<sup>th</sup> – 10<sup>th</sup> May 2007, Shantou, China.
5. Eighth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 21<sup>st</sup> – 24<sup>th</sup> May 2007, Sihanoukville, Cambodia.
6. The Second Joint Meeting between the Management Teams of the Kampot and Phu Quoc Demonstration Sites for the UNEP/GEF Project: *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 26<sup>th</sup> – 28<sup>th</sup> May 2007, Kampot, Cambodia.
7. Eighth Meeting of the Regional Working Group for the Coral Reefs Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 4<sup>th</sup> – 7<sup>th</sup> June 2007, Phu Quoc, Viet Nam.
8. Sixth Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 26<sup>th</sup> – 28<sup>th</sup> June 2007, Sihanoukville, Cambodia.
9. Ninth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 10<sup>th</sup> – 13<sup>th</sup> July 2007, Phu Quoc, Viet Nam.
10. Eighth Meeting of the Regional Working Group for the Land-based Pollution Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 6<sup>th</sup> – 9<sup>th</sup> August 2006, Masinloc, Philippines.
11. The Second Joint Meeting between the Management Teams of the Peam Krasop Wildlife Sanctuary (PKWS) and Trat Demonstration Sites for the UNEP/GEF Project: *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 21<sup>st</sup> – 23<sup>rd</sup> August 2007, Koh Kong Province, Cambodia.
12. Third Mayor's Roundtable for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 26<sup>th</sup> – 27<sup>th</sup> November 2007, Bangkok, Thailand.
13. Third Regional Scientific Conference for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 28<sup>th</sup> – 30<sup>th</sup> November 2007, Thailand.
14. Eighth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 11<sup>th</sup> – 14<sup>th</sup> December 2007, Thailand.
15. Seventh Meeting of the Project Steering Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 17<sup>th</sup> – 19<sup>th</sup> December 2007, Thailand.

### **2008 Meetings**

1. The Third Joint Meeting between the Management Teams of the Peam Krasop Wildlife Sanctuary (PKWS) and Trat Demonstration Sites for the UNEP/GEF Project: *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 18<sup>th</sup> – 20<sup>th</sup> February 2008, Trat Province, Thailand.
2. The Third Joint Meeting between the Management Teams of the Kampot and Phu Quoc Demonstration Sites for the UNEP/GEF Project: *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 28<sup>th</sup> February – 1<sup>st</sup> March 2008, Phu Quoc, Kien Giang Province, Viet Nam.
3. Ad Hoc Meeting Regional Working Group on Fisheries, 21<sup>st</sup> – 22<sup>nd</sup> February 2008, UNEP Bangkok, Thailand.
4. Ninth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 3<sup>rd</sup> – 5<sup>th</sup> March 2008, Phu Quoc, Viet Nam.
5. Eighth Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 10<sup>th</sup> – 13<sup>th</sup> March 2008, Busuanga, Palawan, Philippines.
6. Ninth Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 2<sup>nd</sup> – 4<sup>th</sup> April 2008, Beihai, China.
7. Ninth Meeting of the Regional Working Group for the Coral Reefs Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 22<sup>nd</sup> – 24<sup>th</sup> April 2008, Belitung, Indonesia.
8. Ninth Meeting of the Regional Working Group for the Wetlands Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 6<sup>th</sup> – 8<sup>th</sup> May 2008, Taytay, Philippines.
9. Seventh Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 12<sup>th</sup> – 14<sup>th</sup> May 2008, Nha Trang, Viet Nam.
10. Tenth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 2<sup>nd</sup> – 5<sup>th</sup> June 2008, Busuanga, Philippines.
11. Ninth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 20<sup>th</sup> – 22<sup>nd</sup> August 2008, Hue, Viet Nam.
12. Eighth Meeting of the Project Steering Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 25<sup>th</sup> – 26<sup>th</sup> August 2008, Hanoi, Viet Nam.
13. Technical Workshop for Implementing the Strategic Action Programme for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 13<sup>th</sup> – 14<sup>th</sup> October 2008, Siem Reap, Cambodia.
14. Partnership Forum for Implementing the Strategic Action Programme for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 16<sup>th</sup> -17<sup>th</sup> October 2008, Siem Reap, Cambodia.
15. NGOs Forum, 1<sup>st</sup> December 2008, Nha Trang, Viet Nam.
16. Fourth Mayor's Round-Table, 2<sup>nd</sup> – 5<sup>th</sup> December 2008, Nha Trang, Viet Nam.
17. Tenth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, 17<sup>th</sup> – 19<sup>th</sup> December 2008, Pattaya, Thailand.

**PARTICIPANTS IN MEETINGS CONVENED BETWEEN  
FEBRUARY 2002 AND DECEMBER 31<sup>st</sup> 2008**

**First Meeting of the Regional Scientific & Technical Committee for the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Pattaya, Thailand, 14 - 16 March 2002**

1. Mr. Koch Savath, Deputy Director General of Technical Affair, Ministry of Environment, Cambodia.
2. Mr. Huang Zhengguang, Senior Engineer South China Institute of Environmental Sciences, SEPA, China.
3. Dr. Ir. Sri Hartiningsih, Senior Staff, Ministry of Environment, Indonesia.
4. Mr. Ruslan Mohamad (Alternate), Principal Assistant Director, Department of Environment MOSTE Malaysia.
5. Dr. Porfirio Aliño (Alternate), Marine Science Institute, University of the Philippines.
6. Dr. Nawarat Krairapanond (Alternate), Chief, Coastal and Marine Resources Group, Natural Resources and Environmental Management Coordination Division, OEPP, Thailand.
7. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Nha Trang, Viet Nam.
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand.
9. Dr. Annadel Cabanban, Borneo Marine Research Institute, Universiti Malaysia Sabah, Malaysia.
10. Professor Loke Ming Chou, Department of Biological Sciences, National University of Singapore.
11. Prof. Dr. Pham Van Ninh, Director, Centre for Marine Environment (CMERSC) Hanoi, Viet Nam.
12. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia.
13. Mr. Dibyo Sartono, Programme Director, Wetland International Asia Pacific Indonesia Programme, Bogor, Indonesia.
14. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
15. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE) Hanoi University of Education Hanoi, Viet Nam.
16. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University Bangkok, Thailand.
17. Dr. John Pernetta, Project Director, UNEP/GEF SCS, Project Co-ordinating Unit

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**First Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Bangkok, Thailand 3 - 5 April 2002**

1. Mr. Pak Sokharavuth, Chief Department of Pollution Control, Ministry of Environment, Cambodia.
2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA, China.
3. Mr. Sudariyono, Assistant to the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment, Indonesia.
4. Mr. Mohamad Bin Jaafar, Principal Assistant Director, Department of Environment, Malaysia.
5. Mr. Vicente R. Diaz, Environmental Management Bureau (EMB), DENR, Philippines.
6. Dr. Pornsook Chongprasith, Chief, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey, Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand.
9. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
10. Mr. Ekachai Praekulvanich, Environmental Scientist, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
11. Ms. Sirimati Nimmanheminda, Environmental Scientist, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
12. Ms. Pattamaporn Sangwichit, Environmental Scientist, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
13. Mr. Yihang Jiang, Senior Expert, UNEP/GEF SCS, Project Co-ordinating Unit.

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**First Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Phuket, Thailand, 24 - 26 April 2002**

1. Mr. Ke Vongwattana, Assistant, Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
  2. Dr. Chen Guizhu, Professor, Institute of Environmental Sciences, Zhongshan University, China.
  3. Mr. Dibyo Sartono, Programme Director, Wetland International Asia Pacific Indonesia Programme, Indonesia.
  4. Mr. Sivanessam Pillai, Conservation and Environmental Management Division, Ministry of Science, Technology and the Environment, Malaysia.
  5. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, Philippines.
  6. Mr. Narong Veeravaitaya, Lecturer, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand.
  7. Dr. Mai Trong Nhuan, Professor, Vice-President, Viet Nam National University, Hanoi, Viet Nam.
  8. Dr. Annadel Cabanban, Expert, UNEP/GEF SCS, Project Co-ordinating Unit
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**First Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project  
"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"  
Phuket, Thailand, 29 April - 1 May 2002**

1. Mr. Ke Vongwattana, Assistant, Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, China.
3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove, (Institute of Mangrove Research & Development), Indonesia.
4. Mr. Florendo Barangan, Executive Director, Coastal and Marine Management Office, Department of Environment and Natural Resources (CMMO-DENR), Philippines.
5. Dr. Sonjai Havanond, Director, Mangrove Other Wetlands Management Division, Royal Forest Department, Thailand.
6. Dr. Do Dinh Sam, Professor, Director General, Forest Science Institute of Viet Nam.
7. Professor Dr. Sanit Aksornkoae, Department of Silviculture Faculty of Forestry, Kasetsart University, Thailand.
8. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia.
9. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam.
10. Dr. John Pernetta, Project Director, UNEP/GEF SCS, Project Co-ordinating Unit.

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**First Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project  
"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"  
Bangkok, Thailand, 6 - 8 May 2002**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Mr. Xiaoping Huang, Professor, South China Sea Institute of Oceanology, Chinese Academy of Sciences, China.
3. Mr. Tri Edi Kuriandewa, Puslit OSEANOGRafi, LIPI, Indonesia.
4. Mr. Kamaruddin Bin Ibrahim, Head, Department of Fisheries Malaysia, Turtle and Marine Ecosystem Center (TUMEC), Malaysia.
5. Dr. Miguel Fortes, Professor, Marine Science Institute, University of the Philippines (MSI/UP), Philippines.
6. Dr. Suvaluck Satumanatpan, Assistant Professor, Faculty of Environment & Resource Studies, Mahidol University, Salaya Campus, Thailand.
7. Dr. Nguyen Van Tien, Vice Director, Haiphong Institute of Oceanology, Viet Nam.
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand.
9. Dr. Hugh Kirkman, Co-ordinator, East Asian Seas, Regional Co-ordinating Unit.

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**First Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project  
"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"  
Bangkok, Thailand, 9 - 11 May 2002**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Dr. Suharsono, Puslit OSEANOGRafi, Research Center for Oceanografi, Indonesia.
3. Mr. Abdul Khalil, Head, Marine Parks Branch, Department of Fisheries Malaysia, Malaysia.
4. Dr. Porfirio Aliño, Professor, Marine Science Institute, University of the Philippines, Philippines.
5. Dr. Thamasak Yeemin, Lecturer, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand.
6. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam.
7. Mr. Ridzwan Bin Abdul Rahman, Professor & Director, Borneo Marine Research Institute Universiti Malaysia Sabah (UMS), Malaysia.
8. Dr. Annadel Cabanban, Expert, UNEP/GEF SCS, Project Co-ordinating Unit

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**First Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project  
"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"  
Bangkok, Thailand, 20 - 22 May 2002**

1. Mr. Ing Try, Deputy Director, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
  2. Ir. H. Suharyadi Salim, M.Sc, Director of Fisheries Resources, DGF Capture, Indonesia.
  3. Mr. Noel Barut, Chief, Bureau of Fisheries and Aquatic Resources, Department Agriculture, Philippines.
  4. Mr. Wannakiat Thubthimsang, Senior Fisheries Biologist, Department of Fisheries, Kasetsart University, Thailand.
  5. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
  6. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
  7. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries, Development Center, Thailand.
  8. Mr. Kelvin Passfield, Expert, UNEP/GEF SCS, Project Co-ordinating Unit.
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **UNEP/GEF/SCS and SEA START RC, GIS Workshop in support of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Bangkok, Thailand, 7 – 9 August 2002**

1. Mr. Suon Mean, Chief, GIF/Remote Sensing Unit, Department of Natural Resource and Environmental Data Management, Ministry of Environment, Cambodia.
2. Mr. Chrin Sokha, Chief, Water and Soil Quality Management, Department of Environmental Pollution Control, Ministry of Environment, Cambodia.
3. Mr. Chen Xiaoxiang, Centre for Remote Sensing, Zhongshan University, China.
4. Mr. Fang Huaiyang, South China Institute of Environmental Sciences, SEPA, China.
5. Mr. Benny Bastiawan, Senior Technical Supporting GIS Staff, Coastal and Marine Ecosystem Affairs, Ministry of Environment, Indonesia.
6. Mr. Winardi, Remote Sensing & GIS for Marine Application Researcher, Research Center for Oceanography (PPO), Indonesian Institute of Sciences (LIPI), Indonesia.
7. Mr. Hazizi Esa, Environmental Control Officer, Department of Environment, Ministry of Science, Technology and the Environment, Malaysia.
8. Mr. Francis Ferdinand Dizon, Information Systems Analyst II, Management Information Systems Unit, Department of Environment & Natural Resources, Philippines.
9. Ms. Sheila G. Vergara, International Center for Living Aquatic Resources Management, Philippines.
10. Dr. Nawarat Krairapanond, Chief of Coastal and Marine Resources Group, Natural Resource and Environmental Management Co-ordination Division, OEPP, Thailand.
11. Mr. Sanay Rojanadit, Department of Geography, Ramkhamkaeng University, Thailand.
12. Mr. Tran Cong Yen, Senior, GIS Specialist, Ministry of Science, Technology and Environment, Viet Nam.
13. Mr. Somsak Boondown, Chief of Soil and Land Resources Section, Natural Resource and Environmental Management Co-ordination Division, OEPP (SEAs-Wetlands), Thailand.
14. Dr. Sura Pattanakiat, Assistant Professor, Faculty of Environment and Resources Studies Mahidol University (SEAs-Seagrass), Thailand.
15. Mr. Sirichai Roungrit, Environmental Specialist, Natural Resource and Environmental Management Co-ordination Division, OEPP, Thailand.
16. Mr. Pirochana Saikliang, Senior Fishery Biologist (SEAs-Fisheries), Upper Gulf Marine Fisheries Development Center, Thailand.
17. Dr. Tanuwong Sangtiew, Forest Official, Royal Forest Department, Thailand.
18. Dr. Somboon Siriraksophon, Southeast Asian Fisheries Development Center, SEAFDEC/Training Department, Thailand.
19. Ms. Wimolporn Wilairatanadilok, Pollution Control Department, Thailand.
20. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
21. Mr. Boonlue Kachenchart, Researcher, Faculty of Environment and Resource studies, Mahidol University, Thailand.
22. Ms. Kannika Komwong, Research Associate, Southeast Asia START Regional Centre, Thailand.
23. Mr. Chanutchai Pornsalnuwat, Research Assistant, Southeast Asia START Regional Centre, Thailand.

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### **Second Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Shenzhen, China, 4 - 7 September 2002**

1. Mr. Sok Vong, Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
  2. Prof. Dr. Chen Guizhu, Institute of Environmental Sciences, Zhongshan University, China.
  3. Mr. Dibyo Sartono, Programme Director, Wetland International Asia Pacific Indonesia Programme, Indonesia.
  4. Dr. Pan Khang Aun (Designated alternate), Training and Conservation Education, Department of Wildlife and National Parks, Malaysia.
  5. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, Philippines.
  6. Mr. Narong Veeravaitaya, Lecturer, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand.
  7. Dr. Mai Trong Nhuan, Professor, Vice-President, Viet Nam National University, Hanoi, Viet Nam.
  8. Dr. Sansanee Chooaew, Associate Dean, Research and International Relations, Mahidol University, Thailand.
  9. Mr. Chen Liwei, Country coordinator, Yellow Sea Ecoregion, WWF-China Program Office, China.
  10. Ms. Li Ping, Vice President, Sun Yat-sen University, China.
  11. Mr. Long Yaotin, Deputy Director, Bao An District, City of Shenzhen, China.
  12. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, China.
  13. Mr. Wang Zhenyu, Institute of Environmental Sciences, Sun Yat-sen University, China.
  14. Ms. Deng Peiyan, Institute of Environmental Sciences, Sun Yat-sen University, China.
  15. Dr. Annadel Cabanban, Expert, UNEP/GEF SCS, Project Co-ordinating Unit.
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**Second Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Ho Chi Minh City, Viet Nam, 10 - 13 September 2002**

1. Mr. Ke Vongwattana, Assistant, Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, China.
3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove, (Institute of Mangrove Research & Development), Indonesia.
4. Mr. Florendo Barangan, Executive Director, Coastal & Marine Management Office, Department of Environment and Natural Resources (CMMO-DENR), Philippines.
5. Dr. Sonjai Havanond, Director, Mangrove Other Wetlands Management Division, Royal Forest Department, Thailand.
6. Prof. Dr. Do Dinh Sam, Director General, Forest Science Institute of Viet Nam, Viet Nam.
7. Professor Dr. Sanit Aksornkoe, Department of Silviculture Faculty of Forestry, Kasetsart University, Thailand.
8. Dr. Gong Wooi Khoo, Professor, Centre for Marine and Coastal Studies, Universiti Sains Malaysia.
9. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam.
10. Mr. Vu Tan Phuong, Land Use and Management Division, Research Centre for Forest Ecology and Environment (RCFEE), Forest Science Institute of Viet Nam.
11. Dr. John Pernetta, Project Director, UNEP/GEF SCS, Project Co-ordinating Unit.

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**Second Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Batam, Indonesia, 18 - 21 September 2002**

1. Mr. Pak Sokharavuth, Chief Department of Pollution Control, Ministry of Environment, Cambodia.
2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA, China.
3. Mr. Sudariyono, Assistant to the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment, Indonesia.
4. Mr. Zulkifli Bin Din, Environmental Control Officer, Department of Environment, Malaysia.
5. Mr. Vicente R. Diaz, Environmental Management Bureau (EMB), DENR, Philippines.
6. Mr. Ekachai Praekulvanich, Environmental Scientist, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey, Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand.
9. Mr. Boonyong Lohwongwatana, Assistant Professor, Head of Department, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand.
10. Ms. Sirimati Nimmanheminda, Environmental Scientist, Marine Pollution Sub-division, Pollution Control Department, Ministry of Science, Technology and Environment, Thailand.
11. Ir. Henk Uktolseya, Assistant Deputy for Coastal and Marine Ecosystem, Ministry of Environment, Indonesia.
12. Inar Ichsana Ishak, Assistant Deputy for Coastal and Marine Ecosystem, Ministry of Environment, Indonesia.
13. Ir. Dasminto, Assistant Deputy for Coastal and Marine Ecosystem, Ministry of Environment, Indonesia.
14. Ir. Agus Rusly, Assistant Deputy for Coastal and Marine Ecosystem, Ministry of Environment, Indonesia.
15. Dr. Richardus F. Kaswadi, Lecturer and Researcher, Laboratory of Oceanography, Faculty of Fisheries and Marine Sciences, Bogor Agricultural University, Indonesia.
16. Mr. Yihang Jiang, Senior Expert, UNEP/GEF SCS, Project Co-ordinating Unit.

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**Second Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project  
“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”  
Phuket, Thailand, 7 - 11 October 2002**

1. Mr. Ing Try, Deputy Director, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
  2. Dr. Johannes Widodo, (Designated alternate for Ir. Salim), Research Institute for Marine Fisheries, Indonesia.
  3. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries, Development Center, Thailand.
  4. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
  5. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand.
  6. Mr. Len R. Garces, Fisheries/Marine Biologist, Coastal and Marine Resources Research Program, International Center for Living Aquatic Resources Management, (ICLARM), Malaysia.
  7. Dr. George Woodman, (Invited participant) Head of Science, Li Po Chun United World College of Hong Kong, Hong Kong.
  8. Ms. Atchara Vibhasiri, (Observer) Chief, Marine Resources Survey Unit, Upper Gulf Marine Fisheries Development Center, Thailand.
  9. Mr. Manoch Roongratri, (Observer) Senior Fishery Biologist, Chief of Marine Fauna Life History Unit, Eastern Marine Fisheries Development Center, Thailand.
  10. Mr. Veera Boonrugsu, (Observer) Chief of Stock Assessment Unit, Andaman Sea Fisheries Development Center, Thailand.
  11. Mr. Pairon Sutthakorn, (Observer) Chief of Marine Life History Unit, Andaman Sea Fisheries Development Center, Thailand.
  12. Mr. Jate Pimoljninda, (Observer) Chief, Andaman Sea Fisheries Development Center, Thailand.
  13. Mr. Kelvin Passfield, Expert, UNEP/GEF SCS, Project Co-ordinating Unit.
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Second Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Sihanoukville, Cambodia, 23 - 26 October 2002**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Dr. Suharsono, Puslit OSEANOGRafi, Research Center for Oceanografi, Indonesia.
3. Mr. Abdul Khalil, Head, Marine Parks Branch, Department of Fisheries Malaysia.
4. Dr. Prof. Porfirio Aliño, Marine Science Institute, University of the Philippines.
5. Dr. Thamasak Yeemin, Lecturer, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand.
6. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam.
7. Mr. Ridzwan Bin Abdul Rahman, Professor & Director, Borneo Marine Research Institute Universiti Malaysia Sabah (UMS), Malaysia.
8. Dr. Chou Loke Ming, Department of Biological Sciences, Faculty of Science, National University of Singapore, Singapore.
9. Dr. Annadel Cabanban, Expert, UNEP/GEF SCS, Project Co-ordinating Unit.

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### **Second Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Hue, Viet Nam, 28 - 31 October 2002**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Mr. Xiaoping Huang, Professor, South China Sea Institute of Oceanology, Chinese Academy of Sciences, China.
3. Mr. Tri Edi Kuriandewa, Puslit OSEANOGRafi, LIPI, Indonesia.
4. Mr. Kamarruddin Bin Ibrahim, Head, Department of Fisheries Malaysia, Turtle and Marine Ecosystem Center (TUMEC), Malaysia.
5. Dr. Miguel Fortes, Professor, Marine Science Institute, University of the Philippines (MSI/UP), Philippines.
6. Dr. Suvaluck Satumanatpan, Assistant Professor, Faculty of Environment & Resource Studies, Mahidol University, Salaya Campus, Thailand.
7. Dr. Nguyen Van Tien, Vice Director, Haiphong Institute of Oceanology, Viet Nam.
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand.
9. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia.
10. Dr. Hugh Kirkman, Co-ordinator, East Asian Seas, Regional Co-ordinating Unit.

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### **Second Meeting of the Regional Scientific & Technical Committee for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Nha Trang, Viet Nam, 11 - 13 December 2002**

1. Mr. Koch Savath, Deputy Director General of Technical Affair, Ministry of Environment, Cambodia.
  2. Mr. Huang Zhengguang, Senior Engineer South China Institute of Environmental Sciences, SEPA, China.
  3. Mr. Sudariyono, Assistant to the Deputy Minister of Environment on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia.
  4. Mr Lee Heng Keng, Director of Control, Department of Environment (DOE), Malaysia.
  5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines.
  6. Mrs. Kluephan Baitrakul, Acting Senior Environmental Expert, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment
  7. Dr. Nawarat Krairapanond, Chief, Coastal and Marine Resources Group, Natural Resources and Environmental Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment
  7. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Nha Trang, Viet Nam.
  8. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand.
  9. Dr. Sonjai Havanond, Director, Mangrove & Wetlands Management Division, Royal Forest Department, Thailand.
  10. Mr. Huang Xiaoping, South China Sea Institute of Oceanology, Chinese Academy of Sciences, China.
  11. Mr. Kim Sour, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
  12. Professor Liana Talaue-McManus, Rosenstiel School of Marine and Atmospheric Science, University of Miami, USA.
  13. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey, Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
  14. Prof. Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia.
  15. Mr. Dibyo Sartono, Programme Director, Wetland International Asia Pacific Indonesia.
  16. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
  17. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE) Hanoi University of Education Hanoi, Viet Nam.
  18. Dr. John Pernetta, Project Director, UNEP/GEF SCS, Project Co-ordinating Unit.
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Second Meeting of the Project Steering Committee for the UNEP/GEF Project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” Ha Noi, Viet Nam, 16 - 18<sup>th</sup> December 2002**

1. Mr. Meas Sophal, Deputy Director, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Mr. Koch Savath Deputy Director General of Technical Affair, Ministry of Environment Phnom Penh, Cambodia
3. Mr. Mingjian Chen, Director General Office for Marine Environmental Protection State Environmental Protection Administration China
4. Professor Li Kaiming, Vice-President, South China Institute of Environmental Sciences (SCIEC) Guangdong Province, China
5. Dra. Liana Bratasida, Ms Deputy Minister VI for Environmental Conservation, Ministry of Environment, Indonesia
6. Mr. Sudariyono Assistant to the Deputy Minister of Environment on Marine and Coastal Ecosystem Affairs Ministry of Environment Indonesia
7. Dr. Zulkifli Bin Idris, Director, Conservation and Environmental Management Div., Ministry of Science, Technology and the Environment, Malaysia
8. Mr. Lee Heng Keng, Director of Control, Department of Environment, Ministry of Science, Technology and the Environment, Malaysia
9. Mr. Fernandino Y. Concepcion Assistant Director, EMB, Department of Environment and Natural Resources (DENR), Philippines
10. Mr. Robert Jara, Chief, Bilateral Investment and Programs Division, Foreign Assisted and Special Programs Office (FASPO), Department of Environment & Natural Resources, Philippines
11. Mrs. Kluephan Baitrakul, Acting Senior Environmental Expert, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
12. Dr. Nawarat Krairapanond, Chief, Coastal and Marine Resources Group, Natural Resources and Environmental Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Thailand
13. Dr. Nguyen Ngoc Sinh, Director General, National Environmental Agency Ministry of Natural Resources and the Environment, Viet Nam
14. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
15. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, Thailand.

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### **Third Meeting of the Regional Working Group for the Mangrove Sub-component Bali, Indonesia, 3<sup>rd</sup> – 6<sup>th</sup> March 2003**

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China
3. Mr. Nyoto Santoso Lembaga Pengkajian dan Pengembangan Mangrove, Indonesia
4. Mr. Florendo Barangan, Executive Director, Coastal & Marine Management Office, Department of Environment and Natural Resources (CMMO/DENR), Philippines
5. Dr. Sonjai Havanond, Chief, Mangrove Research and Development Division, Royal Forest Department, Thailand
6. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam.
7. Dr. Sanit Aksornkoe, Professor Emeritus, Department of Silviculture Faculty of Forestry, Kasetsart University, Thailand
8. Dr. Gong Wooi Khoon, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
9. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam.
10. Dr. Ian Campbell, Senior Environmental Specialist, Environment Division, Mekong River Commission
11. Dr. Sukristijono Sukardjo, Mangrove Ecologist, Institute of Mangrove Research and Development Indonesia
12. Dr. Ir. Ning Purnomohadi, Institute of Mangrove Research and Development Indonesia
13. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Third Meeting of the Regional Working Group for the Wetlands Sub-component Bali, Indonesia, 4<sup>th</sup> – 7<sup>th</sup> March 2003**

1. Mr. Sok Vong, Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, CAMBODIA
  2. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China
  3. Mr. Dibyo Sartono, Wetland International Indonesia Programme, Indonesia
  4. Dr. Ebil Bin Yusof, Department of Wildlife and National Parks, Peninsular Malaysia, Malaysia
  5. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, DENR, Philippines
  6. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand
  7. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi, Viet Nam
  8. Dr. Ian Campbell, Senior Environmental Specialist, Environment Division, Mekong River Commission
  9. Mr. Yihang Jiang, Senior Expert UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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**Third Meeting of the Regional Working Group for the Coral Reef Sub-component  
Kota Kinabalu, Malaysia, 24<sup>th</sup> – 27<sup>th</sup> March 2003**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
2. Dr. Suharsono, Research Center for Oceanography – LIPI, Indonesia
3. Mr. Abdul Khalil bin Abdul Karim, Marine Parks Branch, Department of Fisheries, Malaysia
4. Dr. Porfirio M. Alino, Marine Science Institute, University of the Philippines
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand
6. Dr. Vo Si Tuan, Institute of Oceanography, Viet Nam
7. Dr. Chou Loke Ming, Department of Biological Sciences, Faculty of Science, National University of Singapore
8. Dr. Ridzwan Abdul Rahman, Borneo Marine Research Institute, Universiti Malaysia Sabah, Malaysia.
9. Mr. Yihang Jiang, Senior Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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**Third Meeting of the Regional Working Group for the Seagrass Sub-component  
Kota Kinabalu, Malaysia, 25<sup>th</sup> – 28<sup>th</sup> March 2003**

1. Mr. Suy Serywath (alternate), Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia
2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China
3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI Indonesia
4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC) Malaysia,
5. Dr. Miguel Fortes, Marine Science Institute, University of the Philippines (MSI/UP), Philippines
6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus Thailand
7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam.
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand,
9. Dr. Hutomo Malikusworo, Indonesian Institute of Science
10. Mr. Kelvin Passfield, Expert (Fisheries), UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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**Third Meeting of the Regional Working Group for the Fisheries Component  
Siem Reap, Cambodia, 29<sup>th</sup> April – 2<sup>nd</sup> May 2003**

1. Mr. Ing Cambodia Try, Deputy Director, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia
2. Dr. Johaness Widodo, (Designated alternate for Ir Salim), Research Institute for Marine Fisheries, Indonesia
3. Mr. Noel Barut, National Fisheries Research and Development Institute, Department of Agriculture, Philippines
4. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand
5. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Ministry of Fisheries
6. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand
7. Mr. Kelvin Passfield, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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**Third Meeting of the Regional Scientific and Technical Committee  
Phuket, Thailand, 16<sup>th</sup> – 18<sup>th</sup> June 2003**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA, People's Republic of China
3. Mr. Sudariyono, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment, Indonesia
4. Mr. Mohamad bin Jaafar, (Designated Alternate for NTFP), Principal Assistant Director, Department of Environment (DOE), Malaysia
5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines
6. Ms. Kluephan Baitrakul, Acting Senior Environmental Expert, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
7. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
8. Dr. Sonjai Havanond, Chairperson RWG-M, Director, Mangrove & Wetlands Management Div., Royal Forest Department, Thailand
9. Ms. Marlynn M. Mendoza, Chairperson RWG-W, Protected Areas and Wildlife Bureau, DENR, Philippines
10. Dr. Chittima Aryuthaka, Rapporteur RWG-SG, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand
11. Mr. Abdul Khalil bin Abdul Karim, Chairperson RWG-CR, Head of Marine Parks of Malaysia, Department of Fisheries Malaysia
12. Dr. Pham Van Ninh, Vice-Chairperson RWG-LbP, Director, Center for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST, Viet Nam
13. Mr. Noel Barut, Rapporteur RWG-F, National Fisheries Research and Development Institute, Department of Agriculture, Philippines
14. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
15. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
16. Ms. Thanika Pancharat, Research Associate (GIS), Southeast Asia START Regional Centre, Thailand
17. Ms. Jantira Rattanasat, Research Assistant, Southeast Asia START Regional Centre, Thailand
18. Dr. Nawarat Krairapanond, Chief, Coastal and Marine Resources Group, Natural Resources and Environmental Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Thailand
19. Ms. Mingkwan Thornsirikul, Senior Environmental Specialist, Coastal and Marine Resources Group, Natural Resources and Environmental Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Thailand
20. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Third Meeting of the Regional Working Group for the Land-based Pollution Component Phuket, Thailand, 7<sup>th</sup> – 10<sup>th</sup> July 2003**

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia
2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Mr. Agus Rusly, Senior Staff of Assistant Deputy for Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
4. Mr. Mohamad bin Jaafar, Principal Assistant Director, Department of Environment, Malaysia
5. Mr. Vicente R. Diaz, Section Chief, Pollution Research Section, Research and Development Division, Environmental Management Bureau, (EMB) Philippines
6. Dr. Pornsook Chongprasith, Director, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand
9. Mr. Boonyong Lohwongwatana, Assistant Professor, Head of Department, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
10. Ms. Peng Haijun, South China Institute of Environmental Sciences, SEPA
11. Ms. Siriwan Laptuptimong, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
12. Ms. Saisiri Chaichana, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment,
13. Ms. Pattinee Kapol, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment
14. Mr. Yihang Jiang, Senior Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **First Meeting of the Regional Task Force on Economic Valuation Phuket, Thailand, 11<sup>th</sup> – 13<sup>th</sup> September 2003**

1. Mr. Sy Ramony, Vice Chief, Office of Community Forestry, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia
5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR Philippines
6. Dr. Thanwa Jitsanguan, Assistant Professor and Head of Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand
7. Dr. Nguyen Huu Ninh, Chairman, Center for Environmental Research, Education and Development (CERED) Viet Nam
8. Dr. Tridoyo Kusumastanto, Professor of Marine Economics Policy, CCMRS - Bogor Agricultural University, Indonesia
9. Mr. Boon Tiong Tay, Manager, Project Financing, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme.

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### **First Meeting of the Regional Task Force on Legal Matters Phuket, Thailand, 15<sup>th</sup> – 17<sup>th</sup> September 2003**

1. Mr. Sam Chamroeun, Director, the Department of Legal Affair, Ministry of Environment, Cambodia
2. Dr. Bie Tao, Director, Environmental Law Enforcement Supervision Div. Department of Policy and Law, Chinese State Environmental Protection Administration, SEPA, People's Republic of China
3. Dr. M. Daud Silalahi, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia
4. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia
5. Mr. Bernardino Y. Concepcion, Assistant Director, EMB, Department of Environment and Natural Resources (DENR), Philippines
6. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand
7. Mr. An Duong Thanh, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam
8. Ms. Sulan Chen, Associate Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fourth Meeting of the Regional Working Group for the Mangrove Sub-component Beihai, China, 14<sup>th</sup> – 17<sup>th</sup> October 2003**

1. Mr. Sok Vong, Department of Nature Conservation and Protection, Ministry of Environment Cambodia
2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China
3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove (LPP-Mangrove), Institute of Mangrove Research & Development, Indonesia
4. Mr. Florendo Barangan, Executive Director, Coastal and Marine Management Office, Department of Environment and Natural Resources (CMMO/DENR), Philippines
5. Dr. Sonjai Havanond, Coastal & Mangrove Resources Management Expert, Department of Marine and Coastal Resources, Thailand
6. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam, Viet Nam
7. Dr. Gong Wooi Khoo, Centre for Marine and Coastal Studies, Universiti Sains Malaysia, Malaysia
8. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam
9. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, People's Republic of China
10. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fourth Meeting of the Regional Working Group for the Coral Reefs Sub-component Guangzhou, China, 27<sup>th</sup> – 30<sup>th</sup> November 2003**

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries Cambodia
2. Dr. Suharsono, Research Center for Oceanography – LIPI Indonesia
3. Mr. Abdul Khalil bin Abdul Karim, Marine Parks Branch, Department of Fisheries, Malaysia
4. Dr. Porfirio M. Alino, Marine Science Institute, University of the Philippines, Philippines
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand
6. Dr. Vo Si Tuan, Institute of Oceanography, Viet Nam
7. Dr. Chou Loke Ming, Department of Biological Sciences, Faculty of Science, National University of Singapore
8. Dr. Ridzwan Abdul Rahman, Borneo Marine Research Institute, Universiti Malaysia Sabah, Malaysia
9. Ms. Chen Yue, Director, Division of International Organizations , Department of International Cooperation, State Oceanic Administration, People's republic of China
10. Ms. Yehui Tan, Marine Environment and Ecology Research Lab, South China Sea Institute of Oceanology, Chinese Academy of Sciences People's republic of China
11. Mr. Yihang Jiang, Senior Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fourth Meeting of the Regional Working Group for the Seagrass Sub-component Guangzhou, China, 29<sup>th</sup> November – 2<sup>nd</sup> December, 2003**

1. Mr. Suy Serywath (alternate), Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries Cambodia
2. Dr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences People's Republic of China
3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI, Indonesia
4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia
5. Dr. Marco Nemesio E. Montaño, Marine Science Institute, University of the Philippines, Philippines
6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies Mahidol University Thailand
7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University
9. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia
10. Dr. Miguel Fortes, IOC Sub-Commission for Western Pacific (WESTPAC), IGO
11. Mr. Kelvin Passfield, Expert (Fisheries), UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fourth Meeting of the Regional Working Group for the Wetlands Sub-component Kuala Lumpur, Malaysia, 15<sup>th</sup> – 18<sup>th</sup> December 2003**

1. Sok Vong, Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, CAMBODIA
2. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China
3. Mr. Diby Sartono, Wetland International Indonesia Programme INDONESIA
4. Dr. Ebil Bin Yusof, Department of Wildlife and National Parks, Peninsular Malaysia, Malaysia
5. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, DENR, Philippines
6. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand
7. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi Viet Nam
8. Dr. Sansanee Choowaew, Associate Dean, (Research and International Relations), Mahidol University, Thailand
9. Dr. Chen Liwei, Program Officer, Freshwater and Marine Programme, WWF-China Program Office, People's Republic of China
10. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **First Regional Scientific Conference Bangkok, Thailand, 11<sup>th</sup> – 13<sup>th</sup> February 2004**

#### **120 Participants**

#### **MEMBERS**

National Focal Point 7 countries

7 person

National Technical Focal Point 7 countries

7 person

Focal Point on Mangroves Component and Experts

10 person

Focal Point on Coral Reefs Component and Experts

8 person

Focal Point on Seagrass Component and Experts

10 person

Focal Point on Wetlands Component and Experts

9 person

Focal Point on Fisheries Component and Experts

6 person

Focal Point on Land-based Component and Experts

9 person

Regional Task Force on Legal Matters and Experts

7 person

Regional Task Force on Economic Valuation and Experts

8 person

Regional Expert for RSTC

3 person

UNEP Nairobi

3 person

Other UN Organisations and NGOs

23 person

PCU

10 persons

Thai Government Staff from OEPP

10 persons

## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fourth Meeting of the Regional Scientific and Technical Committee Pattaya, Thailand 15<sup>th</sup> – 17<sup>th</sup> February 2004**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
4. Mr. Zainal Abidin Abdullah, (Designated Alternate for NTFP), Department of Environment (DOE), Malaysia
5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
6. Dr. Nawarat Krairapanond, (Designated Alternate for NTFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
7. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
8. Dr. Sonjai Havanond, Chairperson RWG-M, Marine and Coastal Resources Division, Thailand
9. Ms. Marlynn M. Mendoza, Chairperson RWG-W, Protected Areas and Wildlife Bureau, DENR, Philippines
10. Mr. Tri Edi Kuriandewa, Chairperson RWG-SG, Puslit OSEANOGRAFI, LIPI, Indonesia
11. Mr. Abdul Khalil bin Abdul Karim, Chairperson RWG-CR, Head of Marine Parks of Malaysia, Department of Fisheries Malaysia
12. Prof. Han Baoxin, Chairperson RWG-LbP, Deputy Director, South China Institute of Environmental Sciences, China
13. Mr. Ing Try, Chairperson RWG-F, Marine Fisheries Biologist, Department of Fisheries, Cambodia
14. Dr. M. Daud Silalahi, Chairperson RTF-L, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Indonesia
15. Dr. Matus Suparmoko, Chairperson RTF-E, Jenderal Soedirman University, Indonesia
16. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
17. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
18. Mr. Somsak Chullasorn, Kasetsart University, Thailand
19. Ms. Jantira Rattanasart, Research Assistant, Southeast Asia START Regional Centre
20. Dr. J. Michael Bewers, Mid-term Evaluator
21. Mr. Henk Uktolseya, Senior Staff for Marine and Coastal Affairs, State Ministry for Environment, Indonesia
22. Ms. Pattarin Sanghaisuk, Environmental Specialist, Office of Natural Resources and Environmental Policy and Planning, Thailand
23. Ms. Saranya Teinseree, UNEP/GEF Project Coordinator, Coastal and Marine Resources Management Group, Office of Natural Resources and Environmental Policy and Planning, Thailand
24. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Third Meeting of the Project Steering Committee Manila, Philippines, 25<sup>th</sup> – 27<sup>th</sup> February 2004**

1. Mr. Van Monyneath, (Alternate to NFP), Deputy Director of Natural Resources Assessment and Environment Data Management Department, Ministry of Environment, Cambodia
2. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
3. Mr. Mingjian Chen, Director General, Office for Marine Environmental Protection, SEPA, China
4. Dr. Li Kaiping, Vice President, South China Institute of Environmental Sciences, SEPA, China
5. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
6. Mr. Zainal Abidin Abdullah, (Designated Alternate for NTFP), Department of Environment (DOE), Malaysia
7. Mr. Manuel D. Gerochi, (Alternate to NFP), Undersecretary for Land Management, Department of Environment and Natural Resources, DENR, Philippines
8. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
9. Dr. Nawarat Krairapanond, (Alternate for NFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
10. Mr. Sirichai Rougrit, (Alternate for NTFP), Senior Environmental Specialist, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
11. Dr. Nguyen Ngoc Sinh, Director General, National Environmental Agency, Vietnam
12. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
13. Mr. Fernandino Y. Concepcion, Assistant Director, Department of Environment and Natural Resources, DENR, Philippines
14. Mr. Robert S. Jara, Chief, Bilateral Investment and Programs Division, Foreign Assisted and Special Programs Office, DENR, Philippines
15. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Informal Consultation on Transboundary Demonstration Sites Phuket, Thailand, 17<sup>th</sup> – 19<sup>th</sup> March 2004**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
  2. Mr. Sok Vong, Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
  3. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
  4. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand
  5. Dr. Nawarat Krairapanond, Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
  6. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
  7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam
  8. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fourth Meeting of the Regional Working Group for the Land-based Pollution Component *Guangzhou, China, 30<sup>th</sup> March – 2<sup>nd</sup> April 2004***

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia
2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
4. Ms. Carol Hoh Mui Ling, Department of Environment, Malaysia
5. Mr. Vicente R. Diaz, Section Chief, Pollution Research Section, Research And Development Division, Environmental Management Bureau, (EMB) Philippines
6. Dr. Pornsook Chongprasith, Director, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand
9. Mr. Boonyong Lohwongwatana, Assistant Professor, Head of Department, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
10. Mr. Ekachai Praekulvanich, Environmental Scientist, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
11. Ms. Peng Haijun, South China Institute of Environmental Sciences, SEPA, China
12. Ms. Yang Jing, South China Institute of Environmental Sciences, SEPA, China
13. Mr. Xu Lianfeng, South China Institute of Environmental Sciences, SEPA, China
14. Ms. Guo Hao, South China Institute of Environmental Sciences, SEPA, China
15. Mr. Yihang Jiang, Senior Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fourth Meeting of the Regional Working Group for the Fisheries Component *Manila, Philippines, 26<sup>th</sup> – 29<sup>th</sup> April 2004***

1. Mr. Ing Try, Deputy Director, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia
2. Mr. Sri Yono Wirjosuwarno, Head of Monitoring and Evaluation Division, Directorate General of Capture Fisheries, Indonesia
3. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines
4. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand
5. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Vietnam
6. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand
7. Dr. Hohanes Widodo, Research Institute for Marine Fisheries, Indonesia
8. Mr. Geronimo T. Silvestre, Senior Policy Specialist, The Fisheries Improved for Sustainable Harvest Project, Philippines
9. Dr. Yasuhisa Kato, Special Advisor, The SEAFDEC Secretariat, Thailand
10. Dr. Magnus Torell, The SEAFDEC Secretariat, Thailand
11. Dr. Paul S. Teng, Deputy Director General – Research, WorldFish Center, Malaysia
12. Mr. Francisco Torres Jr., National Fisheries Research and Development, Institute, Department of Agriculture, Philippines
13. Mr. Kelvin Passfield, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Second Meeting of the Regional Task Force on Legal Matters *Phu Quoc Island, Viet Nam, 3<sup>rd</sup> – 6<sup>th</sup> May 2004***

1. Mr. Long Rithrak, Deputy Director, Planning and Legal Affairs, The Department of Planning and Legal Affairs, Ministry of Environment, Cambodia
2. Dr. Bie Tao, Director, Environmental Law Enforcement Supervision Div. Department of Policy and Law, Chinese State Environmental Protection Administration, SEPA, People's Republic of China
3. Dr. M. Daud Silalahi, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia
4. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia
5. Mr. Fernandino Y. Concepcion, Assistant Director, EMB, Department of Environment and Natural Resources (DENR), Philippines
6. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand
7. Mr. An Duong Thanh, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam
8. Ms. Sulan Chen, Associate Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Executive Committee of the Regional Scientific and Technical Committee *Bangkok, Thailand 19<sup>th</sup> – 20<sup>th</sup> May 2004***

1. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
  2. Mr. Henk Uktolseya, Senior Staff for Marine and Coastal Affairs, State Ministry for Environment, Indonesia
  3. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
  4. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
  5. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
  6. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Second Meeting of the Regional Task Force on Economic Valuation *Siem Reap, Cambodia, 31<sup>st</sup> May – 2<sup>nd</sup> June 2004***

1. Mr. Sy Ramony, Vice Chief, Office of Community Forestry, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Dr. Matus Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia
5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR Philippines
6. Dr. Thanwa Jitsanguan, Assistant Professor and Head of Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand
7. Dr. Nguyen Huu Ninh, Chairman, Center for Environmental Research, Education and Development (CERED) Viet Nam
8. Dr. Herminia A. Francisco, Department of Economics, University of the Philippines Los Banos, Philippines
9. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fifth Meeting of the Regional Working Group for the Seagrass Sub-component *Bintan, Indonesia, 24<sup>th</sup> – 27<sup>th</sup> August 2004***

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China
3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI, Indonesia
4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia
5. Dr. Marco Nemesio E. Montaño, Marine Science Institute, University of the Philippines, Philippines
6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand
7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam
8. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand
9. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia
10. Dr. Miguel Fortes, IOC Sub-Commission for Western Pacific (WESTPAC), Thailand
11. Mr. Kelvin Passfield, Expert (Fisheries), UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fifth Meeting of the Regional Working Group for the Coral Reef Sub-component *Koh Chang, Thailand, 13<sup>th</sup> – 16<sup>th</sup> September 2004***

1. Mr. Kim Sour, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
2. Dr. Suharsono, Research Center for Oceanography – LIPI, Indonesia
3. Mr. Abdul Khalil bin Abdul Karim, Marine Parks Branch, Department of Fisheries, Malaysia
4. Dr. Porfirio M. Aliño, Marine Science Institute, University of the Philippines
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand
6. Dr. Vo Si Tuan, Institute of Oceanography, Viet Nam
7. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
8. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fifth Meeting of the Regional Working Group for the Mangrove Sub-Component *Trat Province, Thailand, 27<sup>th</sup> – 30<sup>th</sup> September 2004***

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
  2. Mr. Sok Vong, Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
  3. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China
  4. Mr. Nyoto Santoso Lembaga Pengkajian dan Pengembangan Mangrove Indonesia, Indonesia
  5. Mr. Florendo Barangan, Executive Director, Coastal & Marine Management Office, Department of Environment and Natural Resources (CMMO/DENR), Philippines
  6. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand
  7. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam, Viet Nam
  8. Dr. Gong Wooi Khoo, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
  9. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam
  10. Mr. Jarle Harstad, Chief, GEF Monitoring and Evaluation Unit, Global Environment Facility, USA
  11. Ms. Sara Graslund, International Waters Specialist, GEF Monitoring and Evaluation Unit, USA
  12. Dr. Juha Uitto, Senior Monitoring and Evaluation Coordinator, GEF/UNDP New York, USA
  13. Mr. Takashi Otsuka, Task Manager, UNEP/Division of GEF Coordination, Kenya
  14. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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***Terminal Report of the UNEP/GEF South China Sea Project***

**Fifth Meeting of the Regional Working Group for the Wetlands Sub-component  
*Ha Long City, Vietnam, 5<sup>th</sup> – 8<sup>th</sup> October 2004***

1. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China
2. Mr. Dibyo Sartono, Wetland International Indonesia Programme, Indonesia
3. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, DENR, Philippines
4. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand
5. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi, Viet Nam
6. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam, Viet Nam
7. Mr. An Duong Thanh, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam
8. Dr. Sansanee Choowaew, Programme Director, (Natural Resource Management), Mahidol University, Thailand
9. Mr. Chen Liwei, Program Officer, Freshwater and Marine Programme, WWF-China Program Office, China
10. Mr. Takashi Otsuka, Portfolio Manager, UNEP/Division of GEF Coordination, Kenya
11. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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**Fifth Meeting of the Regional Working Group for the Fisheries Component  
*Phu Quoc Island, Vietnam, 11<sup>th</sup> – 14<sup>th</sup> October 2004***

1. Mr. Pich Sereyath, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia
2. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines
3. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand
4. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Vietnam
5. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand
6. Dr. Theo Ebbers, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand
7. Dr. Worawit Wanchana, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand
8. Mr. Len Garces, Assistant Scientist, World Fish Center, Malaysia
9. Ms. Hien Thi Thu Bui, Marine and Coastal Programme Officer, IUCN - The World Conservation Union, Viet Nam
10. Dr. Simon Funge-Smith, Aquaculture Officer, FAO Regional Office for Asia and the Pacific, Thailand
11. Mr. Kelvin Passfield, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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**Fifth Meeting of the Regional Working Group for the Land-based Pollution Component  
*Shenzhen, China, 24<sup>th</sup> – 27 November 2004***

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia
  2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China
  3. Mr. Dasminto, Staff of Coastal and Marine Ecosystem Unit, Ministry of Environment, Indonesia
  4. Ms. Carol Hoh Mui Ling, Department of Environment, Malaysia
  5. Mr. Vicente R. Diaz, Section Chief, Pollution Research Section, Research And Development Division, Environmental Management Bureau, (EMB) Philippines
  6. Dr. Pornsook Chongprasith, Director, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
  7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
  8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand
  9. Mr. Boonyong Lohwongwatana, Assistant Professor, Head of Department, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
  10. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
  11. Mr. Liu Jiabao, Director, Environmental Protection Bureau of Shenzhen Baoan, China
  12. Mr. Joe Qiaonian Chen, Chief Technology Officer, Shenzhen Municipal Environmental Protection Bureau, China
  13. Dr. Chunhong Peng, Environmental Protection Bureau of Shenzhen Baoan, China
  14. Mr. Mingqing Liu, Senior Engineer, South China Institute of Environmental Sciences, (SCIES), SEPA, China
  15. Dr. Deng Xiong, South China Institute of Environmental Sciences, SEPA, China
  16. Ms. Peng Haijun, South China Institute of Environmental Sciences, SEPA, China
  17. Ms. Yang Jing, South China Institute of Environmental Sciences, SEPA, China
  18. Mr. Yang Dayong, South China Institute of Environmental Sciences, SEPA, China
  19. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fifth Meeting of the Regional Scientific and Technical Committee *Fangchenggang, China, 9<sup>th</sup> – 11<sup>th</sup> December 2004***

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
4. Ir. Lee Heng Keng, (Designated Alternate for NTFP), Deputy Director-General (Operations), Department of Environment, Malaysia
5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
6. Dr. Nawarat Krairapanond, (Designated Alternate for NTFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
7. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
8. Mr. Nyoto Santoso, Chairperson RWG-M, Indonesian of Institute of Mangrove Research and Development, Indonesia
9. Ms. Marlynn M. Mendoza, Chairperson RWG-W, Protected Areas and Wildlife Bureau, DENR, Philippines
10. Mr. Kim Sour, Chairperson RWG-SG, Senior Fisheries Officer, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia
11. Dr. Thamasak Yeemin, Chairperson RWG-CR, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand
12. Prof. Han Baoxin, Chairperson RWG-LbP, Deputy Director, South China Institute of Environmental Sciences, China
13. Mr. Noel Barut, Chairperson RWG-F, Chief Bureau of Fisheries and Aquatic Resources, Department Agriculture, Philippines
14. Dr. Bie Tao, Chairperson RTF-L, Director, Environmental Law Enforcement Supervision Division, Department of Policy and Law, Chinese State Environmental Protection, China
15. Dr. Matius Suparmoko, Chairperson RTF-E, Jenderal Soedirman University, Indonesia
16. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
17. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
18. Mr. Somsak Chullasorn, Kasetsart University, Thailand
19. Ms. Mingkwan Thornsirikul, Office of Natural Resources and Environmental Policy and Planning, Thailand
20. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Fourth Meeting of the Project Steering Committee *Guilin, China, 13<sup>th</sup> – 15<sup>th</sup> December 2004***

1. H.E. Dr. Mok Mareth, Minister of Environment, Ministry of Environment, Cambodia
2. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
3. Mr. Mingjian Chen, Director General, Office for Marine Environmental Protection, SEPA, China
4. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA, China
5. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
6. Ir. Lee Heng Keng, (Designated Alternate for NFP), Deputy Director-General (Operations), Department of Environment (DOE), Malaysia
7. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
8. Dr. Kasemsun Chinnavaso, (Alternate for NFP), Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
9. Mr. Santi Boonprakub, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
10. Dr. Tran Hong Ha, General Director, National Environmental Agency, Vietnam
11. Dr. Vo Si Tuan, Vice Director, Institute of Oceanography, Viet Nam
12. H.E. Sem Saroeun, Director General of Finance and Administration, Ministry of Environment, Cambodia
13. Dr. Nawarat Krairapanond, (Alternate for NFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
14. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme

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### **Second Executive Committee of the Regional Scientific and Technical Committee *Bangkok, Thailand 21<sup>st</sup> – 22<sup>nd</sup> February 2005***

1. Mr. Heru Waluyo Koesworo, Assistant the Deputy Minister of Environment, on Marine and Coastal Ecosystem Affairs, Ministry of Environment Indonesia
  2. Mr. Henk Uktolseya, Senior Staff for Marine and Coastal Affairs, State Ministry for Environment, Indonesia
  3. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
  4. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
  5. Dr. Nawarat Krairapanond, Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
  6. Dr. Ong Jin-Eong, Regional Expert of the Regional Scientific and Technical Committee
  7. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
  8. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Third Meeting of the Regional Task Force on Legal Matters Alongapo City, Philippines, 28<sup>th</sup> February – 3<sup>rd</sup> March 2005**

1. Mr. Sam Chamroeun, Director, Planning and Legal Affairs, The Department of Planning and Legal Affairs, Ministry of Environment, Cambodia
2. Dr. M. Daud Silalahi, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia
3. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia
4. Mr. Ferdinand Y. Concepcion, Assistant Director, EMB, Department of Environment and Natural Resources (DENR), Philippines
5. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand
6. Mr. Duong Thanh An, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam
7. Dr. Shelley M. Lexmond, Regional Expert for the Regional Task Force on Legal Matters
8. Ms. Wendy Yap Hwee Min, Senior Officer, Environment Bureau of Resources Development ASEAN Secretariat, Indonesia
9. Dr. Frances Lai, Executive Director, SEAPOL, Thailand
10. Ms. Ankana Sirivivatnanon, Chief Administration and Programme Officer, SEAPOL, Thailand
11. Ms. Sulan Chen, Associate Expert, UNEP/GEF Project Co-ordinating Unit

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### **Third Meeting of the Regional Task Force on Economic Valuation Fanchenggang, China, 18<sup>th</sup> – 21<sup>st</sup> April 2005**

1. Mr. Sy Ramony, Vice Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Dr. Li Kaiping, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia
5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR Philippines
6. Dr. Nuchanata Mungkung, Lecturer, Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand
7. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam
8. Dr. Tridoyo Kusumastanto, Professor, Marine Economics Policy, CCMRS – Bogor Agricultural University, Indonesia
9. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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### **Sixth Meeting of the Regional Working Group for the Land-based Pollution Component Ninh Hai, Viet Nam, 18<sup>th</sup> – 21<sup>st</sup> July 2005**

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia
2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China
3. Mr. Henk Uktolseya, Expert Assistant Deputy for Marine and Coastal Destruction Control, Ministry for Environment, Indonesia
4. Ms. Norazma bt. Zainuddin, Principal Assistant Director, Department of Environment, Malaysia
5. Mr. Vicente R. Diaz, Section Chief, Pollution Research Section, Research And Development Division, Environmental Management Bureau, (EMB) Philippines
6. Mr. Ekachai Praekulvanich, Environmental Scientist, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand
7. Dr. Pham Van Ninh, Director, Center for Marine Environment Survey Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand
9. Mr. Boonyong Lohwongwatana, Assistant Professor, Head of Department, Department of Environmental Engineering, Faculty of Engineering, Chulalongkorn University, Thailand
10. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
11. Mr. Tran Phong, Director, Department of Science & Technology, Ninh Thuan Province, Viet Nam
12. Dr. Deng Xiong, South China Institute of Environmental Sciences, SEPA, China
13. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit

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### **Sixth Meeting of the Regional Working Group for the Mangrove Sub-component Busuanga, Philippines, 1<sup>st</sup> – 5<sup>th</sup> August 2005**

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
  2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China
  3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove Indonesia, Indonesia
  4. Mr. Florendo Barangan, Executive Director, Coastal & Marine Management Office, Department of Environment and Natural Resources (CMMO/DENR), Philippines
  5. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand
  6. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam, Viet Nam
  7. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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**Sixth Meeting of the Regional Working Group for the Coral Reef Sub-component  
Masinloc, Philippines, 22<sup>nd</sup> – 25<sup>th</sup> August 2005**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
2. Ms. Nurul Dhehani Mirah Syafrie Msi, Research Center for Oceanography – LIPI, Indonesia
3. Mr. Abdul Rahim Bin Gor Yaman, Marine Parks Section, Ministry of Natural Resources and Environment, Malaysia
4. Dr. Porfirio M. Aliño, Marine Science Institute, University of the Philippines
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand
6. Mr. Nguyen Van Long, Master of Marine Biology and Deputy Head, Department of Marine Living Resources, Institute of Oceanography, Viet Nam
7. Prof. Dr. Chou Loke Ming, Department of Biological Sciences, The National University of Singapore
8. Dr. Ridzwan Bin Abdul Rahman, Professor, Borneo Marine Research Institute, Universiti Malaysia Sabah (UMS), Malaysia
9. Mr. Nipat Somkleeb, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamkaeng University, Thailand
10. Ms. Makamas Sutthacheep, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamkaeng University, Thailand
11. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit

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**Sixth Meeting of the Regional Working Group for the Fisheries Component  
Sabah, Malaysia 5<sup>th</sup> – 8<sup>th</sup> September 2005**

1. Mr. Parlin Tambunan, Director of Fisheries Resources, DGF Capture Fisheries, Indonesia
2. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines
3. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand
4. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Vietnam
5. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand
6. Dr. Yasuhisa Kato, Special Advisor, SEAFDEC Secretariat, Kasetsart University, Thailand
7. Dr. Worawit Wanchana, SEAFDEC/SIDA Project Assistant, SEAFDEC Secretariat, Kasetsart University Campus, Thailand
8. Ms. Rujarek Bumrasarinpai, Programme Administrative Officer, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand
9. Dr. George Woodman, Director, Teng Hoi Conservation Organization, Hong Kong
10. Dr. Ridzwan Bin Abdul Rahman, Professor, Borneo Marine Research Institute, Universiti Malaysia Sabah (UMS), Malaysia
11. Mr. Daim Basron, Deputy Director, Department of Fisheries, Sabah, Malaysia
12. Mr. Eric Wong, Assistant Director Sabah Parks, Malaysia
13. Mr. Sapli Muloic, Fisheries Officer, Department of Fisheries, Sabah, Malaysia
14. Mr. Mohd. Rafie Hj Jubarah, Science and Technology Unit, Chief Ministers Department, Malaysia
15. Mr. Suhaimi Hj. Safar, Assistant Superintendent Royal Police (Marine), Sabah, Malaysia
16. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit

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**Sixth Meeting of the Regional Working Group for the Wetlands Sub-component  
Sihanoukville, Cambodia 12<sup>th</sup> – 15<sup>th</sup> September 2005**

1. **Mr. Koch Savath, Deputy Director General of Technical Affairs, Ministry of Environment, Cambodia**
2. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China
3. Mr. Dibjo Sartono, Wetland International Indonesia Programme, Indonesia
4. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, DENR, Philippines
5. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand
6. Dr. Mai Trong Nhuan, Vietnam National University, Hanoi, Viet Nam
7. Dr. Sansanee Choowaew, Programme Director, (Natural Resource Management), Mahidol University, Thailand
8. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Sixth Meeting of the Regional Working Group for the Seagrass Sub-component  
Bolinao, Philippines 27<sup>th</sup> – 30<sup>th</sup> September 2005**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
  2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China
  3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI, Indonesia
  4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia
  5. Dr. Marco Nemesio E. Montaño, Marine Science Institute, University of the Philippines, Philippines
  6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand
  7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam
  8. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia
  9. Dr. Miguel Fortes, IOC Sub-Commission for Western Pacific (WESTPAC), Thailand
  10. Ms. Tutu B. Almonte, Aquaculturist, Bolinao Site Manager, City Agriculture's Office, Philippines
  11. Mr. Kim Sour, Associate Expert, UNEP/GEF Project Co-ordinating Unit
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**Second Regional Scientific Conference  
Bangkok, Thailand, 13<sup>th</sup> – 16<sup>th</sup> November 2005**

**161 Participants**

National Focal Points 7 countries  
persons

6

National Technical Focal Points 7 countries	7 persons
Focal Points for Mangroves Component and Experts	10 persons
Focal Points for Coral Reefs Component and Experts	8 persons
Focal Points for Seagrass Component and Experts	10 persons
Focal Points for Wetlands Component and Experts	9 persons
Focal Points for Fisheries Component and Experts	6 persons
Focal Points for Land-based Component and Experts	9 persons
Regional Task Force on Legal Matters and Experts	8 persons
Regional Task Force on Economic Valuation and Experts	8 persons
Regional Expert members of the RSTC	3 persons
Site Managers	23 persons
Local Governors, Mayors	15 persons
UNEP Nairobi	1 person
Other UN Organisations and NGOs	13 persons
Previous Interns	3 persons
PCU	9 persons
Thai Government Staff from OEPP, Thailand	...9 persons
Chinese self-funded local government officials	...3 persons

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**Sixth Meeting of the Regional Scientific and Technical Committee  
Batam, Indonesia 8<sup>th</sup> – 10<sup>th</sup> December 2005**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
  2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA People's Republic of China
  3. Mrs. Wahyu Indraningsih, Assistant the Deputy Minister of Environment, on Marine and Coastal Degradation Control Affairs, Ministry of Environment Indonesia
  4. Mr. Hashim Daud, (Alternate for NTFP), Director, Marine and Water Division, Department of Environment, Malaysia
  5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
  6. Dr. Nawarat Krairapanond, (Alternate for NTFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
  7. Dr. Hoang Van Thang, (Alternate for NTFP), Deputy Director, Centre for Natural Resources and Environmental Studies (CRES), Viet Nam
  8. Mr. Nyoto Santoso, Chairperson RWG-M, Indonesian of Institute of Mangrove Research and Development, Indonesia
  9. Mr. Narong Veeravaitaya, Rapporteur RWG-W, Lecturer, Department of Fishery Biology, Faculty of Fisheries, Kasetsart University, Thailand
  10. Dr. Suvaluck Satumanatpan, Chairperson RWG-SG, Associate Professor, Faculty of Environment and Resource Studies, Mahidol University, Thailand
  11. Dr. Thamasak Yeemin, Chairperson RWG-CR, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand
  12. Mr. Henk Uktolseya, Alternate Chairperson RWG-LbP, Expert, Assistant Deputy for Marine and Coastal Destruction Control, Ministry of Environment, Indonesia
  13. Mr. Pirochana Saikiang, Chairperson RWG-F, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Marine Fisheries Research and Development Bureau, Thailand
  14. Dr. Daud Silalahi, Alternate Chairperson RTF-L, Lecturer, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Indonesia
  15. Dr. Noel Padilla, Chairperson RTF-E, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR, Philippines
  16. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
  17. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
  18. Mr. Somsak Chullasorn, Kasetsart University, Thailand
  19. Dr. Mawardi Badar, Head of the Environmental Impact Management Agency Batam, Indonesia
  20. MR. NOVIANDRA, SP, HEAD SUB-DIRECTORATE OF ENVIRONMENT MONITORING AND REHABILITATION, BATAM, INDONESIA
  21. Mr. Adi Yamto, Officer, Environment Monitoring and Rehabilitation, Batam Center, Indonesia
  22. Ms. Rini, Officer, Environment Monitoring and Rehabilitation, Batam Center, Indonesia
  23. Mr. Didi, Officer, Environment Monitoring and Rehabilitation, Batam Center, Indonesia
  24. Mr. Yamti, Officer, Environment Monitoring and Rehabilitation, Batam Center, Indonesia
  25. Mr. Yamtri, Officer, Environment Monitoring and Rehabilitation, Batam Center, Indonesia
  26. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fifth Meeting of the Project Steering Committee Batam, Indonesia 12<sup>th</sup> – 14<sup>th</sup> December 2005**

1. H.E. Dr. Khong Sam Nuon, (Designated Alternate for NFP), Secretary of State, Ministry of Environment, Cambodia
2. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia
3. Mr. Tong Yu, (Designated Alternate for NFP), Director, Division of Marine Environmental Protection, Department of Pollution Control, SEPA, China
4. Mr. Guo Zhenren, Research Professor, SEPA, China
5. Mrs. Masnellyarti Hilman, Deputy Minister of Environment of Environmental Conservation, Ministry of Environment, Indonesia
6. Mrs. Wahyu Indraningsih, Assistant the Deputy Minister of Environment, on Marine and Coastal Degradation Control Affairs, Ministry of Environment Indonesia
7. Mr. Ahmad Rizal Khalit, (Alternate for NFP), Ministry of Natural Resources and Environment, Malaysia
8. Mr. Hashim Daud, (Alternate for NTFP), Director, Marine and Water Division, Department of Environment, Malaysia
9. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
10. Mr. Santi Boonprakub, (Alternate for NFP), Director, Natural Resources and Environmental Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
11. Dr. Nawarat Krairapanond, (Alternate for NTFP), Chief, Coastal and Marine Resources Management Group, Natural Resources and Environment Management Coordination Division, Office of Natural Resources and Environmental Policy and Planning, Ministry of Science, Technology and Environment, Thailand
12. Dr. Tran Hong Ha, Director General, National Environmental Agency, Viet Nam
13. Dr. Hoang Van Thang, (Alternate for NTFP), Deputy Director, Centre for Natural Resources and Environmental Studies (CRES), Viet Nam
14. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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### **First Sub-Committee of the Regional Scientific and Technical Committee Bangkok, Thailand 6<sup>th</sup> – 10<sup>th</sup> February 2006**

1. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines
2. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand.
3. Dr. Ong Jin-Eong, Regional Expert of the Regional Scientific and Technical Committee.
4. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
5. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit
6. Mr. Christopher Paterson, Fishery Expert, UNEP/GEF Project Co-ordinating Unit

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### **Fourth Meeting of the Regional Task Force on Economic Valuation Xuan Thuy, Nam Dinh Province, Viet Nam, 27<sup>th</sup> – 30<sup>th</sup> March 2006**

1. Mr. Sy Ramony, Vice Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
  2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China.
  3. Dr. Matus Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia.
  4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia.
  5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR Philippines.
  6. Dr. Nuchanata Mungkung, Lecturer, Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand.
  7. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam.
  8. Dr. Tridoyo Kusumastanto, Professor, Marine Economics Policy, CCMRS – Bogor Agricultural University, Indonesia.
  9. Ms. Nguyen To Uyen, Researcher, Center for Environmental Research Education and Development (CERED), Hanoi, Viet Nam.
  10. Mr. Le Van Lich, Director, Nam Dinh Department of Resources and Environment, Nam Dinh, Viet Nam.
  11. Mr. Nguyen Viet Cach, Director, Xuan Thuy National Park (Ramsar Site), Giao Thuy District Nam Dinh Province, Viet Nam.
  12. Mr. Nguyen Van Dong, Vice Chairman, Giao Thuy People's Committee, Nam Dinh Province, Viet Nam.
  13. Mr. Nguyen Van Phan, Local Coordinator, Nam Dinh ICZM Project, Nam Dinh, Viet Nam.
  14. Dr. Sulan Chen, Associate Expert UNEP/GEF Project Co-ordinating Unit
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***Terminal Report of the UNEP/GEF South China Sea Project***

**Fourth Meeting of the Regional Task Force on Legal Matters  
*Shantou, China, 24<sup>th</sup> – 27<sup>th</sup> April 2006***

1. Dr. Bie Tao, Director, Environmental Law Division, Department of Policy and Law, Chinese State of Environmental Protection Administration, SEPA, China.
  2. Dr. M. Daud Silalahi, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia.
  3. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia.
  4. Mr. Robert Jara, Program Coordinator, Coastal and Marine Management Office, Department of Environment and Natural Resources (DENR), Philippines.
  5. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand.
  6. Mr. Duong Thanh An, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam.
  7. Dr. Shelley M. Lexmond, Regional Expert for the Regional Task Force on Legal Matters.
  8. Mr. Zhang Liangfu, First Secretary, Asian Department of Ministry of Foreign Affairs, China.
  9. Prof. Chen Guizhu, Professor, Institute of Environmental Sciences, Zhongshan University, China.
  10. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, China.
  11. Ms. Zhang Menchang, Senior Programme Officer, State Environmental Protection Administration of China, Division of International Organizations, Department of International Cooperation, China.
  12. Mr. Su Yaoguang, Vice-Mayor Shantou City, Municipal Government, China.
  13. Mr. Tang Hanliang, Vice Secretary-General of Shantou City, China.
  14. Mr. Lin Jinzao, Chief Shantou Wildlife Conservation and Management office and Shantou Wetland Natural Reserve Station, China.
  15. Mr. Wu Junqing, Deputy Director of Shantou Forestry Bureau, China.
  16. Dr. Sulan Chen, Associate Expert, UNEP/GEF Project Co-ordinating United Nations Environment Programme.
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**Seventh Meeting of the Regional Working Group for the Fisheries Component  
*Bangkok, Thailand, 16<sup>th</sup> – 18<sup>th</sup> May 2006***

1. Mr. Ing Try, Deputy Director, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
  2. Mr. Parlin Tambunan, Director of Fisheries Resources, DGF Capture Fisheries, Indonesia.
  3. Ms. Chee Phaik Ean, Senior Research Officer, Head of Aquatic Ecosystems Section, Fisheries Research Institute, Malaysia.
  4. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines.
  5. Mr. Pirochana Saikiang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand.
  6. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
  7. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand.
  8. Dr. Yasuhisa Kato, Special Advisor, The SEAFDEC Secretariat, Kasetsart University, Thailand.
  10. Dr. Magnus Torell, Senior Advisor, The SEAFDEC Secretariat, Kasetsart University, Thailand.
  11. Mr. Martin Bjerner, Associate Expert Fisheries Management, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
  12. Mr. Nazori Djazuli, Head of Planning Division, Secretariat Directorate General of Capture Fisheries, Indonesia.
  13. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **The First Joint Meeting between the Management Teams of the Kampot and Phu Quoc Demonstration Sites *Phu Quoc, Kien Giang Province, Viet Nam,* 29<sup>th</sup> – 31<sup>st</sup> May 2006**

#### **Cambodia 18 Participants**

1. Mr. Koch Savath, Deputy Director General of Technical Affair, Ministry of Environment, National Technical Focal Point.
2. H.E. Chuong Siv Vuth; Deputy-Governor of Kampot Province, Acting Leader of Management Board (PMB)
3. Mr. Chan Chesda; Director, Department of Agriculture, Kampot Province; Permanent Vice- Leader of MB & Leader of Management Advisory Group (MAG)
4. Mr. Khem Bun Heng; Director, Department of Environment, Kampot Province; Vice-Leader (PMB & MAG)
5. Mr. Pang Ponnarath; Director, Department of Land Management & Construction, Kampot Province; Vice Leader of PMB
6. Mr. Nem Sinoun; Director, Department of Tourism, Kampot Province; Member of PMB
7. Mr. Seng Chhaung; Director, Department of Water Resource and Meteorology, Kampot Province; Member of PMB
8. Mrs. Tit Setha; Vice - Director, Department of Women Affair, Kampot Province; Member of PMB
9. Mr. Lim Sambo; Director, Department of Public and Transport, Kampot Province; Member of PMB
10. Mr. Te Chin Narith; Deputy Director, Department of Mine and Industry, Kampot Province; Member of PMB
11. Mr. Chan Vanna; Director, Department of Water Resource and Meteorology, Kampot Province; Member of PMB
12. Mr. Soun Sethara; Vice Chief of Military Police, Kampot Province; Member of PMB
13. Mr. Khuy Sien; Chief of Kampot District, Province; Member of PMB
14. Mr. Thai Sa Morn; Deputy Chief of Fisheries office, Kampot Province; Member of MAG
15. Mr. Som Phakdey; Vice-Chief of National Protection and Conservation Office, Kampot Province; Member of MAG
16. Mr. Ouk Vibol; Department of Fisheries, Coral Reef and Seagrass Focal Point, Permanent Member of MAG
17. Mr. Prum Sitha; Seagrass Technical Expert, Department of Fisheries, Member of MAG
18. Mr. Tim Savuth; Fisheries Officer, Department of Fisheries, Site Manager

#### **Viet Nam 39 Participants**

1. Dr. Hoang Van Thang, Vice Director of CRES, Hanoi National University, Alternate of National Technical Focal Point
2. Mrs. Nguyen Thi Tho, Department of International Relations; Ministry of Natural Resources and Environment
3. Mr. Le Huu Hung; Vice Chairman, Kiengiang Provincial People's Committee, Alternate of Chairperson of Project Steering Committee (PSC)
4. Mrs. Nguyen Ngoc Phuong, Vice Director, Kiengiang Department of Fisheries, Vice Chairperson of PSC
5. Mr. Do Manh Dong, Director, Kiengiang Department of Natural Resources and Environment, Vice Chairperson of PSC
6. Mr. Pham Dinh Don, Vice Director, Branch of Environment Protection of Western South Region, Vice Chairperson of PSC
7. Mr. Tan Van Chien, Vice Director, Kiengiang Department of Natural Resources and Environment, Chief of Management Advisory Group (MAG)
8. Mr. Le Minh Hoang, Director, Kiengiang Department of Tourism, Member of PSC
9. Mrs. Tran Thi Thu Hang, Vice Director, Kiengiang Department of Agriculture and Rural Development,
10. Mr. Hoang Trung, Vice Director, Kiengiang Department of Planning and Investment, Member of PSC
11. Mr. Nguyen Van Tuoi, Vice Director, Kiengiang Department of Finance, Member of PSC
12. Mr. Van Cong Dau, Vice Director, Kiengiang Department of Foreign Affairs, Member of PSC
13. Mr. Phung Van Thanh, Vice Director, Kiengiang Department of Science and Technology, Member of PSC
14. Mrs. Vo Thi Van, Vice Director, Kiengiang Department of Natural Resources and Environment (DoNRE), Member of PSC, Leader of Project Management Board (PMB)
15. Mr. Pham Van Sang, Vice Director, Kiengiang Provincial Border Force, Member of PSC
16. Mr. Bui Quang Hai Vice Director, Kiengiang Provincial Police, Member of PSC
17. Mr. Nguyen Duc Kinh, Vice chairman, Phuquoc District People's Committee, Kien Giang Province, Member of PSC
18. Mr. Nguyen Hong Cuong, Chief, Phuquoc District Office of Agriculture, Forest, Fisheries, Kien Giang Province.
19. Mr. Nguyen Van Long, Institute of Oceanography, Coral Reef Focal Point, Member of MAG
20. Dr. Nguyen Van Tien, Institute of Environment and Marine Resources, Seagrass Focal Point Member of PSC
21. Mr. Nguyen Xuan Niem, Vice Director, Kiengiang Center for Science and Technology, Site Manager
22. Mr. Doan Huu Thang, Vice Head, Section of Environment (Kiengiang DoNRE), Vice Leader of PMB
23. Mr. Pham Quang Binh, Director, Phu Quoc National Park, Member of PSC
24. Mr. Nguyen Xuan Hoa, Institute of Oceanography, Member of PSC
25. Mr. Tong Phuoc Hoang Son, Expert on GIS, Institute of Oceanography
26. Mr. Nguyen Tuan, Officer, Kiengiang Radio and Television Broadcasting Station
27. Mr. Pham Linh, Officer, Kiengiang Radio and Television Broadcasting Station
28. Mr. Do Nhat Hoa, Accountant of Kiengiang DoNRE and demonstration site project
29. Mr. Tran Hoang Thanh, Expert of Kiengiang DoNRE, Project Secretary
30. Miss Doan Thi Thanh Truc, Expert of Kiengiang DoNRE
31. Mr. Nguyen Kim Duc, Institute of Oceanography
32. Mr. Than Thanh Vu, Director of Star Bay Co.
33. Mr. Lam Viet Khoi, Kiengiang Magazine Office
34. Mr. Nguyen Thanh Nhan, Can Tho Magazine Office
35. Mr. Tran Thanh Phong, Secretary of Vice – Chair of Kiengiang PPC.
36. Mr. Nguyen Quoc Dung, Chief of Natural Resource and Environment, Phu Quoc district
37. Mr. Duong Thanh An, Deputy Head, Cabinet, Vietnam Environment Protection Agency
38. Mr. Ha Thai Trong Danh, Kiengiang Teaching College.
39. Mr. Nguyen Thanh Phuong, Head, Sub-department of Environment Protection in East-South region.

#### **PROJECT COORDINATING UNIT (PCU)**

1. Dr. John C. Pernetta, Project Director
2. Dr. Vo Si Tuan, Senior Expert.

**Second Mayor's Round-Table  
Beihai, China, 6<sup>th</sup> – 8<sup>th</sup> June 2006**

**Mayors/Governors**

1. Ir. Ria Saptarika, Vice - Mayor Batam Municipality Government, Batam, Indonesia.
2. Ir. Tri Budiarto, Batu Ampar, Indonesia.
3. Mr. Nazalyus Nanang Effendi, Head, Regional Planning and Development Agency, Bangka-Belitung Province, Indonesia.
4. Mr. Alfonso Del Fierro Celeste, M.D, Municipal Mayor of Bolinao, Philippines.
5. Mr. Tawatchai Therdphaothai, Vice-Governor, Surat Thani Province, Thailand.
6. Mr. Mastur Taher, Vice-Mayor, Bintan District, Indonesia.
7. Mr. Tang Cheng Liang, Mayor of Beihai City, Beihai Municipal People's Government, China.
8. Mr. Chuong Siv Vuth, Deputy Governor, Kampot Province, Cambodia.
9. Mr. Em Simyon, Deputy Governor, Koh Kong Province, Cambodia.
10. Hon. Roberto V. Rodriguez, Mayor of Municipality of Taytay, Philippines.
11. Mr. Jessu E. Edora, Municipal Mayor of Masinloc, Philippines.
12. Mr. Tran Phong, Director, Department of Science and Technology, Ninh Thuan Province, Ninh Hai, Viet Nam
13. Mr. Su Yaoguang, Vice Mayor, The People's Government, Shantou City, China.
14. Mr. Surapol Saipan, Vice-Governor Trat Province, Thailand.

**Site Managers**

15. Mr. Nguyen Viet Cach, Director, Xuan Thuy National Park, Nam Dinh Province, Viet Nam
16. Mr. Novindra, Sp, Head Sub-Directorate of Environment Monitoring and Rehabilitation Batam Landbased Pollution – Site Manager, Indonesia.
17. Mr. Ahmad Faisal Siregar, Indonesian of Institute Mangrove Research & Development, Batu Ampar, Indonesia.
17. Ms. Nurul Dhewani Mirah Syafrie, Research Center for Oceanography, Indonesian Institute for Sciences, Belitung, Indonesia.
18. Ms. Tutu B. Almonte, Project Manager, Bolinao Seagrass Demo Site, Philippines.
19. Mr. Sanchai Tandavanitj, Charm National Co-Director, Thailand.
20. Mr. Pham Viet Tich, Director Cu Lao Cham Marine Protected Area Authority, Viet Nam.
21. Mr. Supriyono, Head, Infrastructure And Natural Resources Division Regional Development Planning Agency of Bintan, Indonesia.
22. Mr. Jingfa Liu, Party Secretary Provincial Administration of Land Resources, Fangchenggang, China.
23. Mr. Siming Liang, Director, Beihai Environment Protection Bureau, Hepu, China.
24. Mr. Tim Savuth, Kampot, Cambodia.
25. Mr. Nipat Somkleeb, Researcher Marine Biodiversity Research Group Department of Biology, Faculty of Science Ramkhamkaeng University Koh Chang, Thailand.
26. Mr. Vann Monyneth, Director, Coastal Coordinating Unit Ministry of Environment, Lacm Community Project, Kampot, Cambodia.
27. Dr. Chunhong Peng Site Manager, Baoan Bureau of Environmental Protection, Lindinyang, China.
28. Mr. Pedro Velasco, Officer, Mspls Protected Area Office, Malampaya Sound, Philippines.
29. Ms. Emerlinda O. Celeste-Dizon Masinloc, Marine Environment and Resources Foundation Inc Msi-Up, Philippines.
30. Mr. Nguyen An Khang, Institute of Oceanography, Ninh Hai, Viet Nam.
31. Mr. Sao Sinthun, Chief Provincial Department of Environment, Peam Krasop, Cambodia.
32. Mr. Nguyen Xuan Niem, Officer Department of Natural Resource And Environment, Phu Quoc, Viet Nam.
33. Mr. Junqin Wu, Director Shantou, China.
34. Mr. Asae Sayaka, Director Wetland International – Thailand Program, Thale Noi, Thailand.
35. Dr. Ampai Harakunarak, Director, Environmental Education and Human Resource Development Center, Trat Province, Thailand.
36. Mr. Tong Yu, Director, Division of Marine Environmental Protection, Department of Pollution Control State Environmental Protection Administration (Sepa)
37. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, China.
38. Mr. Nyoto Santoso, Indonesian of Institute Mangrove Research and Development, Batu Ampar, Indonesia.
39. Mr. Darmansyah Husein, Head of Belitung Regency, Belitung, Indonesia.
40. Mr. Weera Charoenphak, Director, Coastal Aquaculture Development Centre, Surat Thani Charm Eu Project, Thailand.
41. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, Fangchenggang, China.
42. Dr. Haolang Zhou, Guangxi Mangrove Research Centre, China.
43. Mr. Xiaoping Huang, Professor, South China Sea Institute of Oceanology, Hepu, China.
44. Mr. Yao Haibo, Beihai Environment Protection Bureau, China.
45. Ms. Luo Li, Beihai Environment Protection Bureau, China.
46. Prof. Chen Guizhu, Professor, Institute of Environmental Sciences, Zhongshan University Shantou, China.
47. Mr. Yang Shaotao, Shantou Wildlife Conservation and Management Office, China.
48. Mr. Thang Jun, Mayor Assistant, Chinese Government Officials, China.
49. Dr. John Pernetta, Project Director, Unep/Gef South China Sea Project.

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**Seventh Meeting of the Regional Working Group for the Wetlands Sub-component  
Manila, Philippines 19<sup>th</sup> – 21<sup>st</sup> June 2006**

1. Mr. Koch Savath, Deputy Director General of Technical Affaires, Ministry of Environment, Cambodia.
  2. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China.
  3. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, DENR, Philippines.
  4. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand.
  5. Ms. Nguyen Thi Thu Ha, Department of Geoenvironment, Faculty of Geology, Hanoi University of Science, Hanoi, Viet Nam.
  6. Dr. Sansanee Choowaew, Programme Director, (Natural Resource Management), Mahidol University, Thailand.
  7. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme.
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **The First Joint Meeting between the Management Teams of the Peam Krasop Wildlife Sanctuary and Trat Demonstration Sites Trat Province, Thailand, 3<sup>rd</sup> - 5<sup>th</sup> July 2006**

#### **Cambodia 22 Participants**

1. Mr. Em Simyaun, Deputy Governor and the Chair of Management Board (MB).
2. Mr. Koch Savath, Deputy Director General of Technical Affairs Vice-chair of MB
3. Mr. Mon Phalla, Deputy Director Koh Kong Provincial Department of Environment
4. Mr. Phon Leevira, Director Koh Kong Provincial Department of Agriculture, Forestry and Fisheries
5. Mr. Sim Thol, Deputy Director Koh Kong Provincial Department of Land Management, Urban Planning and Construction
6. Mr. Bun Heav, Director Koh Kong Provincial Department of Tourism,
7. Mr. Tit Kimseng, Deputy Director Koh Kong Provincial Department of Rural Development,
8. Ms. Sok Sotheauy, Deputy Director Koh Kong Provincial Department of Women Affair
9. Mr. Keo Monysophear, Deputy Commander Koh Kong Provincial Royal Navy,
10. Mr. Sak Niyor, Chief of Police Koh Kong Provincial Department of Police
11. Mr. Moug Say, Deputy Commander Koh Kong Provincial Department of Military Police
12. Mr. Pen Vannrith, Vice Chief Koh Kong Provincial Fisheries Office, DAFF;
13. Mr. Meas Sytha, Deputy Chief Koh Kong Provincial Forestry Administration
14. Mr. You Me, Deputy District Mayor Smach Meanchey District, Koh Kong Province;
15. Mr. Kok Sam Ant, Deputy District Mayor Mundol Seimar District
16. Mr. Prak Vicheth, Deputy District Mayor Koh Kong District
17. Mr. Hun Maradee, Chief Natural Conservation Office, DoE
18. Mr. Chey Pichrathna, Deputy Director Koh Kong Provincial Department of Environment
19. Mr. Sao Sinthuon, Director Koh Kong Provincial Department of Environment, and Site Manager of Peam Krasop Wildlife Sanctuary Demonstration Site
20. Mr. Ke Vongwattana, Department of Nature Conservation and Protection (DNCP), Ministry of Environment Mangrove Focal Point
21. Ms. Haunn Chanmolee, Assistant to Site Manager of Peam Krasop Wildlife Sanctuary.
22. Mr. Oul Runn, Deputy Director Peam Krasop Wildlife Sanctuary, and the

#### **Thailand 21 Participants**

1. Mr. Surapol Saipan, Vice Governor Amphoe Maung, Trat Province
2. Mr. Surat Siriwan, Deputy Director Civil Affairs Division, Naval Area 1,
3. Ms. Cheewarat Printrakoon Department of Marine and Coastal Resources,
4. Mr. Virach Benjaphantawee, Director Natural Resources and Environment of Trat Province,
5. Mr. Suchin Peantong, Chief Environmental Subdivision, Office of Trat Natural Resources and Environment
6. Dr. Sonjai Havanond, Expert Coastal Resources and Mangrove Management Department of Marine and Coastal Resources
7. Mr. Chanop Cheangjai, Assistance Researcher, Amphoe Maung, Trat province 23000, Department of Marine and Coastal Resources,
8. Dr. Ampai Harakunaruksa, Thai Environment Institute
9. Miss Ruthai Samattakarn, Mangrove Resources Development Station 4
10. Prof. Dr. Sanit Aksornkhae, President Thai Environmental Institute
11. Mr. Khwanchai Ponpantin, Office of Natural Resource and Environment Policy and Planning
12. Ms. Pimpakan Piphittananun, Marketing Officer Level 6, TAT (Trat)
13. Mr. Se Songploy, Researcher Marine Biodiversity Research Group Ramkhemhang University
14. Mr. Taksinn Rerksangket, Deputy Chief of Staff Naval Area 1, Royal Thai Fleet.
15. Mr. Worasak Wannarat, Coordinator
16. Mr. Chayan Kasomnet, Chief Fisheries Office, Provincial Department of Fisheries
17. Mr. Vinai Huang Nam, Coastal Conservative Commission, Pred Nai village
18. Mr. Samphot Vasocry, Environmental Management Commission, Trat Province
19. Mr. Anothai Reuonthorn, Chief Coastal Resource Research Study
20. Mr. Amporn Patsart, Mangrove Resources Development Station 4
21. Mr. Sompong Intasuwan, Chief Haung Nam Khao Administration Organization

#### **Project Co-ordinating Unit**

1. Dr. John Pernetta, Project Director
  2. Mr. Kim Sour, Associate Expert UNEP/GEF Project Co-ordinating Unit
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**Seventh Meeting of the Regional Working Group for the Coral Reef Sub-component  
Kudat, Sabah, Malaysia, 10<sup>th</sup> – 13<sup>th</sup> July 2006**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia.
2. Dr. Suharsono, Puslit OSEANOGRAPHI–LIPI, Head of Research Center for Oceanography – LIPI, Indonesia.
3. Mr. Abdul Rahim Bin Gor Yaman, Marine Parks Section, Ministry of Natural Resources and Environment, Malaysia.
4. Dr. Porfirio M. Aliño, Marine Science Institute, University of the Philippines.
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand.
6. Mr. Nguyen Van Long, Master of Marine Biology and Deputy Head, Department of Marine Living Resources, Institute of Oceanography, Viet Nam.
7. Prof. Dr. Chou Loke Ming, Department of Biological Sciences, The National University of Singapore.
8. Dr. Ridzwan Bin Abdul Rahman, Professor, Borneo Marine Research Institute, Universiti Malaysia Sabah (UMS), Malaysia.
9. Mr. Nipat Somkleeb, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand
10. Mr. Nasrulkhaim Bin Maidin, Marine Research Officer, The Board of Trustees of Sabah Parks, Malaysia.
11. Ms. Zarinah Waheed, Lecturer, Borneo Marine Research Institute, Universiti Malaysia Sabah (UMS), Malaysia.
12. Mr. Vellayutham Pachaimuthu, Programme Officer, UNEP/EAS RCU.
13. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Regional Working Group for the Seagrass Sub-component  
Beihai, China, 24<sup>th</sup> – 27<sup>th</sup> July 2006**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia
2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China
3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI, Indonesia
4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia
5. Dr. Marco Nemesio E. Montaño, Marine Science Institute, University of the Philippines, Philippines
6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand
7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam
8. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia
9. Dr. Miguel Fortes, IOC Sub-Commission for Western Pacific (WESTPAC), Thailand
10. Mr. Shuhua Li, Vice-Mayor of Beihai, Office of Beihai City Government, Beihai, Guangxi, China.
11. Mr. Siming Liang, Director, Beihai Environment Protection Bureau, China.
12. Mr. Yao Haibo, Hepu Seagrass Site, China.
13. Mr. Sunxiongyu, Hepu Seagrass Site, China.
14. Ms. Zhouke, Hepu Dugon National Protected Area, China.
15. Mr. Kim Sour, Associate Expert, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Regional Working Group for the Land-based Pollution Component  
Sihanouk Ville, Cambodia, 7<sup>th</sup> – 10<sup>th</sup> August 2006**

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia
  2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China
  3. Ms. Zulhasni, Head, Marine Environmental Protection Division, Ministry of Environment, Ministry for Environment, Indonesia.
  4. Mr. Hashim bin Daud, Director, Marine and Water Division, Department of Environment, Malaysia, Malaysia.
  5. Ms. Perseveranda-Fe J. Otico, Pollution Research Section, Research and Development Division, Environmental Management Bureau, (EMB) Philippines.
  6. Dr. Saravuth Rattanachongkiat, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand.
  7. Dr. Nguyen Thi Viet Lien, Deputy Director, Center for Marine Environment Survey, Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
  8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand
  9. Professor Dr. Law Ah Theem, Faculty of Maritime Studies and Marine Science, University College of Science and Technology Malaysia (Kustem), Malaysia.
  10. Dr. Zainal Arifin, Research Center for Oceanography, Indonesian Institute of Sciences, Malaysia.
  11. Ms. Birgitta Liss, Junior Professional Officer, UNEP, EAS/RCU
  12. Mr. Chea Nara, Vice, Chief, Office of Environmental Pollution Control, Cambodia.
  13. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Fifth Meeting of the Regional Task Force on Economic Valuation *Kudat, Malaysia, 21<sup>st</sup> – 24<sup>th</sup> August 2006***

1. Mr. Sy Ramony, Vice Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China.
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia.
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia.
5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR Philippines.
6. Dr. Dr. Thanwa Jitsanguan, Assistant Professor and Vice President for International Affairs, Faculty of Economics, Kasetsart University Thailand.
7. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam.
8. Dr. Tridoyo Kusumastanto, Professor, Marine Economics Policy, CCMRS – Bogor Agricultural University, Indonesia.
9. Dr. Sulan Chen, Associate Expert UNEP/GEF Project Co-ordinating Unit

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### **Seventh Meeting of the Regional Working Group for the Mangrove Sub-component *Pontianak, West Kalimantan Province, Indonesia, 4<sup>th</sup> – 8<sup>th</sup> September 2006***

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia
2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China
3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove Indonesia, Indonesia
4. Mr. Koh Hock Lye, Director, Silviculture and Forest Protection Unit, Forestry Department Head Quarters Peninsular, Malaysia.
5. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand
6. Dr. Do Dinh Sam, Professor, Forest Science Institute of Viet Nam, Viet Nam
7. Dr. Gong Wooli Khoon, Regional Expert Mangrove.
8. Ass. Prof. Dr. Nguyen Hoang Tri, Director, Centre for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam.
9. Mr. Henk Uktolseya, Expert, Assistant Deputy for Marine and Coastal Destruction Control, Ministry for Environment, Indonesia
10. Mr. Ahmad Faisal Siregar, Demonstration Site Manager of Batu Ampar, Indonesia.
11. Drs. L.H. Kadir, Vice-Governor of West Kalimantan Province, Indonesia.
12. Ir. Tri Budiarto, West Kalimantan Province, Indonesia.
13. Mr. Gatot Sudiono, Marine and Fisheries Service of West Kalimantan Province, Indonesia.
14. Mr. Eri Risaldi, Forestry & Estate Service of Pontianak District, Indonesia.
15. Mr. Johnny Darmawan S., Environmental, Energy and Mineral Resources Service of Pontianak District, Indonesia.
16. Ms. Wuyi Bardini, Board of Impact Environmental Province West Kalimantan, Indonesia.
17. Mr. Vandra Syah, IMReD, Institute Mangrove Research and Development, Indonesia.
18. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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### **Fifth Meeting of the Regional Task Force on Legal Matters *Batam, Indonesia, 18<sup>th</sup> – 21<sup>st</sup> September 2006***

1. Mr. Sam Chamroeun, Director of Planning and Legal Affairs, The Department of Planning and Legal Affairs, of Ministry of Environment, Cambodia.
  2. Dr. M. Daud Silalahi, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia.
  3. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia.
  4. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand.
  5. Ms. Nguyen Thi My Hoang, International Cooperation Division, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam.
  6. Dr. Shelley M. Lexmond, Regional Expert for the Regional Task Force on Legal Matters.
  7. Drs. Ahmad Dahlan, Vice Mayor of Batam, Indonesia.
  8. Mr. Noviandra, Sp, Head, Sub-Directorate Of Environment Monitoring And Rehabilitation, Batam Landbased Pollution – Site Manager, Indonesia.
  9. Dr. Sulan Chen, Associate Expert, UNEP/GEF Project Co-ordinating Unit
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**Eighth Meeting of the Regional Working Group for the Fisheries Component  
Belitung, Indonesia, 1<sup>st</sup> – 4<sup>th</sup> November 2006**

1. Mr. Ek Heng, Vice Chief, Fisheries Domain and Extension Office Fisheries Administration, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Mr. Parlin Tambunan, Director of Fischeires Resources, DGF Capture Fisheries, Indonesia
3. Ms. Chee Phaik Ean, Senior Research Officer, Head of Aquatic Ecosystem Section, Fisheries Research Institute, Malaysia.
4. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines.
5. Mr. Pirochana Saikliang, Senior Fishery Biologist, Upper Gulf Marine Fisheries Research and Development Center, Thailand.
6. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
7. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand.
8. Prof. Nygiel B. Armada, Senior Fisheries, Management Specialist, Philippines.
9. Dr. Yasuhisa Kato, Special Advisor, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
10. Dr. Worawit Wanchana, SEAFDEC/SIDA Project Assistant, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
11. Dr. Somboon Siriraksophon, Head of Capture Fishery Technology Division, SEAFDEC Training Department, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
12. Mrs. Nguyen Giang Thu, Official – Department of Science and Technology, Ministry of Fisheries, Viet Nam.
13. Dr. Joompol Sanguansin, Senior Expert on Fisheries Ecology, Department of Fisheries, Thailand.
14. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme.

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**Seventh Meeting of the Regional Scientific and Technical Committee  
Siem Reap, Cambodia, 14<sup>th</sup> – 17<sup>th</sup> November 2006**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia.
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA, People's Republic of China.
3. Mr. Henk Uktolseya, (Alternate for NTFP), Expert, Assistant Deputy for Marine and Coastal Destruction Control, Ministry of Environment, Indonesia.
4. Mr. Hashim Daud, (Alternate for NTFP), Director, Marine and Water Division, Department of Environment, Malaysia.
5. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines.
6. Mrs. Nirawan Pipitsompat, (Alternate for NTFP), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning Thailand.
7. Prof. Dr. Mai Trong Nhuan, Vice-President, Viet Nam National University, Hanoi Viet Nam.
8. Mr. Mohd Nizam Basiron, Chairperson RTF-L, Maritime Institute of Malaysia, Malaysia.
9. Dr. Khalid Abdul Rahim, Professor, Member RTF-E, Faculty of Economics and Management, University Putra Malaysia.
10. Dr. Hangqing Fan, Professor, Chairperson RWG-M, Guangxi Mangrove Research Centre, China.
11. Dr. Suharsono, Chairperson RWG-CR, Puslit OSEANOGRafi-LIPI, Indonesia.
12. Mr. Ouk Vibol, Vice-Chairperson RWG-SG, Deputy Chief of Fishery Conservation, Department of Fisheries, Cambodia.
13. Mr. Narong Veeravaitaya, Rapporteur RWG-W, Lecturer, Department of Fishery Biology, Faculty of Fisheries, Kasetsart University, Thailand.
14. Ir. Parlin Tambunan, Director, Chairperson RWG-F, Fishery Resources, DGF Capture, Indonesia.
15. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
16. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand
17. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
18. Ms. Srisuda Jarayabhand, Co-ordinator, United Nations Environment Programme.
19. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Sixth Meeting of the Project Steering Committee  
Siem Reap, Cambodia, 20<sup>th</sup> – 21<sup>st</sup> November 2006**

1. H.E. Snr. Minister, Dr. Mok Mareth, Senior Minister of Environment, Ministry of Environment, Cambodia.
  2. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia.
  3. Mr. Zhao Hualin, Deputy Director General, Department of Pollution Control, State Environmental Protection Administration, China.
  4. Mr. Guo Zhenren, Research Professor, SEPA, China.
  5. Mrs. Wahyu Indraningsih, Assistant the Deputy Minister of Environment, on Marine and Coastal Degradation Control Affairs, Ministry of Environment Indonesia, Indonesia.
  6. Mr. Henk Uktolseya, (Alternate for NTFP), Expert, Assistant Deputy for Marine and Coastal Destruction Control, Ministry of Environment, Indonesia.
  7. Dr. Lian Kok Fei, Malaysia.
  8. Mr. Hashim Daud, (Alternate for NTFP), Director, Marine and Water Division, Department of Environment, Malaysia.
  9. Dr. Ely Anthony R. Quano, (Alternated National Focal Point), Environmental Management Bureau, Department of Environment and Natural Resources, Philippines.
  10. Dr. Gil Jacinto, Director, Marine Science Institute, University of the Philippines, Philippines.
  11. Dr. Sirikul Bunpapong, Director, (Alternated National Focal Point), Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  12. Mrs. Nirawan Pipitsompat, Senior Environmental Officer, (Alternated National Technical Focal Point), Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  13. Dr. Tran Hong Ha, Director General, National Environmental Agency, Viet Nam.
  14. Prof. Dr. Mai Trong Nhuan, Vice-President, (National Technical Focal Point), Viet Nam National University, Viet Nam.
  15. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme.
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**Sixth Meeting of the Regional Task Force on Economic Valuation  
Batam, Indonesia, 22<sup>nd</sup> – 25<sup>th</sup> January 2007**

1. Mr. Sy Ramony, Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China.
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia.
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia.
5. Dr. Thanwa Jitsanguan, Assistant Professor and Vice president for International Affairs, Faculty of Economics, Kasetsart University Thailand.
6. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam.
7. Dr. Nuchanata Mungkung, Lecturer, Department of Agricultural and Resource Economics Faculty of Economics, Kasetsart University, Thailand.
8. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Regional Task Force on Economic Valuation  
Beihai, China, 12<sup>th</sup> – 15<sup>th</sup> March 2007**

1. Mr. Sy Ramony, Vice Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China.
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia.
4. Dr. Khalid Abdul Rahim, Professor, Faculty of Economics and Management, University Putra Malaysia.
5. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR, Philippines.
6. Dr. Thanwa Jitsanguan, Assistant Professor and Vice president for International Affairs, Faculty of Economics, Kasetsart University Thailand.
7. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam.
8. Dr. Nuchanata Mungkung, Lecturer, Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand.
9. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA.
10. Mr. Liang Siqi, Journalist, Beihai Station of Xinhua News Agency, Beihai City Government
11. Ms. Lin Peijing, Beihai Environment Protection Department
12. Ms. Liu Juan, Hepu Dugong Nature Reserve in China
13. Mr. Pang Bobin, Beihai Dragon Island Network Technology Co., Ltd.
14. Mr. Wu Chonghua, Environmental Protection Bureau
15. Ms. Xing Sue, Hepu Dugong Nature Reserve in China
16. Mr. Yao Haibo, Hepu Seagrass Demonstration Site, Beihai Environment Protection Department
17. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Eighth Meeting of the Regional Working Group on the Mangrove Sub-Component  
Koh Kong, Cambodia, 19<sup>th</sup> – 22<sup>nd</sup> April 2007**

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
  2. *Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China.*
  3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove Indonesia, Indonesia.
  4. Mr. Koh Hock Lye, Director, Silviculture and Forest Protection Unit, Forestry Department Head quarters Peninsular, Malaysia.
  5. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand.
  6. Mr. Florendo Barangan, Executive Director, Coastal & Marine Management Office, Department of Environment and Natural Resources, (CMMO-DENR), DENR Compound Visayas Avenue, Diliman, Quezon City, Philippines.
  7. Dr. Gong Wooi Khoo, Regional Expert Mangrove, Malaysia.
  8. H.E. Yuth Phouthang, Governor of Koh Kong Province
  9. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme
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**Eighth Meeting of the Regional Working Group on the Wetlands Sub-component  
*Shantou, China, 7<sup>th</sup> – 10<sup>th</sup> May 2007***

1. Mr. Mean Suon, Deputy Director, Department of Natural Resources Assessment and Environmental Data Management, Ministry of Environment, Cambodia.
  2. Professor Chen Guizhu, Institute of Environmental Sciences, Zhongshan University People's Republic of China.
  3. Ir. Antung Deddy Radiansyah, Assistant to the Deputy Minister for River and lake Degradation Control, Ministry of Environment, Indonesia.
  4. Mr. Zainuddin Ab. Shukor, Director, The Protected Area Division, Department of Wildlife and National Parks, Malaysia.
  5. Ms. Joy Navarro, Protected Areas and Wildlife Bureau, DENR, Philippines.
  6. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand.
  7. Dr. Sansanee Choowaew, Programme Director, (Natural Resource Management), Mahidol University, Thailand.
  8. Mr. Peng Yisheng, M.Sc., School of Environmental Science and Engineering Sun Yat-sen University
  9. Mr. Zhou Yanwu, School of Environmental Science and Engineering Sun Yat-sen University
  10. Mr. Huang Zhengguang, National Technical Focal Point, & Senior Engineer, South China Institute of Environmental Sciences
  11. Mr. Kim Sour, Associate Expert, UNEP/GEF Project Co-ordinating Unit, United Nations Environment Programme.
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**Eighth Meeting of the Regional Working Group on the Seagrass Sub-component  
*Sihanoukville, Cambodia, 21<sup>st</sup> – 24<sup>th</sup> May 2007***

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia.
  2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China.
  3. Mr. Tri Edi Kuriandewa, Puslit Oseanografi, LIPI, Indonesia.
  4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia.
  5. Dr. Miguel Fortes, Marine Science Institute, University of the Philippines, Philippines.
  6. *Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand.*
  7. Dr. Nguyen Van Tien, Haiphong Institute of Oceanology, Viet Nam.
  8. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia.
  9. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand.
  10. Mr. Kim Sour, Associate Expert, UNEP/GEF Project Co-ordinating Unit
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**The Second Joint Meeting between the Management Teams of  
the Kampot and Phu Quoc Demonstration Sites  
26<sup>th</sup> – 28<sup>th</sup> May 2007, Kampot, Cambodia**

**Cambodia 26 Participants**

1. H.E. Chourng Siv Vuth, the Governor of Kampot Province
2. Mr. Chan Chesda, Director, Department of Agriculture of Kampot Province
3. Mr. Khem Bun Heng, Director, Department of Environment of Kampot Province
4. Mr. Pang Bunn Rath, Director, Department of Land Management of Kampot Province
5. Mr. Nem Sinoun, Director, Department of Tourism of Kampot Province
6. Mr. Seng Chhourng, Director, Department of Rural Development of Kampot Province
7. Miss Tit SETHA, Director, Department of Women Affair of Kampot Province
8. Mr. Seng Lay, Director, Department of Planning of Kampot Province
9. Mr. Lim Sambo, Director, Department of Public and Transport of Kampot Province
10. Mr. Te Chin Narith, Vice Deputy Director, Department of Mine and industry
11. Mr. In Chiva, Police Super intendent of Kampot
12. Mr. Soun Sathara, Vice-Chief of Military Police of Kampot
13. Mr. Khuy Sienn, Chief of Kampot District
14. Mr. Som Phakdey, Vice-Chief of National Protection and Conservation Office
15. Mr. Lim Ror, Vice Chief Fisheries of Kampot
16. Mr. Ing Try, Deputy Director General of Fisheries Administration (FiA)
17. Mr. Ouk Vibol, Deputy Chief of Conservation Division, FiA
18. Mr. Sek Vanna, Deputy Chief of Military 241
19. Mr. Thai Samon, Deputy Chief of Kampot Fishery Office
20. Mr. Khem Ponna, Site Manager
21. Mr. Koch Savath, Deputy Director General of Ministry of Environment
22. Mr. Chhun Bun Long, GIS Expert, FiA
23. Mr. Chhor Bunly, Member of Marine Working Group / FiA
24. Mr. Prum Sitha, Member of Marine Working Group / FiA
25. Mr. Pum Sotha, Marine Fisheries Inspection Unit / FiA
26. Mr. Sem Vuthea, Director General of Kampot Administration

**Viet Nam 31 Participants**

1. Dr. Hoang Van Thang, Director, CRES, Hanoi National University.
2. Dr. Nguyen Van Tien, Focal Point for Seagrass, Institute of Environment and Marine Resources.
3. Mr. Nguyen Van Long, Focal Point for Coral Reefs, Institute of Oceanography.
4. Mr. Nguyen Xuan Hoa, Expert, Institute of Oceanography.
5. Mr. Le Huu Hung, Vice Chairman, Kiengiang Provincial People's Committee.
6. Mr. Trinh Van Trung, Secretary of Vice Chairman of Kiengiang PPC.
7. Mrs. Nguyen Ngoc Phuong, Vice Director, Kiengiang Department of Fisheries.
8. Mr. Tran Huu Phuc, Vice Director, Kiengiang Department of Natural Resources and Environment. (DoNRE)
9. Mr. Pham Dinh Don, Director, Branch of Environment Protection of Western South Region
10. Mr. Le Minh Hoang, Director, Kiengiang Department of Tourism.
11. Dr. Tran Thi Thu Hang, Vice Director, Kiengiang Department of Agriculture and Rural Development.
12. Mrs. Tran Thi Khi, Commissioner of Phu Quoc Women Association.
13. Mr. Van Cong Dau, Vice Director, Kiengiang Department of Foreign Affairs.
14. Mr. Phung Van Thanh, Vice Director, Kiengiang Department of Science and Technology.
15. Mrs. Vo Thi Van, Vice Director, DoNRE
16. Mr. Pham Van Sang, Vice Director, Kiengiang Provincial Border Force.
17. Dr. Thai Thanh Luom, Chairman, Phuquoc District People's Committee, Kiengiang Province
18. Mr. Nguyen Hong Cuong, Chief, Phuquoc District Office of Agriculture, Forest, Fisheries, Kiengiang Province.
19. Mr. Nguyen Xuan Niem, Site Manager, Phu Quoc demonstration site.
20. Mr. Doan Huu Thang, Head, Section of Environment , Kiengiang DoNRE
21. Mr. Do Nhat Hoa, Accountant of Kiengiang DoNRE.
22. Mr. Tran Hoang Thanh, Expert of Kiengiang DoNRE.
23. Mr. Pham Quang Binh, Director, Phu Quoc National Park.
24. Mr. Phan Ngoc Vu, Deputy Head, Sub-department of Fisheries Protection
25. Mr. Nguyen Huu Duc, Director, Kiengiang Center for Information of Natural Resource and Environment.
26. Mr. Lau Va Khin, GIS Expert, Institute of Oceanography.
27. Mr. Do Van Thanh, Chief of Cabinet of Kien Giang DoNRE.
28. Mr. Nguyen Quyet Chien, Vice Chairman, Bai Thom Commune People's Committee.
29. Mr. Nguyen Tuan, Officer, Kiengiang Radio and Television Broadcasting Station.
30. Mr. Truong Minh Chuong, Head, Section of Mine & Water resources, Kiengiang DoNRE
31. Mr. Danh Soc, Interpreter (Khmer-Vietnamese).

**Southeast Asian Fisheries Development Center**

Dr. Magnus Torell, Senior Advisor, SEAFDEC Secretariat

**Project Co-ordinating Unit**

1. Dr. John Pernetta, Project Director
2. Dr. Vo Si Tuan, Senior Expert

**Eighth Meeting of the Regional Working Group on the Coral Reef Sub-component  
Phu Quoc Island, Viet Nam, 4<sup>th</sup> – 7<sup>th</sup> June 2007**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia.
2. Dr. Suharsono, Puslit OSEANOGRAFI-LIPI, Head of Research Center for Oceanography – LIPI, Indonesia.
3. Dr. Porfirio M. Aliño, Marine Science Institute, University of the Philippines.
4. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand.
5. Mr. Nguyen Van Long, Master of Marine Biology and Deputy Head, Department of Marine Living Resources, Institute of Oceanography, Viet Nam.
6. Prof. Dr. Chou Loke Ming, Department of Biological Sciences, The National University of Singapore.
7. Ms. Makamas Sutthacheep, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamkaeng University, Thailand.
8. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit

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**Sixth Meeting of the Regional Task Force on Legal Matters  
Sihanoukville, Cambodia, 26<sup>th</sup> – 28<sup>th</sup> June 2007**

1. Mr. Sam Chamroeun, Director of Planning and Legal Affairs, Ministry of Environment, Cambodia.
2. Dr. Bie Tao, Director, Environmental Law Division, Department of Policy and Law, Chinese State of Environmental Protection Administration, SEPA, China.
3. Dr. M. Daud Silalahi, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia.
4. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia.
5. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand.
6. Mr. Duong Thanh An, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam.
7. Dr. Shelley M. Lexmond, Regional Expert for the Regional Task Force on Legal Matters.
8. Mr. Zhang Liangfu, First Secretary, Asian Department of Ministry of Foreign Affairs, China.
9. Mr. Yin Samray, Deputy Director of Planning and Legal Affairs, Department of Planning and Legal Affairs, Ministry of Environment, Cambodia.
10. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Ninth Meeting of the Regional Working Group for the Fisheries Component  
Phu Quoc Island, Viet Nam, 10<sup>th</sup> – 13<sup>th</sup> July 2007**

1. Mr. Ouk Vibol, Deputy Chief of Fishery Conservation, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
2. Ms. Lusia A. M. Saragih, Fisheries Resources, DGF Capture Fisheries, Indonesia.
3. Ms. Chee Phaik Ean, Senior Research Officer, Head of Aquatic Ecosystems Section, Fisheries Research Institute, Malaysia.
4. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines.
5. Mr. Pongpat Boonchuwong, Director, Fishery Economic Division, Department of Fisheries, Thailand.
6. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
7. Mr. Somsak Chullasorn, Department of Fisheries, Kasetsart University Campus, Thailand.
8. Prof. Nygiel B. Armada, Senior Fisheries, Management Specialist, FISH Project, Philippines.
9. Dr. Worawit Wanchana, Project Manager, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
10. Dr. Magnus Torell, Senior Advisor, The SEAFDEC Secretariat, Kasetsart University, Thailand.
11. Mr. Martin Bjerner, Associate Expert Fisheries Management, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
12. Dr. Jooppol Sanguansin, Senior Expert on Fisheries Ecology, Department of Fisheries, Thailand.
13. Ms. Ann Mari Asp, Expert on Habitat Management, The SEAFDEC Secretariat, Kasetsart University Campus, Thailand.
14. Mr. Parlin Tambunan, Secretary of Directorate General of Capture fisheries, Ministry of Marine Affairs and Fisheries, Indonesia.
15. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Regional Working Group for the Land-based Pollution Component  
Masinloc, Philippines, 6<sup>th</sup> – 9<sup>th</sup> August 2007**

1. Mr. Pak Sokharavuth, Deputy Director, Department of Pollution Control, Ministry of Environment Cambodia.
  2. Mr. Han Baoxin, Deputy Director, South China Institute of Environmental Sciences, SEPA People's Republic of China.
  3. Mr. Henk Uktolseya, Expert, Assistant Deputy for Marine and Coastal Destruction Control, Ministry for Environment, Indonesia.
  4. Ms. Carol Hoh Mui Ling, Department of Environment, Ministry of Natural Resources and Environment, Malaysia.
  5. Ms. Perseveranda-Fe J. Otico, Pollution Research Section, Research and Development Division, Environmental Management Bureau, (EMB) Philippines.
  6. Dr. Saravuth Rattanachongkiat, Marine Environment Division, Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand.
  7. Dr. Nguyen Thi Viet Lien, Deputy Director, Center for Marine Environment Survey, Research and Consultation, Institute of Mechanics, NCST, Viet Nam.
  8. Dr. Gullaya Wattayakorn, Marine Science Department, Chulalongkorn University, Thailand.
  9. Professor Dr. Law Ah Theem, Faculty of Maritime Studies and Marine Science, University College of Science and Technology Malaysia (Kustem), Malaysia.
  10. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit
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**The Second Joint Meeting between the Management Teams of  
the Peam Krasop Wildlife Sanctuary and Trat Demonstration Sites  
Koh Kong Province, Cambodia, 21<sup>st</sup> – 23<sup>rd</sup> August 2007**

**Cambodia 21 Participants**

1. Mr. Yay Soeuy, Deputy Governor, Koh Kong, Cambodia.
2. Mr. Koch Savath, Deputy Director General of Technical Affairs, Ministry of Environment (MoE)
3. Mr. Mon Phalla, Deputy Director, Koh Kong Provincial Department of Environment, (DoE)
4. Mr. Phon Leevirak, Director, Koh Kong Provincial Department of Agriculture, Forestry and Fisheries (DAFF); and the Vice-chair of MB, Koh Kong Province, Cambodia
5. Mr. Sim Thol, Deputy Director, Koh Kong Provincial Department of Land Management, Urban Planning and Construction
6. Mrs. Mang Mayonda, Deputy Director, Koh Kong Provincial Department of Tourism, Member of MB., Koh Kong Province
7. Mr. Tit Kimseng, Deputy Director, Koh Kong Provincial Department of Rural Development, Member of MB
8. Ms. Sok Sotheavy, Deputy Director, Koh Kong Provincial Department of Women Affair, Koh Kong Province
9. Mr. Keo Monysokar, Deputy Commander, Koh Kong Provincial Royal Navy, and the Member of MB., Koh Kong Province
10. Mr. Sok Niyor, Chief of Police, Koh Kong Provincial Department of Police, Koh Kong Province
11. Mr. Moun Say, Deputy Commander, Koh Kong Provincial Department of Military Police and the Member of MB
12. Mr. Pen Vannrith, Vice Chief, Koh Kong Provincial Fisheries Office, DAFF, Member of MB and Management, Advisory Group (MAG), Koh Kong Province
13. Mr. Meas Sytha, Deputy Chief, Koh Kong Provincial Forestry Administration Office, and the Member of MB and MAG., Koh Kong Province
14. Mr. You Me, Deputy District Mayor, Smach Meanchey District, and the Member of MB., Koh Kong Province
15. Mr. Kok Sam Ant, Deputy District Mayor, Smach Meanchey District; and the Member of MB., Koh Kong Province
16. Mr. Prak Vicheth, Deputy District Mayor, Koh Kong District; and the Member of MB., Koh Kong Province
17. Mr. Hun Maradee, Chief Natural Conservation Office, DoE; and the Member of MB and MAG., Koh Kong Province
18. Mr. Chey Pichrathna, Director, Koh Kong Provincial Department of Environment, and Site Manager of Peam Krasop Wildlife Sanctuary Demonstration Site
19. Mr. Ke Vongwattana, Mangrove Focal Point and the Chair of MAG, Department of Nature Conservation and Protection (DNCP), Ministry of Environment
20. Mr. Oul Runn, Deputy Director, Peam Krasop Wildlife Sanctuary, and the Member of MAG., Koh Kong Province
21. Ms. Haunn Chanmolee, Assistant to Site Manager of Peam Krasop Wildlife Sanctuary, Koh Kong Province

**Thailand 22 Participants**

1. Mr. Wichai Prapunroj, Trat's Deputy Governor, Trat Province
2. Mr. Virach Benjaphantawee, Director, Natural Resources and Environment of Trat Province
3. Mr. Suchin Pientong, Chief, Environmental Subdivision Office of Trat Natural Resources and Environment
4. Dr. Sonjai Havanond, Expert and Mangrove Focal Point, Coastal and Mangrove Resource Management Department of Marine and Coastal Resource
5. Mr. Amneoy Chumanee, Member of Prednai, Mangrove Conservation Group
6. Ms. Sumnow Pedkeaw, Member of Village No.2 (Perd Nai), Thumbool Hung Num Khoa, Trat Province
7. Ms. Cheewarat Printrakoon, Site manager, Department of Marine and Coastal Resource
8. Ms. Ruthai Samattakarn, Administrative and Financial Officer, Department of Marine and Coastal Resource
9. Mr. Srisawat Toosati, Member, Pak Khlong Num Chieo, Conservation Group
10. Mr. Withorn Junthuma, Chief, Village No.3 (Pak Khlong Num Chieo)
11. Mr. Prasoe Siri, Translator (Thai-Kamar), Trat Mangrove Demonstration Site
12. Mr. Jirasak Chukwamdee, Chief of Mangrove Research and Development Group, Department of Marine and Coastal Resources
13. Mr. Suthat Therawat, Forestry Technical Officer, Department of Marine and Coastal Resources
14. Mr. Chatree Maknual, Chief, Mangrove Research and Development Station
15. Mr. Wirot Ralongmanee, GIS Expert Assistant, Southeast Asia START Regional Centre, Chulalongkorn University
16. Mr. Chaiwat Jitkla, Forestry Technical Officer 8, Department of Marine and Coastal Resources
17. Mr. Polawee Buchakiet, Forestry Technical Officer, Moo Koh Chang National Park
18. Dr. Thamasak Yeemin, Expert and Coral Reef Focal Point, Coral Recourse Management, Department of Biology, Faculty of Science, Ramkhamhaeng University
19. Mr. Thanapong Pothitan, Department of Forestry, Kasetsart University
20. Mr. Samer Boonhai, Provincial Fisheries Officer Governor Office
21. Mr. Chuchart Oncharoen, Director Office of Tourism Authority of Thailand, Amphur Leam Ngop Trat Province
22. Mr. Yothin Thubthimthong, Tourism Authority of Thailand, Amphur Leam Ngop, Trat Province

**Project Co-ordinating Unit**

1. Dr. John Pernetta, Project Director
2. Mr. Kim Sour, Associate Expert

**Third Mayor's Roundtable and 1<sup>st</sup> Non Governmental Organisations' Forum  
26<sup>th</sup> – 27<sup>th</sup> November 2007, Bangkok, Thailand**

**Mayors Or Governors**

1. Mr. Chuong Siv Vuth, Deputy Governor, Kampot Province, Cambodia.
2. Mr. Lin Xing, Vice Mayor, Fangchenggang City Government, China
3. Mr. Hongwu Liu, Deputy Mayor, Beihai Municipal People's Government, China.
4. Drs. Asyari Abbas, Batam Municipality Government, Batam, Indonesia.
5. Ir. Tri Budiarto, Batu Ampar, Indonesia.
6. Mr. Nazalyus Nanang Effendi, Head, Regional Planning And Development Agency, Bangka-Belitung Province, Indonesia.
7. Mr. Mastur Taher, Vice-Mayor, Bintan District, Indonesia.
8. Mr. Alfonso Del Fierro Celeste, M.D, Municipal Mayor Of Bolinao, Philippines.
9. Hon. Roberto V. Rodriguez, Mayor Of Municipality Of Taytay, Philippines.
10. Mr. Prasert Chanjukorn, Chief Sub-District Leled, Surat Thani Province, Thailand.
11. Mr. Bunjong Kanakasai, Chief Of Koh Chang District Office, Thailand.
12. Mr. Virach Benjaphantawee, Director, Natural Resources And Environment, Trat Province, Thailand.
13. Mr. Tran Phong, Director, Department Of Science And Technology, Ninh Thuan Province, Ninh Hai, Viet Nam.
14. Mr. Le Huu Hung, Vice-Chairman, Kiengiang Provincial People's Committee, Viet Nam.

**Site Managers**

15. Mr. Vann Monyneath, Director, Coastal Coordinating Unit Ministry Of Environment, Lacrm Community Project, Kampot, Cambodia.
16. Mr. Khem Ponna, Fisheries Officer, Kampot Fisheries Office, Cambodia.
17. Mr. Chey Pichrathna, Director, Koh Kong Provincial, Peam Krasop, Cambodia.
18. Mr. Jingfa Liu, The Administration Department Of Guangxi National Land And Resource, Fangchenggang, China.
19. Mr. Mr. Chonghua Wu, Director, Beihai Environment Protection Bureau, Hepu, China.
20. Mr. Lin Jinzao, Chief Shantou Wildlife Conservation And Management Office, Shantou, China.
21. Mr. Novianra, Sp, Head Sub-Directorate Of Environment Monitoring And Rehabilitation Batam Landbased Pollution – Site Manager, Indonesia.
22. Mr. Ahmad Faisal Siregar, Indonesian Of Institute Mangrove Research & Development, Batu Ampar, Indonesia.
23. Ms. Nurul Dhewani Mirah Syafrie, Research Center For Oceanography, Indonesian Institute For Sciences, Belitung, Indonesia.
24. Mr. Supriyono, Head, Infrastructure And Natural Resources Division Regional Development Planning Agency Of Bintan, Indonesia.
25. Ms. Tutu B. Almonte, Project Manager, Bolinao Seagrass Demo Site, Philippines.
26. Mr. Tommy C. Cruz, Vice-Mayor Of Busuanga, Philippines.
27. Mr. Alexander Mancio, Officer, Mspls Protected Area Office, Malampaya Sound, Philippines.
28. Ms. Emerlinda O. Celeste-Dizon Masinloc, Marine Environment And Resources Foundation Inc Msi-Up, Philippines.
29. Mr. Nipat Somkleeb, Researcher Marine Biodiversity Research Group Department Of Biology, Faculty Of Science Ramkhamkaeng University Koh Chang, Thailand.
30. Ms. Cheewarat Prinrakoon, Department Of Marine & Coastal Resource, Thailand.
31. Mr. Asae Sayaka, Director Wetland International – Thailand Program, Thale Noi, Thailand.
32. Mr. Sanchai Tandavanitj, Charm National Co-Director, Thailand.
33. Mr. Nguyen Viet Cach, Director, Xuan Thuy National Park, Nam Dinh Province, Viet Nam.
34. Mr. Pham Viet Tich, Director Cu Lao Cham Marine Protected Area Authority, Viet Nam.
35. Mr. Nguyen Xuan Niem, Officer Department Of Natural Resource And Environment, Phu Quoc, Viet Nam.
36. Mrs. Tran Thi Thu Ha, Director, Department Of Fisheries, Viet Nam.

**Non-Governmental Organisation's**

37. Ms. Ngin Navirak, Phnom Penh, Cambodia.
38. Mr. Va Moeurn, Executive Director, Mlup Baitong, Cambodia.
39. Dr. Zhu Liu-Cai, Chief, China Gef Office, Beijing, China.
40. Dr. Zainal Arifin, Research Center For Oceanography, Indonesia.
41. Ms. Avi Mahaningtyas, Indonesia.
42. Mr. Hiew Wai Phang, Manager, Peninsular Malaysia Seas Programme, Wwf-Malaysia.
43. Dr. Martin Abraham, Kuala Lumpur, Malaysia.
44. Ms. Angelita B. Cunanan, Philippines.
45. Dr. Helen Mendoza, Convenor Philippine Network For Climate Change, Philippines.
46. Mr. Poonsin Sreesangkom, Bangkok, Thailand.
47. Ms. Nguyen Thi Kim Anh, Hanoi, Viet Nam.
48. Mr. Kanchit Sukiamit, Executive Director, Development Support Consortium/Thai Fund Foundation, Thailand.
49. Dr. Delfin Ganapin, Global Manager, Gef Small Grants Programme, New York, Usa.
50. Dr. Sulan Chen, Programme Specialist-International Waters, Land Degradation And Pops, Gef Small Grants Programme, New York, Usa.

**Observers**

51. Dr. Jetic Ljubomir, Observer, Croatia.
52. Dr. J. Michael Bewers, Observer, Andorra.
53. Mr. Li Xinmin, Deputy Director-General, Department Of Pollution Control, Sepa, China.
54. Mr. Huang Zhengguang, Senior Engineer, South China Institute Of Environmental Sciences, China.
55. Mr. Wu Hua, General Manager, Fangchenggang Xindi Co., Ltd., China.
56. Mr. Yao Haibo, Beihai Environment Protection Bureau, Hepu, China.
57. Mr. Peng Yisheng, M.Sc.School Of Environment Science And Engineering, Shantou, China.
58. Mr. Ahmad Dendi Novardi, Head Of Environmental Management Agency, Batam, Indonesia.
59. Mr. Noel Barut, Chief, National Fisheries Research And Development Institute, Philippines.
59. Mr. Shafqat Kakakhel, Assistant Secretary General/Deputy Executive Director, UNEP, Nairobi.
60. Ms. Tessa Goverse, Task Manager – Assessment And Science Projects, UNEP/DGEF, Nairobi.
61. Dr. John Pernetta, Project Director, UNEP/GEF South China Sea Project.

**Third Regional Scientific Conference  
Bangkok, Thailand, 28<sup>th</sup> – 30<sup>th</sup> November 2007  
153 Participants**

**MEMBERS**

National Focal Point 7 countries	7 person
National Technical Focal Point 7 countries	7 person
Focal Point on Mangroves Component and Experts	10 person
Focal Point on Coral Reefs Component and Experts	8 person
Focal Point on Seagrass Component and Experts	10 person
Focal Point on Wetlands Component and Experts	9 person
Focal Point on Fisheries Component and Experts	6 person
Focal Point on Land-based Component and Experts	9 person
Regional Task Force on Legal Matters and Experts	7 person
Regional Task Force on Economic Valuation and Experts	8 person
Regional Expert for RSTC	3 person
Small Grants Programme National Coord., NGOs	15 person
UNEP Nairobi	2 person
Other UN Organisations and NGOs	13 person
PCU	8 person
Mayors, Governors	10 person
Site Managers	18 person
Observers	3 person

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**Eighth Meeting of the Regional Scientific and Technical Committee  
Trat Province, Thailand, 11<sup>th</sup> – 14<sup>th</sup> December 2007**

1. Mr. Koch Savath, Deputy Director General, Ministry of Environment, Cambodia.
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA, People's Republic of China.
3. Mr. Dasminto, (Alternate for NTFP), Staff of Coastal and Marine Ecosystem Unit, Ministry of Environment, Indonesia.
4. Mr. Lee Heng Keng, (Alternate for NTFP), Department of Environment, Malaysia.
5. Mr. Florendo Barangan, (Alternate for NTFP), Executive Director, Coastal & Marine Management Office, CMMO-DENR, Philippines.
6. Mrs. Nirawan Pipitsompat, (Alternate for NTFP), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning Thailand.
7. Dr. Khalid Abdul Rahim, Professor, Member RTF-E, Faculty of Economics and Management, University Putra Malaysia.
8. Mr. Ke Vongwattana, Vice-Chairperson RWG M, Assistant to Minister in Charge of Mangrove, Ministry of Environment, Cambodia.
9. Mr. Nguyen Van Long, Chairperson RWG-CR, Master of Marine Biology and Deputy Head, Department of Marine Living Resources, Viet Nam.
10. Dr. Hutomo Malikusworo, Vice-Chairperson RWG-SG, Indonesian Institute of Science, Indonesia.
11. Mr. Narong Veeravaitaya, Chairperson RWG-W, Lecturer, Department of Fishery Biology, Faculty of Fisheries, Kasetsart University, Thailand.
12. Ms. Chee Phaik Ean, Vice-Chairperson RWG-F, Senior Research Officer, Head of Aquatic Ecosystems Section, Fisheries Research Institute, Malaysia.
13. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
14. Dr. Anond Snidvongs, Director, Southeast Asia START Regional Centre, Thailand.
15. Professor Ong Jin-Eong, Centre for Marine and Coastal Studies, Universiti Sains Malaysia.
16. Ms. Srisuda Jarayabhand, Co-ordinator, COBSEA Secretariat, United Nations Environment Programme.
17. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Project Steering Committee  
Trat Province, Thailand, 17<sup>th</sup> – 19<sup>th</sup> December 2007**

1. H.E. Mr. Kong Sam Nuon, (Alternate for NFP), Secretary of State, Ministry of Environment, Cambodia.
  2. Mr. Koch Savath, (NTFP) Deputy Director General, Ministry of Environment, Cambodia.
  3. Mr. Li Xinmin, (NFP), Deputy Director General, Department of Pollution Control, State Environmental Protection Administration, China.
  4. Mr. Guo Zhenren, (PSC Member) Research Professor, SEPA, China.
  5. Mrs. Wahyu Indraningsih, (NTFP), Assistant the Deputy Minister of Environment, on Marine and Coastal Degradation Control Affairs, Ministry of Environment Indonesia, Indonesia.
  6. Mr. Lee Heng Keng, (Alternate for NFP), Department of Environment (DOE), Malaysia.
  7. Ms. Maria Lourdes G. Ferrer, (Alternated National Focal Point), OIC-Director Project Operations and Management Service, Foreign Assisted and Special project Office, Philippines.
  8. Mr. Florendo Barangan, (Alternate for NTFP), Executive Director, Coastal & Marine Management Office (CMMO-DENR), Philippines.
  9. Dr. Sirikul Bunpaong, (Alternate National Focal Point), Director, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  10. Mrs. Nirawan Pipitsompat, (Alternate National Technical Focal Point), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  11. Mr. Duong Thanh An, (Alternate National Focal Point) Director International Division on Environment, Viet Nam Environmental Protection Agency (VEPA), Hanoi, Viet Nam.
  12. Prof. Dr. Mai Trong Nhuan, (NTFP), Vice-President, (National Technical Focal Point), Viet Nam National University, Viet Nam.
  13. Dr. John Pernetta, Committee Secretary, Project Director, UNEP/GEF Project Co-ordinating Unit
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**The Third Joint Meeting between the Management Teams of  
the Peam Krasop Wildlife Sanctuary and Trat Demonstration Sites  
Trat Province, Thailand, 18<sup>th</sup> – 20<sup>th</sup> February 2008**

**Cambodia 22 Participants**

1. Mr. Yay Seuy, Deputy Governor of Koh Kong Province
2. Mr. Koch Savath, Deputy Director General of Technical Affairs, Ministry of Environment
3. Mr. Ke Vongwattana, Mangrove Focal Point and Deputy Director General of Administration
4. Mr. Suon Mean, Deputy Director of Department of Natural Resources Assessment and Environmental Data Management, Ministry of Environment
5. Mr. Man Phalla, Deputy Director Koh Kong Provincial Department of Environment and the vice Chair of MB
6. Mr. Phon Lyvirak, Director Koh Kong Provincial Department of Agriculture, Forestry and Fishery (DAFF), and the Vice Chair of MB
7. Mr. Ke Puthy, Deputy Director Koh Kong Provincial Department of Land Management, Urban Planning and Contraction and the vice Chair of MB
8. Ms. Sok Sotheavy, Chief Women Affairs Office
9. Mr. Niun Sambo, Director Commander Koh Kong Provincial Royal Navy, and Member of MB
10. Mr. Pol Chantha, Deputy Director Koh Kong Provincial Department of Rural Development and Member of MB
11. Mrs. Mang Moyouda, Deputy Director, Provincial Department Tourism and Member of MB
12. Mr. Sok Nhor, Chief Comendar of Koh Kong Provincial Department of Police, and Member of MB
13. Mr. Meas Sitha, Provincial Forestry administration office, and Member of MB and MAG
14. Mr. Kok Som An, Deputy District Mayor Mondol seimar District, and Member of MB
15. Mr. Hun Marady, Chief Natural Conservation Office, DoE and Member of MB and MAG
16. Mr. Chey PichRathana, Director Koh Kong Provincial Department of Environment and Site Manager of Peam Krasoap Wild Life Sanctuary Demonstration Site
17. Ms. Houn Chan Moly, Assistance to Site Manager of Peam Krasoap Wild Life Sanctuary
18. Mr. Prak Vichit, Deputy District Mayor Koh Kong District, and Member of MB
19. Mr. Ol Run, Deputy Director Peam Krasoap Wild Life Sanctuary and Member of MAG
20. Mr. Moung Say, Deputy Commendar Koh Kong Provincial Department of Military Police and Member of MB
21. Mr. You Me, Deputy District Mayor Smach Mean Chey District, and Member of MB
22. Mr. Pen Vannarith, Vice Cheif Koh Kong Provincial Fisheries Office, and Member of MB and MAG

**Thailand 27 Participants**

1. Mr. Amporn Patsartm, Chairman, Prednai Mangrove Development and Conservation Group
2. Ms. Attjala Roongwong, Project Coordinator, Thailand Collaborative Country Support Programme
3. Mr. Chaiwat Jitkla, Forestry Technical Officer 8, Department of Marine and Coastal Resource
4. Ms. Chaya Ahssatit, Chief Moo 2, Ban Tha Ta Phao
5. Ms. Cheewarat Prinrakoon, Site manager, Department of Marine and Coastal Resource
6. Chuchart Oncharoen, Director, Tourism Authority of Thailand
7. Mr. Somsak Yanokphan, Vice Trat Governor, Amphoe Maung, Trat
8. Ms. Makamas Suthacheep, Researcher, Department of Biology, Faculty of Science, Ramkamhaeng University
9. Mr. Manote Pungrung, Chief of Village No.2 (Perd Nai)
10. Mr. Nipat Somkleb, Site Manager of Koh Chang Demonstration Site Management, Department of Biology, Faculty of Science, Ramkamhaeng University
11. Ms. Nontarat Chaiya, Fisheries Office, Fisheries Office, Provincial Department of Fisheries
12. Ms. Ruthai Samattakarn, Administrative and Financial Officer, Department of Marine and Coastal Resource
13. Ms. Somying Soontornwong, Program Manager, Thailand Collaborative Country Support Programme, RECOFTC
14. Dr. Sonjai Havanond, Expert and Mangrove Focal Point Coastal and Mangrove Resource Management, Department of Marine and Coastal Resource
15. Mr. Sesawad Thosati, Board of conservation Group
16. Ms. Siriporn, Translator, Faculty of Science, Mahidol University
17. CAPT. Suchart Premprasert, Deputy Director Civil affair division, The First Area Command Royal Thai fleet, Sattahip
18. Mr. Supakit Hungnum, Board of Prednai Mangrove development and conservation Group
19. Mr. Surachai Pransilpa, Super Interdent
20. Mr. Suthat Therawat, Forestry Technical Officer 7, Department of Marine and Coastal Resource
21. Mr. Thanapong Pothitan, Researcher, Department of Forestry, Kasetsart University
22. Mr. Thanit Sangwisut, Chief Mangrove Resources Development Station 4 (Namcheao-Trat)
23. Mr. Withorn Junthuma, Chief Village No.3 (Pak Khlong Num Chieo)
24. Mr. Wirote Laongmanee, GIS Technical, Southeast Asia START Regional Centre, Chulalongkorn University
25. Mr. Virach Benjaphantawee, Director Natural Resources and Environment of Trat Province
26. Mr. Wanlop Preechamart, Environmental Officer, Office of Natural Resources and Environmental Policy and Planning
27. Mr. Yothin Thubthimthong, Tourism Promotion Officer, Tourism Authority of Thailand

**Project Co-ordinating Unit**

Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**The Third Joint Meeting between the Management Teams of  
the Kampot and Phu Quoc Demonstration Sites  
Phu Quoc Island, Kien Giang Province, Viet Nam. 28<sup>th</sup> February – 1<sup>st</sup> March 2008**

**Cambodia 26 Participants**

1. H.E. Chuong Sivuth, Deputy Governor Kampot Province
2. Mr. Pang Ponna Rath, Director of Land Management Department, Kampot Province
3. Mr. Khem Bun Heng, Director of Environment Department, Kampot Province
4. Mr. Nem Sinoun, Deputy Director of Tourism Department, Kampot Province
5. Mr. Khuy Sien, Kampot District Chief, Kampot Province
6. Mr. Seng Chhoung, Director of Rural Development Department, Kampot Province
7. Mr. Lim Sambo, Director of Public and transportation Department, Kampot Province
8. Mr. Te Chin Narith, Deputy Director of department of Industry, Kampot Province
9. Mr. Sourn Sethara, Vice Chair of Military Police, Kampot Province
10. Ms. Tit Setha, Deputy Director, Department of Women Affair
11. Mr. In Chiva, Vice Police Superintendent of Kampot
12. Mr. Sim Vuthea, Secretary of Provincial Administration, Kampot Province
13. Mr. Touch Poleak, Navy police Commander, Kampot province
14. Mr. Chan Chesda, Director of Agriculture Department, Kampot Provincial
15. Mr. Thai Samorn, Deputy Chief of Kampot Fishery office
16. Mr. Sar Sorin, Chief of Kampot Fishery Cantonment, Kampot Province
17. Mr. Som Pheakdey, Chief of conservation office, Department of Environment
18. Mr. Khem Ponna, Kampot Seagrass Demonstration Site
19. Mr. King Sophany, Kampot Fishery officer
20. Mr. Koch Savath, Deputy Director General of Technical Affair, Ministry of Environment
21. Mr. Ouk Vibol, Director of Fisheries Conservation, Fisheries Administration
22. Mr. Ouch Vutha, Deputy Director of Fisheries Domain, Fisheries Administration
23. Mr. Va Long Dy, Marine working group, FiA
24. Mr. Chhor Bunly, Marine working group, FiA
25. Mr. Prum Sitha, Deputy Director of Fisheries Domain, Fisheries Administration
26. Mr. Ly Sey Ha, Official of Kampot Fisheries Cantonment

**Viet Nam 41 Participants**

1. Dr. Hoang Van Thang, Vice Director of Center for Education & Research Environment, Hanoi National University
2. Mr. Le Huu Hung, Vice Chairman, Kiengiang Provincial People's Committee
3. Dr. Thai Thanh Luom, Director, Kiengiang Department of Natural Resources and Environment
4. Mrs. Nguyen Ngoc Phuong, Vice Director, Kiengiang Department of Fisheries
5. Mr. Pham Dinh Don, Director, Branch of Environment Protection of Western South Viet Nam
6. Mr. Le Minh Hoang, Director, Kiengiang Department of Tourist
7. Mrs. Tran Thi Thu Hang (Dr.), Vice Director, Kiengiang Department of Agriculture and Rural Development
8. Mrs. Nguyen Thi Thu Ba, Chairwoman of Women Union, Phu Quoc district
9. Mr. Hoang Trung, Vice Director, Kiengiang Department of Planning and Investment
10. Mr. Nguyen Van Tuoi, Vice Director, Kiengiang Department of Finance
11. Mr. Van Cong Dau, Vice Director, Kiengiang Department of Foreign Affairs
12. Mr. Phung Van Thanh (MSc.), Vice Director, Kiengiang Department of Science and Technology
13. Mrs. Vo Thi Van, Vice Director, Kiengiang Department of Natural Resources and Environment
14. Mr. Pham Van Sang, Vice Director, Kiengiang Provincial Border Force
15. Mr. Bui Quang Hai, Vice Director, Kiengiang Provincial Police
16. Mr. Bui Hung Dung, Vice Director, Kiengiang Department of Foreign Affairs (Responsible for the border)
17. Mr. Nguyen Duc Kinh, Vice chairman, Phu Quoc District People's Committee
18. Mr. Nguyen Hong Cuong, Director, Phu Quoc MPA
19. Mrs. Le Thi Nhut, Vice Director, Kiengiang Department of Fishery
20. Mr. Nguyen Van Long (MSc.), Focal Point on Coral. Institute of Oceanography (Nha Trang)
21. Mrs. Tu Lan Huong (MSc.), Replace the retired Dr. Tien as Focal Point on Seagrass. Institute of Environment and Marine Resources (Hai Phong)
22. Mr. Nguyen Xuan Niem (MSc.), Vice Director, Kiengiang Center for Science and Technology
23. Mr. Doan Huu Thang, Vice Header, Section of Environment (Kiengiang DoNRE)
24. Mr. Pham Quang Binh, Director, Phu Quoc National Park
25. Mr. Nguyen Xuan Hoa, Expert on Seagrass, Institute of Oceanography (Nha Trang)
26. Mr. Do Nhat Hoa, Accountant of Department of Natural Resources of Environment
27. Mr. Tran Hoang Thanh, Specialist of Division of Environment. Dept. of Natural Resources of Environment
28. Mr. Danh Soc, Expert, Center for Kiengiang Agriculture Promotion
29. Mr. Pham Vu Hong, Chairman, Phu Quoc District People's Committee
30. Mr. Pham Xuan Hai, Vice General Director Saigon-Phu Quoc Resort
31. Mr. Lau Va Khin (MSc.), Expert on GIS, Institute of Oceanography (Nha Trang)
32. Mr. Nguyen An Khang (MSc.), Site Manager of Ninh Hai Demo site
33. Mr. Trinh Van Trung, Secretary of Vice Chairman, Kiengiang Provincial People's Committee
34. Mr. Nguyen Minh Truc, Chief, Phuquoc District Office of Agriculture, Forest, Fisheries
35. Mr. Nguyen Quoc Dung, Chief of Office of Natural Resources and Environment
36. Mr. Nguyen Tuan, Officer, Kiengiang Radio & Television Broadcasting Station
37. Mr. Pham Linh, Officer, Kiengiang Radio & Television Broadcasting Station
38. Mr. Truong Vu, Journalist, Kien Giang Magazine
39. Mr. Truong Van Dung, Vice Chairman, Ham Ninh Commune People's Committee
40. Mr. Nguyen Quyet Chien, Vice Chairman, Bai Thom Commune People's Committee
41. Mr. Do Trong Luc, Vice Chairman, Hon Thom Commune People's Committee

**Project Co-ordinating Unit**

Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

**Ninth Meeting of the Regional Working Group on the Seagrass Sub-component  
Phu Quoc, Kien Giang Province, Viet Nam 3<sup>rd</sup> – 5<sup>th</sup> March 2008**

1. Mr. Ouk Vibol, Department of Fisheries, Ministry of Agriculture, Forestry, and Fisheries, Cambodia.
2. Mr. Xiaoping Huang, South China Sea Institute of Oceanology, Chinese Academy of Sciences, People's Republic of China.
3. Mr. Supriyono, Head, Infrastructure And Natural Resources Division Regional Development Planning Agency Of Bintan, Indonesia.
4. Mr. Kamarruddin bin Ibrahim, Department of Fisheries, Turtle and Marine Ecosystem Center (TUMEC), Malaysia.
5. Dr. Marco Nemesio E. Montaña, Professor, Marine Science Institute, University of the Philippines, Philippines.
6. Dr. Suvaluck Satumanatpan, Faculty of Environment and Resource Studies, Mahidol University, Salaya Campus, Thailand.
7. Mrs. Tu Thi Lan Huong, Institute of Marine Environment and Resources (IMER), Vietnamese Academy of Science and Technology, Viet Nam.
8. Dr. Hutomo Malikusworo, Indonesian Institute of Science, Indonesia.
9. Dr. Chittima Aryuthaka, Department of Marine Science, Faculty of Fisheries, Kasetsart University, Thailand.
10. Dr. Vo Si Tuan, Institute of Oceanography, Viet Nam.
11. Mr. Nguyen Xuan Niem, MSc., Site Manager, Phu Quoc Demonstration Site, Viet Nam.
12. Ms. Nguyen To Uyen, Marine Programme Officer, WWF Viet Nam.
13. Dr. John C. Pernetta, UNEP/GEF Project Co-ordinating Unit

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**Ad Hoc Meeting Regional Working Group on Fisheries  
UNEP Bangkok, Thailand, 21<sup>st</sup> – 22<sup>nd</sup> February 2008**

1. Ms. Chee Phaik Ean, Senior Research Officer, Head of Aquatic Ecosystems Section, Fisheries Research Institute, Malaysia.
2. Mr. Nilanto Perbowo, Director, Fisheries Resource Management, Directorate General of Capture Fisheries, Indonesia.
3. Mr. Trian Yunanda, Fisheries Resource Management, Indonesia.
4. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines.
5. Mr. Pirochana Saikiang, Senior Fishery Biologist, Chumporn Marine Fisheries research and Development Center Studies Service, Department of Environment and Natural Resources, DENR, Philippines.
6. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
7. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit.

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**Eighth Meeting of the Regional Task Force on Economic Valuation  
Busuanga, Palawan, Philippines, 10<sup>th</sup> – 13 March 2008**

1. Mr. Sy Ramony, Chief, National Park and Wildlife Sanctuary Office, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
2. Dr. Li Kaiming, Vice President, South China Institute of Environmental Sciences, SEPA People's Republic of China.
3. Dr. Matius Suparmoko, Faculty of Economics, Jenderal Soedirman University, Indonesia.
4. Dr. Noel Eusebio Oyardo Padilla, Development Management Officer V, Policy Studies Division, Planning and Policy Studies Service, Department of Environment and Natural Resources, DENR, Philippines.
5. Dr. Nuchanata Mungkung, Lecturer, Department of Agricultural and Resource Economics, Faculty of Economics, Kasetsart University Thailand.
6. Dr. Nguyen The Chinh, Senior Economist, Dean of Faculty of Environmental Economics, Hanoi University of Economics, Viet Nam.
7. Prof. Dr. Tridoyo Kusumastanto, Director, Center for Coastal and Marine Resources Studies (CCMRS), Institute for Tropical Coastal and Ocean, Bogor Agricultural University, Indonesia.
8. Dr. Ong Jin-Eong, Regional Expert, Malaysia.
9. Professor Alistair McLgorm, Director, National Marine Science Centre, The University of New England and Southern Cross University, Australia.
10. Ms. Denise Marie Inong Encarnacion, Department of Environment and Natural Resources, Philippines.
11. Mr. Christopher Paterson, Fisheries Expert, UNEP/GEF Project Co-ordinating Unit

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**Ninth Meeting of the Regional Working Group on the Mangrove Sub-Component  
Beihai, China, 2<sup>nd</sup> – 4<sup>th</sup> April 2008**

1. Mr. Ke Vongwattana, Assistant Minister in charge of Mangrove and Wetland, Department of Nature Conservation and Protection, Ministry of Environment, Cambodia.
  2. Dr. Hangqing Fan, Professor, Guangxi Mangrove Research Centre, People's Republic of China.
  3. Mr. Nyoto Santoso, Lembaga Pengkajian dan Pengembangan Mangrove Indonesia, Indonesia.
  4. Mr. Koh Hock Lye, Director, Silviculture and Forest Protection Unit, Forestry Department Head Quarters Peninsular, Malaysia.
  5. Mr. Florendo Barangan, c/o Coastal and Marine Management Office, Department of Environment and Natural Resources (CMMO/DENR), Philippines.
  6. Dr. Sonjai Havanond, Marine and Coastal Resources Division, Thailand.
  7. Mr. Vu Tan Phuong, MSc. Forestry, Acting Director, c/o Research Centre for Forest Ecology and Environment (RCFEE), Viet Nam.
  6. Dr. Gong Wooi Khoon, Regional Expert Mangrove, Malaysia.
  7. Dr. Ong Jin-Eong, regional Expert, Malaysia.
  8. Ass. Prof. Dr. Nguyen Hoang Tri, Director, Center for Environmental Research and Education (CERE), Hanoi University of Education, Viet Nam
  9. Dr. Khalid Abdul Rahim, Professor, Deputy Dean, Faculty of Economics and Management, University Putra Malaysia, Malaysia.
  10. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences
  11. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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**Terminal Report of the UNEP/GEF South China Sea Project**

**Ninth Meeting of the Regional Working Group on the Coral Reef Sub-component  
Belitung, Indonesia, 22<sup>nd</sup> – 24<sup>th</sup> April 2008**

1. Mr. Ouk Vibol, Ministry of Agriculture, Forestry, and Fisheries, Cambodia.
2. Dr. Suharsono, Head of Research Center for Oceanography – LIPI, Indonesia.
3. Ms. Noor Aznimm Zahariman, Pegawai Penyelidik, Jabatan Taman Laut Malaysia.
4. Dr. Porfirio M. Aliño, Marine Science Institute, University of the Philippines.
5. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Department of Biology, Faculty of Science Ramkhamhaeng University, Thailand.
6. Mr. Nguyen Van Long, Master of Marine Biology and Deputy Head, Department of Marine Living Resources, Institute of Oceanography, Viet Nam.
7. Dr. Chou Loke Ming, Department of Biological Sciences, The National University of Singapore.
8. Ms. Makamas Sutthacheep, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamkaeng University, Thailand.
9. Mr. Tadashi Kimura, Senior Research Scientist, Japan Wildlife Research Center (JWRC),
10. Ms. Nurul Dhewani Mirah Sjafrie Msi, Research Center for Oceanography, Indonesian Institute for Sciences, CRITC-COREMAP-LIPI, Indonesia.
11. Dr. Vo Si Tuan, Senior Expert, UNEP/GEF Project Co-ordinating Unit

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**Ninth Meeting of the Regional Working Group on the Wetlands Sub-component  
Taytay, Philippines, 6<sup>th</sup> – 8<sup>th</sup> May 2008**

1. Mr. Koch Savath, Deputy Director General of Technical Affaires, Ministry of Environment, Cambodia.
2. Mr. Zainuddin Ab. Shukor, Director, The Protected Area Division, Department of Wildlife and National Parks, Malaysia.
3. Ms. Marlynn M. Mendoza, Protected Areas and Wildlife Bureau, Philippines.
4. Mr. Narong Veeravaitaya, Department of Fisheries Biology, Faculty of Fisheries, Kasetsart University, Thailand.
5. Ms. Nguyen Thi Thu Ha, Department of Geo-environment, Faculty of Geology, Hanoi University of Science, Viet Nam.
6. Ms. Joy Navarro, Protected Areas and Wildlife Bureau, DENR, Philippines.
7. Mr. Roberto Rodriguez, Mayor, Municipal Government of Taytay, Philippines.
8. Mr. Alexander Mancio, DIC Protected Area Superintendent (PASU), Malampaya Sound Protected, Philippines.
9. Mr. John Francisco Pontillas, Division Chief, Policy Research Division, Palawan Council for Sustainable Development (PCSD), Philippines.
10. Mr. Juan dela Cruz, Provincial Environment and Natural Resources Officer of Palawan (PENRD Palawan), Philippines.
11. Mr. Florencio Diaz, Community Environment and Natural Resources Officer of Taytay (CENRO-Taytay) DENR, Philippines.
12. Engineer Raul Maximo, Project Development Officer, Palawan Council for Sustainable Development Staff (PCSDS), Philippines.
13. Mr. Christopher Paterson, UNEP/GEF Project Co-ordinating Unit

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**Seventh Meeting of the Regional Task Force on Legal Matters  
Nha Trang, Viet Nam, 12<sup>th</sup> – 14<sup>th</sup> May 2008**

1. Dr. Bie Tao, Director, Environmental Law Division, Department of Policy and Law, Chinese State of Environmental Protection Administration, SEPA, China.
2. Dr. M. Daud Silalahi, Doctoral Dissertation for Law, University of Padjadjaran-Bandung, Institute of Ecology, Indonesia.
3. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia.
4. Dr. Amnat Wongbandit, Associate Professor of Environmental Law, Faculty of Law, Thammasat University, Thailand.
5. Mr. Duong Thanh An, Expert, General Affairs, Viet Nam Environmental Protection Agency, (VEPA) Viet Nam.
6. Dr. Shelley M. Lexmond, Regional Expert for the Regional Task Force on Legal Matters.
7. Mrs. Dang Thuy Van, Official, Viet Nam Environmental Protection Agency (VEPA), Viet Nam.
8. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Tenth Meeting of the Regional Working Group for the Fisheries Component  
Busuanga, Philippines, 2<sup>nd</sup> – 5<sup>th</sup> June 2008**

1. Mr. Ouk Vibol, Direcotor, Fishery Conservation, Department of Fisheries, Ministry of Agriculture, Forestry and Fisheries, Cambodia.
  2. Mr. Nilanto Perbowo, Director, Fisheries Resource Management, Directorate General of Capture Fisheries, Indonesia.
  3. Ms. Chee Phaik Ean, Senior Research Officer, Head of Aquatic Ecosystems Section, Fisheries Research Institute, Malaysia.
  4. Mr. Noel Barut, Chief, National Fisheries Research and Development Institute, Department of Agriculture, Philippines.
  5. Ms. Ratana Munprasit, Senior Researcher, Eastern Marine Fisheries Research and Development Center, Thailand.
  6. Dr. Dao Manh Son, Vice Director, Research Institute for Marine Fisheries, Viet Nam.
  7. Prof. Nygiel B. Armada, Senior Fisheries, Management Specialist, FISH Project, Philippines.
  8. Dr. Magnus Torell, Senior Advisor, The SEAFDEC Secretariat, Kasetsart University, Thailand.
  9. Dr. Somboon Siriraksophon, Policy and Program Coordinator, SEAFDEC Secretariat, Thailand.
  10. Mr. Train Yunanda, Head, Section for Corporation of Fisheries Resource Management in IEEZ and Hig Seas, Indonesia.
  11. Mr. Geronimo T. Silvestre, Chief of Party, FISH Project, Philippines.
  12. Mr. Francisco Torres Jr., Aquaculturust I, National Fisheries Research and Development Institute (NFRDI), Philippines.
  13. Mr. Desiderio Ayanan Jr., Research Assistant, UNEP/GEF SCS Project, BFAR-National Fisheries Research Development Institute, Philippines.
  14. Mr. Christopher Paterson, Expert - Fisheries, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **Ninth Meeting of the Regional Scientific and Technical Committee Hue, Viet Nam, 20<sup>th</sup> – 22<sup>nd</sup> August 2008**

1. Mr. Koch Savath, Deputy Director General Technical Affairs, Ministry of Environment, Cambodia.
2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA, People's Republic of China.
3. Ms. Zulhasni, Head of Marine Environmental Protection Division, Assistant the Deputy Minister for Marine and Coastal Degradation Control, Ministry of Environment, Indonesia.
4. Mr. Lee Heng Keng, (Alternate for NTFP), Department of Environment, Malaysia.
5. *Dr. Gil Jacinto, Marine Science Institute, University of the Philippines, Philippines.*
6. Mrs. Nirawan Pipitsompat, (Alternate for NTFP), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning Thailand.
7. Prof. Dr. Mai Trong Nhuan, President, Vietnam National University, Hanoi, Viet Nam.
8. Mr. Duong Thanh An, Chairperson RTF-L, Director, International Division on Environment, Viet Nam Environmental Protection Agency (VEPA), Viet Nam.
9. Dr. Nguyen The Chinh, Vice-Chairperson RTF-E, Senior Economist, Assistant Professor, Dean, Faculty of Urban Environmental, National Economic University, Viet Nam.
10. Dr. Hangqing Fan, Chairperson RWG-M, Professor, Guangxi Mangrove Research Centre, China.
11. Dr. Porfirio Aliño, Chairperson RWG-CR, Professor, Marine Science Institute, University of the Philippines (MSI/UP), Philippines.
12. Mrs. Tu Thi Lan Huong, Chairperson RWG-SG, Institute of Marine Environment and Technology, Viet Nam.
13. *Mr. Zainuddin Ab. Shukor, Vice-Chairperson RWG-W, Director, The Protected Area Division, Department of Wildlife and National Parks, Malaysia.*
14. Dr. Dao Manh Son, Vice-Chairperson RWG-F, Vice Director, Research Institute for Marine Fisheries, Ministry of Fisheries, Viet Nam.
15. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
16. Dr. Vo Si Tuan, Regional Expert, Institute of Oceanography, Viet Nam.
17. Professor Ong Jin-Eong, Regional Expert, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
18. Ms. Srisuda Jarayabhand, Co-ordinator, United Nations Environment Programme.
19. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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### **Eighth Meeting of the Project Steering Committee Hanoi, Viet Nam, 25<sup>th</sup> – 26<sup>th</sup> August 2008**

1. H.E. Mr. Kong Sam Nuon, (Alternate NFP), Secretary of State, Ministry of Environment, Cambodia
  2. Mr. Koch Savath, (NTFP) Deputy Director General, Ministry of Environment, Cambodia.
  3. Mr. Li Xinmin, (NFP), Deputy Director General, Department of Pollution Control, State Environmental Protection Administration, China.
  4. Mr. Guo Zhenren, (PSC Member) Research Professor, SEPA, China.
  5. Mrs. Wahyu Indraningsih, (NTFP), Assistant the Deputy Minister of Environment, on Marine and Coastal Degradation Control Affairs, Ministry of Environment Indonesia, Indonesia.
  6. Ms. Zulhasni, Head of Marine Environmental Protection Division, Assistant the Deputy Minister for Marine and Coastal Degradation Control, Ministry of Environment, Indonesia.
  7. Mr. Ahmad Rizal Khalit, (Alternated NFP), Principal Assistant Secretary, Conservation and Environmental Management Division, Ministry of Natural Resources and Environment, Malaysia.
  8. Mr. Hashim bin Daud, (Alternate for NFP), Director Marine and Water Division, Department of Environment (DOE), Malaysia.
  9. Ms. Maria Lourdes G. Ferrer, (Alternated NFP), OIC-Director Project Operations and Management Service, Foreign Assisted and Special project Office, Philippines.
  10. *Dr. Gil Jacinto, (NTFP), Marine Science Institute, University of the Philippines, Philippines.*
  11. Dr. Sirikul Bunpapong, (Alternated NFP), Director, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  12. Mrs. Nirawan Pipitsompat, (Alternated NTFP), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand.
  13. Dr. Bui Cach Tuyen, (Alternated NFP), Director General, National Environmental Agency, Viet Nam.
  13. Prof. Dr. Mai Trong Nhuan, (NTFP), Vice-President, (National Technical Focal Point), Viet Nam National University, Viet Nam.
  14. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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**Technical Workshop for the Implementation of the Strategic Action Programme  
Siem Reap, Cambodia, 13<sup>th</sup> – 14<sup>th</sup> October 2008**

1. Mr. Koch Savath, Deputy Director General Technical Affairs, Ministry of Environment, Cambodia
2. Mr. Zhengguang Huang, Senior Engineer, South China Institute of Environmental Sciences, China
3. Mr. Henk Uktolseya, Expert, Assistant Deputy Minister for marine and Coastal Destruction Control, Ministry for Environment, Indonesia
4. Mr. Hashim bin Daud, Director Marine and Water Division, Department of Environment, Malaysia
5. Prof. Dr. Truong Quang Hai, Deputy Director, Institute of Vietnamese Studies and Development Science, Viet Nam
6. Mr. Duong Thanh An, Chairperson RTF-L, Director, International Division on Environment, Viet Nam Environmental Protection Agency (VEPA), Viet Nam.
7. Dr. Nguyen The Chinh, Vice-Chairperson RTF-E, Senior Economist, Assistant Professor, Dean, Faculty of Urban Environmental, National Economic University, Viet Nam.
8. Dr. Hangqing Fan, Chairperson RWG-M, Professor, Guangxi Mangrove Research Centre, China.
9. Dr. Porfirio Aliño, Chairperson RWG-CR, Professor, Marine Science Institute, University of the Philippines (MSI/UP), Philippines.
10. Mrs. Tu Thi Lan Huong, Chairperson RWG-SG, Institute of Marine Environment and Technology, Viet Nam
11. Ms. Marlynn M. Mendoza, Chairperson RWG-W, Protected Areas and Wildlife Bureau, Philippines
12. Mr. Noel Barut, Chairperson RWG-F, Research and Development Institute, Department of Agriculture, Philippines
13. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
14. Dr. Vo Si Tuan, Regional Expert, Institute of Oceanography, Viet Nam.
15. Professor Ong Jin-Eong, Regional Expert, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
16. Dr. Xiaopine Huang, Professor, South China Sea Institute of Oceanology, Chinese Academy of Sciences, China
17. Mr. Tri Edi Kuriandewa, Puslit OSEANOGRFI, LIPI, Indonesia
18. Dr. Miguel Fortes, Marine Science Institute CS, University of the Philippines
19. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Ramkhamkaeng University, Thailand
20. Mr. Nguyen Van Long, Deputy Head, Department of Marine Living Resources, Institute of Oceanography, Viet Nam
21. Prof. Dr. Chou Loke Ming, Department of Biological Sciences, National University of Singapore
22. Dr. Hutomo Malikusworo, Research Centre for Oceanography, Indonesian Institute of Science
23. Dr. Peng Yisheng, School of Environmental Science and Engineering, Sun Yat-Sen University
24. H.E. Mr. Khong Sam Nuon, Secretary of State, Ministry of Environment, Cambodia
25. Mr. Ke Vongwattana, Assistant to Minister in Charge of Mangrove and Wetland, Cambodia
26. Mr. Ouk Vibol, Head of Fishery Conservation Fisheries Administration, Ministry of Agriculture, Forestry and Fisheries
27. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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**Partnership Forum for Implementing the Strategic Action Programme (SAP)  
Siem Reap, Cambodia, 16 – 17 October 2008**

1. H.E. Mr. Khong Sam Nuon, Secretary of State, Ministry of Environment, Cambodia
  2. Mr. Koch Savath, Deputy Director General Technical Affairs, Ministry of Environment, Cambodia
  3. *Mr. Li Xinmin, Deputy Director General, Department of Pollution Control, Ministry of Environmental Protection of China*
  4. Mr. Zhengguang Huang, Senior Engineer, South China Institute of Environmental Sciences, China
  5. Dr. Zainal Arifin, Research Center for Oceanography, Indonesia Institutes of Sciences
  6. Mr. Henk Uktolseya, Expert, Assistant Deputy Minister for marine and Coastal Destruction Control, Ministry for Environment, Indonesia
  7. Mr. Hashim bin Daud, Director Marine and Water Division, Department of Environment, Malaysia
  8. Mr. Duong Thanh An, Chairperson RTF-L, Director, International Division on Environment, Viet Nam Environmental Protection Agency (VEPA), Viet Nam.
  9. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
  10. Dr. Vo Si Tuan, Regional Expert, Institute of Oceanography, Viet Nam.
  11. Dr. Miguel Fortes, Marine Science Institute CS, University of the Philippines
  12. Ms. Nirawan Pipitsombat, Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning, Thailand
  13. Dr. Thamasak Yeemin, Marine Biodiversity Research Group, Ramkhamkaeng University, Thailand
  14. Prof. Dr. Chou Loke Ming, Department of Biological Sciences, National University of Singapore
  15. Dr. Hutomo Malikusworo, Research Centre for Oceanography, Indonesian Institute of Science
  16. Mr. Ke Vongwattana, Assistant to Minister in Charge of Mangrove and Wetland, Cambodia
  17. Mr. Matthew Duckworth, Third Secretary Australian Embassy in Cambodia
  18. Mr. Leng Bunlong, Environmental Specialist, The World Bank – Cambodia Country Office
  19. Mr. Robert Mather, Head Country Group 1 IUCN – Lao PDR
  21. Dr. Srisuda Jarayabhand, Co-ordinator, UNEP, COBSEA Secretariat
  22. Dr. Monthip S. Tabucanon, Constituency Programme, ICUN Regional Committee for South and East Asia Office
  23. Dr. Yasuhisa Kato, Special Advisor, SEAFDEC Secretariat, Kasetsart University, Thailand
  24. Dr. Guo Zhenren, South China Institute of Environment Sciences, China
  25. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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## ***Terminal Report of the UNEP/GEF South China Sea Project***

### **NGOs Forum Nha Trang, Viet Nam, 1<sup>st</sup> December 2008**

1. Ms. Sovanna Chi, SGP National Co-ordinator, Cambodia
2. Ms. Zhang Jianzhi, Ph.D., Senior Project Officer, Senior Engineer, China GEF Office
3. Ms. Asyma Detty Agustina Sianipar, GEF SGP Indonesia
4. Ms. Jocelyn Esquerro, National Coordinator, Philippines
5. Mr. Poonsin Sreesangkom, SGP National Co-ordinator, Thailand
6. Ms. Nguyen Thi Kim Anh, SGP National Co-ordinator, Viet Nam
7. Mr. Va Moeurn, Executive Director
8. Dr. Zainal Arifin, Research Center for Oceanography, Indonesian Institutes of Science
9. Mr. Kanchit Sukjaimitr, Executive Director, Development Support Consortium/Thai Fun foundation
10. Ass. Prof. Dr. Nguyen Chu Hoi, Deputy Administrator of Vietnam Administration of Seas and Islands, (VASI) under Ministry of Natural Resources and Environment (MONRE)
11. Dr. Sulan Chen, Programme Specialist --International Waters, Land Degradation & POPs, GEF Small Grants Programme
12. Dr. Vo Si Tuan Vice Director, Institute of Oceanography
13. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit

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### **Fourth Mayor's Round-Table Nha Trang, Viet Nam, 2<sup>nd</sup> – 5<sup>th</sup> December 2008**

**Total 57 Participants**  
16 Mayors and Governors  
20 Demonstration Site Managers  
11 NGOs  
5 Observers  
5 PCU Staff

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### **Tenth Meeting of the Regional Scientific and Technical Committee Pattaya, Thailand, 17<sup>th</sup> – 19<sup>th</sup> December 2008**

1. Mr. Koch Savath, Deputy Director General Technical Affairs, Ministry of Environment, Cambodia.
  2. Mr. Huang Zhengguang, Senior Engineer, South China Institute of Environmental Sciences, SEPA, People's Republic of China.
  3. Mr. Henk Uktolseya, Expert and Senior Staff to the Assistant Deputy for Marine and Coastal Destruction Control, Ministry for Environment, Indonesia.
  4. Ms. Parimala Ponniah, Assistant Director, Water and Marine Division, Department of Environment, Malaysia (DOE).
  5. Dr. Miguel D. Fortes, Marine Science Institute CS, University of the Philippines.
  6. Mrs. Nirawan Pipitsompat, (Alternate for NTFP), Senior Environmental Officer, Biological Diversity Division, Office of Natural Resources and Environmental Policy and Planning Thailand.
  7. Dr. Hoang Van Thang, Director, Centre for Natural Resources and Environmental Studies (CRES), Viet Nam National University (VNU), Viet Nam.
  8. Mr. Mohd Nizam Basiron, Maritime Institute of Malaysia, Malaysia.
  9. Dr. Nguyen The Chinh, Vice-Chairperson RTF-E, Senior Economist, Assistant Professor, Dean, Faculty of Urban Environmental, National Economic University, Viet Nam.
  10. Mr. Vu Tan Phuong, MSc. Forestry, Vice-Chairperson RWG-M, Acting Director, c/o Research Centre for Forest Ecology and Environment (RCFEE), Viet Nam.
  11. Dr. Thamasak Yeemin, Rapporteur RWG-CR, Marine Biodiversity Research Group, Department of Biology, Faculty of Science, Ramkhamhaeng University, Thailand.
  12. Mrs. Tu Thi Lan Huong, Chairperson RWG-SG, Institute of Marine Environment and Technology, Viet Nam.
  13. Ms. Marlynn M. Mendoza, Chairperson RWG-W, Protected Areas and Wildlife Bureau, Philippines
  14. Mr. Noel Barut, Chairperson RWG-F, Research and Development Institute, Department of Agriculture, Philippines
  15. Dr. Gullaya Wattayakorn, Chairperson RWG-LbP, Marine Science Department, Chulalongkorn University, Thailand.
  16. Dr. Vo Si Tuan, Regional Expert, Institute of Oceanography, Viet Nam.
  17. Professor Ong Jin-Eong, Regional Expert, Centre for Marine and Coastal Studies, Universiti Sains Malaysia
  18. Mr. Somsak Chullasorn, Regional Expert, Thailand.
  19. Dr. Ellik Adler, New COBSEA-Co-ordinator, United Nations Environment Programme
  20. Mr. Takehiro Nakamura, Senior Programme Officer, UNEP/DGEF International Waters, Nairobi, Kenya.
  21. Dr. John Pernetta, Project Director, UNEP/GEF Project Co-ordinating Unit
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**COMPLETE LIST OF PUBLICATIONS FROM THE UNEP/GEF SOUTH CHINA SEA PROJECT  
FEBRUARY 2002 TO JANUARY 2009**

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1. UNEP, 2002. First Meeting of the Project Steering Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/PSC.1/3, 110pps. UNEP, Bangkok, Thailand.
2. UNEP, 2002. First Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RSTC.1/3. 30pps. UNEP, Bangkok, Thailand.
3. UNEP, 2002. First Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-LbP.1/3. 54pps. UNEP, Bangkok, Thailand.
4. UNEP, 2002. First Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. UNEP/GEF/SCS/RWG-W.1/3. 44 pp In: UNEP, *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, report of the First Meetings of the Regional Working Groups on Marine Habitats. 179pps. UNEP, Bangkok, Thailand.
5. UNEP, 2002. First Meeting of the Regional Working Group for the Mangrove Sub-Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. UNEP/GEF/SCS/RWG-M.1/3. 44 pp In: UNEP, *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, report of the First Meetings of the Regional Working Groups on Marine Habitats. 179pps. UNEP, Bangkok, Thailand.
6. UNEP, 2002. First Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-SG.1/3. 44 pp In: UNEP, *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, report of the First Meetings of the Regional Working Groups on Marine Habitats. 179pps. UNEP, Bangkok, Thailand.
7. UNEP, 2002. First Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.1/3. 40 pp In: UNEP, *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*, report of the First Meetings of the Regional Working Groups on Marine Habitats. 179pps. UNEP, Bangkok, Thailand.
8. UNEP, 2002. First Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.1/3. 46pps. UNEP, Bangkok, Thailand.
9. UNEP, SEA START, 2002. Report of the UNEP/GEF/SCS and SEA START RC, GIS Workshop in support of the GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. UNEP/GEF/SCS/EW.1/3. 186pps. UNEP, Bangkok, Thailand.
6. UNEP, 2002. Second Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.2/3. 37pps. UNEP, Bangkok, Thailand.
10. UNEP, 2002. Second Meeting of the Regional Working for the Land-based Pollution Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-LbP.2/3. 34pps. UNEP, Bangkok, Thailand.
11. UNEP, 2002. Second Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-W.2/3. 25pps. In: UNEP, Report of the Second Meetings of the Regional Working Groups on Mangrove & Wetlands. UNEP, Bangkok, Thailand.
12. UNEP, 2002. Second Meeting of the Regional Working Group for the Mangrove Sub-Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.2/3. 45pps. In: UNEP, Report of the Second Meetings of the Regional Working Groups on Mangrove & Wetlands. UNEP, Bangkok, Thailand.

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1. Talaue-McManus, L. 2000 Transboundary Diagnostic Analysis for the South China Sea. EAS/RCU Technical Report Series No. 14, 108pp. UNEP Bangkok, Thailand.
2. National report of Cambodia on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU
3. National report of China on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU
4. National report of Indonesia on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU

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5. National report of Malaysia on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU
6. National report of Philippines on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU
7. National report of Thailand on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU
8. National report of Vietnam on the formulation of a Transboundary Diagnostic Analysis and preliminary Framework of a Strategic Action Programme for the South China Sea. UNEP/EAS/RCU

### **CD-ROMs**

UNEP, March 2002. UNEP GEF Project on Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Documents Prepared during the PDF-B phase.

SEA START RC, March 2002. South China Sea Coastal Information System. 1<sup>st</sup> Edition

SEA START RC, June 2002. UNEP GEF Project on Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand. Geo-Science Information System for the South China Sea. 2<sup>nd</sup> Edition

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2. UNEP, 2003. Second Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.2/3. 64pps. In: UNEP, Report of the Second Meetings of the Regional Working Groups on Coral Reefs and Seagrass. UNEP, Bangkok, Thailand.
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5. UNEP, 2003. Third Meeting of the Regional Working Group for the Mangrove Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.3/3, 54pps. UNEP. Bangkok, Thailand.
6. UNEP, 2003. Third Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-W.3/3, 42pps. UNEP. Bangkok, Thailand.
7. UNEP, 2003 Third Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.3/3. 33pps. UNEP. Bangkok, Thailand.
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### **PUBLICATIONS 2004**

1. UNEP, 2004. Fourth Meeting of the Regional Working Group for the Mangrove Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.4/3. 40pps. UNEP, Bangkok, Thailand.
2. UNEP, 2004. Fourth Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.4/3. 48pps. UNEP, Bangkok, Thailand.
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4. UNEP, 2004. Fourth Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-W.4/3. 48pps. UNEP, Bangkok, Thailand.
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6. UNEP, 2004. Third Meeting of the Project Steering Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/PSC.4/3. 76pps. UNEP, Bangkok, Thailand.
7. UNEP, 2004. Fourth Meeting of the Regional Working Group for the Land-based Pollution Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-LbP.4/3. 36pps. UNEP, Bangkok, Thailand.
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11. UNEP, 2004. Mangroves in the South China Sea. UNEP/GEF/SCS Technical Publication No. 1.
12. UNEP, 2004. Coral Reefs in the South China Sea. UNEP/GEF/SCS Technical Publication No. 2.
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1. UNEP, 2005. Fifth Meeting of the Regional Working Group for the Seagrass Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-SG.5/3. 32pps. UNEP, Bangkok, Thailand.
2. UNEP, 2005. Fifth Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.5/3. 36pps. UNEP, Bangkok, Thailand.
3. UNEP, 2005. Fifth Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.5/3. 52pps. UNEP, Bangkok, Thailand.
4. UNEP, 2005. Fifth Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-W.5/3. 40pps. UNEP, Bangkok, Thailand.
5. UNEP, 2005. Fifth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.5/3. 48pps. UNEP, Bangkok, Thailand.
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7. UNEP, 2005. Fifth Meeting of the Regional Scientific and Technical Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RSTC.5/3. 68pps. UNEP, Bangkok, Thailand.
8. UNEP, 2005. Fourth Meeting of the Project Steering Committee for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/PSC.4/3. 92pps. UNEP, Bangkok, Thailand.

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9. UNEP, 2005. Third Meeting of the Regional Task Force on Legal Matters for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RTF-L.3/3. 76pps. UNEP, Bangkok, Thailand.
10. UNEP, 2005. Third Meeting of the Regional Task Force on Economic Valuation for the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RTF-E.3/3. 72pps. UNEP, Bangkok, Thailand.
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2. UNEP, 2006. Sixth Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.6/3. 80pps. UNEP, Bangkok, Thailand.
3. UNEP, 2006. Sixth Meeting of the Regional Working Group for the Coral Reef Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-CR.6/3. 84pps. UNEP, Bangkok, Thailand.
4. UNEP, 2006. Sixth Meeting of the Regional Working Group for the Fisheries Component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-F.6/3. 56pps. UNEP, Bangkok, Thailand.
5. UNEP, 2006. Sixth Meeting of the Regional Working Group for the Wetland Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-W.6/3. 92pps. UNEP, Bangkok, Thailand.
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17. UNEP, 2006. Seventh Meeting of the Regional Working Group for the Mangrove Sub-component of the UNEP/GEF Project *"Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand"*. Report of the meeting, UNEP/GEF/SCS/RWG-M.7/3. 52pps. UNEP, Bangkok, Thailand.

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### **Brochures - Lessons Learned Good Practices**

- Brochure 1:** Establishing a Framework for Sustainable Management of Mangroves Based on Government Policy at the **Fangchenggang** Demonstration Site.
- Brochure 2:** Integration of Traditional Wisdom and Practices in the Development and Implementation of a Coral Reef management Plan and Legislation-**Belitung**.
- Brochure 3:** Fisheries *Refugia* as a Tool for Integrated Fisheries and Habitat Management at **Phu Quoc** Archipelago, Viet Nam.
- Brochure 4:** Network of Small-Scale Sanctuaries in **Masinloc**, Philippines.
- Brochure 5:** Sustainable Tourism based on Coral Reefs at **Mu Koh Chang** Island.
- Brochure 6:** Rehabilitation of Habitats and Sustainable Use of Fisheries Resources in the Con Chim Area, **Thi Nai Lagoon**, Viet Nam.
- Brochure 7:** Community Involvement, Public Awareness and Education for Mangrove Conservation and Restoration on **Trat Province**, Thailand.
- Brochure 8:** Industry and Local Community Involvement in Land-based Pollution Management in **Batam**, Indonesia.
- Brochure 9:** Transboundary Water Management Between Kampot Province (Cambodia) and Kien Giang Province (Viet Nam) – Importance of Coastal Ecosystems and Resources in the Transboundary Waters of **Kampot and Kien Giang** Provinces.

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**Final Estimates of Co-Financing of the Project**  
***“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand”***

## BACKGROUND

At the time of consideration of the project document by the First Project Steering Committee meeting held in Pattaya, Thailand from 22-23 October 2001, the participating countries agreed to in-kind co-financing commitments for the preparatory phase of the project as shown in Tables 1 and 2 of Appendix 1. The project was divided into a preparatory phase during which site selection would be carried out that was to have lasted two years to December 2003, and an operational phase of three years lasting to December 2006. In the event the preparatory phase was extended to June 30<sup>th</sup> 2004 (2.5 years) and the operational phase to June 30<sup>th</sup> 2008 (4 years).

The original co-financing estimates were based on agreement during the first PSC meeting that; the cost of the time given to the project by all nationals from the participating countries would be estimated and costed using a uniform coefficient of US\$70 per person per day. This was considered to be an inclusive costing of salary and benefits, plus office support costs that was to be applied to all individuals, from all countries, regardless of their individual level of seniority or actual salary. This coefficient undervalues the real co-financing in some countries and over-values it in others, but obviates the necessity for maintaining detailed records in seven different currencies, six of which float on the international currency exchange market.

During the fourth Project Steering Committee convened in Quilin, China in December 2004 estimates of in-kind co-financing for the operational phase of the project were discussed and approved. These were calculated in a manner comparable to that used for the preparatory phase and using the same coefficient of US\$70 per person per day. At that time it was estimated that the project operational phase would last for three years that is, from July 2004 to June 2007. These estimates are presented in Tables 3 and 4 of Appendix 1.

The estimates for the operational phase were based on the work-plans agreed by each regional working group and attached to the second amendments to the Memoranda of Understanding. In deriving these estimates the following points were noted by the Project Steering Committee:

- Time estimates are a best possible estimate for completion of the specified tasks, having been reviewed and approved by the Regional Scientific and Technical Committee during its fifth meeting in Fangchenggang, China, December 9 – 11, 2004;
- The costs of regional experts' time in participating in regional level meetings had not been assigned to individual countries but was summarised on an annual basis as part of the contributions to regional co-ordination;
- This estimate does not include the costs of government in-kind co-financing of unbudgeted regional co-ordination meetings<sup>45</sup> during the period July 2005 to June 2007; and,
- Does not include the additional cash co-financing of national level co-ordination meetings approved by the third meeting of the Project Steering Committee.

## VERIFYING IN-KIND CO-FINANCING

Examination of the tables in Appendix 1 shows that the bulk of the in-kind co-financing is derived from the time of individuals: contributed either through attendance in meetings, which is not paid for in this project; or in terms of additional unpaid work and inputs to preparation of documents; technical backstopping and contribution of specialised knowledge and information. Since few institutions or organisations in any of the countries keep time sheets, actually verifying much of this in-kind contribution objectively is difficult if not impossible<sup>46</sup>.

<sup>45</sup> These include the joint meetings between Trat in Thailand and Koh Kong in Cambodia, and between Kien Giang in Viet Nam and Kampot in Cambodia with regard to the transboundary demonstration sites and the intersessional meetings of the sub-committees of the RSTC.

<sup>46</sup> One way might be to estimate the “value” of the outputs but such an undertaking is considered counter-productive since it is likely to result in extensive debate concerning the merits or otherwise of the outputs.

Elements of the in-kind co-financing that are amenable to independent verification include:

- Costs of individuals' time in meetings of the National Technical Working Group and Inter-Ministry Committee meetings;
- Costs of individuals' time in meetings of the National Committees and Sub-Committees of the components and sub-components; and,
- Costs of individuals' participation in meetings of: the Project Steering Committee; the Regional Scientific and Technical Committee; the six regional working groups; and the two Task Forces.

It is a requirement of the Memoranda of Understanding signed with both the focal ministries and each Specialised Executing Agency that included in each six month report is a listing of the national meetings convened in the framework of the project, their duration, agenda, report, and list of participants. It is therefore possible to calculate the in-kind co-financing, which has been actually realised through participation of individuals in national level meetings. Similarly participation of individuals in the regional level meetings is verifiable from the meeting reports published by the Project Co-ordinating Unit.

A further requirement under the Memoranda of Understanding was that the component and sub-component focal points in each country devote 25% of their time to the national activities of the project. Assuming that the number of working days per year is around two hundred and thirty, 25% represents 57.5 working days per year. Whilst it is not possible to objectively quantify the total actual time spent by these individuals on project activities, time spent in meetings of the regional working groups and national level meetings can be independently verified. The fact that in almost all cases the entire set of anticipated national outputs were produced at high quality would support the contention that the unverifiable portion of the co-financing was in fact raised.

Table 1 presents the agreed in-kind co-financing for the two years of the preparatory phase and the three years of the operational phase of the project, together with the annual proportion that can be independently verified via the contents of the six month progress reports. The proportion that can be independently verified rises from 32% in years one and two to slightly below 50% for the operational phase of the project. Overall the percentage of co-financing that can be independently verified is 40% or 2.4 million US dollars.

Table 1 Originally agreed estimates of in-kind co-financing and the portion that can be independently verified.

	Preparatory Phase		Operational Phase			Totals
	Yr 1	Yr 2	Yr 1	Yr 2	Yr 3	
<b>In-kind Co-financing estimate</b>	1,391,740	1,373,890	1,020,950	1,020,950	1,020,950	5,829,480
<b>Verifiable portion</b>	448,140	443,240	491,750	491,750	491,750	2,366,630
<b>Percentage</b>	32.18	32.26	48.17	48.17	48.17	40.60

## COMPARISON OF ESTIMATES WITH ACTUAL IN-KIND CO-FINANCING

### National Co-ordination

Table 2 provides a comparison of estimates with total actual in-kind government co-financing of national co-ordination activities reflecting individuals' participation in Inter-Ministry Committee, and National Technical Working Group meetings, over the period January 2002 to June 2008. It can be seen that the total estimates for both the preparatory and operational phases of the project were exceeded. It should be noted in this regard that in the case of Malaysia the MoUs were not signed until September 2002 and no co-financing was realised from Malaysia during the first two years of project implementation. With the exception of Malaysia all countries exceeded the estimates and total in-kind co-financing was US\$458,570 or 159% of the original estimate.

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Table 2 Comparison of actual in-kind government co-financing (US\$) (IMC and NTWG) during the preparatory (2002-2004) and operational phases (2004-2008) of the project associated with national co-ordination, derived from reported meeting participation at the national level using the agreed cost coefficient (US\$70 per person-day) compared with agreed estimates. (n/a = information not available)

	PREPARATORY PHASE							
	TOTAL 2002		TOTAL 2003		TOTAL 1 <sup>st</sup> half 2004		Total 2.5 yrs	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$
<b>Cambodia</b>	11,760	3,605	11,760	18,270	0	5,180	23,520	27,055
<b>China</b>	11,760	7,560	11,760	7,910	0	7,280	23,520	22,750
<b>Indonesia</b>	11,760	0	11,760	7,350	0	9,450	23,520	16,800
<b>Malaysia</b>	11,760	0	11,760	0	0	560	23,520	560
<b>Philippines</b>	11,760	11,760	11,760	9,660	0	15,960	23,520	37,380
<b>Thailand</b>	11,760	4,690	11,760	14,350	0	3,745	23,520	22,785
<b>Viet Nam</b>	11,760	12,180	11,760	23,100	0	17,500	23,520	52,780
<b>Totals</b>	82,320	39,795	82,320	80,640	0	59,675	164,640	180,110

	TOTAL 2nd half 2004		TOTAL 2005		TOTAL 2006		TOTAL 2007		TOTAL 1 <sup>st</sup> half 2008		Total 4 yrs		Total 6.5 yrs		
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	%
	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	US\$	
<b>Cambodia</b>	2,940	5,180	5,880	10,920	5,880	11,970	2,940	23,310	0	17,430	17,640	68,810	41,160	95,865	233
<b>China</b>	2,940	1,820	5,880	7,980	5,880	4,410	2,940	10,360	0	2,240	17,640	26,810	41,160	49,560	121
<b>Indonesia</b>	2,940	13,790	5,880	11,970	5,880	6,300	2,940	5,040	0	16,660	17,640	53,760	41,160	70,560	171
<b>Malaysia</b>	2,940	0	5,880	0	5,880	490	2,940	3,990	0	4,060	17,640	8,540	41,160	9,100	22
<b>Philippines</b>	2,940	6,300	5,880	7,980	5,880	9,310	2,940	7,070	0	22,750	17,640	53,410	41,160	90,790	221
<b>Thailand</b>	2,940	3,640	5,880	8,960	5,880	2,660	2,940	0	0	8,400	17,640	23,660	41,160	46,445	113
<b>Viet Nam</b>	2,940	7,140	5,880	21,980	5,880	14,350	2,940	0	0	n/a	17,640	43,470	41,160	96,250	234
<b>Totals</b>	20,580	37,870	41,160	69,790	41,160	49,490	20,580	49,770	0	19,670	123,480	278,460	288,120	458,570	159

### **National Co-ordination within individual components.**

Table 3 provides information summarised, by component, and by year, regarding the estimates and the actual co-financing during the preparatory phase (2002-June 2004), which can be verified from information provided in the six month progress reports. It should be noted that China did not wish to participate in two of the six components at the time of project submission (shaded grey in the table), hence no estimates are included in the Chinese row with respect to the Coral Reefs and Fisheries components. Malaysia, which had originally agreed to participate in all components, did not sign the MoUs covering the fisheries and mangrove components. Since Malaysia's intention at the time of project submission was to participate in these components the agreed estimates have been retained in the table for the preparatory phase.

It can be seen that overall, despite the non-participation of Malaysia in two components until recently and in none of the components for the first year, the total co-financing (US\$1,065,540) realised during the preparatory phase 2002 – June 2004) through participation in national level meetings greatly exceeds (156%) the original estimate of US\$682,640 reflecting in part the extension of the preparatory phase from two to 2.5 years. A comparison across components is interesting with the mangrove component realising by far the highest percentage of actual to realised co-financing, 251%; followed by Land-based pollution 212%; fisheries 170%; and coral reefs and seagrass with 119% and 118% respectively. Only the wetlands component failed to reach the estimate realising only 95% during the preparatory phase and only 73% during the operational phase of the project. This low percentage of co-financing is noteworthy, possibly reflecting the absence of funds in the project budget for demonstration activities in this component that, may have contributed to a lower motivation of individuals at the national level.

Table 4 provides a breakdown of the co-financing by component for the operational phase (July 2004 to June 2008) from which it can be seen that overall the realised co-financing exceeded by a small margin (6%) the original estimates. Interestingly the fisheries component raised the greatest in-kind co-financing during the operational phase, 177%; followed by mangroves 146% and coral reefs 126%. The wetlands, seagrass and land-based pollution components all failed to reach the estimates.

Tables 5 and 6 provide annual summaries of estimated and realised co-financing for the preparatory and operational phases respectively. Over the entire project period US\$2,411,990 of verifiable in-kind co-financing was raised at the national level for actions within each component and sub-component, compared with the original estimates of US\$1,959,440. It is interesting to note that co-financing in the first year was significantly lower than in the second, perhaps reflecting a slower start than anticipated, due in part to delays in initial fund transfer to the Specialised Executing Agencies which took place over the period from February to Mid-March 2002.

### **Regional Co-ordination**

Co-financing of the Project Steering Committee was estimated at US\$2,100 per country for year one and US\$1,400 for year 2 for a total for all 7 participating countries of US\$24,500. The estimate includes an allowance of 10 days for preparatory and follow-up activities in both years, while year 1 estimates include the estimated in-kind costs of the first meeting convened in October 2001, not budgeted under PDF-B co-financing. During the Operational Phase from June 2004 to July 2007 it was anticipated that one three day meeting per year would be convened involving two days of travel and four days of preparation and follow-up at the national level. Total in-kind co-financing for all countries was anticipated as being US\$9,310 per year for a total of US\$27,930 of which 71% or US\$19,990 is verifiable. The verifiable portions of the estimates are US\$16,800 and US\$20,020 for the preparatory and operational phases respectively. Actual realised co-financing was US\$12,740 and US\$20,020 for a total of US\$32,760 or 89% of the estimate.

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Table 3 Comparison of actual in-kind government co-financing (US\$) from 2002 to 1st half 2004 (Preparatory Phase), associated with individual project components and sub-components derived from reported meeting participation at the national level using the agreed cost coefficient (US\$70 per person-day) compared with the agreed estimates. Grey shading indicates MoUs not signed<sup>47</sup>.

2002	Mangrove		Wetlands		Coral Reefs		Sea grass		Fisheries		Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	10,360	9,520	9,800		10,360	3,430	10,360	3,430	5,040	1,540	5,040	12,250	50,960	39,690
China	10,360	8,750	9,800	6,860	Not participating		10,360		Not participating		5,040	5,950		25,410
Indonesia	10,360	22,050	9,800	4,620	10,360	5,740	10,360	14,910	5,040	5,600	5,040	4,270	50,960	57,190
Malaysia	10,360	MoU not signed	9,800	0	10,360	0	10,360	0	5,040	MoU not signed	5,040	0	50,960	0
Philippines	10,360	560	9,800	1,960	10,360	2,240	10,360	2,450	5,040	2,380	5,040	2,310	50,960	11,900
Thailand	10,360	125,440	9,800	2,870	10,360	9,030	10,360	4,410	5,040	4,060	5,040	5,390	50,960	151,200
Viet Nam	10,360	13,720	9,800	6,825	10,360	3,500	10,360	6,370	5,040	24,080	5,040	12,880	50,960	67,375
Total Yr. 1	72,520	180,040	68,600	32,655	62,160	23,940	72,520	35,420	30,240	37,660	35,280	43,050	341,320	352,765
2003	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	10,360	19,250	9,800	19,250	10,360	4,060	10,360	4,060	5,040	3,220	5,040	16,730	50,960	66,570
China	10,360	14,420	9,800	5,880	Not participating		10,360		Not participating		5,040	5,880		27,860
Indonesia	10,360	26,810	9,800	3,290	10,360	3,850	10,360	30,940	5,040	630	5,040	25,410	50,960	90,930
Malaysia	10,360	MoU not signed	9,800	0	10,360	0	10,360	0	5,040	MoU not signed	5,040	2,240	50,960	2,240
Philippines	10,360	6,930	9,800	28,280	10,360	22,330	10,360	28,175	5,040	2,520	5,040	980	50,960	89,215
Thailand	10,360	70,630	9,800	5,075	10,360	46,270	10,360	18,830	5,040	3,780	5,040	28,560	50,960	173,145
Viet Nam	10,360	8,750	9,800	4,655	10,360	6,650	10,360	17,500	5,040	9,590	5,040	10,920	50,960	58,065
Total Yr. 2	72,520	146,790	68,600	66,430	62,160	83,160	72,520	101,185	30,240	19,740	35,280	90,720	341,320	508,025
2004 1st half	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	0	3,920	0	3,920	0	4,900	0	4,900	0	16,520	0	0	0	34,160
China	0	4,900	0	2,450	Not participating		0		Not participating		0	0	0	0
Indonesia	0	3,780	0	1,365	0	13,860	0	4,410	0	0	0	0	0	23,415
Malaysia	0	MoU not signed	0		0		0	1,470	0	MoU not signed	0	4,900	0	6,370
Philippines	0	14,910	0	17,220	0	17,430	0	19,495	0	8,050	0	0	0	77,105
Thailand	0	3,360	0	3,010	0	5,320	0	70	0	0	0	8,820	0	24,360
Viet Nam	0	5,810	0	2,940	0	0	0	2,030	0	20,720	0	2,100	0	33,600
Total Yr. 2.5	0	36,680	0	30,905	0	41,510	0	34,545	0	45,290	0	15,820	0	204,750
GRAND TOTAL 2.5 Yrs	145,040	363,510	137,200	129,990	124,320	148,610	145,040	171,150	60,480	102,690	70,560	149,590	682,640	1,065,540
Actual as % of estimate	251%		95%		119%		118%		170%		212%		156%	

<sup>47</sup> Some adjustments will be required to this table to correct the estimates, but the conclusions remain valid.

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Table 4 Comparison of actual in-kind government co-financing (US\$) from 2nd half 2004 to 1st half 2008 (Operational Phase), associated with individual project components and sub-components derived from reported meeting participation at the national level using the agreed cost coefficient (US\$70 per person-day) compared with the agreed estimates. Grey shading indicates MoUs not signed or activities completed

2004 2 <sup>nd</sup> half	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	5,600	1,470	5,600	1,470	5,600	245	5,600	245	5,600	0	5,600	1,540	33,600	4,970
China	5,600	5,040	5,600	4,060	Not participating		5,600	2,520	Not participating		5,600	8,820	22,400	20,440
Indonesia	5,600	2,660	5,600	0	5,600	5,180	5,600	2,520	5,600	0	5,600	0	33,600	10,360
Malaysia	MoU not signed		5,600	420	5,600	0	5,600	0	MoU not signed		5,600	490	22,400	910
Philippines	5,600	0	5,600	630	5,600	700	5,600	2,940	5,600	6,020	5,600	700	33,600	10,990
Thailand	5,600	0	5,600	2,030	5,600	13,090	5,600	980	5,600	0	5,600	20,020	33,600	36,120
Viet Nam	5,600	4,060	5,600	3,220	5,600	3,780	5,600	840	5,600	13,440	5,600	1,470	33,600	26,810
Total Yr 3	33,600	13,230	39,200	11,830	33,600	22,995	39,200	10,045	28,000	19,460	39,200	33,040	212,800	110,600
2005	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	11,200	5,040	11,200	5,040	11,200	6,510	11,200	6,510	11,200	3,570	11,200	3,990	67,200	30,660
China	11,200	9,660	11,200	9,170	Not participating		11,200	2,800	Not participating		11,200	2,730	44,800	24,360
Indonesia	11,200	8,260	11,200	4,410	11,200	10,500	11,200	10,360	11,200	7,280	11,200	4,690	67,200	45,500
Malaysia	MoU not signed		11,200	0	11,200	2,660	11,200	910	MoU not signed		11,200	490	44,800	4,060
Philippines	11,200	4,172	11,200	5,530	11,200	5,320	11,200	3,010	11,200	7,700	11,200	770	67,200	26,502
Thailand	11,200	24,290	11,200	3,500	11,200	10,990	11,200	4,900	11,200	0	11,200	41,930	67,200	85,610
Viet Nam	11,200	11,550	11,200	8,120	11,200	2013	11,200	4,130	11,200	23,240	11,200	4,200	67,200	53,253
Total Yr 4	67,200	62,972	78,400	35,770	67,200	37,993	78,400	32,620	56,000	41,790	78,400	58,800	425,600	269,945
2006	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	11,200	6,790	11,200	6,790	11,200	8,435	11,200	8,435	11,200	5,950	11,200	3,010	67,200	39,410
China	11,200	2,590	11,200	5,740	Not participating		11,200	1,190	Not participating		11,200	3,780	44,800	13,300
Indonesia	11,200	17,990	11,200	0	11,200	21,490	11,200	6,510	11,200	1,680	11,200	4,060	67,200	51,730
Malaysia	MoU not signed		11,200	0	11,200	27,440	11,200	1,190	MoU not signed		11,200	1,680	44,800	30,310
Philippines	11,200	4,760	11,200	5,460	11,200	3,220	11,200	1,260	11,200	10,220	11,200	9,310	67,200	34,230
Thailand	11,200	0	11,200	3,430	11,200	10,220	11,200	5,670	11,200	0	11,200	14,000	67,200	33,320
Viet Nam	11,200	5,180	11,200	6,790	11,200	2,170	11,200	5,040	11,200	21,490	11,200	3,570	67,200	44,240
Total Yr 5	67,200	37,310	78,400	28,210	67,200	72,975	78,400	29,295	56,000	39,340	78,400	39,410	425,600	246,540

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Table 4 *cont.* Comparison of actual in-kind government co-financing (US\$) from 2nd half 2004 to 1st half 2008 (Operational Phase), associated with individual project components and sub-components derived from reported meeting participation at the national level using the agreed cost coefficient (US\$70 per person-day) compared with the agreed estimates. Grey shading indicates MoUs not signed or activities completed.

2007 1 <sup>st</sup> half	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	5,600	1,540	5,600	1,540	5,600	770	5,600	770	5,600	0	5,600	420	33,600	5,040
China	5,600	10,850	5,600	1,260	Not participating		5,600	3,360	Not participating		5,600	630	22,400	16,100
Indonesia	5,600	1,820	5,600	0	5,600	980	5,600	2,240	5,600	0	5,600	0	33,600	5,040
Malaysia	MoU not signed		5,600	0	5,600	17,710	5,600	0	MoU not signed		5,600	14,980	22,400	32,690
Philippines	5,600	770	5,600	11,060	5,600	0	5,600	1,330	5,600	10,990	5,600	0	33,600	24,150
Thailand	5,600	3,990	5,600	910	5,600	8,190	5,600	5,670	5,600	2,800	5,600	9,450	33,600	31,010
Viet Nam	5,600	1,120	5,600	1,400	5,600	910	5,600	2,590	5,600	9,660	5,600	0	33,600	15,680
Total Yr 5.5	33,600	20,090	39,200	16,170	33,600	28,560	39,200	15,960	28,000	23,450	39,200	25,480	212,800	129,710
2007 2 <sup>nd</sup> half	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	0	9,380	0	9,380	0	13,755	0	13,755	0	3,430	0	770	0	50,470
China	0	560	0	0	Not participating		0	5,040	Not participating		0		0	5,600
Indonesia	0	3,220	0	0	0	5,530	0	4,900	0	0	0	5,250	0	18,900
Malaysia	MoU not signed		0	5,460	0	0	0	0	MoU not signed		0	0	0	5,460
Philippines	0	1,890	0	1,330	0	0	0	5,950	0	12,600	0	2,660	0	24,430
Thailand	0	105,630	0	0	0	17,640	0	11,690	0	0	0		0	134,960
Viet Nam	0	10,990	0	14,000	0	9,380	0	3,920	0	23,940	0		0	62,230
Total Yr 6	0	131,670	0	30,170	0	46,305	0	45,255	0	39,970	0	8,680	0	302,050
2008 1 <sup>st</sup> half	Mangrove		Wetlands		Coral Reefs		Seagrass		Fisheries		Land-based Pollution		Total Components	
	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual
Cambodia	0		0		0	3,080	0	3,080	0	41,510	0	0	0	47,670
China	0		0	22,295	Not participating		0		Not participating		0		0	22,295
Indonesia	0	15,540	0	0	0	8,120	0	3,290	0	25,970	0	5,460	0	58,380
Malaysia	MoU not signed		0	12,670	0	12,530	0	11,200	MoU not signed		0	0	0	36,400
Philippines	0	10,920	0	15,190	0	13,300	0		0	44,730	0	10,290	0	94,430
Thailand	0	2,660	0		0		0		0	6,300	0		0	8,960
Viet Nam	0		0		0	7,350	0		0	15,120	0		0	22,470
Total Yr 6.5	0	29,120	0	50,155	0	44,380	0	17,570	0	133,630	0	15,750	0	290,605
GRAND TOTAL 4 Yrs	201,600	294,392	235,200	172,305	201,600	253,208	235,200	150,745	168,000	297,640	235,200	181,160	1,276,800	1,349,450

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Actual as % of estimate	146%	73%	126%	64%	177%	77%	106%
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Table 5 Comparison of estimated and actual national level, in-kind co-financing, of the components and sub-components during the preparatory phase (January 2002 to June 2004), based on reported meeting participation.

	Mangrove		Wetlands		Coral Reefs		Sea grass		Fisheries		Pollution		Total Components	
	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual
<b>Total 2002</b>	72,520	<b>180,040</b>	68,600	<b>32,655</b>	62,160	<b>23,940</b>	72,520	<b>35,420</b>	30,240	<b>37,660</b>	35,280	<b>43,050</b>	341,320	<b>352,765</b>
<b>Total 2003</b>	72,520	<b>146,790</b>	68,600	<b>66,430</b>	62,160	<b>83,160</b>	72,520	<b>101,185</b>	30,240	<b>19,740</b>	35,280	<b>90,720</b>	341,320	<b>508,025</b>
<b>Total 1<sup>st</sup> half 2004</b>	0	<b>36,680</b>	0	<b>30,905</b>	0	<b>41,510</b>	0	<b>34,545</b>	0	<b>45,290</b>	0	<b>15,820</b>	0	<b>204,750</b>
<b>GRAND TOTAL 2.5 YRS</b>	145,040	<b>363,510</b>	137,200	<b>129,990</b>	124,320	<b>148,610</b>	145,040	<b>171,150</b>	60,480	<b>102,690</b>	70,560	<b>149,590</b>	682,640	<b>1,065,540</b>
<b>Actual as % of Estimate</b>	<b>251%</b>		<b>95%</b>		<b>119%</b>		<b>118%</b>		<b>170%</b>		<b>212%</b>		<b>156%</b>	

Table 6 Comparison of estimated and actual national level, in-kind co-financing, of the components and sub-components during the operational phase (July 2004 to June 2008), based on reported meeting participation.

	Mangrove		Wetlands		Coral Reefs		Sea grass		Fisheries		Pollution		Total Components	
	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual	Est.	Actual
<b>Total 2<sup>nd</sup> half 2004</b>	33,600	<b>13,230</b>	39,200	<b>11,830</b>	33,600	<b>22,995</b>	39,200	<b>10,045</b>	28,000	<b>19,460</b>	39,200	<b>33,040</b>	212,800	<b>110,600</b>
<b>Total 2005</b>	67,200	<b>62,972</b>	78,400	<b>35,770</b>	67,200	<b>37,993</b>	78,400	<b>32,620</b>	56,000	<b>41,790</b>	78,400	<b>58,800</b>	425,600	<b>269,945</b>
<b>Total 2006</b>	67,200	<b>37,310</b>	78,400	<b>28,210</b>	67,200	<b>72,975</b>	78,400	<b>29,295</b>	56,000	<b>39,340</b>	78,400	<b>39,410</b>	425,600	<b>246,540</b>
<b>Total 1<sup>st</sup> half 2007</b>	33,600	<b>20,090</b>	39,200	<b>16,170</b>	33,600	<b>28,560</b>	39,200	<b>15,960</b>	28,000	<b>23,450</b>	39,200	<b>25,480</b>	212,800	<b>129,710</b>
<b>Total 2<sup>nd</sup> half 2007</b>	0	<b>131,670</b>	0	<b>30,170</b>	0	<b>46,305</b>	0	<b>45,255</b>	0	<b>39,970</b>	0	<b>8,680</b>	0	<b>302,750</b>
<b>Total 1<sup>st</sup> half 2008</b>	0	<b>29,120</b>	0	<b>50,155</b>	0	<b>44,380</b>	0	<b>17,570</b>	0	<b>133,630</b>	0	<b>15,750</b>	0	<b>290,605</b>
<b>GRAND TOTAL 4 YRS</b>	201,600	<b>294,392</b>	235,200	<b>172,305</b>	201,600	<b>253,208</b>	235,200	<b>150,745</b>	168,000	<b>297,640</b>	235,200	<b>181,160</b>	1,276,800	<b>1,349,450</b>
<b>Actual as % of Estimate</b>	<b>146%</b>		<b>73%</b>		<b>126%</b>		<b>64%</b>		<b>177%</b>		<b>77%</b>		<b>106%</b>	

Table 7 Actual government co-financing through participation in regional meetings of the Project Steering Committee, Regional Scientific and Technical Committee and Regional Task Forces.

	2001	2002		2003		2004	2005	2006	2007	2008		Person days	Cost @ US\$70 per day
PSC mtg person days	26		42		36	33	33	36	36	28		270	18,900
PSC travel person days	26		28		24	22	22	24	24	28		198	13,860
	52		70		60	55	55	60	60	56		468	32,760
Total person days					182					286			
Total US\$					12,740					20,020			
RSTC mtg person days		48	51	57	69	51	66	68	68	54	60	592	41,440
RSTC travel person days		32	34	38	46	34	44	34	34	36	40	372	26,040
EXCOMM person days						20	20	24				64	4,480
		80	85	95	115	105	130	126	102	90	100	1028	71,960
Total person days					375						653		
Total US\$					26,250						45,710		
RTF-L experts mtg days				28	28	40	33	24	27		18	198	13,860
RTF-L travel days				14	14	20	22	16	18		12	116	8,120
Total				42	42	60	55	40	45		30	314	21,980
RTF-E experts mtg days				24	24	32	32	32	28		32	204	14,280
RTF-E travel days				16	16	16	16	16	14		16	110	7,700
Total				40	40	48	48	48	42		48	314	21,980

The other component of regional co-ordination for which estimates were originally made was in respect of the meetings of the Regional Scientific and Technical Committee for which it was estimated that during the preparatory phase there would be one meeting a year of 3 days duration with two days travel and participation of the National Technical Focal Point. Hence five (25%) of the originally estimated 20 days per year can be objectively verified via the project published meeting reports which is equivalent to US\$350 of the US\$1,400 per country per year or US\$4,900 for the preparatory phase.

For the operational phase only the meeting and travel time (5 days) were included in the estimate of US\$350 per country per year for a total of US\$7,350 for the in-kind contribution via participation of national technical focal points in four meetings of the RSTC. In addition to the above the estimates for the operational phase included the in-kind costs of participation of 6 chairs of the regional working groups and four experts in one three day meeting per year plus two days of travel and 4 days preparation and follow-up. This was calculated at US\$25,200 for the operational phase giving a total of US\$32,550 of which US\$18,987 is verifiable from the meeting reports. Table 7 indicates that during the preparatory phase the total in-kind co-financing through participation in the meetings of the RSTC was US\$26,250 and during the operational phase US\$45,710, the latter representing 241% of the estimate.

Table 7 also provides details of the in-kind co-financing resulting from experts and members participation in the meetings of the two regional task forces. Estimates for these elements were not included in the estimates for the preparatory phase since the creation of these two groups was only approved during the second PSC meeting, and they were omitted from the operational phase estimates through oversight. The total value of co-financing to each of these two task forces amounts to US\$21,980 over the life of the project.

In addition during the operational phase an estimate was made of the government in-kind co-financing through the participation of regional experts in the regional working group meetings. These were estimated at 11 experts participating in the six regional working group meetings of 3 days duration annually plus two days travel and 4 days of preparation and follow-up. Of the estimated 99 days per year 55 are verifiable through the published meeting reports, representing US\$15,400. Table 8 presents information on the participation of regional experts and government nominated focal points in the meetings of the regional working groups.

It may be seen that although no estimate was made for this element of co-financing during the preparatory phase a total of US\$4,550 was invested through experts' time whilst during the operational phase US\$50,680 of co-financing was raised through expert participation in the meetings of the regional working groups, this latter figure represents 183% of the original estimate.

Table 8 Actual government co-financing through participation in meetings of the Regional Working Groups.

	2002	2002	2003	2003	2004	2005	2006	2007	2008		Pers on days	Cost @ US\$70 per day	
Mtg No.	1	2	3	4	5	6	7	8	9	10			
Mangroves -experts	9	12	12	8	10	8	10	4	12		85	5,950	
Mangroves - travel	6	6	6	4	4	4	4	2	8		44	3,080	
Experts total	15	18	18	12	14	12	14	6	20		129	9,030	
Focal Points	30	36	36	36	42	36	49	42	35		342	23,940	
All members	45	54	54	48	56	48	63	48	55		471	32,970	
Preparatory phase experts				4,410									
Coral reefs experts	3	8	8	8	0	8	4	4	4		47	3,290	
Coral reefs travel	2	4	4	4	0	4	2	2	2		24	1,680	
Experts total	5	12	12	12	0	12	6	6	6		71	4,970	
Focal Points	30	36	36	36	36	36	36	36	36		318	22,260	
All members	35	48	48	48	36	48	42	42	42		389	27,230	
Preparatory phase experts				2,870									
Seagrass experts	3	6	8	12	12	12	8	8	15		84	5,880	
Seagrass travel	2	4	4	6	6	6	4	4	10		46	3,220	
Experts total	5	10	12	18	18	18	12	12	25		130	9,100	
Focal Points	35	35	42	42	42	42	42	42	42		364	25,480	
All members	40	45	54	60	60	60	54	54	67		494	34,580	
Preparatory phase experts				3,150									
Wetlands experts	0	8	0	8	12	4	3	4	0		39	2,730	
Wetlands travel	0	4	0	4	6	2	2	2	0		20	1,400	
Experts total	0	12	0	12	18	6	5	6	0		59	4,130	
Focal Points	35	42	42	42	42	42	42	42	42		371	25,970	
All members	35	54	42	54	60	48	47	48	42		430	30,100	
Preparatory phase experts				1,680									
Land-based Pollution experts	6	8	8	8	12	8	12	8			70	4,900	
Land-based Pollution travel	4	4	4	4	6	4	6	4			36	2,520	
Experts total	10	12	12	12	18	12	18	12			106	7,420	
Focal Points	35	42	42	42	42	42	42	42			329	23,030	
All members	45	54	54	54	60	54	60	54			435	30,450	
Preparatory phase experts				3,220									
Fisheries experts	6	5	4	28	24	20	15	28	32	32	194	13,580	
Fisheries travel	4	2	2	14	12	10	10	14	16	16	100	7,000	
Experts total	10	7	6	42	36	30	25	42	48	48	294	20,580	
Focal Points	25	35	30	30	30	30	30	36	36	30	312	21,840	
All members	35	42	36	72	66	60	55	78	84	78	606	42,420	
Preparatory phase experts				4,550									
Total Preparatory Phase experts				19,880				Total Experts					55,230
Total Preparatory Phase Focal Pts				15,960				Total Focal Points					142,520
								Total Focal Pts & Experts					197,750

A further source of co-financing not included in the original estimates can be derived from participation in the three Regional Scientific Conferences, the two NGO Forums, the four Mayor's Round Tables and meetings other than those of the standing committees of the project. These contributions are summarised in Table 9.

Table 9 Actual Government co-financing through participation in the Regional Scientific Conferences, NGO Fora, Mayor's Round-Tables, bilateral meetings on transboundary habitat management and other ad hoc meetings.

	Person days	US\$	Person days	US\$	Person days	US\$	Person days	US\$	Person days	US\$
Regional Scientific Conferences	321	22,470	453	31,710	459	32,130			1,233	86,310
Mayor's Round Tables	19	1,330	144	10,080	90	6,300	204	14,280	457	31,990
NGO Fora	24	1,680	12	840					36	2,520
GIS Wkshp	115	8,050							115	8,050
Jnt wkshp Cam-VN	171	11,970	171	11,970	201	14,070			543	38,010
Jnt wkshp Cam-Thai	129	9,030	129	9,030	147	10,294			405	28,354
Informal Consultation on Transboundary Demonstration Sites	21	1,470							21	1,470
Technical Workshop/Partnership Forum	52	3,640	48	3,360					100	7,000
<b>Total</b>	<b>852</b>	<b>59,640</b>	<b>957</b>	<b>66,990</b>	<b>897</b>	<b>62,794</b>	<b>204</b>	<b>14,280</b>	<b>2,910</b>	<b>203,704</b>

Table 10 includes estimates of the co-financing derived from participation in the regional training courses while Table 11 provides similar data for the echo-seminars conducted at the national level the grand totals reach US\$157,570 and US\$367,080 respectively.

Table 10 Co-financing derived from participation in the SCS regional Training Courses.

Regional Workshop	Workshop Location	Workshop Duration	Number of Participants	Co-Financing US dollars
Sustainable Use and Management of Mangrove Ecosystems	Penang, Malaysia	16 days (24 <sup>th</sup> Apr – 8 <sup>th</sup> May 2007)	20	22,400
Larval Fish Identification and Fish Early Life History Science	Samut Prakan, Thailand	16 days (16 <sup>th</sup> – 31 <sup>st</sup> May 2007 )	24	26,880
Management Models and Strategies for Coral Reef and Seagrass Ecosystems	Bolinao, Philippines	14 days (28 <sup>th</sup> Oct – 10 <sup>th</sup> Nov 2008)	25	24,500
Establishing and Managing Fisheries <i>Refugia</i> in the South China Sea	Samut Prakan, Thailand	14 days (28 <sup>th</sup> Oct – 10 <sup>th</sup> Nov 2007)	24	23,520
Sustainable Use of Wetlands Bordering the South China Sea	Nakhon Pathom, Thailand	16 days (5 <sup>th</sup> Nov – 20 <sup>th</sup> Nov 2007)	21	23,520
Economic Valuation of Goods and Services of Coastal Habitats (UNEP/GEF/SCS/CAER/MoU )	Samut Songkram, Thailand	7 days (23 <sup>rd</sup> – 29 <sup>th</sup> Mar 2008)	21	10,290
Advanced Larval Fish Identification	Samut Prakan, Thailand	21 days (25 <sup>th</sup> May – 14 <sup>th</sup> Jun 2008)	18	26,460
Total				157,570

Table 11 Co-financing derived from participation in the SCS echo-seminars.

Specialised Executing Agency	Location	Number of Participants	Number of Days	Co-Finance
<b>MANGROVES</b>				
Ministry of Environment, Cambodia	Koh Kong, Cambodia	45	2	6,300
Guangxi Mangrove Research Centre, China	Fanchenggeng, China	35	3	7,350
Institute of Mangrove Research and Development	Pontianak, Indonesia	26	2	3,640
Department of Environment and Natural Resources	Busuanga, Philippines	33	3	6,930
Department of Marine and Coastal Resources, Thailand	Trat, Thailand	50	1	3,500
Forest Science Institute, Viet Nam	Balat, Viet Nam	56	2	7,840
<b>CORAL REEFS</b>				
Fisheries Administration, Cambodia (joint with seagrass)	Sihanoukville, Cambodia	43	3	9,030
Research Center for Oceanography (LIPI), Indonesia	Belitung, Indonesia	26	3	5,460
Department of Fisheries, Malaysia	Malaysia	50	4	14,000
Marine Science Institute, University of the Philippines	Masinloc, Philippines	40	2	5,600
Ramkamhaeng University, Thailand	Koh Chang, Thailand	40	3	8,400
Institute of Oceanography, Vietnam	Nha Trang, Vietnam	28	2	3,920
<b>SEAGRASS</b>				
South China Sea Institute of Oceanology, China	Beihai, China	40	2	5,600
Research Center for Oceanography (LIPI), Indonesia	Bintan/Jakarta	35	4	9,800
Department of Fisheries, Malaysia	Malaysia	15	3	3,150
Marine Science Institute, University of the Philippines	Narra, Palawan, Philippines	22	2	3,080
Chulalongkorn University, Thailand	Burapha University, Chantaburi, Thailand	43	3	9,030
Institute of Marine Environment and Resources, Viet Nam	Phu Quoc, Viet Nam	27	2	3,780
Marine Science Institute, University of the Philippines	Puerto Princesa, Palawan, Philippines	30	2	4,200
<b>WETLANDS</b>				
Ministry of Environment, Cambodia	Koh Kong, Cambodia	35	3	7,350
Institute of Environmental Sciences Zhongshan University, China	Shantou, China	250	4	70,000
Protected Areas and Wildlife Bureau, Philippines	Malampaya Sound	55	6	23,100
Department of Wildlife and National Parks, Malaysia	Kuala Lumpur, Malaysia	50	3	10,500
Faculty of Fisheries, Kasetsart University	Bangkok, Thailand	45	2	6,300
Vietnam National University, Hanoi	Xuan Thuy National Park, Viet Nam	40	4	11,200
<b>FISHERIES – LARVAL FISH IDENTIFICATION</b>				
Fisheries Administration of Cambodia	Sihanoukville, Cambodia	45	2	6,300
Directorate General of Capture Fisheries	Jakarta, Indonesia	35	3	7,350
National Fisheries Research and Development Institute	Bolinao, Philippines	40	3	8,400
Research Institute for Marine Fisheries	Hai Phong, Viet Nam	53	12	44,520
<b>FISHERIES – ESTABLISHING AND MANAGING FISHERIES REFUGIA</b>				
Fisheries Administration of Cambodia	Kampot, Cambodia	40	2	5,600
Directorate General of Capture Fisheries	Jakarta, Indonesia	35	3	7,350
National Fisheries Research and Development Institute	Coron, Philippines	30	3	6,300
Research Institute for Marine Fisheries	Phu Quoc Island, Viet Nam	43	2	6,020
<b>ECONOMIC VALUATION</b>				
South China Institute of Environmental Sciences, China	Guangzhou, China	17	2	2,380
University Putra Malaysia	Kota Kinabalu	20	2	2,800
Department of Environment and Natural Resources	Manila, Philippines	50	2	7,000
Kasetsart University, Thailand	Koh Chang, Thailand	35	4	9,800
National Economics University	Giao Thuy District, Viet Nam	20	3	4,200
Total				367,080

## Demonstration site co-financing

At the time of finalisation of the operational plans for the demonstration sites and pilot activities budgets were prepared that indicated both the grant financing that would be provided through the project budget and the co-financing that would be provided by central, and local governments and from other sources either in cash or in kind. Co-financing was anticipated as being in both cash and kind.

Table 12 provides an overview of these estimates from which it can be seen that the total estimated co-financing was to be of the order of US\$4.8 million in cash and US\$1.6 million in-kind, compared with the GEF grant total of US\$3.8 million. At the time of completion of these activities the total co-financing realised was US\$ 6.5 million in cash and US\$1.9 million in-kind for a total of 8.4 million US dollars. This gives a co-financing ratio of 1:2.2 which greatly exceeds the GEF expectation for International Waters of 1:1.

## CASH CO-FINANCING OF NATIONAL ACTIVITIES WITHIN EACH COMPONENT.

During the preparatory phase no attempt was made to formally record the cash contributions provided through the central governments and other sources directly to the specialised executing agencies although such receipts were on occasion reported to meetings of the appropriate regional working groups where they were formally included in the record of the meeting.

In general the sums involved were not large although in the case of the Government of the People's Republic of China, US\$1.8 million dollars was allocated by the Ministry of Finance in 2002 as co-financing over the period to 2004 of project activities in China.

At the time of approval of the estimates for the operational phase of the project in 2004 it was agreed that the reporting formats would be amended such that the specialised executing agencies would report any cash or in-kind co-financing received as part of the six month progress reporting format Table 13 provides a summary of the information received to date via the amended expenditure reports, which suggests that in excess of 1.2 million US dollars has been provided in co-financing to the specialised executing agencies during the operational phase of the project. The bulk of these funds were received by the mangrove and coral reef focal points and in particular the Chinese focal point for mangroves and the Indonesian Focal Point for coral reefs.

## UNEP CO-FINANCING

At the time of submission of the project brief (December 2000) and subsequently at the time of CEO endorsement in December 2001 UNEP co-financing during the Operational phase of the project, originally planned to run from January 2002 to June 2007, was estimated at US\$126,000 *per annum* to a total of US\$630,000. This was to have been derived from two sources: a cash contribution for the convening of COBSEA (US\$210,000) meetings<sup>48</sup>, derived from the EAS Regional Trust Fund; and an in-kind contribution (US\$420,000) representing the estimated staff-time for EAS/RCU professional and support staff to project co-ordination and provision of office space and facilities for the Project Co-ordinating Unit. Details of UNEP co-financing are provided in Appendix 2.

Over the period January 2002 to June 30<sup>th</sup> 2004, in-kind co-financing was provided by UNEP through provision of services by the staff of the East Asian Seas Regional Co-ordinating Unit, and provision of support by Nairobi based staff of UNEP and UNON. At the time that the project document was submitted to the GEF, the COBSEA met annually, subsequently a decision was taken to convene meetings biennially and only three meetings have been convened during the period January 2002 to December 2008.

Following the mid-term evaluation and the recommendation of the evaluators that the staff of the Project Co-ordinating Unit be increased, UNEP/DGEF paid half the costs of the L5 officer for 2006 and 2007. The total cash value of this support was US\$261,388, hence the total co-financing provided by UNEP during the operational phase was US\$431,902 compared with the estimate of US\$630,000.

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<sup>48</sup> At the time of finalisation of the project document COBSEA met annually the costs of convening these meetings was designated as cash co-financing (US\$ 42,000) based on the likely proportion of time each COBSEA meeting would devote to a consideration of progress in the South China Sea Project.

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Table 12 Comparison of estimates and actual cash and in-kind co-financing of the demonstration sites and Pilot activities. Where the estimates are centred across two columns and the name of the location is shaded then no differentiation between cash and in-kind co-financing was provided in the original budget.

	2005				2006				2007				2008			
	<i>Estimated</i>		<i>Actual</i>		<i>Estimated</i>		<i>Actual</i>		<i>Estimated</i>		<i>Actual</i>		<i>Estimated</i>		<i>Actual</i>	
	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>
Fangchenggang	168,100		6,790	-	356,374		338,467	42,000	93,149		176,267		23,910		81,214	34,310
Batu Ampur	n/a		n/a	n/a	111,355		106,035	74,480	190,732		350,330	90,930	135,795		218,492	38,640
Trat Province	151,415		53,320	-	555,292		699,242	4,410	52,348		97,383	9,660	25,050		164,088	24,080
Peam Krasop	n/a	n/a	n/a	n/a	2,929	43,450	47,600	9,590	1,770	66,160	287,230	63,000	9,423	68,661	142,235	41,160
Kampot	n/a	n/a	n/a	n/a	311	12,100	8,291	13,650	5,755	60,540	226,675	60,550	2,480	55,260	240,290	33,740
Belitung	21,900	14,700	0	0	60,300	47,400	88,390	23,700	72,650	36,600	164,420	30,660	11,750	1,500	24,140	1,540
Masinloc	2,761	6,300	12,001	6,300	63,163	105,280	99,518	32,410	84,573	40,950	123,459	42,490	98,550	8,400	103,150	8,400
Mu Koh Chang	0		8,960	53,200	737,780		503,209	379,470	811,491		276,380	387,380	-		76,615	130,060
Hepu	35,220		39,080	2,590	167,330		226,900	-	282,860		199,610	210	98,440		118,110	350
Cape Bolinao	750	15,920	3,200	15,960	-	71,130	42,625	40,180	4,263	80,757	71,563	80,780	-	-		
Phu Quoc	24,987	12,525	35,327	12,530	85,457	70,630	231,650	66,920	104,890	38,310	577,150	34,090	15,430	34,261	56,530	23,870
Lingdingyang	n/a		n/a	n/a	235,400		60,510		380,190		-		55,060			
Batam	n/a		n/a	n/a	12,000		3,710	980	62,700		71,180	14,280	57,000		76,740	1,750
<b>Total</b>	<b>50,399</b>	<b>49,445</b>	<b>18,679</b>	<b>90,580</b>	<b>212,160</b>	<b>349,990</b>	<b>2,456,147</b>	<b>687,790</b>	<b>273,901</b>	<b>323,317</b>	<b>2,621,647</b>	<b>814,030</b>	<b>137,633</b>	<b>168,082</b>	<b>1,306,435</b>	<b>338,100</b>
Total not differentiated	354,735				2,175,530				1,873,471				395,254			

	<i>Estimated</i>		<i>Actual</i>		<i>Total cash &amp; in-kind</i>		<i>Actual as % of estimated</i>
	<i>Cash</i>	<i>In-Kind</i>	<i>Cash</i>	<i>In-Kind</i>	<i>Estimated</i>	<i>Actual</i>	
Fangchenggang	641,532		602,738	76,510	641,532	679,248	106%
Batu Ampur	437,882		674,857	204,050	437,882	878,907	201%
Trat Province	784,105		1,014,033	38,150	784,105	1,052,183	137%
Peam Krasop	14,122	178,271	477,065	113,750	192,393	590,815	307%
Kampot	8,546	127,900	475,256	107,940	136,446	583,196	427%
Belitung	166,600	100,200	276,950	55,900	266,800	332,850	125%
Masinloc	249,047	160,930	338,128	89,600	409,977	427,728	104%
Mu Koh Chang	1,549,271		865,164	950,110	1,549,271	1,815,274	117%
Hepu	583,850		583,700	3,150	583,850	586,850	101%
Cape Bolinao	5,013	167,807	117,388	136,920	172,820	254,308	147%
Phu Quoc	230,764	155,726	900,657	137,410	386,490	1,038,067	267%
Lingdingyang	670,650		60,510	-	670,650	60,510	9%
Batam	131,700		151,630	17,010	131,700	168,640	128%
<b>Totals</b>	<b>674,092</b>	<b>890,834</b>	<b>6,538,076</b>	<b>1,930,500</b>	<b>6,363,916</b>	<b>8,468,576</b>	<b>133%</b>
Total cash & in-kind not differentiated	4,798,990						

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Table 13 Cash co-financing provided to the specialised executing agencies in each country 2004-2008.

	2004	2005		2006		2007		2008	
	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	Total
<b>MANGROVE WORKING GROUP</b>									
Cambodia	0	0	0	1,375	0	40	80	n/a	1,495
China	54,571	1,800	0	475,000	600	900	6,600	n/a	539,471
Indonesia	0	2,079	40,647	1,363	0	1,211	8,333	6,111	59,745
Philippines	0	455	564	118	0	0	11,292	1,161	13,645
Thailand	0	0	0	0	0	56	52,752	0	52,752
Viet Nam	5,741	0	0	0	0	117	200	n/a	6,058
<b>Total</b>	<b>60,312</b>	<b>4,334</b>	<b>41,211</b>	<b>477,856</b>	<b>600</b>	<b>2,323</b>	<b>79,257</b>	<b>7,272</b>	<b>673,165</b>
<b>CORAL REEFS WORKING GROUP</b>									
Cambodia	0	638	370	163	63	20	185	25	1,439
Indonesia	0	0	1,950	640	640	640	640	2,600	7,110
Malaysia	0	0	211,092	5,881	50,448	34,358	38,000	0	339,779
Philippines	1,000	2,000	1,580	50	1,130	0	0	0	5,760
Thailand	0	0	0	0	0	441	521	n/a	963
Viet Nam	0	0	8,931	6,576	7,297	10,618	12,336	21,943	67,702
<b>Total</b>	<b>1,000</b>	<b>2,638</b>	<b>223,923</b>	<b>13,309</b>	<b>59,578</b>	<b>46,078</b>	<b>51,682</b>	<b>24,568</b>	<b>422,776</b>
<b>SEAGRASS WORKING GROUP</b>									
Cambodia	0	638	370	163	63	20	185	25	1,463
China	0	1,100	2,800	250	320	570	500	n/a	5,540
Indonesia	0	2,160	0	84	108	109	0	435	2,896
Malaysia	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	n/a	0
Thailand	40	0	2,000	0	0	4,824	0	n/a	6,864
Viet Nam	0	0	0	2,000	0	0	0	n/a	2,000
<b>Total</b>	<b>40</b>	<b>3,898</b>	<b>5,170</b>	<b>2,497</b>	<b>491</b>	<b>5,523</b>	<b>685</b>	<b>460</b>	<b>18,763</b>
<b>WETLANDS WORKING GROUP</b>									
Cambodia	0	0	0	1,375	0	40	80	n/a	1,495
China	975	7,975	3,075	3,700	2,075	1,600	0	0	19,400
Indonesia	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	0	0
Philippines	1,225	0	0	0	0	125	0	1,117	2,467
Thailand	0	0	0	0	0	0	0	n/a	-
Viet Nam	0	358	0	0	0	0	1,150	n/a	1,508
<b>Total</b>	<b>2,200</b>	<b>8,333</b>	<b>3,075</b>	<b>5,075</b>	<b>2,075</b>	<b>1,765</b>	<b>1,230</b>	<b>1,117</b>	<b>24,870</b>
<b>FISHERIES WORKING GROUP</b>									
Cambodia	0	180	0	0	0	0	0	0	180
Indonesia	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	0
Viet Nam	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>180</b>
<b>LAND-BASED POLLUTION WORKING GROUP</b>									
Cambodia	0	0	0	0	0	0	0	0	0
China	0	1,000	2,365	3,600	1,000	1,850	0	n/a	9,815
Indonesia	0	0	0	0	0	0	500	700	1,200
Malaysia	0	0	0	0	0	6,320	0	0	6,320
Philippines	0	0	0	0	0	0	360	110	470
Thailand	26,650	12,360	12,568	83	6,422	9,699	0	n/a	67,783
Viet Nam	0	0	3,360	1,680	438	0	0	n/a	5,478
<b>Total</b>	<b>26,650</b>	<b>13,360</b>	<b>18,293</b>	<b>5,363</b>	<b>7,860</b>	<b>17,869</b>	<b>860</b>	<b>811</b>	<b>91,067</b>
<b>GRAND TOTAL</b>	<b>84,461</b>	<b>37,742</b>	<b>291,672</b>	<b>504,099</b>	<b>70,604</b>	<b>73,558</b>	<b>133,715</b>	<b>34,227</b>	<b>1,230,818</b>

**PERSONAL CO-FINANCING BY THE STAFF OF THE PROJECT CO-ORDINATING UNIT**

A total of twelve individuals have worked in the Project Co-ordinating Unit since its' formation in 2002 for a total of 613 person months (51.1 person years). Over that time the working modality has:

- involved all individuals working 52.5 hours per week<sup>49</sup> instead of the required 37.5 hours;
- the loss of 415 days of holidays over 51.1 person years
- the loss of 318 days at weekends due to travel to and/or from meetings

<sup>49</sup> This is a highly conservative estimate since at least in the case of six individuals working weeks exceeded 60 hours per week.

The total number of additional hours worked is equal to:

51.1 person years x [230/5] = 2,350 working weeks based on a standard working year of 230 days.

Unpaid overtime worked is equal to:

2,350 person weeks x 15 additional hours per week = 35,250 additional hours

35,250 extra hours represents 35,250/35 = 1,007 person weeks or 5,035.7 working days

Total additional days uncompensated input 5,035.7 + 733 = 5,768.7

Using the SCS coefficient of US\$70 per person per day this represents US\$403,809 of personal co-financing by the PCU staff

## **PROJECT BUDGET AT THE TIME OF CEO ENDORSEMENT**

At the time of final submission of the project document for endorsement by the Chief Executive Officer of the GEF in November 2001 the project budget was anticipated to be slightly in excess of US\$34 million, (Table 14) of which US\$16.4 million was the GEF grant and the remainder made up of secured and promised co-financing in cash and in kind from the governments, the Implementing Agency, UNEP and "other sources".

Table 14 Original summary budget for the project as submitted to the GEF Secretariat for final CEO endorsement.

	2002	2003	2004	2005	2006	Total	%
Cost to GEF Trust Fund:	3,473,000	4,500,000	3,270,000	3,293,000	1,878,000	<b>16,414,000</b>	<b>48.2%</b>
Cost to Governments (in cash & kind) <sup>50</sup>	1,391,740	1,609,090	2,400,000	2,400,000	2,400,000	<b>10,200,830</b>	<b>30.0%</b>
Cost to UNEP (in cash & kind) <sup>51</sup>	126,000	126,000	126,000	126,000	126,000	<b>630,000</b>	<b>1.8%</b>
<b>Estimated costs (other)<sup>52</sup></b>	0	0	2,270,000	2,270,000	2,270,000	6,810,000	20.0%
<b>Total Cost of Project</b>	<b>4,990,740</b>	<b>6,235,090</b>	<b>8,066,000</b>	<b>8,089,000</b>	<b>6,674,000</b>	<b>34,054,830</b>	<b>100 %</b>

## **ESTIMATES OF TOTAL CO-FINANCING RECEIVED TO DATE.**

As noted in the introduction only a certain fraction of the in-kind co-financing is amenable to independent verification and Table 15 presents information on the estimates of in-kind co-financing, the fraction that is verifiable and the sums verified as being invested by Governments in-kind. Overall 121% of the total verifiable sum has been realised to date. For the purposes of this analysis it is assumed that a similar fraction of the un-verifiable co-financing has been realised resulting in overall in-kind co-financing of US\$7,052,461.

Table 15 Summary of in-kind co-financing (US\$) of national inputs to the project excluding demonstration sites and pilot activities.

	Preparatory phase	Operational phase	Total
Estimates	<b>2,765,630</b>	<b>3,062,850</b>	<b>5,828,480</b>
Verifiable	<b>891,380</b>	<b>1,475,250</b>	<b>2,366,630</b>
Verified	<b>1,245,650</b>	<b>1,627,910</b>	<b>2,873,560</b>
Percentage realised	<b>140%</b>	<b>110%</b>	<b>121%</b>

Table 16 presents a comparison of the original budget submitted to and approved by the GEF compared with the actual sums realised during the course of project implementation. It should be borne in mind that these figures are a conservative under-estimate.

It should also be recognised that the actual GEF grant funds expended in implementing the project do not total the full original grant allocation. The balance of unspent funds reduces the total GEF

<sup>50</sup> Government contributions for the first two years were approved during the first meeting of the Project Steering Committee (PSC), (see Annex N) and are detailed in the individual budgets attached to each country MoU. Agreed government co-financing totals US\$7.5 million in-kind with a further US\$2.7 million that will be allocated following selection of the demonstration sites.

<sup>51</sup> Cash contribution is for the convening of COBSEA (US\$210,000) meetings and is derived from the EAS Regional Trust Fund. The in-kind contribution is the estimated staff-time for EAS/RCU professional and support staff to project co-ordination.

<sup>52</sup> This figure represents an in principle commitment to co-financing of demonstration activities, subject to choice of demonstration sites and detailed cost benefit analysis during the preparatory phase.

contribution thereby raising the proportional contribution of Government co-financing to project implementation. The estimate of final expenditures currently stands at US\$15,959,172.53 compared with the original allocation of US\$16,414,000.

Table 16          Total Project Financing compared with the original estimates.

	Original Budget		Actual Budget	
	Total	%	Total	%
<i>Cost to GEF Trust Fund:</i>	16,414,000.0	48.2	<b>15,959,172.0</b>	<b>44.12</b>
Cost to Governments (in cash & kind)	10,200,830.0	30.0	<b>19,369,459.0</b>	<b>53.57</b>
Government in-kind co-financing			7,052,461.0	<b>19.50</b>
Gov. in-kind co-financing Regional mtgs Table 7			43,960.0	<b>0.12</b>
Participation in Expert meetings Table 8			55,230.0	<b>0.15</b>
Participation in RSC, MRT, NGO Forum etc Table 9			203,704.0	<b>0.56</b>
Regional Training (Table 10)			157,570.0	<b>0.44</b>
Echo-seminars			367,080.0	<b>1.01</b>
Chinese Government Cash Co-financing			1,800,000.0	<b>4.98</b>
Operational Phase Cash Co-financing			1,230,818.0	<b>3.40</b>
Demonstration site and pilot activities <sup>53</sup>	6,810,000.0	20.0	8,468,576.0	<b>23.41</b>
Personal co-financing (PCU staff)			<b>403,809.0</b>	<b>1.12</b>
Cost to UNEP (in cash & kind)	630,000.0	1.8	<b>431,902.0</b>	<b>1.19</b>
<b>Total Cost of Project</b>	<b>34,054,830.0</b>	<b>100.0</b>	<b>36,168,541.0</b>	<b>100.00</b>

## CONCLUSIONS

The following generic conclusions may be drawn from this analysis:

- Without initial, proper estimates of the in-kind co-financing, and requirement for reporting at least part of that contribution, it would not have been possible to demonstrate that government in-kind co-financing reached and in fact exceeded the planned amount;
- In the case of this project **all co-financing** has been raised from Government sources at the central, provincial and local (municipal) levels;
- Without an attempt to verify co-financing significant additional amounts would not have been identified;
- The approach adopted in this project would benefit other UNEP and GEF Projects in terms of demonstrating government commitments to the project

A final conclusion is that within the context of effective management of GEF projects the individuals involved in project implementation/execution are called upon to provide services that significantly exceed those that can reasonably be expected, suggesting that the United Nations and the GEF consistently under-estimate the time required to manage complex multi-country projects and programmes.

<sup>53</sup> Originally it was anticipated that at least part of this sum would be realised via bilateral donor support. In the event this proved unnecessary since the Governments provided the site level co-financing in cash and in-kind.

## APPENDIX 1

Table 1 Estimated Annual in-kind contribution of experts and officials time for the first two years of project Implementation Cost Coefficient US\$70/day inclusive<sup>54</sup>.

	Annual in-kind contribution					Comments regarding <sup>55</sup> means of verification
	Year 1 Time (days)	Year 2 Time (days)	Year 1 US\$	Year 2 US\$	Total	
<b>National Co-ordination Component</b>						
IMC meetings (12 members)	48	48	3,360	3,360	6,720	Verified via 6 mth rpt.
National Focal Point time	8	8	560	560	1,120	Correlates with IMC mtgs
NTWG Meetings (15 members)	120	120	8,400	8,400	16,800	Verified via 6 mth rpt
National Technical Focal Pt time	32	32	2,240	2,240	4,480	Correlates with NTWG Mtgs
<b>National Co-ordination Total</b>	<b>208</b>	<b>208</b>	<b>14,560</b>	<b>14,560</b>	<b>29,120</b>	
<b>Mangrove Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (10 members, 14 mtgs. /year)	140	140	9,800	9,800	19,600	Verified via 6 mth rpt
Review national data on mangroves	240	45	16,800	3,150	19,950	
Finalise SAP targets	15	45	1,050	3,150	4,200	
Review of restoration activities	120		8,400	0	8,400	
Develop National Action Plan	60	90	4,200	6,300	10,500	
Public meetings organisation		8	560	0	560	
Organise formal meeting for adoption of plan		8	0	560	560	
Drafting & finalisation of management criteria	20	60	1,400	4,200	5,600	
Application of criteria to national sites		30	0	2,100	2,100	
Editorial supervision		30	0	2,100	2,100	
<b>Component Total</b>	<b>653</b>	<b>514</b>	<b>46,235</b>	<b>35,385</b>	<b>81,620</b>	
<b>Coral Reef Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (10 members, 14 mtgs. /year)	140	140	9,800	9,800	19,600	Verified via 6 mth rpt
National inventory of coral reefs & national data	240	60	16,800	4,200	21,000	
National legislation & management plans	50	150	3,500	10,500	14,000	
guidelines on testing blast fishing detection	30	0	2,100	0	2,100	
Public meetings organisation		8	560	0	560	
Organise formal meeting for adoption of plan		8	0	560	560	
Application of criteria to national sites		30	0	2,100	2,100	
Editorial supervision		30	0	2,100	2,100	
<b>Component Total</b>	<b>518</b>	<b>484</b>	<b>36,785</b>	<b>33,285</b>	<b>70,070</b>	
<b>Seagrass Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (10 members, 14 mtgs./year)	140	140	9,800	9,800	19,600	Verified via 6 mth rpt
Review national data on seagrass	180	30	12,600	2,100	14,700	
Finalise SAP targets	15	45	1,050	3,150	4,200	
Develop National Action Plan	15	45	1,050	3,150	4,200	
Public meetings organisation		8	560	0	560	
Organise formal meeting for adoption of plan		8	0	560	560	
Drafting & finalisation of management criteria	20	60	1,400	4,200	5,600	
Application of criteria to national sites		30	0	2,100	2,100	
Editorial supervision		30	0	2,100	2,100	
<b>Component Total</b>	<b>428</b>	<b>454</b>	<b>30,485</b>	<b>31,185</b>	<b>61,670</b>	
<b>Wetlands Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (10 members, 14 mtgs./year)	140	140	9,800	9,800	19,600	Verified via 6 mth rpt
Review national data on wetlands management, legislation	240		16,800	0	16,800	
Develop & establish National Management regimes	15	45	1,050	3,150	4,200	
Criteria & guidelines for determining priority	30	90	2,100	6,300	8,400	
Editorial supervision		30	0	2,100	2,100	
<b>Component Total</b>	<b>483</b>	<b>363</b>	<b>33,775</b>	<b>25,375</b>	<b>59,150</b>	

<sup>54</sup> Cost is estimated on the basis of Annual all-inclusive costs @ US\$16,000 per professional, per year. No working days 230. Costs include salary, benefits & office support costs paid by the Government or other institution for which the individual works.

<sup>55</sup> This column and its contents have been added to the original table for the purposes of this discussion.

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Table 1 *cont.* Estimated Annual in-kind contribution of experts and officials time for the first two years of project Implementation Cost Coefficient US\$70/day inclusive<sup>56</sup>.

	Annual in-kind contribution					Comments regarding means of verification
	Year 1 Time (days)	Year 2 Time (days)	Year 1 US\$	Year 2 US\$	Total	
<b>Fisheries Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (6 members 12 per year)	72	72	5,040	5,040	10,080	Verified via 6 mth rpt
Preparation of National Overview of Fisheries data	120	20	8,400	1,400	9,800	
Development of criteria for evaluation of transboundary significance of fish stocks	0	90	0	6,300	6,300	
Development of awareness programmes among artisanal fishing communities	0	90	0	6,300	6,300	
Development of educational and public awareness materials	0	90	0	6,300	6,300	
Editorial supervision of reports	0	30	0	2,100	2,100	
<b>Component Total</b>	<b>250</b>	<b>450</b>	<b>17,465</b>	<b>31,465</b>	<b>48,930</b>	
<b>Pollution Component</b>						
Co-ordinator 3 m/m per year	58	58	4,025	4,025	8,050	Contracted through the MoU
Working Group Meetings (6 members 12 per year)	72	72	5,040	5,040	10,080	Verified via 6 mth rpt
Preparation of Review on water quality data	120	20	8,400	1,400	9,800	
Evaluation of fate of transboundary pollutants	60	40	4,200	2,800	7,000	
Evaluation of Costs & Benefits of alternatives	30	90	2,100	6,300	8,400	
Pre-feasibility studies for priority sites	0	140	0	9,800	9,800	
Editorial supervision of reports	0	30	0	2,100	2,100	
<b>Component Total</b>	<b>340</b>	<b>450</b>	<b>23,765</b>	<b>31,465</b>	<b>55,230</b>	
<b>Regional Co-ordination</b>						
Project Steering Committee (2 members 1 mtg/yr.)	30	20	2,100	1,400	3,500	Verified via meeting reports
Regional Scientific & Technical Committee (1 member, 1mtg/yr)	20	20	1,400	1,400	2,800	Verified via meeting reports
<b>Component Total</b>	<b>50</b>	<b>40</b>	<b>3,500</b>	<b>2,800</b>	<b>6,300</b>	
<b>Grand Total</b>	<b>2,927</b>	<b>2,960</b>	<b>206,570</b>	<b>205,520</b>	<b>412,090</b>	

<sup>56</sup> Cost is estimated on the basis of Annual all-inclusive costs @ 16,000 US\$ per professional, per year. No working days 230. Costs include salary, benefits & office support costs paid by the Government or other institution for which the individual works.

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Table 2 Estimated Annual in-kind contribution of experts and officials time for the first two years of project Implementation Cost Coefficient US\$70/day inclusive [shaded cells with numbers in italics are verifiable amounts].

<i>Cost is estimated on the basis of Annual all inclusive costs @ US\$16,000 per professional, per year. No working days 230. Costs include salary, benefits &amp; office support costs paid by the Government or other institution for which the individual works.</i>											
	Year 1							Year 2		Total	
	Cambodia	China	Indonesia	Malaysia	Philippines	Thailand	Vietnam	Total Yr. 1	One country	All countries	2 years
<b>National Co-ordination Component</b>											
IMC meetings (12 members)	3,360	3,360	3,360	3,360	3,360	3,360	3,360	23,520	3,360	23,520	47,040
National Focal Point time	560	560	560	560	560	560	560	3,920	560	3,920	7,840
NTWG Meetings (15 members)	8,400	8,400	8,400	8,400	8,400	8,400	8,400	58,800	8,400	58,800	117,600
National Technical Focal Pt time	2,240	2,240	2,240	2,240	2,240	2,240	2,240	15,680	2,240	15,680	31,360
<b>National Co-ordination Total</b>	<b>14,560</b>	<b>14,560</b>	<b>14,560</b>	<b>14,560</b>	<b>14,560</b>	<b>14,560</b>	<b>14,560</b>	<b>101,920</b>	<b>14,560</b>	<b>101,920</b>	<b>203,840</b>
<b>Mangrove Component</b>											
Co-ordinator 3 m/m per year	4,025	4,025	4,025	4,025	4,025	4,025	4,025	28,175	4,025	28,175	56,350
Working Group Meetings (10 members, 14 mtgs./year)	9,800	9,800	9,800	9,800	9,800	9,800	9,800	68,600	9,800	68,600	137,200
Review national data on mangroves	16,800	16,800	16,800	16,800	16,800	16,800	16,800	117,600	3,150	22,050	139,650
Finalise SAP targets	1,050	1,050	1,050	1,050	1,050	1,050	1,050	7,350	3,150	22,050	29,400
Review of restoration activities	8,400	8,400	8,400	8,400	8,400	8,400	8,400	58,800	0	0	58,800
Develop National Action Plan	4,200	4,200	4,200	4,200	4,200	4,200	4,200	29,400	6,300	44,100	73,500
Public meetings organisation	560	560	560	560	560	560	560	3,920	0	0	3,920
Organise formal meeting for adoption of plan	0	0	0	0	0	0	0	0	560	3,920	3,920
Drafting & finalisation of management criteria	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	4,200	29,400	39,200
Application of criteria to national sites	0	0	0	0	0	0	0	0	2,100	14,700	14,700
Editorial supervision	0	0	0	0	0	0	0	0	2,100	14,700	14,700
<b>Component Total</b>	<b>46,235</b>	<b>46,235</b>	<b>46,235</b>	<b>46,235</b>	<b>46,235</b>	<b>46,235</b>	<b>46,235</b>	<b>323,645</b>	<b>35,385</b>	<b>247,695</b>	<b>571,340</b>
<b>Coral Reef Component</b>											
Co-ordinator 3 m/m per year	4,025	0	4,025	4,025	4,025	4,025	4,025	24,150	4,025	24,150	48,300
Working Group Meetings (10 members, 14 mtgs./year)	9,800	0	9,800	9,800	9,800	9,800	9,800	58,800	9,800	58,800	117,600
National inventory of coral reefs & national data	16,800	0	16,800	16,800	16,800	16,800	16,800	100,800	4,200	25,200	126,000
National legislation & management plans	3,500	0	3,500	3,500	3,500	3,500	3,500	21,000	10,500	63,000	84,000
guidelines on testing blast fishing detection	2,100	0	2,100	2,100	2,100	2,100	2,100	12,600	0	0	12,600
Public meetings organisation	560	0	560	560	560	560	560	3,360	0	0	3,360 <sup>57</sup>
Organise formal meeting for adoption of plan	0	0	0	0	0	0	0	0	560	3,360	3,360
Application of criteria to national sites	0	0	0	0	0	0	0	0	2,100	12,600	12,600
Editorial supervision	0	0	0	0	0	0	0	0	2,100	12,600	12,600
<b>Component Total</b>	<b>36,785</b>	<b>0</b>	<b>36,785</b>	<b>36,785</b>	<b>36,785</b>	<b>36,785</b>	<b>36,785</b>	<b>220,710</b>	<b>33,285</b>	<b>199,710</b>	<b>420,420</b>
<b>Seagrass Component</b>											
Co-ordinator 3 m/m per year	4,025	4,025	4,025	4,025	4,025	4,025	4,025	28,175	4,025	28,175	56,350
Working Group Meetings (10 members, 14 mtgs./year)	9,800	9,800	9,800	9,800	9,800	9,800	9,800	68,600	9,800	68,600	137,200
Review national data on seagrass	12,600	12,600	12,600	12,600	12,600	12,600	12,600	88,200	2,100	14,700	102,900
Finalise SAP targets	1,050	1,050	1,050	1,050	1,050	1,050	1,050	7,350	3,150	22,050	29,400
Develop National Action Plan	1,050	1,050	1,050	1,050	1,050	1,050	1,050	7,350	3,150	22,050	29,400
Public meetings organisation	560	560	560	560	560	560	560	3,920	0	0	3,920
Organise formal meeting for adoption of plan	0	0	0	0	0	0	0	0	560	3,920	3,920
Drafting & finalisation of management criteria	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	4,200	29,400	39,200
Application of criteria to national sites	0	0	0	0	0	0	0	0	2,100	14,700	14,700
Editorial supervision	0	0	0	0	0	0	0	0	2,100	14,700	14,700
<b>Component Total</b>	<b>30,485</b>	<b>30,485</b>	<b>30,485</b>	<b>30,485</b>	<b>30,485</b>	<b>30,485</b>	<b>30,485</b>	<b>213,395</b>	<b>31,185</b>	<b>218,295</b>	<b>431,690</b>

<sup>57</sup> These numbers were originally 39,200; 235,200; and 238,560 which appear to be in error, if the contents of this table are compared with those of other components and Table 1.

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Table 2 *cont.* Estimated Annual in-kind contribution of experts and officials time for the first two years of project Implementation Cost Coefficient US\$70/day inclusive.

	Year 1								Year 2		Total
	Cambodia	China	Indonesia	Malaysia	Philippines	Thailand	Vietnam	Total Yr. 1	One country	All countries	2 years
<b>Wetlands Component</b>											
Co-ordinator 3 m/m per year	4,025	4,025	4,025	4,025	4,025	4,025	4,025	28,175	4,025	28,175	56,350
Working Group Meetings (10 members, 14 mtgs./year)	9,800	9,800	9,800	9,800	9,800	9,800	9,800	68,600	9,800	68,600	137,200
Review national data on wetlands management, legislation	16,800	16,800	16,800	16,800	16,800	16,800	16,800	117,600	0	0	117,600
Develop & establish National Management regimes	1,050	1,050	1,050	1,050	1,050	1,050	1,050	7,350	3,150	22,050	29,400
Criteria & guidelines for determining priority	2,100	2,100	2,100	2,100	2,100	2,100	2,100	14,700	6,300	44,100	58,800
Editorial supervision	0	0	0	0	0	0	0	0	2,100	14,700	14,700
<b>Component Total</b>	<b>33,775</b>	<b>33,775</b>	<b>33,775</b>	<b>33,775</b>	<b>33,775</b>	<b>33,775</b>	<b>33,775</b>	<b>236,425</b>	<b>25,375</b>	<b>177,625</b>	<b>414,050</b>
<b>Fisheries Component</b>											
Co-ordinator 3 m/m per year	4,025	0	4,025	4,025	4,025	4,025	4,025	24,150	4,025	24,150	48,300
Working Group Meetings (6 members 12 per year)	5,040	0	5,040	5,040	5,040	5,040	5,040	30,240	5,040	30,240	60,480
Preparation of National Overview of Fisheries data	8,400	0	8,400	8,400	8,400	8,400	8,400	50,400	1,400	8,400	58,800
Development of criteria for evaluation of transboundary significance of fish stocks	0	0	0	0	0	0	0	0	6,300	37,800	37,800
Development of awareness programmes among artisanal fishing communities	0	0	0	0	0	0	0	0	6,300	37,800	37,800
Development of educational and public awareness materials	0	0	0	0	0	0	0	0	6,300	37,800	37,800
Editorial supervision of reports	0	0	0	0	0	0	0	0	2,100	12,600	12,600
<b>Component Total</b>	<b>17,465</b>	<b>0</b>	<b>17,465</b>	<b>17,465</b>	<b>17,465</b>	<b>17,465</b>	<b>17,465</b>	<b>104,790</b>	<b>31,465</b>	<b>188,790</b>	<b>293,580</b>
<b>Pollution Component</b>											
Co-ordinator 3 m/m per year	4,025	4,025	4,025	4,025	4,025	4,025	4,025	28,175	4,025	28,175	56,350
Working Group Meetings (6 members 12 per year)	5,040	5,040	5,040	5,040	5,040	5,040	5,040	35,280	5,040	35,280	70,560
Preparation of Review on water quality data	8,400	8,400	8,400	8,400	8,400	8,400	8,400	58,800	1,400	9,800	68,600
Evaluation of fate of transboundary pollutants	4,200	4,200	4,200	4,200	4,200	4,200	4,200	29,400	2,800	19,600	49,000
Evaluation of Costs & Benefits of alternatives	2,100	2,100	2,100	2,100	2,100	2,100	2,100	14,700	6,300	44,100	58,800
Pre-feasibility studies for priority sites	0	0	0	0	0	0	0	0	9,800	68,600	68,600
Editorial supervision of reports	0	0	0	0	0	0	0	0	2,100	14,700	14,700
<b>Component Total</b>	<b>23,765</b>	<b>23,765</b>	<b>23,765</b>	<b>23,765</b>	<b>23,765</b>	<b>23,765</b>	<b>23,765</b>	<b>166,355</b>	<b>31,465</b>	<b>220,255</b>	<b>386,610</b>
<b>Regional Co-ordination</b>											
Project Steering Committee (2 members 1 mtg./yr.)	2,100	2,100	2,100	2,100	2,100	2,100	2,100	14,700	1,400	9,800	24,500
Regional Scientific & Technical Committee (1 member, 1mtg/yr)	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	1,400	9,800	19,600
<b>Component Total</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>3,500</b>	<b>24,500</b>	<b>2,800</b>	<b>19,600</b>	<b>44,100</b>
<b>Grand Total</b>	<b>206,570</b>	<b>152,320</b>	<b>206,570</b>	<b>206,570</b>	<b>206,570</b>	<b>206,570</b>	<b>206,570</b>	<b>1,391,740</b>	<b>205,520</b>	<b>1,373,890</b>	<b>2,765,630</b>

Verifiable total 891.380, 32.3%

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Table 3 Estimated annual in-kind contribution of experts' and officials' time for the period July 2004 to June 2007.

	Time (days)				Value in US\$					Comments regarding basis of calculation
	2004 half yr.	2005	2006	2007 half yr.	2004	2005	2006	2007	Total	
National Co-ordination Component										
IMC meetings (12 members)	12	24	24	12	840	1,680	1,680	840	5,040	2 x 1 day mtg. /yr, 12 members Preparation & follow-up to IMC mtgs.
National Focal Point time	4	8	8	4	280	560	560	280	1,680	
NTWG Meetings (15 members)	30	60	60	30	2,100	4,200	4,200	2,100	12,600	4 x 1 day mtg. /yr, 15 members
National Technical Focal Pt time	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Preparation & follow-up to NTWG mtgs. Liaison with component focal points. National Co-ordination. Contracted via the MoU
National Co-ordination Total	87	174	174	87	6,090	12,180	12,180	6,090	36,540	
Mangrove Component										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU 4 x 1 day mtgs. / Yr 12 members
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	
Up-date national meta-database on mangroves	5	10	10	5	350	700	700	350	2,100	
Update regional GIS data	5	10	10	5	350	700	700	350	2,100	
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Develop National Action Plan	30	90	30	0	2,100	6,300	2,100	0	10,500	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan	0	8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
Editorial supervision of reports	5	5	5	0	350	350	350	0	1,050	
Component Total	168	369	309	69	12,040	25,550	21,630	5,390	62,090	
Coral Reef Component										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU 4 x 1 day mtgs. /yr 12 members
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	
Up-date national meta-database on coral reefs	5	10	10	5	350	700	700	350	2,100	
Update regional GIS data	5	10	10	5	350	700	700	350	2,100	
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Develop National Action Plan	30	90	30	0	2,100	6,300	2,100	0	10,500	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan	0	8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
Editorial supervision of reports	5	5	5	0	350	350	350	0	1,050	
Component Total	163	364	304	69	11,690	25,200	21,280	5,390	61,040	
Seagrass Component										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU 4 x 1 day mtgs. /yr 12 members
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	
Up-date national meta-database on seagrass	5	10	10	5	350	700	700	350	2,100	
Update regional GIS data	5	10	10	5	350	700	700	350	2,100	
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Develop National Action Plan	30	90	30	0	2,100	6,300	2,100	0	10,500	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan	0	8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
Editorial supervision of reports	5	5	5	0	350	350	350	0	1,050	
Component Total	157	352	292	63	11,270	24,360	20,440	4,970	61,040	

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Table 3 *cont.* Estimated annual in-kind contribution of experts' and officials' time for the period July 2004 to June 2007.

	Time (days)				Value in US\$					Comments regarding basis of calculation
	2004 half yr.	2005	2006	2007 half yr.	2004	2005	2006	2007	Total	
<b>Wetlands Component</b>										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	4 x 1 day mtgs. /yr 12 members
Up-date national meta-database on mangroves	5	10	10	5	350	700	700	350	2,100	
Update regional GIS data	5	10	10	5	350	700	700	350	2,100	
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Develop National Action Plan	30	90	30	0	2,100	6,300	2,100	0	10,500	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan		8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
Editorial supervision of reports	5	5	5	0	350	350	350	0	1,050	
<b>Component Total</b>	<b>157</b>	<b>352</b>	<b>292</b>	<b>63</b>	<b>11,270</b>	<b>24,360</b>	<b>20,440</b>	<b>4,970</b>	<b>61,040</b>	
<b>Fisheries Component</b>										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	4 x 1 day mtgs. /yr 12 members
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Oversight of blast fishing trials	0	5	5	0	0	350	350	0	700	
Promote the code of conduct	5	20	20	10	350	1,400	1,400	700	3,850	
Develop National Action Plan	5	40	10	0	350	2,800	700	0	3,850	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan	0	8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
Oversight of development and dissemination of awareness materials amongst artisanal fishing communities	5	10	10	5	350	700	700	350	2,100	
Translation of educational and public awareness materials for regional exchange	0	10	0	0	0	700	0	0	700	
Editorial supervision of reports	5	5	5	0	350	350	350	0	1,050	
<b>Component Total</b>	<b>138</b>	<b>329</b>	<b>299</b>	<b>74</b>	<b>9,940</b>	<b>22,750</b>	<b>20,930</b>	<b>5,740</b>	<b>56,840</b>	
<b>Pollution Component</b>										
Co-ordinator 3 m/m per year	29	58	58	29	2,030	4,060	4,060	2,030	12,180	Contracted via the MoU
Working Group Meetings	24	48	48	24	1,680	3,360	3,360	1,680	10,080	4 x 1 day mtgs. /yr 12 members
Up-date national meta-database on mangroves	5	10	10	5	350	700	700	350	2,100	
Finalise SAP targets	10	20	20	0	700	1,400	1,400	0	3,500	
Develop National Action Plan	30	90	30	0	2,100	6,300	2,100	0	10,500	
Public meetings organisation	4	8	8	0	560	280	560	560	1,960	
Organise formal meetings for adoption of plan	0	8	8	0	0	560	560	0	1,120	
Participation in stakeholder/public meetings	50	100	100	0	3,500	7,000	7,000	0	17,500	2 meetings per year participation 50 people
<b>Component Total</b>	<b>158</b>	<b>354</b>	<b>294</b>	<b>64</b>	<b>11,340</b>	<b>24,500</b>	<b>20,580</b>	<b>5,040</b>	<b>58,940</b>	
<b>Regional Co-ordination</b>										
Project Steering Committee	19	19	19	19	1,330	1,330	1,330	1,330	5,320	1 x 3 day mtg. per year; 2days/mtg travel time; 2 members/country; 9 days preparation and follow-up time.
Regional Scientific & Technical Committee	5	5	5	5	350	350	350	350	1,400	1 x 3 day mtg. per year; 2days/mtg travel time; 1 members/country;
RSTC combined	90	90	90	90	6,300	6,300	6,300	6,300	25,200	4 experts, 6 chairs x 3day meeting; 2 days travel/mtg.; 4 days preparation & follow-up
Expert participation in RWG mtgs	99	99	99	99	6,930	6,930	6,930	6,930	27,720	6 RWGs 11 experts 3dya mtgs, 2 days travel/year 4 days preparation & follow-up
<b>Component Total</b>	<b>213</b>	<b>213</b>	<b>213</b>	<b>213</b>	<b>14,910</b>	<b>14,910</b>	<b>14,910</b>	<b>14,910</b>	<b>59,640</b>	
<b>Grand Total</b>	<b>1,241</b>	<b>2,507</b>	<b>2,177</b>	<b>702</b>	<b>88,550</b>	<b>173,810</b>	<b>152,390</b>	<b>52,500</b>	<b>457,170</b>	

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Table 4 Annual Government in-kind contributions for the three years of the operational phase [shaded cells in the total column with numbers in italics are verifiable amounts].

	One Year In-kind contribution for each country							Total 1 Yr.	Total
	Cambodia	China	Indonesia	Malaysia	Philippines	Thailand	Viet Nam		3 years
National Co-ordination Component									
IMC meetings (12 members)	1,680	1,680	1,680	1,680	1,680	1,680	1,680	11,760	35,280
National Focal Point time	560	560	560	560	560	560	560	3,920	11,760
NTWG Meetings (15 members)	4,200	4,200	4,200	4,200	4,200	4,200	4,200	29,400	88,200
National Technical Focal Pt time	4,060	4,060	4,060	4,060	4,060	4,060	4,060	28,420	85,260
National Co-ordination Total	10,500	10,500	10,500	10,500	10,500	10,500	10,500	73,500	220,500
Mangrove Component									
Co-ordinator 3 m/m per year	4,025	4,025	4,025	MoU not signed	4,025	4,025	4,025	24,150	72,450
Working Group Meetings	3,360	3,360	3,360		3,360	3,360	3,360	20,160	60,480
Up-date national meta-database on mangroves	700	700	700		700	700	700	4,200	12,600
Update regional GIS data	700	700	700		700	700	700	4,200	12,600
Finalise SAP targets	1,400	1,400	1,400		1,400	1,400	1,400	8,400	25,200
Develop National Action Plan	6,300	6,300	6,300		6,300	6,300	6,300	37,800	113,400
Public meetings organisation	280	280	280		280	280	280	1,680	5,040
Organise formal meetings for adoption of plan	560	560	560		560	560	560	3,360	10,080
Participation in stakeholder/public meetings	7,000	7,000	7,000		7,000	7,000	7,000	42,000	126,000
Editorial supervision of reports	350	350	350		350	350	350	2,100	6,300
Component Total	24,675	24,675	24,675	0	24,675	24,675	24,675	148,050	444,150
Coral Reef Component									
Co-ordinator 3 m/m per year	4,025	MoU not signed	4,025	4,025	4,025	4,025	4,025	24,150	72,450
Working Group Meetings	3,360		3,360	3,360	3,360	3,360	3,360	20,160	60,480
Up-date national meta-database on coral reefs	700		700	700	700	700	700	4,200	12,600
Update regional GIS data	700		700	700	700	700	700	4,200	12,600
Finalise SAP targets	1,400		1,400	1,400	1,400	1,400	1,400	8,400	25,200
Develop National Action Plan	6,300		6,300	6,300	6,300	6,300	6,300	37,800	113,400
Public meetings organisation	280		280	280	280	280	280	1,680	5,040
Organise formal meetings for adoption of plan	560		560	560	560	560	560	3,360	10,080
Participation in stakeholder/public meetings	7,000		7,000	7,000	7,000	7,000	7,000	42,000	126,000
Editorial supervision of reports	350		350	350	350	350	350	2,100	6,300
Component Total	24,675	0	24,675	24,675	24,675	24,675	24,675	148,050	444,150
Seagrass Component									
Co-ordinator 3 m/m per year	4,060	4,060	4,060	4,060	4,060	4,060	4,060	28,420	85,260
Working Group Meetings	3,360	3,360	3,360	3,360	3,360	3,360	3,360	23,520	70,560
Up-date national meta-database on seagrass	700	700	700	700	700	700	700	4,900	14,700
Update regional GIS data	700	700	700	700	700	700	700	4,900	14,700
Finalise SAP targets	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	29,400
Develop National Action Plan	6,300	6,300	6,300	6,300	6,300	6,300	6,300	44,100	132,300
Public meetings organisation	280	280	280	280	280	280	280	1,960	5,880
Organise formal meetings for adoption of plan	560	560	560	560	560	560	560	3,920	11,760
Participation in stakeholder/public meetings	7,000	7,000	7,000	7,000	7,000	7,000	7,000	49,000	147,000
Editorial supervision of reports	350	350	350	350	350	350	350	2,450	7,350
Component Total	24,710	24,710	24,710	24,710	24,710	24,710	24,710	172,970	518,910
Wetlands Component									
Co-ordinator 3 m/m per year	4,060	4,060	4,060	4,060	4,060	4,060	4,060	28,420	85,260
Working Group Meetings	3,360	3,360	3,360	3,360	3,360	3,360	3,360	23,520	70,560
Up-date national meta-database on wetlands	700	700	700	700	700	700	700	4,900	14,700
Update regional GIS data	700	700	700	700	700	700	700	4,900	14,700
Finalise SAP targets	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	29,400
Develop National Action Plan	6,300	6,300	6,300	6,300	6,300	6,300	6,300	44,100	132,300
Public meetings organisation	280	280	280	280	280	280	280	1,960	5,880
Organise formal meetings for adoption of plan	560	560	560	560	560	560	560	3,920	11,760
Participation in stakeholder/public meetings	7,000	7,000	7,000	7,000	7,000	7,000	7,000	49,000	147,000
Editorial supervision of reports	350	350	350	350	350	350	350	2,450	7,350
Component Total	24,710	24,710	24,710	24,710	24,710	24,710	24,710	172,970	518,910

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Table 4 *cont.* Annual Government in-kind contributions for the three years of the operational phase [shaded cells in the total column with numbers in italics are verifiable amounts].

	One Year In-kind contribution for each country							Total 1 Yr.	Total 3 years
	Cambodia	China	Indonesia	Malaysia	Philippines	Thailand	Viet Nam		
<b>Fisheries Component</b>									
Co-ordinator 3 m/m per year	4,060	Not Participating	4,060	MoU Not signed	4,060	4,060	4,060	20,300	60,900
Working Group Meetings	3,360		3,360		3,360	3,360	3,360	16,800	50,400
Finalise SAP targets	1,400		1,400		1,400	1,400	1,400	7,000	21,000
Oversight of blast fishing trials	350		350		350	350	350	1,750	5,250
Promote the code of conduct	1,400		1,400		1,400	1,400	1,400	7,000	21,000
Develop National Action Plan	2,800		2,800		2,800	2,800	2,800	14,000	42,000
Public meetings organisation	280		280		280	280	280	1,400	4,200
Organise formal meetings for adoption of plan	560		560		560	560	560	2,800	8,400
Participation in stakeholder/public meetings	7,000		7,000		7,000	7,000	7,000	35,000	105,000
Oversight of development and dissemination of awareness materials amongst artisanal fishing communities	700		700		700	700	700	3,500	10,500
Translation of educational and public awareness materials for regional exchange	700		700		700	700	700	3,500	10,500
Editorial supervision of reports	350		350		350	350	350	1,750	5,250
<b>Component Total</b>	<b>22,960</b>	<b>0</b>	<b>22,960</b>	<b>0</b>	<b>22,960</b>	<b>22,960</b>	<b>22,960</b>	<b>114,800</b>	<b>344,400</b>
<b>Pollution Component</b>									
Co-ordinator 3 m/m per year	4,060	4,060	4,060	4,060	4,060	4,060	4,060	28,420	85,260
Working Group Meetings	3,360	3,360	3,360	3,360	3,360	3,360	3,360	23,520	70,560
Up-date national meta-database on mangroves	700	700	700	700	700	700	700	4,900	14,700
Finalise SAP targets	1,400	1,400	1,400	1,400	1,400	1,400	1,400	9,800	29,400
Develop National Action Plan	6,300	6,300	6,300	6,300	6,300	6,300	6,300	44,100	132,300
Public meetings organisation	280	280	280	280	280	280	280	1,960	5,880
Organise formal meetings for adoption of plan	560	560	560	560	560	560	560	3,920	11,760
Participation in stakeholder/public meetings	7,000	7,000	7,000	7,000	7,000	7,000	7,000	49,000	147,000
<b>Component Total</b>	<b>23,660</b>	<b>23,660</b>	<b>23,660</b>	<b>23,660</b>	<b>23,660</b>	<b>23,660</b>	<b>23,660</b>	<b>165,620</b>	<b>496,860</b>
<b>Regional Co-ordination</b>									
Project Steering Committee	1,330	1,330	1,330	1,330	1,330	1,330	1,330	9,310	27,930
Regional Scientific & Technical Committee	350	350	350	350	350	350	350	2,450	7,350
RSTC combined expert participation	-	-	-	-	-	-	-	6,300	18,900
Expert participation in RWG mtgs	-	-	-	-	-	-	-	6,930	20,790
<b>Component Total</b>	<b>1,680</b>	<b>1,680</b>	<b>1,680</b>	<b>1,680</b>	<b>1,680</b>	<b>1,680</b>	<b>1,680</b>	<b>24,990</b>	<b>74,970</b>
<b>Grand Total</b>	<b>157,570</b>	<b>109,935</b>	<b>157,570</b>	<b>109,935</b>	<b>157,570</b>	<b>157,570</b>	<b>157,570</b>	<b>1,020,950</b>	<b>3,062,850</b>

*The original approved version of this table had an annual total figure of US\$1,092,560 and a three year total of US\$3,217,200 due to some minor computational errors in the national co-ordination, mangrove, coral reef, and regional co-ordination components*

## APPENDIX 2

## UNEP CO-FINANCING IN THE UNEP/GEF PROJECT ENTITLED

***“Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand***  
**BACKGROUND**

Table 1 provides a summary of the cost estimates for the development (PDF-b) phase of the project at the time of approval by the GEF Secretariat. The GEF grant and costs to the Environment Fund of UNEP and the East Asian Seas Trust fund were in cash whilst the cost to the governments was an estimate of the in-kind contribution derived from national focal point and expert members participation in meetings and in the preparation of the National Reports, Transboundary Diagnostic Analysis and regional Strategic Action Programme.

Table 1 Original Cost Estimates by Source for the PDF-B (Development Phase) of the Project.

Fund Source	US\$	Percentage
Cost to the Environment Fund	39,000	6.6
Cost to the East Asian Seas Trust Fund	37,000	6.3
Cost to the GEF	335,000	57.1
Cost to the Governments (in-kind)	176,000	30.0
<b>Total Cost</b>	<b>587,000</b>	<b>1000</b>

The sources of financing of project activities, as summarised in the project brief at the time of inclusion in the work programme (at the end of the PDF-B phase) are given in Table 2. By the time of submission of the detailed project document to the CEO for formal clearance, following appraisal, and prior to signature in December 2001 the total costs had risen from 31.683 million to 34.054 million US\$ as shown in Table 3, although the total GEF grant remained unchanged.

Table 2 Summary Costing of Elements included in the Project Brief at the Time of Work Programme Submission, October 2000.

<b>GEF:</b>	Project	US\$ 16.414
	PDF - B <sup>58</sup>	US\$ 0.335
	<b>Subtotal GEF</b>	<b>US\$ 16.749</b>
<b>Co-financing:</b>	PDF-B (all sources)	US\$ 0.252
	UNEP (in cash & kind)	US\$ 0.630
	Governments (in cash & kind)	US\$ 8.895
	Other (estimated)	US\$ 6.622
	<b>Subtotal Co-financing</b>	<b>US\$ 15.769</b>
<b>Total Project Cost</b>		<b>US\$ 31.683</b>

Table 3 Summary Budget by source at the time of CEO Clearance, December 2001.

	2002	2003	2004	2005	2006	Total	%
Cost to GEF Trust Fund:	3,473,000	4,500,000	3,270,000	3,293,000	1,878,000	<b>16,414,000</b>	<b>48.2%</b>
Cost to Governments (in cash & kind)	1,391,740	1,609,090	2,400,000	2,400,000	2,400,000	<b>10,200,830</b>	<b>30.0%</b>
Cost to UNEP (in cash & kind) <sup>59</sup>	126,000	126,000	126,000	126,000	126,000	<b>630,000</b>	<b>1.8%</b>
<b>Estimated costs (other)</b>	0	0	2,270,000	2,270,000	2,270,000	<b>6,810,000</b>	<b>20.0%</b>
<b>Total Cost of Project</b>	<b>4,990,740</b>	<b>6,235,090</b>	<b>8,066,000</b>	<b>8,089,000</b>	<b>6,674,000</b>	<b>34,054,830</b>	<b>100 %</b>

<sup>58</sup> PDF-B funds were dispersed under UNEP Project document GF/1100-97-03 and are not included in the summary page of the present UNEP Project document.

<sup>59</sup> Cash contribution is for the convening of COBSEA (210,000 US \$) meetings and is derived from the EAS Regional Trust Fund. The in-kind contribution is the estimated staff-time for EAS/RCU professional and support staff to project co-ordination.

## DEVELOPMENT, PDF-B PHASE FINANCING

The initial GEF grant of US\$335,000 was approved in October 1996 and constitutes 57% of the originally estimated total costs of project preparation. Costs, in-cash, to the Environment Fund of UNEP and the East Asian Seas Trust fund, were US\$39,000 and US\$37,000 respectively. These funds were realised and expended under UNEP project document GF/ES/FP/1100-97-03. In addition to these anticipated costs a total of US\$204,771 was expended by UNEP on the development of this project between 1996 and December 2000 and a further US\$128,460 was invested by UNEP in cash and in-kind during the appraisal phase to December 2001. Total co-financing realised by UNEP at the time of Project clearance by the CEO was thus 409,231 US dollars.

Table 4 provides a summary of additional UNEP co-financing realised to date, which was not included in the estimates at the time of Project document submission for CEO clearance and is therefore additional to the cash co-financing detailed in Tables 1 and 3 above.

It can be seen that the total co-financing by UNEP greatly exceeded the original estimates of cash co-financing. Additional in cash and in-kind costs to the environment fund during the PDF-B phase totalled US\$107,608 and to the East Asian Seas Trust Fund US\$97,162. Costs to the GEF grant remained unchanged over this period.

**Table 4 Summary of UNEP co-financing (in cash and kind) to the UNEP/GEF Project entitled “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” from October 1996 to December 2005**

Cost centre	PLANNED	ADDITIONAL		PDF-B	PROJECT	GRAND
	Original Cash	1996 - 2000	2001	Total	Supervision	TOTALS
	co-financing	Development	Appraisal	1996-2001	2002-2005	1996 - 2005
Nairobi based	39,000	107,608.70	45,652.17	192,261	17,429.00	209,690
Bangkok based <sup>60</sup>	37,000	97,162.00	82,807.80	216,970	153,085.00 <sup>61</sup>	370,055
<b>Totals</b>	<b>76,000</b>	<b>204,771</b>	<b>128,460</b>	<b>409,231</b>	<b>170,514</b>	<b>579,745</b>

The reasons for the co-financing costs to UNEP of project development greatly exceeding the original estimates stem from two sources:

- A failure to include any estimate of in-kind co-financing in the PDF-B cost estimates; and,
- Political problems in the region regarding the acceptance and engagement of all countries in the project and the resultant costs of extended negotiations.

Originally the PDF-B phase was to have lasted from January 1997 to May 1998. However it took longer to mobilise the National Focal Points and commence work than originally intended such that the first (inception meeting) of the National Focal Points took place only in late March 1997. All, planned activities were completed by the end of 1998, and the original project brief was submitted for inclusion in the GEF Work Programme of March 1999. Hence the actual elapsed time was 27 months rather than the originally planned 18. The project brief submitted for the March 1999 work programme lacked one endorsement and was withdrawn at the commencement of the GEF Council meeting.

From mid-1999 to mid-2000 a series of intensive negotiations were undertaken by, the staff of UNEP Nairobi and the EAS/RCU with the governments, to secure final endorsement. This involved extensive regional travel by Nairobi and Bangkok based staff, and consequently involved considerably greater costs than had been originally planned. At the end of this period an additional unplanned regional technical meeting was convened in September 2000 to secure final technical agreement on the contents of the project brief prior to the first meeting of the Project Steering Committee and the COBSEA meeting which endorsed the project brief for submission to the GEF Council's December 2000 meeting.

The appraisal phase lasted for 12 months and involved UNEP negotiation and finalisation of the financial instruments through which funds were to be transferred to the 38 Specialised Executing Agencies (SEAs) and 7 Focal Ministries in the participating countries. Total costs of development of

<sup>60</sup> The figures include an estimate of co-financing in respect of the provision of Office space by the EAS/RCU during 2002, US\$16,000 and US\$30,000 as the estimated costs of the additional regional meetings convened during 2001.

<sup>61</sup> Includes an estimate of US\$84,000 as the proportional cost of convening the two COBSEA meetings in 2002 and 2004.

this project to UNEP were therefore US\$409,230 (in cash and in-kind) compared to the US\$76,000 originally planned.

### **Operational Phase**

During the Operational phase of the project, originally planned to run from January 2002 to June 2007, now extended to December 2008, UNEP co-financing was estimated at US\$126,000 *per annum* to a total of US\$630,000. This was to have been derived from two sources: a cash contribution for the convening of COBSEA (US\$210,000) meetings<sup>62</sup>, derived from the EAS Regional Trust Fund; and an in-kind contribution (US\$420,000) representing the estimated staff-time for EAS/RCU professional and support staff to project co-ordination and provision of office space and facilities for the Project Co-ordinating Unit.

Over the period January 2002 to June 30<sup>th</sup> 2004, in-kind co-financing was provided by UNEP through provision of services by the staff of the East Asian Seas Regional Co-ordinating Unit, and provision of support by Nairobi based staff of UNEP and UNON. However at the time when the project document was submitted to the GEF, the COBSEA met annually, subsequently a decision was taken to convene meetings biennially and only three meetings have been convened during the period January 2002 to December 2008.

The extent of total co-financing from UNEP envisaged in the operational project document, has not materialised and between January 2002 and June 2004 can be valued at US\$70,514 compared with the US\$315,000 envisaged. EAS/RCU provided the bulk of this co-financing during 2002 through staff time in both substantive and administrative fields during the establishment of the PCU and the convening of the first two rounds of regional working group meetings. The reduced level of support during 2003 and subsequently reflects the very low staffing levels of the EAS/RCU, which had positions vacant from January of that year to January 2005.

A further, substantial source of un-budgeted, in-kind co-financing derives from UNESCAP's provision of financial, personnel and travel related services provided to the Project Co-ordinating Unit by the Administrative Services Division of UNESCAP. The value of this co-financing remains unquantifiable.

### **Overall UNEP co-financing**

Table 5 provides a summary of envisaged and realised co-financing by UNEP in cash and in-kind, by project phase from which it may be observed that overall UNEP co financing from 1996 to December 2001 was five times the original estimates. However this table also indicates that whilst support from the East Asian Seas Trust Fund and the EAS/RCU was strong over the period to December 2001 it has declined significantly since that time with a shortfall of co-financing of 46% over the period January 2002 to December 2005.

**Table 5 Summary of UNEP co-financing estimated and actual over the period 1996 to 2004.**

	PDF-B & Appraisal, October 1996 to December 2001		Operational Phase 2002 to December 2005		Totals	
	Estimated	Actual	Estimated	Actual	Estimated	Actual
<b>Nairobi based costs</b>	39,000	192,261	0	17,429	39,000	209,119
<b>Bangkok based costs</b>	37,000	216,970	315,000	153,085	352,000	370,055
<b>UNEP Co-financing Total</b>	76,000	409,231	315,000	170,514	391,000	579,745
<b>Variance US \$</b>		<b>+333,231</b>		<b>-144,486</b>		<b>+188,745</b>
<b>Percentage</b>		<b>538%</b>		<b>-46%</b>		<b>148%</b>

## **CONCLUSION**

UNEP co-financing exceeded the original estimates by some 48%, however no co-financing was realised from January 2006 onwards and the bulk of co-financing was actually expended on project preparation rather than during implementation.

<sup>62</sup> At the time of finalisation of the project document COBSEA met annually the costs of convening these meetings was designated as cash co-financing (US\$42,000) based on the likely proportion of time each COBSEA meeting would devote to a consideration of progress in the South China Sea Project.

## PROJECT CONCEPT PAPERS FOR THE IMPLEMENTATION OF THE STRATEGIC ACTION PROGRAMME FOR THE SOUTH CHINA SEA

### INTRODUCTION

The South China Sea is a semi-enclosed sea, which supports a number of unique habitats and ecosystems that are amongst the most biologically diverse shallow water marine ecosystems globally. The countries surrounding the South China Sea have undergone very rapid economic development and rapid population increase in coastal areas over the past two decades resulting in degradation and loss of coastal habitats and resources.

Recognising that actions were urgently needed to halt degradation of the environment of this marine basin, the countries of the region sought the assistance of UNEP and the Global Environment Facility (GEF) in preparing a Transboundary Diagnostic Analysis of the issues and problems and their societal root causes as the basis for development of a Strategic Action Programme (SAP). A proposal was endorsed by the twelfth intergovernmental meeting of the Coordinating Body for the Seas of East Asia (COBSEA) in December 1996 and the GEF financially supported this initiative.

During the Project Development Phase from 1996 to 1999 and in accordance with the GEF Operational Strategy activities were undertaken at the national and regional level to prepare national reports of water-related environmental issues and problems; a Transboundary Diagnostic Analysis (TDA) (UNEP SCS/TDA ver. 3); and a Strategic Action Programme (SAP). These documents were submitted to the Thirteenth Intergovernmental Meeting of COBSEA (UNEP/(WATER)/EAS IG9/3), which endorsed the draft SAP. This Strategic Action Programme was prepared in collaboration and cooperation with other regional institutions, organisations and bodies including: Food and Agricultural Organisation of the UN; South East Asia (START) Regional Centre; The South China Sea Informal Working Group at the University of British Columbia; the IOC Sub-Commission for the Western Pacific (WESTPAC); and the GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas.

The TDA identified the priorities among water-related problems and concerns, their socio-economic root causes, the sectorial implications of actions needed to mitigate them and the extent to which the problems were transboundary in either origin or effect. The draft Strategic Action Programme based on the findings of the regional Transboundary Diagnostic Analysis (TDA) was used as the basis for preparing the full GEF Project document for the UNEP/GEF project entitled "*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*". This project became operational in 2002, following an appraisal phase from January 2000 to December 2001.

### Revision of the Strategic Action Programme for the South China Sea

The actions proposed in the framework of the draft Strategic Action Programme were wide ranging in both context and proposed areas for action and the key elements of the project included actions that would lead to the further elaboration and development of the draft Strategic Action Programme. Experiences over the period 2002 to 2007 in managing appropriate activities at both the national and regional levels have been utilised in the drafting of the present revised SAP that has been developed through an iterative process with activities at the national level feeding into the regional review process which in turn provided advice and guidance to the national entities in finalising their draft inputs to the regional SAP.

A key element in this process has been the development of detailed National Action Plans by each country that address the specific concerns and issues relevant to the components of the draft Strategic Action Programme. These National Action Plans are at various stages of government approval but it is anticipated that all will become operational by the end of 2008.

During the development of the NAPs the regional bodies of the project have analysed their NAP contents and developed regional elements for inclusion in the SAP on the basis of the identified national actions and priorities. These have been aggregated into a revision of the SAP which was finally endorsed and approval by the eighth meeting of the Intergovernmental Project Steering

Committee in August 2008. The revised SAP presents a shared vision regarding the actions that need to be undertaken at the regional level in support of national actions. Regional level actions include *inter alia*: networking; capacity building; public awareness and education; and applied research into management techniques and approaches that maximise the level of sustainable use without adverse environmental impact.

### **National Priority Projects for Strategic Action Programme Implementation**

During the first half of 2008 a series of consultations were undertaken with the participating countries to identify national priority actions for the implementation of the revised Strategic Action Programme for the South China Sea. On the basis of these consultations, project concept papers were developed by national executing partners for consideration during a regional Partnership Forum to be conducted in October 2008. These concepts were reviewed by regional experts and subsequently revised by the South China Sea project's Regional Scientific and Technical Committee in August 2008. The Project Co-ordinating Unit has since worked with proponents to review the quality of the proposals and the relevance of proposed activities to the targets of the revised Strategic Action Programme for the South China Sea.

Ten (10) project concept papers were selected for submission to the Partnership Forum following their review and finalisation by the Technical Workshop to be convened immediately prior to the Forum (Table 1). The full text for each of these project concept papers is contained in Annex 1 of this document, and will be finalised following review and revision by regional experts and the National Technical Focal Points of the UNEP/GEF South China Sea Project.

**Table 1** Project Concept Papers Selected for Submission to the Partnership Forum for the Implementation of the Strategic Action Programme for the South China Sea.

<b>No</b>	<b>Title</b>	<b>Proponent</b>	<b>Required Actions</b>
1	Development of management models for sustainable use of seagrass and coral reefs in the coastal waters of Cambodia (Kampot and Sihanoukville)	Mr. Ouk Vibol Fisheries Administration, Cambodia	Review, revision and finalisation by Technical Workshop
2	Establishment of the Liusha Nature Reserve for Seagrass, South China	Dr. Xiaoping Huang South China Institute of Oceanology	Review, revision and finalisation by Technical Workshop
3	Cooperation between China and Viet Nam on Transboundary Mangrove Conservation, Wise Utilisation and Management	Dr. Fan Hangqing Guangxi Mangrove Research Centre	English editing. Review, revision and finalisation by Technical Workshop
4	Scientific based Seagrass Ecosystem Management in the Indonesian Coastal Area bordering the South China Sea	Dr. Tri Edi Kuriandewa Indonesian Institute of Oceanography (LIPI)	Review, revision and finalisation by Technical Workshop
5	Modelling the Fate and Impacts of the Contaminants in the Marine Environment of Western Kalimantan adjacent to the South China Sea	Dr. Zainal Arifin Indonesian Institute of Oceanography (LIPI)	Review, revision and finalisation by Technical Workshop
6	Sustainable Management of Coral Reefs in Trat and Surat Thani Provinces	Dr. Thamasak Yeemin Ramkhamhaeng University, Thailand	Review, revision and finalisation by Technical Workshop
7	Sustainable Management of Coastal Habitats in the Transboundary Waters between Cambodia and Viet Nam	Dr. Vo Si Tuan (Viet Nam)/Mr. Ouk Vibol (Cambodia)	Review, revision and finalisation by Technical Workshop
8	Identify Criteria and Indicators for Environmental Friendly Technologies for Timber - Shrimp Farming Models in Mangroves of the Mekong River Delta of Viet Nam	Dr. Vu Tan Phuong Forest Science Institute of Viet Nam	Review, revision and finalisation by Technical Workshop
9	Scientific Sound Baselines for Sustainable Management of MPAs in South Central Viet Nam, taking account of Fisheries Re-stocking and Coral Reef Resilience	Mr. Nguyen Van Long Institute of Oceanography, Viet Nam	Review, revision and finalisation by Technical Workshop
10	Local Community Partnerships in the Conservation and Development of Coastal Wetlands	Ms. Marlynn M. Mendoza Protected Areas and Wildlife Bureau, Philippines	Review, revision and finalisation by Technical Workshop

## **PROJECT CONCEPT 1**

### **1. TITLE OF THE PROPOSED PROJECT**

Development of Management Models for the Sustainable Use of Seagrass and Coral Reefs in the Coastal Waters of Cambodia

Location: Kampot and Sihanoukville; Duration: 5 years (2008-2012)

### **2. RATIONALE**

Coral reef and seagrass habitats in Kampot and Sihanoukville are biologically rich and economically valuable ecosystems that provide a wide array of goods and services amongst which are food resources, coastal protection, and tourist attractions. They also provide important habitats essential in sustaining the offshore demersal fisheries of Cambodia. Based on recent surveys (FiA, 2006) the largest area of seagrass is found in Kampot Province with more than 20,000ha while the largest area of coral reef in Cambodia is found in Sihanoukville (1,198ha).

Both coral reefs and seagrass in these areas are threatened by an increasing array of impacts from unsustainable and destructive fishing practices; sedimentation and waste dumping; and increasing population and development in coastal areas. The rapid degradation and loss of these marine ecosystems has significant social, economic and environmental consequences that will ultimately lead to increased poverty and a reduction in quality of life for the people of Cambodia.

Under the framework of the UNEP GEF South China Sea Project, a project called Kampot Seagrass Demonstration Site implemented by the Fisheries Administration from 2006 to 2008 could improve the form of seagrass habitat and biodiversity through establishment of seagrass conservation (900ha), placing poles in the seagrass conservation area, application of co-management strategy (with strong involvement of relevant institutions and local authorities), strong involvement of local community fisheries (in patrolling). A Seagrass Management Plan in Kampot was also officially approved by the Governor of Kampot. Thus the management strategy developed for this demonstration site could be standardized as a good model and applied to other seagrass and coral reef areas in the coastal of Cambodia.

For further action, the government of Cambodia considers to implement the seagrass management plan and possibility to extend the seagrass conservation area in Kampot up to 7,500ha by 2016 (the goal targeted in the Kampot Seagrass Management Plan) and transfer the model experienced in Kampot to Sihanoukville for management of coral reef.

### **3. LONG TERM OBJECTIVES**

- Development of sustainable fisheries and eco-tourism based on scientifically sound management of coral reef and seagrass habitats;
- At least 4,000ha of seagrass and 500ha of coral reef to be placed under an appropriate form of sustainable management by 2012.

### **4. IMMEDIATE OBJECTIVES**

- To increase participatory management among Management Board, Management Advisory Group, relevant institutions, local authorities and communities;
- To establish 3,000ha of seagrass as conservation area using available information gathered by the Seagrass Demonstration Site in Kampot;
- To develop appropriate facilities for monitoring of the status of seagrass, thus assisting in the conservation area;
- To strengthen law enforcement through strengthening patrolling team;
- To have a appropriated management plan for seagrass conservation areas;
- To enhance public awareness and to improve understanding among policy makers, managers and local communities of the ecological significance and economic value of seagrass and coral reef;

- To enhance livelihood of coastal people through providing new alternative option to generate more income using tools experienced from the Kampot Seagrass Demonstration Project;
- To transfer the successful seagrass management model in Kampot to Sihanoukville because the status and management of seagrass and coral reef in Cambodia are the same.

## **5. EXPECTED OUTCOMES**

- Improved efficiency of long term sustainable management of seagrass and coral reef habitats;
- Improved status of seagrass and coral reef habitats, through zoning types of appropriate use, and reduction or limitation of the use of destructive types of fishing gear;
- Enhanced income for subsistence fishers through identification and introduction of alternative livelihoods.

## **6. ACTIVITIES**

In order to achieve the above mentioned objectives, two main components of planned activities are designed for implementing:

### **Component 1: Support to implement the seagrass management plan developed by the Kampot demo site project**

1. To increase participatory management among relevant institutions, local authorities and communities
  - Conduct consultations on participatory management with Management Board, Management Advisory Group and representatives from relevant agencies and obtain recommendations for successful implementation of seagrass management plan;
  - Strengthen performance of the seagrass management bodies.
2. To establish 3,000ha of seagrass as conservation area using available information gathered by the Seagrass Demonstration Site in Kampot
  - Review the existing information and data for the purpose of establishment of seagrass conservation area;
  - Conduct consultations with all level of stakeholders for the purpose of establishment of seagrass conservation area;
  - Prepare map and placing 1200 concrete poles and 5000 concrete boxes in the conservation areas;
  - Arrange all legal documents to officially recognize the new seagrass conservation areas.
3. To develop appropriate facilities for monitoring of the status of seagrass, thus assisting in the conservation area
  - Equip appropriate facilities for monitoring;
  - Conduct monitoring annually of the status of seagrass and biodiversity;
  - Conduct impact assessment of livelihood from fisheries resources;
  - Improve stock through releasing some commercial and threaten species.
4. Development of management plan for seagrass conservation area
5. To strengthen law enforcement
  - Coordinate the communication between patrolling team with Marine Fisheries Inspection Unit and Navy.
6. To enhance public awareness and to improve understanding among policy makers, managers and local communities of the ecological significance and economic value of seagrass
  - Conduct public campaign in the site and coastal schools (picture contests or drama);
  - Create entertainments in the TV (contests).

7. To enhance livelihood of coastal people
  - Assess possible options for alternative livelihood;
  - Demonstrate the selected options (crab banks);
  - Wider dissemination of new options.

**Component 2: Transfer experiences and good practices regarding inventory, coordination and local involvement from Kampot to Sihanoukville**

1. Transfer the successful management model experienced in Kampot to Sihanoukville
  - Establishment of and strengthening the MB and MAG with involvement of relevant stakeholders for effective management and decision
  - Survey on socio-economic, biodiversity and coral reef distribution
  - Prepare management plan
  - Establishment of coral reef and seagrass conservation area with placing the artificial reefs
  - Conduct monitoring
  - Strengthen law enforcement
  - Increase capacity and public awareness

**7. ESTIMATED BUDGET**

Funding donor: US\$500,000.

Government: US\$50,000.

**8. EXECUTIVE INSTITUTION**

Fisheries Conservation Division of the Fisheries Administration

**9. EXPECTED DONOR**

ADB or GEF

**10. PROJECT PROPOSER**

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Fisheries Administration  
Ministry of Agriculture, Forestry and Fisheries  
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## PROJECT CONCEPT 2

### 1. TITLE OF THE PROPOSED PROJECT

Establishment of Liusha Natural Reserves for Seagrass, South China

### 2. RATIONALE

Liusha seagrass bed is located in Guangdong Province to the North of Liusha Bay. This is the largest seagrass bed in China with an area of about 900ha and it lies adjacent to coral reef and mangrove ecosystems. The dominant seagrass species is *Halophila ovalis* and there are several species of penaeids, gastropods, and echinoderms resident in the seagrass habitat. *Dugong dugon* and *Chelonia mydas* also occur in the area.

The economic situation in the region is comparatively poor and the. The main economic activities of the local people centre on fisheries and marine aquaculture. The major uses of Liusha Bay include aquaculture, shipping, capture fisheries and sea salt production.

Three government departments have responsibilities with respect to the management of seagrass beds in Liusha Bay, namely: the ocean department; environmental protection department; and the fishery department.

The threats to seagrass beds include: reclamation for shrimp mariculture, marine aquaculture, use of explosives and fish poisons, and digging for molluscs.

In the National Action Plan for seagrass of China, the establishment of Liusha seagrass natural reserve is listed as the highest priority action. In the regional Strategic Action Programme, the goal with respect to seagrass is to conserve management sustainably utilize seagrass habitat and resource. The targets include adoption of 7 new Marine Protected Area specifically on seagrass habitats identified in the prioritized listings of SCS project by the year of 2012. So establishing of Liusha Natural Reserves for Seagrass is a priority action at both national and regional level.

### 3. LONG TERM OBJECTIVES

The project intends to prevent the degradation of Liusha seagrass bed, to maintain the biological diversity and ecological environment, and to set up a natural reserve in support of a high quality seagrass ecosystem.

### 4. IMMEDIATE OBJECTIVES

- Improve the awareness of government officials on ecological and economic importance of seagrass for increased involvement of all stakeholders in preserving the seagrass habitat;
- Establish seagrass management council for sustainable use of seagrass resources;
- Establish seagrass nature reserve to conserve seagrass bed ecosystem.

### 5. EXPECTED OUTCOMES

- Local community participation on seagrass management;
- Decreased activities causing direct damage to the seagrass bed;
- The protection of seagrass beds is included into local socio-economic development plans;
- Established Liusha Seagrass Natural Reserve.

### 6. ACTIVITIES

#### (1) Propaganda and education

- Providing knowledge about seagrass ecosystem through picture exhibition, video and etc for local government, environment protection bureau, fishery bureau officials and the general public.
- Publicizing the significance of the seagrass ecosystem.

#### (2) Enforcement and management

- Draw up “Seagrass Resource Protection Administration Bylaw”.
- Cutting down all the action of doing harm to seagrass.
- Establish seagrass management council.

(3) Establishment of nature reserve

- Preparation of a draft work plan for national reserve.
- Submission the draft work plan of reserve to Guangdong provincial government for approval.
- Publication the report and results of seagrass reserve.
- Building the management station for management and education.

(4) Monitoring and evaluation for sound management

- Establishing and enriching system of seagrass investigation and information administration.
- Comprehensive research about seagrass bed should be taken twice in Spring and Summer every year.

## **7. ESTIMATED BUDGET**

US\$1,200,000 in next 5 years (2008-2012)

Year 1	Yrea1 2	Year3	Year4	Year5	Total
100,000	300,000	300,000	300,000	200,000	1,200,000

## **8. EXECUTING INSTITUTION(S)**

- South China Sea Institute of Oceanology, Chinese Academy of Sciences.
- South China Institute of Environmental Sciences, the Ministry of Environmental Protection.
- Local Environmental Protection Department.
- Local Ocean and fishery Department.

## **9. EXPECTED DONOR(S)**

- GEF
- Central Government
- Local Government

## **10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 3**

### **1. TITLE OF THE PROPOSED PROJECT**

Cooperation between China and Viet Nam on Transboundary Mangrove Conservation, Wise Utilization and Management

### **2. RATIONALES (INCLUDING THE PRIOR ORDER)**

- China borders Viet Nam at Beibu Gulf, where mangrove is the major marine resource and serves as an exclusively important role in sustaining onshore ecological ecosystem and development in marine economy;
- China and Viet Nam face the similar stresses to mangrove conservation, including conversion of mangrove swamps into shrimps, occupation of mangrove sites by industry, poverty of coastal local residents;
- China and Viet Nam have the same social system, similar in policy making procedures;
- Most of the fishery goods derived from Viet Nam mangrove ecosystem were exported to China market, which forms an ecological issue through international trading;
- The environmental cooperation is an important aspect for China-Asean cooperation strategy.

### **3. LONG TERM OBJECTIVES**

The mangroves bordering China and Viet Nam are under effective conservation and rational uses based on science and bilateral cooperation.

### **4. DIRECT OBJECTIVES**

- Better understand each other on mangrove conservation, management regime, stresses and requirements;
- Establish and promote a field site to demonstrate mangrove restoration, rational uses of mangroves through eco-tourism and eco-farming, and to provide China and Viet Nam trainees with practical modes;
- Create a long-term cooperation in science study and monitoring techniques;
- Formulate access for exchange of information and lessons learnt;
- Create a study base for China and Viet Nam scientists even regional partners.

### **5. EXPECTED OUTCOMES**

- Develop a dialogue and co-operation mechanism for management of transboundary mangrove ecosystems across China and Viet Nam;
- In condition of better management, the transboundary mangrove ecosystems are regarded as critical resources in sustainable development in the region of North Beibu Gulf.

### **6. ACTIVITIES**

- Develop a bilateral cooperation and exchange mechanism between China and Viet Nam;
- Create practical modes of restoration, eco-tourism and eco-farming in Fangchenggang, Guangxi, China bordering Viet Nam;
- Research and provide relative techniques for management, restoration, wise uses and monitoring of the transboundary mangrove ecosystem in North Beibu Gulf;
- Manage the project adaptively and effectively.

### **7. ESTIMATED BUDGET**

The total budget of this project is US\$2,040,300, of which US\$810,300 is expected from international donors such as GEF, and the other US\$1,230,000 is going to be co-financed by China governments at varied levels. Detail budgets of activities are presented in Table 1 below.

**Terminal Report of the UNEP/GEF South China Sea Project**

**Table 1 Budget of project titling Cooperation between China and Viet Nam on Transboundary Mangrove Conservation, Wise Utilization and management (2008~2012).**

ID	Activity	Remark	Cost per unit	Budget (US\$)		
1	<i>Establish bilateral cooperation and exchange mechanism between China and Viet Nam</i>			Donation	Co-finance in cash	total
1.1	Bilateral meetings between China and Viet Nam local or central governments in transboundary mangrove cooperation and coordination.	10 persons*4days *4 times	US\$320/person day	51,200	0	51,200
1.2	Study tours between China and Viet Nam for management officials, local NGO, community leaders and scientists, etc..	6persons*5days *4times	US\$320/person day	38,400	0	38,400
1.3	Communication through website information updating	Five years	US\$3,000/year	15,000	0	15,000
1.4	Exchange of young scientists in studies on the impacts of sea level rise, climate change, pest and human interference on transboundary mangrove ecosystem; studies on carbon sink, as well as the restoration and wise utilization techniques of mangroves.	8 persons*30days during 5 years	US\$180/person day. The research funds in China will be supported by China governments	43,200	100,000	143,200
	sub-total			147,800	100,000	247,800
2	<i>Restoration and wise uses of transboundary mangroves in Fangchenggang, Guangxi, China</i>					
2.1	Construction and ecological monitoring of mangrove ecotourism site at Beilun National Natural Reserve directly bordering Viet Nam.	Three years	85% will be co-financed by China governments	75,000	425,000	500,000
2.2	Restoration and enrichment plantation of 100ha mangroves at Beilun National Natural Reserve directly bordering Viet Nam.	Five years	US\$4,000/ha, 50% will be co-financed by China governments	200,000	200,000	400,000
2.3	Expanding and perfecting mangrove eco-farming to 10ha for demonstration of alternative uses of transboundary mangrove habitat in a sustainable pattern.	Two years	US\$15,000/ha.a, 50% will be co-financed by China government	150,000	150,000	300,000
	sub-total			425,000	775,000	1,200,000
3	<i>Scientific and technique solidity</i>					
3.1	Studies on status of goods imported from Viet Nam mangrove ecosystem and the impacts on conservation.	Two years	US\$15,000/year	30,000	0	30,000
3.2	Monitoring of healthy and quality status of transboundary mangrove ecosystem	Five years	US\$25,000/year	12,500	0	12,500
3.3	Establish and manage an International Mangrove Research and Training Base in Guangxi Mangrove Research Center.	Scientific facilities, equipments and management mechanism	70% of this budget will be co-financed by China governments	120,000	280,000	400,000
4	<i>Project management and administration support</i>	Five years	US\$30,000/year	75,000	75,000	150,000
	sub-total			237,500	355,000	592,500
	Grand total			810,300	1,230,000	2,040,300

**8. EXECUTING INSTITUTION(S)**

- Guangxi Mangrove Research Center
- Beilun National Natural Reserve
- South China Institute of Environmental Sciences, SEPA
- Forest Science Institute of Viet Nam, Ha Noi
- Institute of Ecology and Biological Resources, Ha Noi, Viet Nam

**9. EXPECTED DONOR(S)**

- GEF
- China governments at different levels

**10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 4**

### **1. TITLE OF THE PROPOSED PROJECT**

Scientific based Seagrass Ecosystem Management in the Indonesian Coastal Area bordering the South China Sea.

### **2. RATIONALE**

Experiences gained in implementing the Seagrass Management Demonstration Site at Trikora Beach, East Bintan, Riau Archipelago, Indonesia, had provided the following lessons:

- Sound and relevant scientific information of both ecological and socio-economic is useful as input for decision maker in developing policy guidance for coastal resources management;
- Trust building, openness and respect in partnership between local government and communities are key variables in developing support for generating the success of the program;
- The selection of appropriate well informed facilitators in developing community based seagrass management and alternative livelihood is an essential factor in developing community participation in coastal resources management.

Currently, the Indonesian Government, through the enactment of Law of the Republic of Indonesia No 27/2007 concerning the Coastal Area and Small Islands Management, has pushed the local government to develop Integrated Coastal Area Management Plan. The confidence and knowledge gained and developed in the implementation of the SCS demonstration-site project need to be sustained and used as a basis for supporting decisions, particularly in coastal resources management in the face of increasing human and natural induced damage to coastal environment.

It is an appropriate momentum, therefore, to propose a similar adapted project in other seagrass sites, in coastal area bordering the South China Sea, to support the development of coastal resources management which is now being promoted by Indonesian Government as a consequence of enactment of the Law No 27/2007.

### **3. LONG-TERM OBJECTIVE**

The goal of the proposed project is to protect and utilize seagrass resources at Mapur Island and Pengudang (extension of East Bintan Seagrass Bed) in rational manner so that their function in coastal waters can be maintained.

The overall objective is to establish an optimal and sustained scientific based seagrass management for the well being of the population at large, in particular the local communities.

### **4. IMMEDIATE OBJECTIVES**

- Protect, manage and utilize seagrass resources of Mapur Island and Pengudang (extension of East Bintan seagrass bed) in rational, integrated and sustained way through maintaining the balance between utilization and conservation;
- Identify human induced threats causing degradation of coastal ecosystems, particularly seagrass, and find way to address/reduce those threats;
- To develop management system in a cooperative manner among relevant stakeholders which prioritize local government coastal area strategic plan, local community and sustainable development;
- Enhance awareness and cooperation among stakeholders in the management of seagrass ecosystem, and to develop community based management;
- Develop mechanism and principles of management based on scientific data and information which cover the potency sustained form of utilization and carrying capacity of the seagrass ecosystem.

## **5. EXPECTED OUTCOME:**

- Enhanced capacity in the development of large scale distribution and biodiversity gradients GIS MAP in the immediate vicinity of the Trikora Beach Demonstration Site in association with oceanographic parameters;
- Establish seagrass ecological status to benefit academic research and resource management;
- Enhanced partnership in marine research program, especially with local expertise and private sectors;
- Established validated method to transfer seagrass data into information for improved method to assimilate data into national and local management method;
- Established a functional forum of seagrass scientists, policy makers and the communities to ensure communication and synergy among stakeholders for timely delivery of relevant and sound scientific knowledge to policy makers.

## **6. ACTIVITIES**

The proposed activities include but not restricted to inter alia:

### **Component A: Improving Seagrass Management**

- 1. Establishment of Mapur Island and Pengudang Collaborative Management Board (CMB)**
  - Development of project operational guidelines;
  - Printing and distribution project guidelines;
  - Workshop for dissemination of project guidelines;
  - Regular meeting of CMB.
- 2. Preparation and Adoption of Mapur-Pengudang Coastal Resources Management Plan and other Specific Plan e.g. Strategic and Zoning Plan**
  - Development of Mapur Island and Pengudang Resources Management Plan (MPRMP);
  - Public hearing for MPRMP.
- 3. Establishment of Community-based Seagrass Management**
  - Selection and operational of field facilitators;
  - Establishment of Community Management Group and convening regular meeting;
  - Preparation, adoption and implementation of Community-based Seagrass Management Plan and village regulation;
  - Development and implementation of community-based monitoring programme.
- 4. Implementation of Ecological and Socio-economic Research for Increasing Baseline Information for Improved Area Management**
  - Implementation of ecological and socio-economic research;
  - Preparation of recommendation for improved area management;
  - Establishment and implementation of environmental monitoring and preparation of annual monitoring.

### **Component B: Awareness and Capacity Building**

- 1. Preparation and dissemination of awareness raising materials and implementation of awareness raising campaign**
  - Awareness raising need assessment and regular awareness level survey;
  - Preparation and dissemination of general awareness raising materials and newsletters on project activities;
  - Designing and implementation of public awareness campaign through media;
  - Establishment and Implementation of Clean Beach Programme.

**2. Development and implementation of training and capacity building**

- Training need assessment and course development;
- Development of training materials;
- Implementation of training and workshop.

**3. National and international exchange of information and experiences on seagrass and associated habitat management**

- Development and maintenance of a project website and database/meta database;
- Organizing cross-visits among national seagrass and associated ecosystems management sites;
- Joining national and international coastal zone/resources meetings.

**Component C: Promoting Environmentally Sustainable Economic Activities**

**1. Preparation and adoption of plan and guideline for sustainable tourism**

- Implementation of study on sustainable tourism;
- Preparation and adoption of Mapur-Pengudang Plan for Sustainable Tourism (MPP-ST) with relevant regulations/guidelines;
- Establishment of government-industry-community collaborative monitoring/reporting mechanism for sustainable tourism.

**2. Development and implementation of pilot project on Alternative Income Generation for local community**

- Feasibility study of AIG activities at project sites;
- Implementation of AIG activities;
- Follow-up study on the impacts of pilot project.

**7. ESTIMATED BUDGET**

The estimated budget (in US\$) for 4 years as the following:

2010	2011	2012	2013	Total
125,000	150,000	175,000	105,000	555,000

**8. EXPECTED DONORS**

- Global Environmental Facility
- Japan Grant Fund
- NORAD (Norwegian Donor Agency)

**9. EXECUTING AGENCIES**

- Research Centre for Oceanography, Indonesian Institute of Sciences
- Indonesian Seagrass Foundation
- Bintan District Government

**10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 5**

### **1. TITLE OF THE PROPOSED PROJECT**

Modelling the Fate and Impacts of the Contaminants in the Marine Environment of Western Kalimantan adjacent to the South China Sea

### **2. RATIONALE**

- Coastal areas of Western Kalimantan are among fast growing regions in Indonesia, but the areas lack of studies on contaminants loading from uplands areas.
- Comparing to Batam island where the coastal waters are highly contaminated by industrial pollution, West Kalimantan is relatively less contaminated. However, in the next 10 – 15 years the condition of coastal waters may have similar trend to the Batam coastal waters.
- Currently, land based activities that strongly affect coastal waters among others, urbanization, tourism industries and palm oils industry. These activities are major drivers of change not only to river water quality but also to coastal ecosystems. Other major issue is illegal gold mines in the uplands of Western and Southern Kalimantan that becomes significant sources of contaminated sediment.
- Compared to suspended solids and nutrients, heavy metals pose an immediate threat to both living resources and ecosystems as a whole. Pollution from land-based sources contributes about 50 % to the total pollution in the marine environment.
- Main contaminants of concern are trace metals (Hg, Cd, Pb, As, Cr, Cu and Zn) in water and sediment. There are few studies of concentrations of heavy metals in ecosystem components within the coastal areas in Western Kalimantan. This will have implications to marine biota and their habitat especially mangrove ecosystem.
- Currently UNEP/GEF South China Sea Project has a mangrove management demo site in Batu Ampar West Kalimantan. Considering the west Kalimantan has large mangrove ecosystem, therefore, the location of demo site will be established as a mangrove study center in West Kalimantan.
- Coastal community along West Kalimantan Province is generally fishermen using traditional fishing gears which produce mainly salted fish. Hence, the contamination of seawater, sediment and marine biota become of concern on food safety.
- At present the Indonesian government has only marine water quality standard (Ministrial Decree of Environment, No. 51 year 2004), on the other hand the sediment quality standard is still under preparation. Hence, this research will enhance management effectiveness in curbing marine pollution from land-based sources.

### **3. LONG TERM OBJECTIVES**

- To assist in establishing sediment quality criteria in Indonesia that meets the need of regional criteria;
- To assist in revising marine water quality standard in Indonesia;
- To further develop the scenario of the fate and impacts of contaminants on the coastal ecosystem that will provide the state of coastal environment of the Western Kalimantan.

### **4. DIRECT OBJECTIVES**

- To provide benchmark information on the fate and possible effect of contaminants of concern (Hg, Cd, Pb, As, Cr, Cu and Zn) in the coastal area
- To develop a model of fate and impacts of the contaminants from main rivers in the Western Kalimantan
- To analyse the impact of heavy metals contaminants on marine biota and coastal ecosystem
- To strengthen local government capacity in monitoring coastal waters

### **5. EXPECTED OUTCOMES**

- Map of heavy metals in water and sediment, as well as loads of contaminants in the Western Kalimantan adjacent to SCS;
- Model contaminants load from main river (Kapuas River) to coastal waters;
- Support the management program of controlling land-based pollution for local government.

### **6. ACTIVITIES**

- **Research Program**

- Field research and laboratory studies :
  - a. Field research will be done two times per year representing monsoonal regimes.
  - b. laboratory studies will focused on sediment toxicity test to invertebrate and fish larvae. This sediment bioassay will be used as a component for developing biokinetic model of heavy metals on marine organisms.
- Analysis of data and modelling:
 

Two model will be applied i.e., Biokinetic Model and Princeton Ocean Modelling (POM). POM will be used to estimate the impact area of contaminants in the ecosystem, while the Biokinetic Model will be used to predict how high contaminants are accumulated in the biota.

- **Capacity building**

- Coordination meeting. Stakeholders meeting is done to inform the plan of our field study and to decimate the result of the study in order to increase awareness of publics and to improve management effectiveness at local government.
- Training local government and local university in

## 7. ESTIMATED BUDGET

The project will run for two years and one year for analysis and modelling. The total estimated budget is US\$211,320 with the details as follow:

Component	2010	2011	2012
Fieldwork (survey, travel, sampling, lab analysis, chemical materials for analysis, etc)	126,956	142,998	
Data Analysis and Modelling	10,000	15,000	25,000
Stakeholders meeting	5,550	6,383	6,500
Reporting	15,000	17,250	20,000
Total	94,028	110,132	51,500
Research competitive (GOI Funding)	17,170	27,170	
<b>Funding sought</b>	<b>76,858</b>	<b>82,962</b>	<b>51,500</b>

Note: Research competitive will be applied through Indonesian Institute of Sciences (LIPI)

## 8. EXECUTING INSTITUTIONS

- Research Centre for Oceanography – Indonesian Institute of Sciences
- Ministry of Environment, Indonesia

## 9. EXPECTED DONOR(S)

- GEF
- MoE Indonesia and Indonesian Institute of Sciences
- Indonesian Institute of Sciences (US\$17,170)

## 10. PROJECT PROPOSER

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## **PROJECT CONCEPT 6**

### **1. TITLE OF THE PROPOSED PROJECT**

Sustainable Management of Coral Reefs in Trat and Surat Thani Provinces

### **2. RATIONALE**

Mu Koh Kood in Trat Province and Mu Koh Samui in Surat Thani Province support a rich diversity of marine organisms and serve as important breeding grounds for species of economic importance such as anchovies and mackerels in the west part of the South China Sea. Certain areas are being considered for establishment of marine protected areas with strong support from the Thai Government in order to protect, conserve and restore marine habitats and biodiversity. In addition to serving as an area for tourism-related and recreational activities, these sites would also serve as scientific research areas whereby the information and data would be made available to general public. Mu Koh Kood and Mu Koh Samui are the largest area of coral reefs in the Gulf of Thailand which are not currently in marine protected areas. Lessons learned from Mu Koh Chang Coral Reef Demonstration Site, especially sustainable tourism development and management, community organizing multi-sectoral coral reef conservation and coral reef restoration and monitoring aspects, could be applied to the proposed sites for sustainable management.

### **3. LONG TERM OBJECTIVES**

- To strengthen coordination and sharing of experiences between Trat and Surat Thani Province Offices and local communities for coral reef co-management;
- To achieve sustainable tourism development and fisheries in the Gulf of Thailand.

### **4. IMMEDIATE OBJECTIVES**

- To prevent coral reef degradation caused by anthropogenic disturbances;
- **To restore degraded coral reef areas around Mu Koh Kood and Koh Samui;**
- To develop a sustainable ecotourism program for Mu Koh Kood, Mu Koh Samui and its vicinity;
- To raise public awareness on ecological importance of coral reefs;
- To build networks among government institutions, private sectors and local communities for coral reef management and conservation;
- To encourage capacity building in all levels and sectors;
- To develop alternative income generating program for fishermen.

### **5. EXPECTED OUTCOMES**

- Reduced impacts of anthropogenic disturbances and demonstration sites for coral reef restoration;
- Coral reef restoration projects at demonstration sites;
- Growth of sustainable ecotourism, adequate income of local tour guides;
- Local communities and all stakeholders realize the importance of coral reefs;
- New project development from coordination among involved agencies;
- Adequate number of experienced personnel for coral reef management;
- Increased income of local fishermen and decreased illegal fishing activities.

### **6. ACTIVITIES**

The development activities to be taken as the co-management of Trat and Surat Thani Province Offices together with local communities and assistance from other government agencies, private companies and NGOs. The planned activities to achieve the desired outcomes are as follows:

#### **6.1 Sustainable tourism development and management**

Promotion of activities for responsible tourism, regulation and systemization marine tourism, and diving activities will be carried out.

- Promotion of activities for responsible tourism;
- Regulate and systemize marine tourism, and diving activities;
- Promotion of setting up standard water treatment system in tourism area;
- Report on environmental impacts from tourism activities to Regional Environmental Office;
- Prepare ecotourism management plan regarding to carrying capacity of the area.

#### **6.2 Community organizing multi-sectoral coral reef conservation**

The project will encourage coordination among government agencies, private sector, NGOs, and local communities during planning, operation and evaluation phases to strengthen co-management of all activities in the area and to reduce any obstacles of project implementation. The project will also increase numbers of researchers, site managers and experienced NGOs through research fund raising, training, seminars, and study visits.

- Youth camp for marine ecosystem conservation.
- Public awareness programs through mass media and publication.
- Produce brochures, pamphlets, signs, water proof under water guide, slide and web site.
- Improve legislation about land development.
- Establish special committee for coordination among involved agencies.
- Support activities for patrol, inspection, protection, law enforcement and eradication of illegal activities.
- Install and maintain mooring buoys.
- Training on marine ecosystem for relevant staff.
- Establish coral reef database from coordination among relevant agencies.
- Establish maps of coral reef zoning with public participation.
- Support local fishery network for natural resource protection.
- Support the establishment of marine national park in certain area.
- Training course on marine ecosystem for tour guides, tourism businessmen and local communities.
- Publish coral reef ecosystem manual for local district libraries.
- Training for coral reef protection volunteer groups and establishing networks.

### **6.3 Coral reef restoration and monitoring**

Demonstration projects of coral reef restoration in certain degraded areas will be designed, prepared and implemented by following appropriate restoration methods. Socio-economic tools will be applied for management of all tourism and fisheries activities. .

- Demonstration project of coral reef restoration in certain degraded area
- Ecological and socioeconomic monitoring programs
- Support relevant researches for coral reef restoration, conservation and management

## **7. ESTIMATED BUDGET**

Total budget from funding donors: US\$892,000.

(Sustainable tourism development and management = US\$117,000, Community organizing multi-sectoral coral reef conservation = US\$335,000, Coral reefs restoration = US\$440,000)

Government contribution: US\$1,800,000.

## **8. EXECUTING INSTITUTION**

- Trat and Surat Thani Province Offices are the main executing institutions
- Middle Gulf of Thailand Marine Resources and Development Center, Ramkhamhaeng
- University and other relevant agencies are supporting institutions

## **9. EXPECTED DONOR**

GEF

## **10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 7**

### **1. TITLE OF THE PROPOSED PROJECT**

Sustainable management of coastal habitats in the transboundary waters between Cambodia and Viet Nam

### **2. RATIONALE**

The transboundary waters between the two provinces of Kampot (Cambodia) and Kien Giang (Viet Nam) are characterised by high diversity and abundance of coastal habitats. Coral reefs cover around 500ha around the Phu Quoc islands and 900ha along the Kampot coastline. Kien Giang has more than 700ha of mangroves and 7,900ha of this habitat was recorded in Kampot Province. This sub-region contains the largest area of seagrass in the South China Sea (32,000ha) of which 20,000ha is found in Kampot and 12,000ha in Phu Quoc.

These waters support rich fishing grounds, on which fishermen from both local and outside communities depend. The development plans of the local governments, of the islands and coastal areas of the two provinces target tourism, aquaculture, marine transportation, and the fishing industry for economic development. Existing development has caused negative impacts on coastal habitats and the marine environment and these will increase if no intervention is made in the near future.

Following intensive efforts on the part of the transboundary demonstration sites of Phu Quoc and Kampot, a formal Memorandum of Agreement (MOA) for cooperation between the two provinces was signed on 28<sup>th</sup> March 2008, signalling the strong political commitment of the local governments to develop mechanisms for cooperation among countries in reversing environment degradation trends in the South China Sea and Gulf of Thailand. In addition, the PSC accepted the proposal for additional activity of Cambodian IMC in developing the guideline for sustainable use of coastal habitats and associated resources. This guideline will be finalised in June 2008 as direction for further action in managing and using habitats and associated resources for sustainable development in the transboundary waters.

### **3. LONG TERM OBJECTIVES**

Promote and support reasonable use of the rich resources of coastal habitats in the transboundary waters in order to ensure balance between socio-economic development and environmental sustainability

### **4. IMMEDIATE OBJECTIVES**

- Maintain effective cooperation between local governments and communities based on the framework developed by the UNEP/GEF South China Sea Project;
- Ensure environmental sustainability in planning and implementing development projects/programmes;
- Support related local stakeholders in managing and using resources at target sites for improving their livelihood with minimised impacts to coastal habitats and marine environment.

### **5. EXPECTED OUTCOMES**

- Enhanced and strengthened cooperation between local governments and communities of the two transboundary provinces maintained and improved for long term joint management;
- Development projects/programme planned and implemented in appropriate ways to minimise impacts to coastal habitats and marine environment;
- Target sites under sustainable use of coastal habitats and associated resources, including the An Thoi islands (Coral Reef), Ham Ninh (Seagrass) and Kien Luong (Mangroves) of Viet Nam; and Rabbit island (Coral Reef); Ream (Seagrass) and Kep (Mangroves) of Cambodia.

## **6. ACTIVITIES**

### **Component 1: Maintenance of effective cooperation between local governments and communities of two provinces**

- Organisation of annual joint meetings of management teams of both provinces;
- Strengthening information exchanges and sharing between the provinces and maintenance of the joint GIS database for use in management of resources and environment;
- Joint management and control of illegal trade, exploitation activities of resources in the transboundary waters; and to stop catching endangered species;
- Strengthening education capacity, communication system and establishment of network of communication and volunteers for enhancement of public awareness on marine resource sustainable use;
- Organisation of exchanges programme for natural resources conservation and environment protection for youths and students of Kien Giang and Kampot provinces.

### **Component 2: Environment sustainability in planning and implementing development projects**

- Additional inventory of biodiversity and resources for management purpose, taking account of local knowledge;
- Study tour and workshop/seminars for local people, managers and policy makers for experience exchange in resource and environment management between two provinces and others in the region;
- Capacity building for improvement of planning skill and enforcement of local government officials;
- Development and adoption by local government of regulations in managing activities of development projects.

### **Component 3: Participatory management for reasonable use of resources at target sites**

- Development of models for involvement of communities and private sector in managing and reasonable use of coastal resources;
- Establishment of mechanism for development of tourism in the transboundary waters;
- Development of programmes for livelihood alternatives, including technical supports for aquaculture, fisheries processing, tourism, animal raising and integrated farming system.

## **7. ESTIMATED BUDGET**

US\$990,000 for three year's implementation

## **8. EXECUTING INSTITUTION(S)**

Institute of Oceanography, Viet Nam and Marine Conservation Centre, Cambodia, and local governments of Kien Giang and Kampot provinces

## **9. EXPECTED DONOR(S)**

GEF; and co-finance of governments and international organisations

## **10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 8**

### **1. TITLE OF THE PROPOSED PROJECT**

Identify criteria and indicators for environmental friendly technologies for timber - shrimp farming models in Mangroves of the Mekong River Delta of Viet Nam

### **2. RATIONALE**

Mangroves in the North and South of Viet Nam have different growth patterns and functions. In the north of Viet Nam mangroves are small and the forests have been designated as protection against maritime flooding and coastal erosion. In the south of Viet Nam, a large area of mangroves is used for timber production, mainly in the Mekong River Delta. In the past, most of the area was destroyed by shrimp farming but after some years of production, the shrimp farms failed. In order to overcome these failures, some forest enterprises have developed new methods for combined timber and shrimp production. One of them is silvo-fishery enterprises 184 in Ca Mau province. Shrimps are cultivated in natural conditions with nutrient sources mainly from mangroves. Environmental conditions such as water quality are measured and controlled. Shrimp products from these models are given "ecological label" and exported to foreign market with double price compared to that at domestic market. Also in other provinces in the Mekong River Delta such as Bac Lieu province, some farming models in mangroves named "ecological shrimp culture" are being implemented.

Such kinds of farming are seen to be very promising for extension in term of economic and environmental concerns. There is, however, no review and evaluation of the farming systems regarding its effectiveness and environmental impacts. Therefore, the project is proposed for implementation to develop bases for sustainable farming systems in the mangroves in Viet Nam.

### **3. LONG TERM OBJECTIVES**

The long term objective of this project is to contribute to sustainable management of mangrove forests and improving income of mangrove based stakeholders in the Mekong River Delta.

### **4. IMMEDIATE OBJECTIVES**

- To develop criteria and indicators and guidelines on managing environmentally and friendly timber and shrimp farming in the Mekong River Delta.

### **5. EXPECTED OUTCOMES**

- A comprehensive analysis and lessons of on-going models on timber-fishery farming in mangroves areas in Viet Nam and region;
- A set of criteria and indicators and guidelines for managing environmental friendly timber – fishery farming in Viet Nam.

### **6. ACTIVITIES**

#### **6.1 Review and analyse the on-going models on timber - shrimp farming in the Mekong River delta in Viet Nam and in the region**

- Data collection from ongoing models (physical condition, farming techniques applied, management, income, etc) in Viet Nam;
- Review of results of ongoing models in the regions;
- Analyze economic and environmental benefits of the farming models;
- Analysis of advantage and disadvantage as well as lesson learnt.

#### **6.2 Develop and test criteria & indicators for managing environmental friendly timber –fishery farming in mangrove forests area**

- Review of existing criteria and indicators as well as management regimes;
- Develop criteria and indicators for environmental friendly timber – fishery farming in mangroves based on economic and environmental analysis of existing models;
- Test the developed criteria and indicators in some areas and finalize the criteria and indicators.

**6.3 Develop and disseminate guidelines for managing environmental friendly timber and shrimp farming**

- Develop guidelines for management of timber – shrimp farming systems in mangroves in Viet Nam;
- Organize the trainings on management of timber – shrimp farming for selected land owners in mangroves and management agencies;
- Publication of guidelines for dissemination.

**7. TIMING AND ESTIMATED BUDGET**

- The planned timing for implementation project proposal is 36 months; and
- The estimated budget is 300,000 USD

**8. EXECUTING INSTITUTION(S)**

- Forest Science institute of Viet Nam;
- Hanoi National university;
- Department of agriculture and rural development in Bac Lieu, Soc Trang and Ca Mau provinces.

**9. EXPECTED DONOR(S)**

JICA; WB; ADB and co-finance of the local authorities

**10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 9**

### **1. TITLE OF THE PROPOSED PROJECT**

Scientific sound baselines for sustainable management of MPAs in south central Viet Nam, taking account of fisheries re-stock and coral reef resilience

### **2. RATIONALE**

- The south central areas are considered as the highest biodiversity of marine living creatures and the most abundant coral reefs of the coastal waters of Viet Nam.
- Five MPA (Nha Trang bay MPA, Nui Chua National Park, proposed Cu Lao Cau and Phu Qui MPAs, and Con Dao National Park) have been developed as the plan adopted by the Central Government. Three of them have been under operational with financial supports by the Government and International organisation. These coral reef sites were ranked as high priorities for coral reef management in the National Action Plans of Viet Nam coral reefs and included in coral reef portion of the Strategic Action Programme.
- Fisheries re-stock issues have not considered sufficiently in developing management plan of existing MPAs; not taking account of spawning and nursery areas in order to support recruitment of fisheries resources.
- Recorded data indicated appearance of mass coral bleaching, specially in 1998; also observation of mass mortality of corals and reef invertebrates due to combined impacts of high water temperature and low salinity at Con Dao islands in 2005.
- Observed evidence indicated further relations between coral reef resilience and upwelling phenomena in the waters. Coral reefs nearby the upwelling areas in south central waters suffered less impacts from bleaching event in 1998, supposing that upwelling during summer shortened period of high temperature and therefore to enable higher survival of corals.
- It is recognised by Salm & West (2003) that following the 1998 ENSO, it is rare for living corals to be completely eliminated from a section of reef. Even in the most severe cases, some coral communities appear to be more resistant or more resilient. There is a wide variability in bleaching intensity, species affected, depth, and geographic distribution, and how much mortality a bleaching event causes. After widespread mortalities from bleaching events have occurred, reefs also differ in their ability to regenerate themselves through growth and expansion of existing corals or recruitment of new corals.
- Priorities in MPA network and management plans of the existing MPAs have not consider issues regarding coral reef resilience.
- The proposed project will assist to prioritising MPA network of Viet Nam and to enhance management effectiveness of MPAs in south central Viet Nam.
- Given that south central waters of Viet Nam contribute to high coral reef biodiversity of the South China Sea, effective management of coral reefs of these MPA would resulting in regional benefits in term of biodiversity conservation.

### **3. LONG TERM OBJECTIVES**

Contribution in conserving biodiversity and coral reef associated resources of the South China Sea through improvement of MPA management effectiveness, taking account of fisheries re-stock and coral reef resilience.

### **4. DIRECT OBJECTIVES**

- To refer recruitment of fisheries resources in developing MPA management planning and operation;
- To identify susceptibility and survivability of coral reefs of the five MPAs under influences of increased surface water temperature;
- Support to effective management of the MPAs through zoning and management plans relevant to fisheries re-stock and coral reef resilience.

**5. EXPECTED OUTCOMES**

- Coral reef biodiversity and associated resources maintained;
- Human threats to susceptible areas of coral reefs reduced;
- Integration of scientists and local fishermen for sustainable use of coral reef resources;
- Human capacity regarding surveys of coral reef resilience and climate change improved;
- Appropriate strategy for prioritising and developing MPAs in south central waters of Viet Nam.

**6. ACTIVITIES**

- Inventories of fisheries spawning aggregations and nursery areas in five proposed and existing MPAs, considering integration of academic and local knowledges;
- Surveys of coral associations in relation with topography and circulation around islands of the existing and proposed MPAs, using ground measures and remote sensing application;
- Identification of extent of upwelling, which to enable survival and restoration against increased surface water temperature;
- Identification of refuges of corals against increased water temperature and susceptible areas of coral reefs in the five MPA, referring topography, circulation and coral communities;
- Monitoring coral recruitment following degradation caused by natural (if any) and human impacts;
- Revision of zoning and management plans of existing MPAs (Nha Trang Bay MPA, Nui Chua and Con Dao National Parks) and provision of scientific baseline for development of zoning for proposed MPAs (Cu Lao Cau and Phu Qui).

**7. ESTIMATED BUDGET**

US\$300,000.

**8. EXECUTING INSTITUTION(S)**

Institute of Oceanography, Viet Nam and NOAA, US

**9. EXPECTED DONOR(S)**

NOOA

**10. PROJECT PROPOSER**

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## **PROJECT CONCEPT 10**

### **1. TITLE OF THE PROPOSED PROJECT**

Local Community Partnerships in the Conservation and Development of Coastal Wetlands

### **2. RATIONALE**

Long term effective conservation of coastal areas specifically coastal wetlands and their resources, involves working with the different stakeholders in the local community, promoting appreciation, understanding in order to elicit positive action, foster a sense of ownership, and create an environment that will pave the way for conservation to take root in the society at large. Facilitating partnerships for conservation and development and developing an enabling environment to allow partnerships to function effectively may be the key in ensuring long term conservation and development.

The drafting of the National Action Plan for the Philippine Wetlands of the South China Sea Project has been undertaken through a series of consultations with concerned stakeholders. It is therefore appropriate that the local stakeholders through partnerships should actively implement the Plan with the Department of Environment and Natural Resources as enabler or facilitator.

This proposal addresses the targets and components (1 and 3) of the South China Sea Strategic Action Plan and the objectives (1, 3, 6, 7 and 8) of the National Action Plan for the Philippine Wetlands.

The areas covered by this proposal are enumerated below:

1. Zambales Coast - Subic Bay - Bataan National Park
2. Taal Lake – Pansipit River/Estuary – Balayan Bay – Batangas Bay
3. Mainland Palawan: El Nido Coastal Wetlands

They are the identified priority areas in the National Action Plan for Philippine Wetlands of the South China Sea Project.

### **3. LONG TERM OBJECTIVE**

Establishing a participatory, functional and transparent partnerships among stakeholders in the local community to effectively maintain and sustainably use important coastal wetlands, specifically tidal flats, lagoons and estuaries bordering the South China Sea; protect and prevent them from further degradation and loss of coastal wetland resources; and, initiate activities to restore their lost biodiversity

### **4. IMMEDIATE OBJECTIVES**

- Establishing partnership schemes, including public-private sector partnership, in the conservation, management and development of important coastal wetlands in the three locations listed above;
- Capacitating the local stakeholders on the conservation, management and development of coastal areas, specifically coastal wetlands;
- Developing and implementing management plans by the stakeholders for specific coastal wetlands and designating selected important coastal wetlands as critical habitats;
- Establishing mechanisms to sustain the partnerships of the stakeholders; and,
- Documenting the implementation process of the project for dissemination to other locations both within and outside the Philippines.

### **5. EXPECTED OUTCOMES**

Multi-sectoral participation in the conservation and management of coastal wetlands bordering the South China Sea.

## **6. ACTIVITIES**

The project will prepare a bio-physico-socio-eco profile of the project sites and review the effectiveness of previous and existing partnerships in the conservation and management of biodiversity. It will adopt, among others, the Integrated Conservation and Development (ICD) and Integrated Coastal Management (ICM) Approaches.

The ICD activities that will be implemented in this project are participatory situation analysis, stakeholder negotiations and agreements, partnerships for implementation, capacity building, participatory assessment and monitoring. It will also include activities on biodiversity conservation and socio-economic development involving iterative consultations with the stakeholders. The ICM activities that will be implemented are action plan development, development of financing mechanisms and information management system.

The implementation of the project will be documented (project documentation) to serve as a guide to application of the approaches elsewhere and as an internal feed-back mechanism during project execution.

## **7. ESTIMATED BUDGET**

US\$ 980,000.00

## **8. EXECUTING INSTITUTIONS**

Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources

- |                  |   |
|------------------|---|
| Area Coverage 1. | DENR Region 3 – San Fernando, Pampanga<br>Provincial Local Government of Bataan<br>Protected Area Management Board  |
| Area Coverage 2. | DENR Region 4A (CALABARZON)<br>Provincial Local Government of Batangas  |
| Area Coverage 3. | DENR Region 4B (MIMAROPA)<br>Provincial Local Government of San Vicente<br>Palawan Council for Sustainable Development<br>Protected Area Management Board |

**Partners:** University of the Philippines – Diliman  
Laksambuhay Foundation Inc.  
Local stakeholders  
Private Sector (El Nido)

## **9. EXPECTED DONORS**

GEF International Waters and Biodiversity Focal Areas

## **10. PROJECT PROPOSER**

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