



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

Project Title:	Implementing the Strategic Action Programme for the South China Sea.		
Country(ies):	Cambodia, China, Indonesia, Philippines, and Viet Nam	GEF Project ID: <sup>1</sup>	5538
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	00830
Other Executing Partner(s):	Secretariat for the Coordinating Body of the Seas of East Asia (COBSEA)	Submission Date: Resubmission Date:	12 August 2013 14 January 2014 17 March 2014 20 March 2014 24 March 2014
GEF Focal Area (s):	International Waters	Project Duration (Months)	60
Name of parent program (if applicable): • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/>	N/A	Agency Fee (\$):	1,350,000

### A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>2</sup>:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
IW-2 (select)	(select)	14,280,000	53,260,000
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
(select) (select)	(select)		
Project Management Cost		720,000	2,800,000
Total Project Cost		15,000,000	56,060,000

### B. INDICATIVE PROJECT FRAMEWORK

<b>Project Objective:</b> To assist countries in meeting the targets of the approved Strategic Action Programme (SAP) for the marine and coastal environment of the South China Sea (SCS) through implementation of the National Action Plans in support of the SAP, and strengthening regional co-ordination for SCS SAP implementation.						
Project Component	Grant Type <sup>3</sup>	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Reducing habitat degradation and loss via national and local reforms to achieve Strategic Action Programme targets for coastal habitat management in the South China Sea	TA	1.1 Appropriate forms of sustainable management established for 860,000 ha of mangrove by Yr 5	1.1.1 Declaration of 57,400 ha of mangrove as National Parks and Protected Areas 1.1.2 Designation and plans for the management of 166,600 ha of mangrove as non-conversion, sustainable use areas 1.1.3 Reform of laws and regulations for the sustainable use of 602,800 ha of mangrove forest	GEFTF	7,250,000	35,000,000

<sup>1</sup> Project ID number will be assigned by GEFSEC.

<sup>2</sup> Refer to the reference attached on the [Focal Area Results Framework](#) when completing Table A.

<sup>3</sup> TA includes capacity building, and research and development.

		<p>1.2 153,000 ha of <b>coral reef</b> at 82 priority sites managed sustainably by Yr 5, including a reduction in the decadal rate of degradation in live coral cover from 16 to 5%</p> <p>1.3 Conservation, management and sustainable use of 25,900 ha of known <b>seagrass</b> area in the South China Sea by Yr 5</p> <p>1.4 Integrated management of 783,900 ha of <b>coastal wetland</b> at 19 sites, including habitat restoration and protection strengthened at priority locations</p>	<p>1.1.4 Replanting of 21,000 ha of deforested mangrove land 1.1.5 Biodiversity increased for 11,200 ha of mangrove forest via enrichment planting</p> <p>1.2.1 Management capacity (number/levels human resources, facilities and equipment, and sustainable financing mechanisms) built for 82 coral reef sites 1.2.2 Management approaches (integrated, community-based, multiple use) improved at 82 coral reef sites 1.2.3 Management tools (licensing and permit systems, seasonal closures, zoning) developed and utilized to address key threats at priority sites 1.2.4 Established mechanism for monitoring management, ecological and socio-economic indicators at 82 sites [based on SAP results framework]</p> <p>1.3.1 Twenty-one seagrass areas totaling 25,900 ha under sustainable management with supporting laws and regulations 1.3.2 Amended management plans for 7 existing MPAs with significant seagrass areas, to include specific seagrass-related management actions 1.3.3 Designation of 7 new Marine Protected Areas focusing on seagrass areas identified in the prioritized listings of the SCS Project 1.3.4 Established mechanism for monitoring management, ecological and socio-economic indicators at 21 sites [based on SAP results framework]</p> <p>1.4.1 Integrated management plans developed and under implementation for at least 3 lagoons (26,818 ha), 9 estuaries (614,680 ha), 5 tidal flats (96,903 ha), 1 peat swamp (45,700 ha) and 1 non-peat swamp (9,808 ha) 1.4.2 Declaration of at least 7 wetland areas with protection status (i.e. non-hunting area, nature reserves, protected areas, Ramsar Sites). 1.4.3 Adoption of a regional estuary monitoring scheme and</p>			
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		1.5 National and regional level cooperation in tracking results of SAP actions for coastal habitat management	<p>its national implementation [based on SAP results framework]</p> <p>1.5.1 National committees and regional networks of habitat specialists established under the SCS project revitalized and functioning</p> <p>1.5.2 Mechanism to monitor and evaluate the impacts of SAP implementation and achievement of habitat targets operational [including agreement on standardized methods and guidelines for inventory and assessment]</p> <p>1.5.3 Community leaders and local government from priority habitat sites networked via national and regional round-table meetings to foster cooperation and knowledge sharing on achievements and best practices</p> <p>1.5.4 Biennial state of coastal habitat reports published</p>			
2. Strengthening knowledge-based action planning for the management of coastal habitats and land-based pollution to reduce environmental degradation of the South China Sea	TA	<p>2.1 Enhanced information-base for coastal habitat management and action planning</p> <p>2.2 Effective integration of regional science in the management of land-based pollution</p>	<p>2.1.1 Algorithms for the interpretation of remotely sensed information and data on coastal habitat associations and zonation developed and applied</p> <p>2.1.2 Mechanism for collection and exchange of regional coastal habitat information and data established</p> <p>2.1.3 Role of coastal habitats of the South China Sea in the sequestration and storage of carbon quantified</p> <p>2.1.4 Review of the potential impacts of sea level rise, climate change, and episodic events on coastal habitats of the South China Sea</p> <p>2.1.5 A regional system for periodic monitoring of the state of coastal habitats of the South China Sea</p> <p>2.1.6 Updated and adopted National Action Plans for mangroves, coral reefs, seagrass and wetlands, including enactment of supporting legislation where required</p> <p>2.2.1 Nutrient carrying capacity model for the SCS marine basin used to communicate with decision-makers about the localized v. transboundary impacts of land-based pollution in the SCS</p>	GEFTF	2,800,000	8,000,000

			<p>2.2.2 Total contaminant loading and carrying capacity of the SCS estimated via application of quantitative modeling and GIS-based techniques for seven heavy metals (Hg, Cd, Pb, Cu, Cr, As, Zn).</p> <p>2.2.3 Impacts of estimated heavy metal contaminant loadings defined, quantified and communicated to decision-makers</p> <p>2.2.4 Characterization of heavy metal pollution hotspots</p> <p>2.2.5 Quantification of effluent volumes and contaminant loadings from coastal aquaculture to the SCS marine basin</p>			
		<p>2.3 Strengthened and harmonized national policies and laws, and supporting financial mechanism, for the management of land-based sources of pollution</p>	<p>2.3.1 National best practices in waste management, law enforcement, and community and industry participation in managing land-based sources of pollution documented and shared</p> <p>2.3.2 Review of legislative and institutional frameworks for land-based pollution management in participating countries</p> <p>2.3.3 Harmonized national Standard Operating Procedures for land-based pollution control and management [including agreed sediment, biota, &amp; water quality criteria]</p> <p>2.3.4 Revised national/provincial policies and supporting regulations for land-based pollution developed, enacted and implemented by Yr 5</p> <p>2.3.5 Updated and adopted National Investment Plans for land-based pollution management in the SCS [Yr 5]</p> <p>2.3.6 Regional financial mechanism for land-based pollution management [Yr 5]</p>			
		<p>2.4 Improved national and regional values for the Total Economic Values of coastal habitats for use in development planning and decision-making</p>	<p>2.4.1 Expanded datasets of economic valuation information on the goods and services of SCS coastal habitats</p> <p>2.4.2 Estimates of the value for the service provided by coastal habitats as nursery areas for offshore fish and crustaceans</p> <p>2.4.3 Estimates of economic losses of coastal ecosystem goods and services consequent upon coastal shipping accidents and pollution damage</p>			

		<p>2.5 Regionally appropriate tools and mechanisms to guide the development of sustainable management systems for coastal habitats and land-based pollution</p> <p>2.6 Updated and Ministerially adopted Transboundary Diagnostic Analysis and Strategic Action Programme, including prioritization of national management actions to address climate variability and change</p>	<p>2.4.4 Updated estimates of Total Economic Values for coastal habitats of the SCS and converted to 2017 value by means of the consumer price index</p> <p>2.5.1 Regionally applicable standards and criteria for defining the sustainability of coastal habitat management systems, including documented models of sustainable use.</p> <p>2.5.2 Online catalogue of best practice management measures and technologies for sustainable use of SCS coastal habitats and land-based pollution management</p> <p>2.5.3 Government officials, community leaders, and habitat and pollution managers exposed to on-going practices in rehabilitation, management, and pollution control and treatment via programme of study tours and exchange</p> <p>2.5.4 Expanded South China Sea online public awareness centre, including awareness packages for local adoption</p> <p>2.6.1 National and regional level consensus on contemporary issues and problems, including the quantification of environmental compromises and the prioritization of problems (Yr 2)</p> <p>2.6.2 The immediate and ultimate root causes of the problems identified and consensus reached on priorities for intervention, including comparative analysis of the net benefits of alternative options (Yr 3)</p> <p>2.6.3 National and regional consultative process to develop updated Strategic Action Programme SAP for adoption at the Ministerial level (Yr 5)</p> <p>2.6.4 Prioritization of national management actions to address climate variability and change for incorporation into national policies and plans</p>			
3. Facilitating regional and national level integration and cooperation for implementation of the South China Sea Strategic	TA	3.1 Regional and sub-regional co-operation in the integration of scientific knowledge and	3.1.1 Regional Scientific and Technical Committee of the SCS project functioning as a bridge between the scientific community and decision-makers [annual meetings]	GEFTF	4,230,000	10,260,000

Action Programme		<p>research outputs with management and policy making</p> <p>3.2 Capacity for civil society and community organization participation in SAP implementation strengthened via operational partnership with GEF SGP</p> <p>3.3 Relationships between central and local governments and the private sector</p>	<p>3.1.2 Biennial Regional Scientific Conferences to facilitate exchange between government and scientific community</p> <p>3.1.3 Annual Mayors' Round Table meetings convened to foster exchanges between senior local government officials and coastal managers at the local/site level</p> <p>3.1.4 Memoranda of Agreement for joint management of 2 priority transboundary water areas agreed &amp; implemented</p> <p>3.1.5 Cooperation with the GEF fisheries <i>refugia</i> project and other relevant regional initiatives established</p> <p>3.1.6 Operational award program on best practices in coastal habitat and land-based pollution management for communities, local governments and industry [annual]</p> <p>3.2.1 Cooperation with GEF SGP in the commissioning and implementation of an additional [#] of community-based projects for SAP implementation</p> <p>3.2.2 Annual NGO forum meetings to elicit input to planning of SCS-SGP partnership initiatives</p> <p>3.2.3 Best practices in community-led SAP implementation showcased and shared with governments and CSO/COs</p> <p>3.2.4 Training program on science and management of SCS coastal habitats and resources for SGP proponents</p> <p>3.2.5 SGP project concept notes developed and financial arrangements agreed for 20 community-based projects in support of implementing a revised SAP</p> <p>3.3.1 Review of past and ongoing public-private partnerships for coastal management in SCS region</p> <p>3.3.2 Identification of opportunities for private sector investment (e.g. oil and gas, fisheries, tourism) in implementation of the updated SAP</p> <p>3.3.3 Two partnership forums to</p>			
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		strengthened and formalized	facilitate cooperation with private sector on implementation of the updated SAP			
		3.4 Revitalization of regional mechanisms for communications, knowledge exchange, and information and data management and sharing	3.4.1 Communications strategy developed & implemented 3.4.2 Regionally appropriate knowledge tools developed to support decision-making and planning. 3.4.3 The SCS project web portal <www.unepscs.org> and associated regional databases online, updated and linked to IW-Learn and other GEF Knowledge management systems 3.4.4 Active engagement with GEF IW:LEARN [1% of project resources] including participation in IW conferences and 3 experience notes			
		3.5 Adoption of stronger, financially sustainable, and more formal arrangements for regional co-operation in the management of the marine and coastal environment of the South China Sea	3.5.1 Biannual meetings of the Regional Task Force on Legal Matters plus annual meetings with Foreign Affairs to review the proposed policy, legal and institutional reforms and agree to formal implementation arrangements 3.5.2 National Working Groups on Legal Matters established and functional to support discussion and agreement on policy, legal and institutional reforms 3.5.3 Existing arrangements for cooperation and legal frameworks evaluated and recommendations drafted 3.5.4 Process for development of a proposed formal arrangement for regional cooperation defined and planned 3.5.5 National consultation workshops conducted 3.5.6 Arrangement elaborated and approved			
Subtotal					14,280,000	53,260,000
Project Management Cost (PMC) <sup>4</sup>				(select)	720,000	2,800,000
Total Project Cost					15,000,000	56,060,000

<sup>4</sup> To be calculated as percent of subtotal.

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	National Governments	In-Kind	54,060,000
GEF Agency	COBSEA	In-kind	1,500,000
GEF Agency	UNEP	In-kind	500,000
(select)		(select)	
(select)		(select)	
<b>Total Co-financing</b>			<b>56,060,000</b>

**D. INDICATIVE TRUST FUND RESOURCES (\$ ) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) <sup>2</sup>	Total (\$) c=a+b
UNEP	GEFTF	International Waters	Regional	15,000,000	1,350,000	16,350,000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				<b>15,000,000</b>	<b>1,350,000</b>	<b>16,350,000</b>

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for

this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

<sup>2</sup> Indicate fees related to this project.

**E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>**

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)<sup>6</sup></u>
• No PPG required.		
• (upto) \$50k for projects up to & including \$1 million		
• (upto)\$100k for projects up to & including \$3 million		
• (upto)\$150k for projects up to & including \$6 million		
• (upto)\$200k for projects up to & including \$10 million		
• (upto)\$300k for projects above \$10 million	<u>300,000</u>	<u>27,000</u>

**PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY**

Trust Fund	GEF Agency	Focal Area	Country Name/Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
GEF TF	UNEP	International Waters	Regional – All Participating Countries	300,000	27,000	327,000
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total PPG Amount</b>				<b>300,000</b>	<b>27,000</b>	<b>327,000</b>

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

<sup>5</sup> On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the GEF Project Grant amount requested.



## **PART II: PROJECT JUSTIFICATION**<sup>7</sup>

### **A. Project Overview:**

**A.1. Project Description:** Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental cost reasoning and expected contributions from the baseline , the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up.

#### **A.1.1 Global Environmental Problem**

The South China Sea represents an area of globally significant biological diversity. The Indo-west Pacific marine biogeographic province has long been recognized as the global centre of marine shallow-water, biodiversity. The South China Sea is located at the hub of this centre and represents an area of aggregation and overlap in distribution of Indian and Pacific Ocean derived species. Forty five species of mangrove from the global total of fifty seven; almost all coral genera; twenty of sixty species of seagrass; and, seven of nine giant clam species are found in the near-shore waters of the South China Sea. Compared to the Atlantic, the tropical Indo-west Pacific is highly diverse. Only five species of mangrove and some 35 coral species are found in the Atlantic compared with fifty one mangrove and over seven hundred coral species in the Indo-west Pacific. Over 400 species of corals are recorded from the Philippines compared with 200 species from the Red Sea, 117 from South East India and fifty-seven from the Persian Gulf.

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<sup>7</sup> Part II should not be longer than 5 pages.

In addition to its significance as a global centre of shallow water marine biological diversity, the South China Sea supports a significant world fishery of importance to the food security, and as a source of export income, for the countries bordering this sea. Capture fisheries from the South China Sea contribute 10% of the world's landed catch while marine capture fisheries production in Southeast Asia (not including China) was 15 million tonnes in 2004, which represents approximately 18 percent of marine capture fisheries production worldwide. China, Thailand, Viet Nam, and Indonesia were in the top five fish exporting countries in the Asia-Pacific region during 2004 (Lundgren et al., 2006). Five of the eight top shrimp producers in the world are states bordering the South China Sea (Indonesia, first; Viet Nam, second; China, third; Thailand, sixth; and, the Philippines, eighth). The countries of the region produce 23% of the world tuna catch and almost three-quarters of the world's canned tuna.

In 2004, China (30 billion tonnes), Viet Nam (1.2 billion tonnes), Thailand (1.2 billion tonnes), and Indonesia (1.0 billion tonnes) were in the top five aquaculture producers by volume worldwide, and in the top ten aquaculture producing states by value. In Southeast Asia, highly priced crustaceans account for 47 percent of total aquaculture production by value. Giant Tiger shrimp (*Penaeus monodon*) is the top produced species, although this position is being challenged by increased production of white leg shrimp (*P. vannamei*) by all countries, except Cambodia (Lundgren *et al.*, 2006). The high dependence of the aquaculture sector on marine shrimp production has, and continues to contribute, to the loss of habitats bordering the South China Sea. Shrimp pond construction and the release of waste water from shrimp farms also contribute to localised coastal water quality problems, particularly in areas of the western Gulf of Thailand.

This globally significant, stock of genetic, specific and ecosystem diversity is currently suffering severe degradation and loss and the threats are increasing rather than decreasing due to rapid and extensive coastal development, habitat removal and modification, pollution, overharvesting of marine living resources, and poor planning resulting in enhanced vulnerability of coastal systems to episodic and extreme weather events. When coastal ecosystems and habitats are destroyed and replaced by other forms of land use, not only are the species of plants and animals lost but also many services provided by these systems are adversely impacted. Degradation of coastal habitats therefore results in loss of both direct and indirect economic values that support socio-economic development at both local and national scales.

It has been estimated that around 30% of coastal wetlands are lost each decade in Southeast Asia, giving an approximate annual loss of 3% per annum. Wetlands have been lost or altered because of the disruption of natural processes by agricultural intensification, urbanization, pollution, water transfer, dam construction, and other forms of change in the ecological and hydrological systems.

Over half of the original mangrove bordering the South China Sea was lost during the last century. The causes of mangrove destruction identified in the TDA (UNEP, 1998) along the coastlines bordering the South China Sea, included conversion to pond aquaculture, particularly for shrimp, clear felling of timber for woodchip production, land clearance for urban and port development and human settlements; and harvest of timber products for domestic use (UNEP, 2004). Present causes of loss of mangrove habitat are no longer dominated by shrimp culture although this remains one cause of conversion in China, Indonesia and Viet Nam. Conversion of mangrove to land for industrial purposes (including harbour construction) has grown over the last ten years, and is now significant in China, but of low importance in Indonesia, the Philippines and Viet Nam, and not important in Thailand and Cambodia. Degradation of mangrove habitats as a consequence of chronic pollution from shrimp farming operations is now more prevalent in China, Indonesia and Thailand, whilst charcoal production continues to degrade mangrove in Cambodia, Indonesia and the Philippines despite legislation banning all harvesting of mangroves in Cambodia and the Philippines.

Not only are the coral reefs in South East Asia the most biologically diverse and productive reef ecosystems in the world but, they are also the most threatened and damaged reefs, with unprecedented rates of coral reef destruction from anthropogenic pressures that have accelerated over recent decades (Tun et al., 2004). The Regional Working Group on Coral Reefs, identified regionally significant threats to coral reefs in the South China Sea, as being over-fishing, use of destructive fishing techniques, pollution (mainly eutrophication) and sedimentation. Indirect causes of these threats are unsustainable practices in the fisheries sector, coastal

development, deforestation and unsustainable tourism. Coral bleaching is considered as a serious threat to coral reefs in the region.

Six threats to seagrass have been identified including: destructive fishing such as push net, trawler; sedimentation from coastal development; waste water, effluents; nutrients; coastal construction; and over-fishing. Challenges to sustainable seagrass management include: lack of knowledge concerning the distribution of the habitat; lack of awareness amongst individuals causing damage regarding the consequences of their actions; coastal development plans rarely take seagrass into consideration and there is a lack of effective seagrass management systems in the region.

One of the consequences of poor planning of coastal development is enhanced coastal erosion. This has occurred with increasing frequency over the last two decades, as a consequence of removal of mangroves compounded by poor land use practices. In the long term, climate change and the associated rise in sea level may accelerate coastal erosion problems and accentuate other physical impacts such as saline intrusion. A recent report on the economics of climate change in Southeast Asia concludes that the costs to countries in the region could be equivalent to a loss of 6.7 percent of GDP by 2100, which is more than twice the world average (ADB, 2009).

The TDA suggested that the root cause of coastal environmental degradation was the present density and growth of coastal populations. A total of 270 million people live in the coastal sub-regions of the five countries. The population is concentrated in 93 cities with over 100,000 inhabitants with indicative trend of doubling of populations in 32 years. In Cambodia and Viet Nam growth rates in the coastal sub-regions are 1.5 to 2.0 times the national growth rates. Coastal tourism, increasing fisheries development, and oil exploration and exploitation, are among the major economic 'pull factors' causing internal migration from poorly developed inland areas to the coast.

In terms of environmental governance and management, in all five countries the environment is treated as a separate sector for planning and management purposes leading to:

- Overlapping or conflicting mandates between different ministries, as in the case of fisheries and environment for example, where internal mechanisms for managing the impacts of fishing practices on habitats and the physical environment do not exist;
- Problems related to an effective control of environmental degradation resulting from land-based pollution where the interface between the industrial and environmental sectors is not well developed; and
- Lack of adequate consideration of the consequence of environmental degradation and habitat loss due to ineffective means of valuing environmental goods and services, and where they exist, a failure to use such values in social cost-benefit analysis.

#### **A.1.2 Baseline:**

Within the framework of the UNEP Regional Seas Programme, the Action Plan for the East Asian Seas was adopted in 1984 with five original member countries and revised in 1994 to include three additional member states. UNEP *provides* the secretariat function for the implementation of the Action Plan through the Coordinating Body for the Seas of East Asia (COBSEA), which is a regional inter-governmental mechanism *that* provides a mechanism to support and monitor the implementation of the SAP.

The UNEP/GEF project entitled "Reversing environmental degradation trends in the South China Sea and Gulf of Thailand" was implemented by the United Nations Environment Programme (UNEP) in partnership with seven riparian states bordering the South China Sea over the period 2002 – 2008. The Project addressed three priority areas of concern identified in the Transboundary Diagnostic Analysis (TDA) namely: the loss and degradation of coastal habitats; over-exploitation of fisheries; and land-based pollution. The project has resulted, among others, in mutual confidence and trust and the development of an epistemic community that shares a common vision of the issues and problems surrounding the state of the South China Sea marine environment and a common understanding of the need for, and nature of future actions. The data and information generated by the project were used in the development of the National Action Plans (NAPs) and the Strategic Action Programme (SAP) approved in 2008. The Memorandum of Understanding concerning co-ordination of actions undertaken to implement the Strategic Action Programme for the South China Sea

will be signed at Ministerial level during the PPG phase. Management interventions at the selected priority demonstration sites have served as models for future interventions, planned as part of the SAP implementation process. The *present* project addresses the habitat, land-based pollution and regional co-ordination components of the SAP, whilst the fisheries section of the SAP, or more specifically the development of the regional system of refugia, *is being* implemented through a separate GEF project.

Implementation of the National Action Plans has occurred to varying degrees in all countries since the completion of the original UNEP GEF South China Sea Project and in the absence of this project would likely continue, however it is unlikely that the results and outcomes will be co-ordinated across national borders and experiences of implementation are unlikely to be shared regionally.

#### **A.1.3 Alternative Scenario and Component Description:**

The overall objective of the project is to assist countries in meeting the targets of the approved Strategic Action Programme (SAP) for the marine and coastal environment of the South China Sea through implementation of the National Action Plans, and through strengthening of the regional co-ordination in the SCS SAP implementation. The project activities are divided into three main components:

#### **Component 1 - Reducing habitat degradation and loss via national and local reforms to achieve Strategic Action Programme targets for coastal habitat management in the South China Sea**

**Mangroves:** Regional, national and local activities under this sub-component are designed to meet the SAP targets and to address the threats identified and detailed above. The key anticipated outcome is the establishment of appropriate forms of sustainable management including relevant reforms of laws and regulations for 860,000 ha of mangrove bordering the SCS basin. In order to meet the targets it is envisaged that over the next ten years some 300 million US dollars of investment in sustainable management of mangroves will be required at the national level. The project also aims to support these national actions through a regionally co-ordinated programme of technical support; the objective of which is to assist countries in effectively and sustainably managing their mangrove resources. At the national level, activities will focus on the declaration of 57,400 ha of mangrove as National Parks and Protected Areas, the designation and plans for the management of 166,600 ha of mangrove as non-conversion, sustainable use areas, national reform of laws and regulations for the sustainable use of 602,800 ha of mangrove forest, replanting of 21,000 ha of deforested mangrove land and biodiversity increased for 11,200 ha of mangrove forest via enrichment planting. This sub-component will also include periodic national and regional meetings of mangrove specialists, and local and central government officials that will ensure the integration of sound science into policy making and management decision making, and foster cost effective strategic actions that enhance regional cooperation. Further, the knowledge of government officials, managers and stakeholders regarding the functions, value and approaches to sustainable management of mangrove ecosystems will be further strengthened through regional mechanisms such as continued information exchange via the World Wide Web; study tours and visits; periodic meetings and targeted training activities; and the development and dissemination of the necessary materials for use at all levels in promoting knowledge and awareness of sustainable mangrove management practices. Activities designed to provide the sound scientific and technical basis for sustainable management of mangrove ecosystems at the regional level include: the development of guidelines and other tools as information resources; facilitation of their regional dissemination and adoption by mangrove managers; and applied research concerning the sustainable management and monitoring of mangroves ecosystems.

**Coral Reefs:** regional actions proposed under this sub-component are designed to promote good environmental governance, relevant national legislative and institutional reforms and sustainable management of coral reef ecosystems. The key anticipated outcome is 153,000 ha of coral reef at 82 priority sites managed sustainably, including a reduction in the decadal rate of degradation in live coral cover from 16 to 5%. At the site and national levels, activities will include supporting building management capacity (number/levels human resources, facilities and equipment, and sustainable financing mechanisms) for 82 coral reef sites, improving management approaches (integrated, community-based, multiple use) at 82 coral reef sites, developing management tools (licensing and permit systems, seasonal closures, zoning) in support of legal and regulatory reforms to address key threats at priority sites, and establishing mechanisms for

monitoring management, ecological and socio-economic indicators at 82 coral reef sites. Regional actions will focus on the review, synthesis, assessment and dissemination of good experiences and lessons learnt in the management of coral reefs. The use of sound science in the sustainable management of coral reefs in the South China Sea will be promoted through: the work of the regional expert group; empowerment of stakeholders and communities; and sharing experiences between countries on coral reef research and management. Increased awareness of stakeholders regarding the ecological roles, economic values, and need for sustainable management of coral reefs underpins successful achievement of the SAP targets; and activities will facilitate the mainstreaming of information into educational programmes, the development of information campaigns and sharing of training materials through the regional website. Despite the wealth of information available on the ecology of coral reefs, scientific data and information relevant to the sustainable management of coral reefs is limited. Regional actions will support the scientific community in: periodic assessment of the status of coral reefs; monitoring ecological and socio-economic factors; maintaining, and updating the regional GIS and meta-databases and disseminating information for management purposes; and developing guidelines for the conduct of environmental impact assessments in transboundary coral reef areas. Strengthening regional and national capacity in the management of coral reefs will also be supported by expert exchange between countries; training of trainers; sharing experiences in enforcement; developing capacity in fund raising and financial sustainability; fostering the network of coral reef management sites, research centres and coral reef management agencies; and provision of guidelines for sustainable use of coral reefs.

**Seagrass:** This sub-component aims to assist countries in effectively managing their seagrass resources and ecosystems in a sustainable manner including supporting countries in engaging in the relevant national reforms. This will be done through: regional co-ordination of national actions in implementing the NAPs and SAP; the regional sharing of experiences and practices; and the exchange of views and knowledge among the scientific and local communities with local government. National activities will include putting under sustainable management with supporting laws and regulations twenty-one seagrass areas totaling 25,900 ha, amending national management plans for 7 existing MPAs with significant seagrass areas, to include specific seagrass-related management actions, designating 7 new Marine Protected Areas focusing on seagrass areas identified in the prioritized listings of the SCS Project and establishing mechanisms for monitoring management, ecological and socio-economic indicators at 21 sites.

The key anticipated outcome is the sustainable management of 25,900 ha of seagrass at 21 priority sites in the South China Sea. To ensure the effectiveness of actions in implementing the NAPs and SAP mechanisms will be established to monitor the achievement of regional and national targets. Since a significant proportion of the total seagrass in the South China Sea lies in transboundary areas, the project will also seek to promote and strengthen transboundary management, zoning, and promotion of regional/sub-regional mechanisms for bilateral management of seagrass resources and ecosystems, where appropriate. The need to enhance the knowledge and awareness of government officials, managers, and stakeholders concerning the importance and value, of seagrass resources and ecosystems in the region is perhaps greater than in the case of mangroves and coral reefs. This component also includes actions required to maintain and elaborate regional mechanisms for knowledge and information exchange through training, site visits, meetings, regional symposia, a South China Sea website, and publications; and the production of materials for use in promoting knowledge and awareness of seagrass ecology and sustainable practices. Activities are also designed to enhance the management skills and experience of all stakeholders by providing a sound scientific and technical basis for the management of seagrass resources and ecosystems in the South China Sea. Given the current uncertainties regarding the extent and diversity of seagrass in the region effort will be expended to enhance the knowledge of seagrass distribution and socio-economic importance, and to develop appropriate criteria for selecting regional and national priority sites for future intervention and management.

**Estuaries, Brackish Water Lagoons, and Inter-Tidal Mud Flats:** This sub-component focuses on coastal lagoons, estuaries & mudflats and aims to improve the effectiveness of national policy, legal and institutional arrangements and co-ordination including the needed national reforms by developing and implementing management plans for at least 3 lagoons (26,818 ha), 9 estuaries (614,680 ha), 5 tidal flats (96,903 ha), 1 peat swamp (45,700 ha) and 1 non-peat swamp (9,808 ha); declaring at least 7 wetland areas with protection status (i.e. non-hunting area, nature reserves, protected areas, Ramsar Sites) including the needed

management reforms and adopting a regional estuary monitoring scheme and its national implementation. Further, this sub-component will look at strengthening the Regional Working Group on Wetlands, as the regional scientific and technical advisory body on coastal wetland management; and, by establishing linkages among wetland management institutes or agencies in the region and between and within the academic and professional communities. The key anticipated outcome is the Integrated management of 783,900 ha of coastal wetland at 19 sites, including habitat restoration and protection strengthened at priority locations and relevant legal and institutional reforms engaged. Activities are designed to enhance and sustain the capacity of wetland management agencies and strengthen knowledge and public awareness on the wise use of wetlands in the region. Regional training needs will also be assessed and a training programme developed that will include study tours and field visits for wetland managers, community representatives, students, and NGO members. Supporting activities further include: the production and dissemination of materials for public awareness; the development of an educational centre; the development of curricula; and the production of national newsletters. Activities directed towards improving sustainable management include: tool kits for supporting the relevant legal and institutional reforms, developing regional handbooks/manuals, and guidelines for sustainable use including restoration of estuaries and coastal lagoons; maintaining regional GIS- and meta-databases; developing and implementing a regional estuary monitoring scheme; and convening of regional meetings among countries to review the status of wetland management plans.

***Tracking results of SAP actions for coastal habitat management:*** The habitat sub-components of the South China Sea Strategic Action Programme defined indicators and results frameworks for use in monitoring and evaluating the effectiveness of SAP implementation. This component of the project aims to facilitate national and regional level cooperation in tracking results of SAP actions for coastal habitat management. Specific indicators of sustainability to be tracked relate to: the enabling environments for sustainable management; improvements to ecological and environmental state; and socio-economic impacts. Activities are designed to reach agreement on standardized methods and guidelines for habitat inventory and assessment, leading to the achievement of regional-level agreement on a harmonized results framework and analytical tool for tracking and reporting on sustainability of habitat management systems in the SCS basin. Additionally, an online 'results' portal will be developed to support regional-level capacity building in results-oriented planning and management of coastal habitats, as well as the routine online sharing and syndication of SAP implementation results. The latter will involve online geospatial presentation of results linked to related initiatives of the GEF IW:LEARN initiative. Similarly, performance of this component with respect to indicators defined in the GEF IW tracking tool will be documented and communicated annually; effort will also be made to align the agreed reporting systems with national reporting requirements to various International conventions.

## **Component 2 Strengthening knowledge-based action planning for the management of coastal habitats and land-based pollution to reduce environmental degradation of the South China Sea**

The components of the South China Sea Strategic Action Programme addressing coastal habitat degradation, land-based pollution, and regional cooperation each highlight the need to strengthen the science and knowledge base for action planning and management. Component 2 of the project aims to build on the knowledge-based action planning for the management of the marine and coastal environment of the SCS achieved during 2002-2008. Activities are designed to support consensus building on the information and data to be used in planning and implementing the required local, national and regional reforms required to address the degradation of coastal habitats, land-based pollution, and the adoption of stronger and more formal arrangements for regional co-operation in the management of the marine and coastal environment of the South China Sea. Given the geopolitical sensitivities characterizing the SCS region, such a consensual approach is deemed necessary in: tracking and reporting on results of SAP implementation; generating agreement among the region's scientists and policy makers on the analytical approaches used to prioritize options and reforms required to address environmental problems; fostering strengthened multi-lateral cooperation; and planning interventions that deliver both local results for beneficiary communities and high transboundary impacts.

At the national level, activities of this component both support, and build on, those implemented as part of component 1 aimed at the achievement SAP targets for habitats. For example, activities to enhance the mapping of coastal habitats through interpretation of satellite imagery, quantify the role of habitats in the sequestration and storage of carbon, and improve data sets for the economic valuation of habitat goods and services will be used to inform national and local consultative processes regarding the delineation of management area boundaries, management planning, and reform of by-laws and ordinances for coastal habitat and resource management at the site level. Additionally, activities associated with outcome 2.4 to develop tools and mechanisms to guide the development of sustainable management systems for coastal habitats and land-based pollution will be used to provide regional level support to operational management at the site level and in tracking the effectiveness of interventions in achieving SAP targets. Similarly, outputs of national activities associated with delivery of component 1, including the conduct of resource inventories, reviews of national and local policies and regulations, documentation of site level governance conditions, and stakeholder analyses will be used in conjunction with regional reviews of the potential impacts of sea level rise, climate change, and episodic events on coastal habitats to inform the development of updated National Action Plans, and the enactment of supporting legislation, for mangroves, coral reefs, seagrass, and wetlands.

The ultimate causes of land-based pollution in the South China Sea are: increases in coastal population densities (populations of the basin's coastal zones currently exceed 270 million or 5 percent of the world's population); increased food production in the agricultural sector; and increased industrialization. The proximate causes include inadequate waste-water treatment whilst intermediate causes include inadequate standards and lack of capacity to monitor, regulate and control pollution discharges. A major contributing factor is the lack of financial resources to invest in actions addressing the proximate cause, i.e., the issue of strengthening waste treatment capacity, which is presently being addressed via partnerships with development banks, several of which rely on GEF support to PEMSEA. While pollution control departments of the participating countries are among the best resourced in the environment sector of Southeast Asian governments, action is typically focused on monitoring and regulatory functions with little effort directed toward the management of pollution hotspots or reform of national policy and investment planning. Accordingly, the purpose of SAP activities relating to land-based pollution is not to finance interventions that directly reduce the load of contaminants reaching the marine environment from land-based sources but to support the integration of regional science with national-level policy making and planning for the management of land-based pollution. In this connection, key outcomes of component 2 include "2.2 Effective integration of regional science in the management of land-based pollution" and "2.3 Strengthened and harmonized national policies and laws, and supporting financial mechanism, for the management of land-based sources of pollution".

In particular, the development and application of simple models of pollution impacts under different development scenarios for land-based activities will facilitate development decision-making by providing an indication of the sensitivity of specific coastal water bodies to varied heavy metal contaminant loadings. This work builds on related work of the SCS project to model the nutrient carrying capacity of the SCS marine basin under various loading scenarios. National level activities will support: reviews of legislative and institutional frameworks for land-based pollution management in participating countries; harmonization of national Standard Operating Procedures for land-based pollution control and management, including agreed sediment, biota, and water quality criteria; revision of national/provincial policies; development, enactment and implementation of supporting regulations for land-based pollution; and the updating and adoption of National Investment Plans for land-based pollution management in the SCS. A regional financial mechanism for land-based pollution management will also be established. Additional regional supporting activities are designed to: improve mechanisms for information exchange; support the development, improvement and dissemination of regional public awareness and educational materials; prepare marine environment quality guidelines and tools for dissemination and adoption in the region; and the development of common methodologies that will generate comparable data among participating countries.

Better economic valuation of the South China Sea's resources is critical for decision making that will lead to sustainable use. The values determined through the previous SCS project are incomplete since not all known goods or services from individual coastal ecosystems have been valued. One area of current weakness is that

comparatively few existing values for the service provided by habitats as nursery areas for off-shore fish and crustaceans are included. This is known to be a significant and major service provided by mangrove and seagrass habitats and work will be undertaken to establish the economic values of these services. It is anticipated that actions at the national and regional level to implement the SAP will generate more extensive datasets at the national level, which if included in the regional dataset will greatly enhance the utility of the regional dataset in determining regional priorities for action and intervention. One additional area of identified need that the project will address is in the determination of economic losses of coastal ecosystem goods and services consequent upon coastal shipping accidents and land-based pollution damage. Component 2 therefore aims to improve the national and regional values for the Total Economic Values of coastal habitats for use in development planning and decision-making, and will make substantive contributions to the conduct of cost-benefit analyses of management options undertaken as part of national action planning for coastal habitats and land-based pollution, as well as in updating the SCS TDA and SAP. The economic valuation work of this component will also build on preliminary work of the SCS project to value the economic impacts of land-based pollution from local, national and transboundary perspectives and will contribute to the planning of a mechanism for the sustainable financing of land-based pollution activities of a revised SAP.

Activities to undertake a more contemporary Transboundary Diagnostic Analysis for the SCS basin, and linked actions to prepare an updated Strategic Action Programme for the SCS, will draw on information generated via the abovementioned activities and the recently published (December, 2013) special issue of the peer-reviewed journal 'Ocean and Coastal Management' on the outcomes of the SCS project. The latter contains updated information and data related to the status and trends in coastal habitats, land-based pollution management, and links to related initiatives in the integration of fisheries and habitat management. Key activities will include: facilitation of consultative processes to reach national and regional level consensus on contemporary issues and problems in the SCS, including the quantification of environmental compromises and the prioritization of problems; preparation of guidelines and mobilization of technical support to assist with the characterization of the immediate and ultimate root causes of the problems identified and to reach consensus on priorities for intervention, including the assessment of the comparative net benefit of options based on revised economic valuation information; and efforts to prepare an updated SAP which will include a prioritization of national management actions to address climate variability and change for subsequent incorporation into national marine and coastal policies and plans.

### **Component 3     Facilitating regional and national level integration and cooperation for implementation of the South China Sea Strategic Action Programme**

One outcome of the PPG will be the signed MoU regarding the implementation of the SAP. The MoU to be signed at the ministerial level is annexed to the SAP (UNEP/GEF/SCS/PSC.8/3 Annex 5) and appended herewith in Annex 1 to the PIF.

Further Regional and national institutional assessments and their relevant recommendations will support a more effectively implemented SAP. Resources for the SAP implementation will be identified and mobilized through more flexible incentive mechanisms.

A further expected outcome of this component is regional cooperation in the integration of scientific knowledge and research outputs with management and policy making which will also be tested in two priority transboundary areas. The latter builds on a key innovation of the SCS project involving the generation of bilateral cooperation between Cambodia and Viet Nam which led to the signing of a Memorandum of Understanding between the Provincial Governors of Kampot (Cambodia) and Kien Giang (Viet Nam) (which was subsequently formalized by the central governments of these countries) for the joint management of the environment and coastal resources of their shared transboundary water area. Activities under this component will strengthen this formal transboundary cooperation and facilitate its replication in an additional two transboundary areas. A further activity in support of linking the science community with decision-makers involves annual meetings of the Regional Scientific and Technical Committee established under the project that will review all scientific and technical matters and make recommendations for decision to the Project Steering Committee composed solely of two representatives of each of the participating



governments.

Another purpose of this component is to co-ordinate regional exchanges between the scientific community, central and local government and local communities. Specifically activities will involve: maintaining the South China Sea website; organising biennial regional scientific conferences primarily directed towards exchanges between government officers and the scientific community; biennial Mayor's Round Table meetings to foster exchanges between senior local government officials (Mayors and Provincial Governors) and environmental managers working at the site level; biennial meetings of the Non-Governmental Forum to allow exchanges between non-governmental and community based organisations and local government officials on the role of civil society groups in implementing the SAP. *Ad hoc* workshops will be organised at various levels to facilitate and enhance the flow of information and exchange of experiences at all levels in implementing the Strategic Action Programme. Project and network participants will participate in the biennial International Waters Conferences of the GEF and engage with IW:LEARN as appropriate. Of significance is the planned outcome of this component involving the adoption of stronger, financially sustainable, and more formal arrangements for regional co-operation in the management of the marine and coastal environment of the South China Sea.

The PPG will consider any relevant recommendations of the November 2012 GEF Evaluation Office "*Impact Evaluation of GEF Support to the South China Sea and Adjacent Waters*".

#### **A.1.4 Incremental Reasoning:**

The Strategic Action Programme was agreed upon among the participating countries in 2008. The baseline situation following the adoption of the SAP and the completion of the GEF SCS project is described as follows: Each participating country has started the implementation of the NAPs with the varying levels of implementation country-by-country. Indonesia and Viet Nam for example, have extensive national mangrove reforestation programmes; Indonesia, Philippines and Cambodia have several localised programmes of coastal zone management supported by various International NGOs including WWF, IUCN and Wetlands International; bilateral assistance agencies such as DANIDA and SIDA; and multi-lateral entities such as the EU. These include examples of community based approaches to management of coastal resources or sectors, and include poverty alleviation as a major objective.

Not only are many of the actions at national level undertaken outside the framework of nationally co-ordinated programmes resulting in significant duplication and overlap, but co-ordination and collaboration at the regional level has been weak up to the present. Although tasked with a co-ordination role by its member states COBSEA has been hampered by the absence of any mechanism or procedures for national reporting to the Secretariat on actions being undertaken at the national level in the implementation of the NAPs and SAP and in line with regional programmes and targets. The lack of a regionally co-ordinated approach to remedial actions significantly reduces their effectiveness, and recognising this, the countries bordering the South China Sea have initiated a number of joint programmes involving two or more countries within the region. These include, inter alia, the major oceanographic and fisheries studies of the Gulf of Thailand, the regional fisheries work of the APFIC and SEAFDEC, and the ASEAN Working Group on the Coastal and Marine Environment. The over-riding gap that the further GEF intervention can fill is strengthening regional co-ordination for implementing the Strategic Action Programme and providing a focus for actions by all parties directed towards improving the state of the marine environment of the South China Sea. Without a concerted regional approach to environmental management it is unlikely that the present rates of habitat degradation will be slowed and the likely consequence of such a scenario is the loss of globally significant biological diversity and ecosystem services provided by the coastal ecosystems in the South China Sea over the next century.

#### **A.1.5: Global Environmental Benefits:**

The Global Environmental Benefits expected by the proposed project is to halt the trend of the degradation of the ecosystems and biodiversity in the South China Sea through the countries jointly and collaboratively achieve the SAP objective and targets. More concretely, the project will achieve improved management of over 0.5 million ha of mangroves; an increase of the total area of coral reefs under sustainable management by about 53,000 hectares, which represents 20 percent of the total reef area of the South China Sea; almost 1/3 of the area (30,000 hectares) in the South China Sea identified as seagrass sites brought under sustainable

management. The project will thus make a significant contribution to avoiding the emission of carbon stored in the coastal ecosystems, such as mangroves, seagrass beds and salt marshes, contributing to the mitigation of climate change.

When the SCS SAP was developed, the countries adopted an approach to undertaking the valuation of the coastal ecosystem services. Based on the results of the valuation, a cost-benefit analysis (CBA) was carried out. Economic valuation was carried out based on the range of ecosystem goods and services that the coastal ecosystems can provide. These services are directly linked with the coastal disaster prevention, food security, cultural values and others. The CBA demonstrated that, for example, a modest investment of around US\$3 million in improved regional management of mangroves would yield benefits in terms of ecosystem goods and services in the order of US\$ 1.5 billion of annual production. Priority is therefore given to activities that can enhance and protect the ecosystem goods and services that contribute to socio-economic development in addition to pursuing the global environment benefits. In order to generate economic benefits for local coastal communities, protection of ecosystem services provided by critical habitats will be linked to the use of incentive mechanisms, such as payment for ecosystem services (PES), and the potential for tapping into the carbon market will also be explored for 'blue forests'. Continued economic valuation of the ecosystem goods and services generated by the project will enable the countries to further define the socio-economic benefits local communities can enjoy through the implementation of the actions identified in the SCS SAP.

The project will actively engage women in all its activities, from local level to the regional level. All regional and national training and capacity building activities, for example those on management of critical habitats will target 30 percent of participants to be women

#### **A.1.6. Innovativeness, sustainability and potential for scaling up.**

The innovations that will likely be demonstrated in this project include the further elaboration of the process of determining regional economic values; in the modeling of pollution loads and potential impacts; in the elaboration of the partnership with the GEF Small Grants Programme.

Regarding sustainability it is hoped that by the end of the five years national government financial commitments to the implementation of the updated SAP will result in sustainability.

While scaling up the outcome of this regional project to the global level might prove difficult and beyond the scope of this project, the best practices and the learning emanating from this project through site specific activities will be replicated widely at the national level and shared with other regions through IW:LEARN.

#### **A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:**

The primary level stakeholders in the implementation of the Strategic Action Programme are the central governments of the seven participating countries since these are the entities that must agree on, and oversee the co-ordination of actions at the regional level and support the achievement of the regional targets through the implementation of the national plans of action in each country. Other stakeholders at the national level include NGOs, the academic and research community that is in some countries organised through national organisations such as academies of science or professional societies. At the provincial and local levels stakeholders include the provincial and local government units, community groups and local associations or co-operatives of farmers, fisherfolk and other groups dependent upon coastal space and resources such as aquaculture producers and processing groups which are often controlled and operated by women.

The importance of different stakeholder groups at any one location reflects differences in the types of resources, and the human activities of exploitation and processing, characteristic of each area. In mangrove areas for example gleaning and catching crabs and village level processing of the catch may be undertaken by women's groups, whilst canoe based net and trap fishing may be undertaken predominantly by men.

In implementing the demonstration site activities of the South China Sea Project each responsible organisation

was required to establish a cross-sectorial management board Chaired by the Mayor or Provincial Governor or their Deputy. Membership of the board included representatives from all sectors of government involved in the use of coastal space, local stakeholder groups including the community, and where appropriate non-governmental and scientific organisations. Almost without exception this proved to be extremely valuable in mobilising additional and unplanned actions and resources and the model has now been adopted by the Beihai Municipal Government in China as the standard model for project management.

These abovementioned mechanisms will be drawn upon during the project preparation phase, as will the regional-level epistemic community of regional scientists, policy makers and resource managers fostered via the SCS project to elicit stakeholder input to the design of project activities at all levels, Meetings of the various regional and national level bodies, i.e., Regional Scientific and Technical Committee, the national Inter-Ministerial Committees and Technical Working Groups will be convened to ensure national level political and scientific input to the project results framework and activity sets. Civil society and community-based organizations will also play a significant stakeholder role in SAP implementation, particularly via the component addressing improved integration and coordination of community level activities via an operational partnership with the GEF Small Grants Programme. Consultative processes will engage key regional NGOs and CSOs in project preparation and will be used to agree mechanisms for tracking and valuing the contribution of community-level inputs to project execution.

Regional level stakeholders include PEMSEA, ASEAN AWGCM, CTI (Coral Triangle Initiative) and SEAFDEC (Southeast Asia Fishery Development Centre) with whom cooperation was established during the SCS project and further collaboration will be developed in the implementation of the SAP.

**A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):**

Risk	Risk Level	Risk Mitigation Measure
Implementation of activities by and in the countries does not proceed at the same pace with the overall project implementation, which may lead to the rate of progress being determined by the slowest country.	L	Communication, participation and country driven processes can mitigate this risk and the countries have already established a strong regional cooperation during the SCS project, which will be continued throughout the SAP implementation.
Failures in coordination at the national and regional levels. Past experience has shown that the success of this coordination varies between countries.	L	This risk can be mitigated by establishing project mechanism both at the national and regional levels. The risk of coordination failure at the regional level will be minimised by negotiating and developing a regional coordination mechanism that builds on existing COBSEA framework as well on the lessons learnt from the GEF SCS project. National coordination mechanisms should be continued or further developed also based on the lessons learnt from the GEF SCS project.
Potential for political considerations to interfere with the scientific process could risk the collaborative effort to address the issues of the South China Sea.	M	These risks can be addressed through a clear separation of the processes of scientific and political decision making with the ultimate decisions being made on the basis of sound scientific advice. Mitigating this risk requires that scientific and technical recommendations are prepared only based on the scientific and technical information.

Any multi-lateral programme or project carries with it an inherent series of risks reflecting the varying internal political, economic, social and cultural conditions of each of the participating states. A major risk is that

problems arising from countries not proceeding at the same pace with project implementation may lead to the rate of progress being determined by the slowest country. This risk can be addressed by the presence of a strong competent implementation unit that is prepared to spend time with each participating country resolving their individual difficulties and problems. Experience with the SCS project has shown that close communication between the implementing unit and the executing entities at the national level can enhance participation and resolve individual country issues and problems as they arise.

Changes and turnover of staff acting as focal points for project activities and change of institutional mandates at the national level are risks that may impede project implementation leading to a “stop-start” situation within one country or component, again experience within the SCS Project suggests that this can be overcome (but not entirely removed) by the implementing unit building a personal linkage with the individuals at the national level, that can be “inherited” by the incoming staff member. In addition, the incorporation of feedback loops in the management framework that, allow multiple routes of communication both vertically within countries and horizontally between countries will help to bring new-comers up to speed.

Failures of coordination at both the national and regional levels pose varying degrees of risk. If the implementing unit is staffed by competent, committed, and professional staff members having knowledge or experience in more than one discipline and with an ability to communicate well at a personal level with national focal points, then the risks of coordination failure at a regional level are minimised. At the national level the responsibility for coordination lies with the focal ministry and past experience has shown that the success of this coordination varies both between countries and across years. This risk can only be mitigated by establishing good relationships between the implementing unit and the focal ministries concerned.

Risks are also apparent where the potential for political considerations to interfere with the scientific process arise, as for example in deciding where scarce resources should be allocated both between and within countries. These risks can be addressed through a clear separation of the processes of scientific and political decision making with the ultimate decisions being made on the basis of sound scientific advice. Mitigating this risk requires that the science is indeed sound and that scientific and technical recommendations are prepared independently of the political decision making process. This problem did not arise in the SCS project where the regional scientific and technical committee prepared recommendations based on scientific and technical considerations and the project steering committee made the decisions regarding which alternatives were acted upon.

#### **A.4. Coordination: Outline the coordination with other relevant GEF financed and other initiatives:**

Regional cooperation in marine environmental management commenced in 1981 when the five original ASEAN states, under the auspices of the UNEP Regional Seas Programme, approved the Action Plan for the Protection and Development of the Marine and Coastal Areas of the East Asian Region (EAS Action Plan).. The Coordinating Body on the Seas of East Asia (COBSEA) is a regional institutional mechanism, membership of which was expanded to nine countries in 1994. The COBSEA secretariat will act as the Executing Agency for this project.

Numerous other programmes, projects, agencies, organisations and donors operate in the region. The major regional players, in addition to COBSEA are: the Association of Southeast Asian Nations (ASEAN) and its working group on Coastal and Marine Environment (AWGCME), ASEAN-China Strategic Partnership (ASEAN+1), ASEAN+3 (China, Republic of Korea and Japan), PEMSEA, the Asia-Pacific Economic Cooperation (APEC) – Marine Resource Conservation Working Group, the Mekong River Commission (MRC), the Southeast Asian Fisheries Development Centre (SEAFDEC), the Asia-Europe Meeting (ASEM) and its Technical Working Group Meeting on the ASEM Oceans Initiative, and the World Fish Centre. and the Southeast Asia Regional Centre for Global Change System for Analysis, Research and Training network (SEA-START RC). Numerous institutions and organisations operate or fund projects alone or in cooperation with others, such as the International Coral Reef Initiative, IUCN, the Asian Development Bank, the World Bank, IMO (International Maritime Organisation), WWF, the Canadian International Development Agency (CIDA), Wetlands International, The Nature Conservancy, and the Swedish International Development Agency (SIDA).

This project builds on the achievements of the project “Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand” (the SCS project) that was operational from 2002 to 2009. Specifically it builds upon the institutional and operational network established during that project to implement the regional

Strategic Action Programme (SAP) and associated National Action Plans that were also developed and approved during the course of the SCS project. The SAP itself may be viewed as an operational level, intergovernmental approved course of action that will serve to implement, in the South China Sea, the Action Plan for the Sustainable Development of the Seas of East Asia developed through the UNDP implemented GEF project entitled "Partnerships for Environmental Management of the Seas of East Asia" (PEMSEA), and the Declaration on the Code of Conduct for Parties in the South China Sea.

A SAP Implementation Unit (SAP-IU), within the COBSEA Secretariat, will manage the project on a day-to-day basis and objectives, priorities as well as actions will therefore be closely co-ordinated with those of COBSEA. Outcomes will be reported to the periodic intergovernmental meetings of COBSEA member countries and to ASEAN member states through the ASEAN Working Group on Coastal and Marine Resources.

This project addresses the habitat, pollution, economic valuation and regional co-ordination components of the SAP, whilst the fisheries section of the SAP, or more specifically the development of the regional system of *refugia*, has been prepared as a separate GEF project. It is anticipated that there will be cross representation between the regional fisheries working group established under that project and the Regional Scientific and Technical Committee established under this project to ensure that the *refugia* identified and developed in each country take into account biodiversity considerations and *vice versa*. As the GEF Implementing Agency for both projects UNEP will ensure that at a management level there is day-to-day contact between the SAP-IU in the COBSEA Secretariat and SEAFDEC as the regional GEF executing agency for the *refugia* project.

Whilst this project forms the primary mechanism for regional co-ordination of the implementation of the Strategic Action Programme for the South China Sea it is anticipated that national level actions will be undertaken at priority sites and that these will be supported through a variety of mechanisms including: national recurrent budgets; financial assistance from bilateral and other assistance agencies; and individual actions supported through the Small Grants Programme (SGP) of the GEF. One medium size project is operational addressing a priority site of the SAP (Ninh Hai, Viet Nam, coral reefs while two medium size projects addressed two other sites (East Bintan seagrass beds, Indonesia; and Shantou wetland in China) that have been completed.

During the final phase of its implementation the UNEP/GEF/SCS Project Co-ordinating Unit developed in close consultation with the management of the Small Grants Programme of the GEF a joint mechanism to support community interventions in priority areas identified in the SAP. It is anticipated that these interventions will be linked through national and regional activities to the activities undertaken in the framework of this project.

The project will also actively engage in global knowledge sharing through IWLearn and set aside one percent of the GEF project budget to support IWLearn activities, such as setting up and running a project website; participation of project staff in GEF International Waters Conferences and relevant regional conferences; and production of at least two IW Experience Notes.

## **B. Description of the consistency of the project with:**

### **B.1 NATIONAL strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:**

All participating countries have completed National Biodiversity Strategies and Action Plans (NBSAPs). The activities contained in the habitat and land-based pollution components of this project are consistent with the individual National Action Plans prepared as part of the process of SAP development and with the NBSAPs in each country. The majority of these action plans have been approved within the ministries responsible for the environment. In the case of Cambodia the National Action Plans for land-based pollution, mangroves and wetlands have been approved by the Ministry of Environment in 2007. In the case of the seagrass and coral reefs the NAPs were approved by the Ministry of Agriculture, Forestry and Fisheries in 2006. In China all four national action plans were approved by the Inter-Ministry Committee and the Ministry of Environmental Protection in 2007. In Indonesia the six NAPs were all approved at varying levels and incorporated into the operational plans of the appropriate government departments with some currently being under implementation. In the case of the Philippines the activities of the NAPs are consistent with ongoing activities of the Department of Environment and

Natural Resources (DENR) and the Medium Term Development Plan for the Philippines. In addition, the legal basis for the implementation of the NAPs is an Executive Order 533 (E.O. 533) issued by the President of the Philippines in June 2006, adopting Integrated Coastal Management (ICM) as a national strategy and establishing supporting mechanisms for its implementation. The NAPs in Viet Nam were all completed in 2007.

The priorities identified in these NAPs have been integrated into national policy and programmes, for example the programme for vulnerability assessment of coastal resources and environments, national projects on mangrove rehabilitation, and the government programme regarding international co-operation on marine issues.

All the National Action Plans were developed to support the Strategic Action Programme for the South China Sea, which was approved in August 2008 by the five participating countries bordering the South China Sea. In the SAP, the participating countries clearly agreed on a set of targets to be achieved by 2015, and the current project is designed to support the countries in meeting the targets agreed upon in the SAP through the implementation of the regional activities and the implementation of NAPs.

In China many actions implemented at the Provincial level within the three provinces bordering the SCS have contributed to the achievement of the targets of the regional SAP and the National Action Plans. During the period from 2007 to 2012, the finished and ongoing projects/actions for the NPAs of China include:

- Zhanjiang Mangrove Restoration: total 1,000 hectares of mangrove restored over the past five years with 10 million Yuan investment in Zhanjiang Mangrove National Reserve;
- Three provincial marine reserve areas: Wenchang Seagrass Reserve and Xincun Seagrass Reserve in Hainan were established by Hainan Provincial Government in 2009 with 5 million Yuan of the first investment. Techeng Island Marine Park in Guangdong, established by Guangdong Government in 2011;
- Beilun Mangrove Restoration Plan: a total 10 million Yuan has been the invested by Finance Ministry of China for the infrastructure and 200 hectares of mangrove restoration;
- A Pilot Project in the Pearl River Estuary: the comprehensive study was carried out by the ministry of Environment Protection during the years from 2008 to 2010, for which 20 million Yuan from the government was invested. The project focuses on land-based pollution from rivers, including domestic waste, and from key industrial point sources and non-point sources;
- Clear Water Programs: Clear Water Programs of the three provinces, namely, Guangdong, Guangxi and Hainan, were updated in the years of 2010-2012. The new programs outline the actions and activities for the marine waters and ecosystems in the 12th and 13th five year plan; and
- Projects of the local levels for the marine and coastal ecosystems: these projects were conducted by the local governments with budget support from central and provincial governments.

Future projects and programmes for the implementation of NAPs and SAP include:

- Mangrove restoration: a 4,811 hectare area of mangrove will be planted in coastal areas in Guangdong Province;
- The Seagrass field investigation and monitoring programme is ongoing;
- Coastal ecosystem sustainable management will be carried out. At least 3 to 5 selected sites, Wanqingsha in Guangzhou and Qinglan in Wenchang of Hainan, for example, will be under sustainable management in the five years;
- Establishing 15 new marine reserve areas and marine parks: with 11 in Guangdong province, another 4 in Hainan province. 6 existing marine reserve areas and parks in Guangdong province will be improved and firmly enforced;
- Waste and wastewater reduction: many new waster plants and facilities for waste and wastewater treatment will be constructed or expanded to reduce the pollutants into the marine water of the South China Sea. It is expected that the pollutants reduction will be up to 10 to 15 percent over the next five years along the South China Sea.

In Cambodia, there were several government agencies involved in activities related to the NAPs and SCS-SAP, namely the Ministry of Environment, the Department of Fisheries and Department of Forestry. Despite the wide support for the SCS SAP within the Government of Cambodia, there has been a chronic shortage of funding for supporting activities that would implement the SAP in Cambodian waters. Cambodia faced a number of series challenges including an annual population growth rate of 3.6 %, extensive poverty and a lack of facilities for public health and education. Economic development challenges included urbanization, rapidly expanding tourism, port development and salt farming. These social and economic stresses resulted in environmental degradation from pollution (solid and liquid wastes), and loss and degradation of the biodiversity of coastal habitats.

The Philippines has provided inputs to SAP implementation through activities relating to the implementation of the NAPs. These have been implemented from the perspective of the actions outlined in the previous SAP implementation project developed under the South China Sea Project. In support of the National Action Plan Implementation, the Philippines was committed to investing 407,000 US\$ in the mangrove component; 7.8 million US\$ for coral reefs; 770,000 for seagrass; 422,000 for wetlands; 5.3 million for Land-based Pollution; and 78,000 on legal matters.

Indonesia had implemented part of the NAPs including the Action Plan for mangroves and various actions had been undertaken in cooperation with the Fisheries, and Forestry Departments of Central Government and with support from Local Governments. Indonesia planned for replanting trees with a target of planting 1 billion trees. Coral reef activities in the Riau Islands had involved the COREMAP Project since 2007. Seagrass replanting had also been undertaken in 2008 in Thousand Islands. In 2012, MOE has demonstrated 20 sites of mangrove replanting and 3 sites of artificial coral reef and transplantation. MOE is developing government regulations on the protection and management of coral reef, seagrass and mangrove ecosystems. Other activities include involvement in the ASEAN Peatland Management Project; actions to address land based pollution, in particular solid waste; development of effluent standards; coastal sediment criteria guidelines; and further elaboration of PROPER award system for industries that successfully comply with the effluent standard and implement better environmental management.

Numerous activities in Viet Nam are relevant to the implementation of the SAP and NAPs. From 2005 shrimp farming expansion had been halted to protect mangroves and reforestation has been initiated in many areas of Viet Nam. Sediment starvation has slowed accretion at the seaward face of mangroves, particularly where muddy sediment inputs have been reduced. Coral reef and seagrass are being degraded by overfishing, reclamation and increased pollution. 16 MPA sites in Viet Nam will be established, and 10 MPAs will be established between now and 2015. Interagency cooperation is now a requirement and education and training are required from the level of managers downward to the local level.

## **B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:**

The project will contribute to the implementation of the GEF-5 International Waters (IW) Objective 2: Catalyze multi-state cooperation to rebuild marine fisheries and reduce pollution of coasts and Large Marine Ecosystems (LMEs) while considering climatic variability and change. The project will implement and update the agreed Transboundary Diagnostic Analysis (TDA) and Strategic Action Programme (SAP) for the South China Sea (SCS) and seek to strengthen regional coordination in the implementation of the SAP, and contribute to the development of multi-stakeholder partnerships. Innovative solutions to adaptive management of critical coastal and marine habitats, such as mangroves, coral reefs, seagrass beds and coastal wetlands and land-based sources of pollution will be tested and shared across the SCS. The capacity to address issues related to climate variability and change will be enhanced and these issues will be incorporated into, the habitat management programmes.

## **B.3 The GEF Agency's comparative advantage for implementing this project:**

UNEP's Freshwater and Marine Ecosystem Branch, Division for Environmental Policy Implementation (DEPI), within the Ecosystem Management Sub-Programme, is implementing a series of activities with focus on the development of tools and guidelines for ecosystem-based coastal and marine management, and supporting International Coral Reef Initiatives and Global Coral Reef Monitoring Network. It also is implementing the Blue Carbon Initiative, where integrated ecosystem approach is adopted to mangroves, seagrass beds and salt marshes while considering carbon storage and sequestration in these systems. The same Branch functions as the secretariat for the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), including its commitment to address the land-based sources of pollution, such as nutrients, wastewater and debris, through its assistance to the development and implementation of National Programmes of Action (NPAs).

The benefits of regional cooperation in marine environmental management were recognised three decades ago, when in 1981, the five original ASEAN states, under the auspices of the UNEP Regional Seas Programme, approved the Action Plan for the Protection and Development of the Marine and Coastal Areas of the East Asian Region (EAS

Action Plan). The plan was revised in 1994 when five additional countries joined although one member country withdrew its membership later. The Coordinating Body on the Seas of East Asia (COBSEA) is a regional intergovernmental organisation which is responsible for the implementation and coordination of the EAS Action Plan. There is no convention in the East Asian Seas (EAS) region and the action plan has been superseded to some extent by the New Strategic Direction for COBSEA (2008-2012). The new strategic direction for COBSEA contains four strategies: information management; national capacity building; strategic and emerging issues; and regional cooperation. The COBSEA secretariat is administered by UNEP.


The project "Reversing environmental degradation trends in the South China Sea and Gulf of Thailand" which is the base for the present project was initiated by COBSEA and implemented by UNEP in partnership with the riparian states bordering the SCS.

### **PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Lonh HEAL	Technical Director General	MINISTRY OF ENVIRONMENT, CAMBODIA	22 APRIL 2013
Ms. Jiandi YE	Deputy Director	MINISTRY OF FINANCE, CHINA	31 DECEMBER 2013
Mr. Dana A. KARTAKUSUMA	Special Advisor to the Minister on Economic and Sustainable Development Affairs	MINISTRY OF ENVIRONMENT, INDONESIA	28 FEB 2013
Ms. Analiza Rebuelta TEH	Assistant Secretary, Department of Environment and Natural Resources, Foreign Assisted and Special Projects Office	DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, PHILIPPINES	05 AUG 2013
Dr. Van Tai NGUYEN	Director General, Institute for Strategic Policy of Natural Resources and Environment	MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT, VIETNAM	01 JULY 2013

### **B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Brennan Van Dyke, UNEP GEF Coordinator		March 24, 2014	Isabelle Van der Beck Task Manager	+1-202-974-1314	Isabelle.vanderbeck@unep.org



## ANNEX 5

**Final Text of Memorandum of Understanding among the Countries Bordering the  
South China Sea Concerning Co-ordination of Actions Undertaken to Implement  
the  
Strategic Action Programme for the South China Sea**

- 1. PREAMBLE.** The South China Sea, which includes the Gulf of Thailand, is a semi-enclosed sea that supports a number of unique habitats and ecosystems, which 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.

The degradation of the environment of the South China Sea provided the ecological impetus for cooperation amongst the seven countries that participated in the UNEP/GEF project entitled *“Reversing environmental degradation in the South China Sea and Gulf of Thailand”*. The benefits derived from that co-operation have demonstrated the need for implementation of the Strategic Action Programme for the South China Sea.

- 2. PARTIES.** This Memorandum of Understanding is entered into by the Ministries responsible for environmental affairs in each country bordering the South China Sea;

- 3. BACKGROUND.** Recognising that all states aspire to achieve sustainable development as expressed in the 1992 Rio Declaration; the Millennium Development Goals adopted by the United Nations General Assembly in September 2000; and the Plan of Implementation to achieve those goals adopted during the World Summit on Sustainable Development held in Johannesburg in 2002;

Recognising further that the states bordering the South China Sea have entered into various bilateral and sub-regional agreements concerning diverse aspects of the sound management of the marine environment and its resources;

Recognising further that the provisions of the United Nations Convention on the Law of the Sea (UNCLOS) 1995, relating to the protection and preservation of the marine environment, and regional co-operation are widely accepted;

Reaffirming, as recognised in the United Nations Convention on Biological Diversity (CBD) that biological diversity is a common concern of humankind;

Reaffirming also the global consensus on the importance of marine and coastal biological diversity as expressed through the "Jakarta Mandate on Marine and Coastal Biological Diversity" and the Jakarta Ministerial Statement (1995) regarding the critical need to address the conservation and sustainable use of marine and coastal biological diversity, and the commitment of the Government of the Republic of Indonesia to play a major role in facilitating such implementation at the global and regional level;

Reaffirming also that states have obligations under a variety of Multi-lateral Environmental Agreements to:

- Conserve the environment and sustainably use natural resources;
- Co-operate with neighbouring states and other actors to conserve the regional environment and manage activities impacting the environment.

The Ministries responsible for environmental affairs have agreed to enter into this Memorandum of Understanding.

**4. PURPOSE.** The purpose of this Memorandum of Understanding is to facilitate co-operation among the parties to implement the Strategic Action Programme for the South China Sea.

**5. TASKS BY THE PARTIES.**

The Parties undertake to:

- i. Act as the National Focal Point within each country for the implementation of the Strategic Action Programme
- ii. Encourage the implementation of National Action Plans in support of the Strategic Action Programme.
- iii. Facilitate inter ministry dialogue concerning the implementation of the Strategic Action Programme.
- iv. Co-operate with each other in implementing the Strategic Action Programme at the regional level.