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**UNDP/GEF PROJECT ENTITLED “REDUCING ENVIRONMENTAL STRESS IN THE  
YELLOW SEA LARGE MARINE ECOSYSTEM”**

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UNDP/GEF/YS/RSP-SPSC.3/6  
Date: 19 April 2013  
English only

**Special Meeting of the Project Steering Committee  
For the UNDP/GEF Yellow Sea Project**  
*Jeju, RO Korea, 8-9 May 2013*

***Draft***

**Request for GEF CEO Endorsement**

**DRAFT**



**REQUEST FOR CEO ENDORSEMENT**

**PROJECT TYPE: FULL-SIZED PROJECT**

**TYPE OF TRUST FUND: GEF TRUST FUND**

For more information about GEF, visit [TheGEF.org](http://TheGEF.org)

**PART I: PROJECT INFORMATION**

Project Title: Implementation of the Yellow Sea LME Strategic Action Programme for Adaptive Ecosystem-Based Management			
Country(ies):	China (with RO Korea fully self-financing)	GEF Project ID <sup>1</sup> :	4343
GEF Agency(ies):	UNDP(select)(select)	GEF Agency Project ID:	4552
Other Executing Partner(s):		Submission Date:	
GEF Focal Area (s):	International Waters	Project Duration (Months)	
Name of parent program (if applicable): For SFM/REDD+ <input type="checkbox"/> For SGP <input type="checkbox"/> For PPP <input type="checkbox"/>	Reducing Pollution and Rebuilding Degraded Marine Resources in the East Asian Seas through Implementation of Intergovernmental Agreements and Catalyzed Investments	Agency Fee (\$):	

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

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co- Financing (\$)
IW-2	<p>Outcome 2.1: Implementation of agreed Strategic Action Programmes (SAPs) incorporates ecosystem-based approaches to management of LMEs, ICM principles, and policy/legal/ institutional reforms into national/local plans</p> <p>Outcome 2.2: Institutions for joint ecosystem-based and adaptive management for LMEs and local ICM frameworks demonstrate sustainability</p> <p>Outcome 2.3: Innovative solutions implemented for reduced pollution, rebuilding or protecting fish stocks with rights-based management, ICM, habitat (blue forest) restoration/ conservation,</p>	<p>Output 2.1. National and local policy/ legal/institutional reforms adopted/</p> <p>Output 2.2. Agreed commitments to sustainable ICM and LME cooperation frameworks</p> <p>Output 2.3: Types of technologies and measures implemented in local</p>	GEFTF	7,184,430	213,381,766

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

<sup>2</sup> Refer to the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

	and port management and produce measureable results	demonstrations and investments  Output 2.4: Enhanced capacity for issues of climatic variability and change			
Sub-Total			7,184,430	213,381,766	
Project Management Cost			378,000	12,500,000	
<b>Total Project Cost</b>			<b>7,562,430</b>	<b>225,881,766</b>	

## B. PROJECT FRAMEWORK

Project Objective:						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co Financing (\$)
1. Sustainable Regional and National Cooperation for Ecosystem-Based Management	TA	<p>1.1 Regional governance structure, the YSLME Commission established, operational and sustained</p> <p>1.2. Improved inter-sectoral coordination and collaboration at national level</p> <p>1.3 Wider participation in SAP implementation fostered through capacity building and public awareness</p>	<p>1.1.1 Regional agreement to establish the YSLME Commission, Management Science and Technical Panel (MSTP) and Regional Working Groups (RWGs); national and regional policies drafted and implemented</p> <p>1.2.1 National level agreements regarding ecosystem-based management actions, policies, regulations and standards promulgated, as appropriate</p> <p>1.3.1 At least 15 agreements with partners on overall environment co-operation and management, relevant fishery management, marine habitat conservation and pollution reduction, at both national and regional levels; cross sector partnerships established and operational.</p> <p>1.3.2 National public awareness in support of YSLME SAP achieved; data and information collected; jointly managed databases; publicly accessible information for implementing management plans at the regional, national and local levels</p> <p>1.3.3 Transfer of lessons, experiences and best practices between local sites</p> <p>1.3.4 Training of at least 10</p>	GEF	1,970,043	2,482,508

		<p>1.4 Improved compliance with regional and international treaties, agreements and guidelines</p> <p>1.5 Sustainable financing for regional collaboration on ecosystem-based management secured based on cost-efficient and ecologically-effective actions</p>	<p>stakeholder groups on public participation on relevant management actions, in particular on fishery management, marine habitat conservation and economic assessment</p> <p>1.4.1 Enhanced national and regional legal instruments to comply with regional &amp; global treaties, agreements and guidelines</p> <p>1.5.1 Periodic economic assessments of costs and ecological effectiveness</p> <p>1.5.2 Sustainable financing agreed; at least 150% increase in government financing for regional collaboration</p>			
2. Improved Ecosystem Carrying Capacity with Respect to Provisioning Services	TA	<p>2.1 Recovery of depleted fish stocks as shown by increasing mean trophic level</p> <p>2.2 Enhanced stocks through restocking and habitat improvement</p> <p>2.3 Enhanced and sustainable mariculture production by increasing productivity per unit area as a means to ease pressure on capture fisheries</p>	<p>2.1.1 Reduction of fishing by around 10% in demonstration sites through e.g. vessel buy-back schemes over the project duration</p> <p>2.1.2 Provision of alternative livelihoods to fisher folks taking into account the contribution of women</p> <p>2.2.1 Science-based management of fisheries and mariculture</p> <p>2.3.1 Widespread practice of sustainable mariculture, where appropriate increasing productivity by up to 10%</p> <p>2.3.2 Adoption of integrated multi-trophic aquaculture (IMTA) where appropriate</p>	GEF	1,437,606	19,020,886
3. Improved Ecosystem Carrying Capacity with respect to Regulating and Cultural Services	TA	<p>3.1 Ecosystem health improved through reductions in pollutant (e.g., N) discharge from land-based sources</p> <p>3.2 Wider application of pollution-reduction techniques piloted at the demonstration sites</p>	<p>3.1.1 Reduced pollutant levels, e.g. reduce 10% N discharge every 5 yrs, by enforcement and control in demonstration sites</p> <p>3.1.2 Enhanced data and information regarding sources and sinks of contaminants</p> <p>3.2.1 New and innovative techniques for pollution reduction (e.g. artificial wetlands) applied at demonstration sites</p> <p>3.3.1 Strengthened legal</p>	GEF	1,155,411	172,061,785

		3.3. Strengthened legal and regulatory process to control pollution  3.4 Marine litter controlled at selected locations	instruments and better regulatory processes to control pollution  3.4.1 Procedures in place to control and remove marine litter at demonstration sites			
4. Improved Ecosystem Carrying Capacity with respect to Supporting Services	TA	4.1 Maintenance of current areas of habitats through relevant management actions (e.g. the Total Quantity Control of Reclamation) to strictly control land reclamation.(no new permissions granted for coastal zone reclamation)  4.2 Stronger regional MPA network established and functioning  4.3 Adaptive management mainstreamed to enhance the resilience of the YSLME and reduce the vulnerability of coastal communities to climate change impacts on ecosystem processes and other threats identified in the TDA and SAP  4.4. Application of Ecosystem-based Community Management (EBCM) in preparing risk management plans to address climate variability and coastal disasters	4.1.1 Agreement at all levels to to implement the relevant management actions.avoid new coastal zone reclamation projects  4.2.1 MPA networks (covering approx. 544,800 ha) strengthened in the YSLME  4.3.1 Regional strategies adopted and goals agreed; site-based ICM plans enhancing climate resilience in place for selected sites in YSLME; conservation areas and habitats for migratory species identified  4.4.1 Public awareness of Yellow Sea environmental problems enhanced; strong local support for and awareness of demonstration activities  4.4.2 Established monitoring network; regular basin-wide assessments; enhanced information exchange; periodic scenarios of ecosystem change	GEF	2,621,370	19,816,587
<b>Sub-Total</b>					7,184,430	213,381,766
<b>Project management Cost (PMC)<sup>3</sup></b>					378,000	12,500,000

<sup>3</sup> PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

<b>Total project costs</b>		7,562,430	225,881,766
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**C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME \$)**

Pls include letters confirming cofinancing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Cofinancing Amount (\$)
National Government	China	Grant	9,812,480
		In-kind	82,842,580
National Government	RO Korea	Grant	16,973,332
		In-kind	112,361,374
GEF Agency	UNDP	Grant	2,092,000
Others	WWF	Grant	1,800,000
<b>Total Co-financing</b>			<b>225,881,766</b>

**D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country name/Global	(in \$)		
				Grant amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
UNDP	GEF TF	International Water	China	7,562,430	680,619	8,243,049
<b>Total Grant Resources</b>				<b>7,562,430</b>	<b>680,619</b>	<b>8,243,049</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.

**F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

COMPONENT	GRANT AMOUNT (\$)	CO FINANCING (\$)	Project Total (\$)
International Consultants	203,000	0	203,000
National/Local Consultants	413,800	44,843,799	45,257,599

**G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? (select)**

(If non-grant instruments are used, provide in Annex D and indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF<sup>4</sup>**

#### ***A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.***

The countries have all endorsed the SAP for the Yellow Sea developed during the implementation of the UNDP/GEF first phase project as follows: China (19 Nov. 2009), DPRK (as observer) (8 Dec. 08), ROK (28 Nov. 08), and China and ROK have developed and approved the National Strategic Action Plans (NSAPs) to implement the SAP at the national level. These NSAPs are consistent and congruent with the National Biodiversity Strategic Action Programs of China and ROK.

Many management targets listed in the SAP are included in the nationally-approved action plans that apply to the entire country (e.g. a 30% reduction in fishing boats by 2020) underscoring the catalytic impacts of the YSLME SAP. In order to ensure consistency with national plans, the Chinese National SAP is included in the next 5-year national development plan and the RO Korea National SAP is implemented within respective national frameworks. The establishment of the YSLME Commission also illustrates the willingness of the region to examine how to improve governance issues to support the technical management actions required enhancing the health of the Yellow Sea. The countries are already signatories to many global environmental international and bilateral treaties and agreements, and will continue to operate the Inter-ministerial Co-ordinating Committees in order to better harmonise policies and communication between the various government agencies for effective SAP implementation. This proposed project and the YSLME SAP Implementation Facility will coordinate the interactions and linkages among scientific research, ecosystem-based management, legislation and policy-making to ensure that the YS continues to provide ecosystem services to the countries and the region.

This project is fully consistent with the UNDP Country Programme Document (CPD) for China contributing to UNDAF Outcome 1, namely that: social and economic policies are developed and improved to be more scientifically based, human centred and sustainable and UNDP Programme Outcome 7. Conservation and sustainable use of biodiversity is more effective.

The Republic of Korea is no longer eligible for UNDP Country assistance, nevertheless the actions and activities programmed in the regional Strategic Action Programme will be financed through the government's recurrent budget within the national institutional framework.

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

This project fits and complements the GEF portfolio of International Waters projects since the project builds upon an impressive country-driven regional Strategic Action Programme developed under and agreed with GEF support. This will enable the project to generate many useful lessons and to serve as a mature model in this respect to many other fledgling transboundary initiatives in GEF's worldwide portfolio. Secondly, the project is designed to learn from other IW initiatives such as the Benguela Current, the Rio de la Plata, and the Black Sea, of benefit to this project and contribute to the strengthening of the overall GEF-IW:LEARN portfolio, through participation in IW:LEARN activities.

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<sup>4</sup> For questions A.1 – A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter 'NA' after the respective question

The YSLME SAP proposes the use of an innovative “ecosystem-based management approach” as advocated in the Millennium Development Goals in order to manage the complicated relationships between the environmental stresses and the resulting problems. This ecosystem-based approach uses scientific knowledge to guide appropriate management actions that preserve the ecosystem functions of the YSLME and its Ecosystem Carrying Capacity (ECC) i.e. its capacity to provide ecosystem services that are vital to the welfare of communities surrounding the Yellow Sea.

This project is consistent with GEF’s International Waters strategy, in that it represents a project to implement the Strategic Action Programme developed and agreed with GEF assistance and based on a detailed Transboundary Diagnostic Analysis. The GEF funding will: enable regionally co-ordinated implementation of the SAP through the YSLME Commission; and foster the removal of sectorial barriers to integrated management of ecosystem carrying capacity.

Within the GEF International Waters Strategic Priority #1, the project will address the need for bilateral and multi-lateral programmes of action to enhance fish stocks; encourage the implementation of the FAO Code of Conduct for Responsible Fisheries; engage the fishing and mariculture industries in sustainable management solutions that provide profit to these stakeholders, while not negatively impacting the Yellow Sea Ecosystem.

This project also addresses the GEF International Waters Strategic Priority (IW-SP2) through measures to reduce nutrient loads, in fulfilment of the articles in pollution-related conventions; through translating regional monitoring results into policies; and providing mechanisms to exchange data among agencies and across borders. IW-SP2 is closely linked to protection of critical habitats through improving and/or establishing management plans and marine protected areas. Regular monitoring of the impacts of pollutants on habitats, surrounding areas, and assessment of affected stakeholders will be covered and the project will utilize ecosystem-based approaches and adaptive management schemes to manage these transboundary water problems. The potential impacts of and adaptation to, climate change will be embedded in the management actions directed towards ecosystem carrying capacity as the central theme of the project.

The project will also deliver additional outcomes such as: enhanced public awareness; strengthened stakeholder’s capacity to carry out actions; and institutional sustainability that ensures the SAP and the YSLME Commission will be self-sufficient in the long-term. Involvement of all coastal countries in the Yellow Sea, will contribute to regional environment management, as well as regional peace and stability.

The Yellow Sea represents a marine environmental resource shared among all the coastal countries hence GEF involvement is critical in overcoming the geopolitical complexities and potential conflict among resource users in the Yellow Sea. The participation of DPRK, as an observer, in this project would ensure the engagement of all the Yellow Sea coastal countries in the management of their shared transboundary resources and in helping to resolve the environmental issues and problems. The costs of introducing effective skill levels with regard to ecosystem based management in the DPRK in order to ensure, in the future, full participation of DPRK in regional conservation efforts is therefore considered to be almost entirely incremental. Benefits resulting from the inclusion of all partners will accrue in terms of expanded regional and international marine conservation and management efforts in the East Asian Seas region.

### ***A.3 The GEF agency’s comparative advantage:***

UNDP’s Strategic Plan for 2008-2013 approved by the UNDP Executive Board includes Managing Energy and the Environment for Sustainable Development (Goal 4), and includes the outcome Strengthened national capacities to mainstream environment and energy concerns into national development plans and implementation systems. UNDP has taken further internal steps to



operationalise the mainstreaming elements of the Strategic Plan at a subsidiary level through its Water Governance Strategy endorsed by the UNDP Management Group in 2007. The Water Governance Strategy includes as one of its three Strategic Priorities Regional and Global Cooperation and the associated Outcome, Enhanced regional and global cooperation, peace, security and socio-economic development through adaptive governance of shared water and marine resources, and the principal Output, Assist countries to develop and implement cooperation on transboundary waters through multi-country agreements on priority concerns, governance reforms, investments, legal frameworks, institutions and strategic action programmes.

Notably, UNDP's work on improving governance of shared water and ocean resources incorporates both freshwater and marine water bodies and has for some time applied a "ridge-to-reef" approach recognizing the freshwater-marine continuum and important linkages between upstream water and land management and the health and integrity of downstream coastal and marine ecosystems. Underscoring this approach is UNDP's poverty reduction mandate and commitment to preserving and enhancing food security and livelihoods of the nearly 2 billion people who depend on healthy, functioning marine ecosystems in the EAS.

In managing its LME and transboundary fisheries programmes, UNDP's Ocean Governance Programme ([www.undp.org/water/ocean-coastal-governance.shtml](http://www.undp.org/water/ocean-coastal-governance.shtml)) draws on a wide range of staff expertise in marine ecosystems, fisheries and marine/coastal resources management at HQ, in its Regional Centers, and through its network of Country Offices. Senior advisors at HQ and in regional centers all have relevant Ph.D.'s (fisheries economics, marine biology, environmental management/policy, marine resource economics, etc.). UNDP's cumulative LME portfolio, working in 11 different LMEs in all 5 UNDP regions covering over 100 countries, represents \$528 m. in total financing from GEF, UNDP, governments, donor partners and others. This represents the largest investment of any kind in advancing the sustainable, integrated, ecosystem-based management of LMEs, from which over 85% of the world's fisheries are harvested, which contribute \$12.6 trillion/year in goods and services to the global economy, and which provide livelihoods for nearly half a billion people, many in the world's poorest countries.

In terms of implementing GEF IW projects, UNDP has consistently delivered results through a broad range of international transboundary water interventions including the high-level adoption of 17 SAPs (8 in LMEs), eight of which are currently being implemented. In addition to providing vital technical, financial and capacity building support for the establishment of the world's first post UN Fish Stocks conservation and management organization for highly migratory fish stocks, the Western and Central Pacific Fisheries Commission (WCPFC), UNDP has strengthened or established 20 multi-country marine/coastal, river and lake basin management agencies or commissions including establishment of the world's first two LME commissions, the Benguela Current and Guinea Current LME Commissions. UNDP builds on its extensive field presence in the EAS countries. In addition, the Programme will be directly supported by an experienced UNDP Regional Technical Advisor based in the region and by the UNDP Principal Technical Advisor at UNDP Headquarters with responsibility for global oversight of the UNDP Ocean Governance programme. Lastly, this Programme also supports the UNDAFs of the participating countries.

#### A.4 The baseline project and the problem that it seeks to address:

The semi-enclosed nature of the Yellow Sea (YS) and the rapid economic development of the surrounding areas have resulted in an increasingly polluted and over-exploited sea. This large marine ecosystem (LME) faces major transboundary problems, including: fisheries depletion resulting from the dramatic increase in fish landings that has grown from 400,000 tonnes to 2.3 million tonnes in the past 20 years; continuing increases in the discharge of pollutants; changes to ecosystem structure and functions leading to an increase in jellyfish and harmful algal blooms; and a 40% loss of coastal wetlands from reclamation and conversion projects representing a major loss of habitat for many species resulting in a significant degradation of biological diversity. On top of these immediate threats lie the potential impacts of climate change such as sea level rise and the changes in basin circulation and the extent of the Yellow Sea Cold Water Mass. The Transboundary Diagnostic Analysis (TDA 2008) for the YSLME and the associated causal chain analysis provide an analysis of the root causes of the environmental issues and problems of the Yellow Sea and identify the priorities for

management action. Nine transboundary environmental concerns have been identified that fall into five major problem groupings. The effects of these problems are synergistic and compounded since for example fish catch is not only impacted by overfishing, but by loss of important habitats, land-based pollution impacts on water quality, and by the environmental impacts of improper mariculture activities in the coastal zone. Addressing these issues and problems therefore requires an ecosystem-based approach to their management as detailed in the Strategic Action Programme (2009).

Through their endorsements and support for the TDA and SAP that were formulated in the first phase of the project, the participating countries have recognised that scientific knowledge needs to be translated into policy, legal and management actions for the entire region and not restricted to each nation, as environmental problems are not limited by geographic boundaries. The SAP identifies 11 tangible regional targets aimed at maintaining the YSLME's capacity to provide the four ecosystem services (provisioning, regulating, cultural and supporting) to the region and beyond. It provides adaptive ecosystem-based management actions to reach these targets.

**Government Contributions to the Baseline Project:** The YSLME countries have jointly committed about \$226 million towards achieving the priority commitments made in the SAP. For ecosystem-based fishery management, the SAP commitment is to reduce 25-30% fishing effort in the coastal countries of the Yellow Sea through vessel buy-back and retraining, stock assessments, etc., valued at over \$19 million. For pollution reduction, the SAP commitment is to reduce nutrient discharges from the Yellow Sea countries by 10% every 5 years through enhanced wastewater treatment, reducing fertilizer use and industrial discharges, etc., valued at about \$172 million. For biodiversity conservation, the main commitments of the SAP are to protect coastal habitats, establish regional MPA network, and promote civil society participation in the coastal countries of the Yellow Sea, valued at almost \$20 million. Under the SAP, the countries have also committed to the establishment of a permanent YSLME Commission. The major function of the Commission will be to oversee joint actions to address the transboundary issues as well as ensure coordination of complementary national actions. It will ensure achievement of regional targets through the implementation of the "on-the-ground" management actions, including capacity building activities, stakeholder participation and public awareness activities, all of which are documented in the SAP. The Commission will, at a later stage, become self-sufficient and sustainable through establishment of appropriate financial mechanisms that will be mutually agreed by the countries.

**UNDP Contributions to the Baseline Project:** UNDP will contribute almost \$2.1 million in this project. UNDP's Ocean Governance Programme has mobilized \$0.4 m. of (non-GEF) resources and commenced implementation of a key baseline project aimed at consolidating key results and outcomes from the GEF YSLME IW project. This baseline project is supporting a number of critical activities that will enable the successful commencement of SAP implementation through the subject project of this PIF. Additional UNDP contributions to the baseline project under the Pollution Control component include the Improved Water Resources Management and Drinking Water Safety in Rural Regions of China (WRM) project (\$ 1.692 millions). A series of sound water resources management, drinking water safety and environmental protection technologies are being offered, including efforts to build up policy mechanisms to support improved water resources management and drinking water safety. One of the four demonstration areas under the WRM project (in Liaoning province) is part of the Yellow Sea drainage basin and aims at improving access to safe drinking water in a target community in Shenyang city of Liaoning province.

**A.5 Incremental / Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:**

**Incremental Reasoning.** The GEF funding will: enable regionally co-ordinated implementation of the SAP through the YSLME SAP Implementation Facility (IF), and in the longer term through

establishment of the YSLME Commission; facilitate participation of all the coastal countries; and foster the removal of sectoral barriers to integrated management of ecosystem carrying capacity.

The Yellow Sea represents a marine environmental resource shared across at least 3 national boundaries. GEF involvement is critical in overcoming the geopolitical complexities and potential conflict among resource users in the Yellow Sea, through the YSLME SAP IF, that is the only body capable of coordinating the implementation of the SAP.

The current sectoral management of the marine environment in the countries bordering the Yellow Sea prevents implementation of co-ordinated, integrated and ecosystem-based management as defined in the SAP. GEF assistance in the institutional, policy and management reforms will move the process from the business-as-usual approach to integrated management across sectors. Managing to improve ecosystem carrying capacity will be a novel process for the region to engage in, and there is an urgent need to move the region's perception of marine environmental management in this direction. As a result of the SAP implementation, the capacity of individual agencies to play a pivotal role in facilitating more holistic, ecosystem-based management will be improved. Use of GEF resources together with UNDP and national financial commitments will also support the sharing of experiences and lessons-learned on national and regional scales, ultimately aimed at increasing the replication potential for the project's impacts.

The above justification for GEF support is supported by the significant progress in the first phase of the project, whereby an effective intergovernmental mechanism has shown strong political support through dialogues, negotiations and decision making by the countries at the inter-ministry level. The adoption of internally-accepted procedures and practice in inter-governmental negotiations is a major contribution of the GEF in building regional cooperation particularly among the YSLME countries. The GEF support will ensure monitoring and evaluation to assess the effectiveness of the management actions particularly at the regional (LME) level. The GEF support will establish a regional network to which the participating countries have attached high priority as shown by the approximate US\$ 387 million they have allocated in support of related activities. Along the line of critical regional activities, the GEF support will ensure the establishment of a YSLME Commission, which will ensure the long-term cooperation among the riparian countries. The Commission will be the formal regional coordination mechanism that is envisioned to build mutual trust and help in securing regional stability.

GEF funding will be catalytic in generating the substantial cofinancing from the riparian countries as in the case of the vessel-buy-back SAP commitments in China and RO Korea which require regional cooperation and would not proceed from unilateral action. The GEF's involvement will ensue not only effective co-operation between the participating countries but also act as necessary condition for the governments to provide co-financing resources for the implementation of the scheme and the entire SAP.

Implementation of YSLME SAP will also support implementation of the "Sustainable Development Strategy for the Seas of East Asia (SDS-SEA)" at the regional level. This will provide valuable benefits to strengthen regional infrastructure established under GEF's efforts.

**Global Environmental Benefits.** Under the guidance of the proposed project, it is expected that the global environmental benefits would include: restoration of globally important fisheries by reducing within four years up to around 10 % of the current fishing effort; increased uptake of innovative (IMTA) sustainable mariculture techniques in a region responsible for 1/3 of global mariculture production; improved management of globally significant habitats for migratory birds and mammals; decreased eutrophication through reduction in nutrient discharges of about 10% after the 4-year project duration; and thus, significant progress towards restoration of ecosystem carrying capacity. The project will report annually using the IW Tracking Tool to monitor the delivery of global environmental benefits.

The project's unique approach to formulating a SAP based on ecosystem services (in the first phase) can serve as a model for other LMEs that are developing SAPs, and in this proposed second phase, the approach could similarly be a model for effective regional LME management that encompasses science and governance.

**A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:**

<b>Description</b>	<b>Impact &amp; Probability</b>	<b>Countermeasures / Management response</b>
External risks stem from the geopolitical situation and may result in one or more countries either not participating or participating only partially	Potential impacts on inter-governmental regional co-operation P = 2 I = 3	Potential countermeasures are beyond the competency of project management
Potential partners unwilling to make formal commitments	Potential impacts on SAP implementation P = 2 I = 2	Careful negotiation by PMO
Stakeholders unwilling to participate	Potential impacts on NSAP implementation P = 1 I = 3	PMO to encourage stakeholders to participate
Governments unwilling to actively engage the NGO community	Potential limitation of stakeholder engagement P = 3 I = 2	PMO to encourage governments to engage NGOs in SAP implementation
Government Ministries/departments unwilling to share development and management plans	Weak national co-ordination: unlikely given the history of prior collaboration P = 1 I = 2	PMO to discuss and encourage sharing of data and information at all levels
Government policy changes, making boat buyback a low priority.	This is unlikely to arise in China and ROK P = 1 I = 4	Potential countermeasures are beyond the competency of project management
Difficulties in negotiating the joint fisheries stock assessment, causes delay or cancellation	low probability due to past success. P = 2 I = 2	PMO to allow sufficient lead time for negotiations
Mariculture enterprises unwilling to adopt integrated multi-trophic aquaculture (IMTA) in place of monoculture	this is considered of low probability due to current efforts in introducing IMTA P = 2 I = 4	PMO and NCs to publicise the outcomes of prior demonstrations and assist with technical support where necessary
Possible risk of non-compliance by polluting enterprises	considered a moderate risk in China P = 3 I = 3	National Co-ordinators to track situation continuously and seek assistance from PMO if situation beyond their competence to address
New techniques for pollution reduction not widely adopted	Pollution reduction targets not met P = 2 I = 3	PMO and NCs to publicise the outcomes of the demonstration
National, Provincial and Local Governments continue to encourage land reclamation.	This is considered a moderately high risk without strong project intervention P = 4 I = 3	PMO and NCs to continue publicising the environmentally damaging effects of land reclamation
Provincial and local governments may not agree to the establishment of new MPAs	Impacts on effectiveness of the MPA network P = 2 I = 3	PMO and NCs to provide evidence of cost effectiveness of MPA network establishment

***A.7 Coordination with other relevant GEF financed initiatives***

The project will co-ordinate its activities with other on-going endeavours in the region namely: Northwest Pacific Action Plan (NOWPAP) as part of the UNEP regional seas programme; implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) through the Partnership for Environmental Management of the Seas of East Asia (PEMSEA); and the Yellow Sea Eco-region Support Project (YSESP) by WWF and Korea Ocean Research and Development Institute in order to avoid duplication of efforts and to share resources working towards a common goal of appropriate governance for ecosystem-based adaptive management. Co-ordination

with these programmes will ensure synergy with other GEF and non-GEF activities. In addition, fisheries and pollution management (e.g. monitoring jellyfish blooms) in neighbouring geographic areas will have impacts in the Yellow Sea

As a part of the programmatic approach in the EAS region, the YSLME project will closely work together with other projects in the wider geographic area extending to nearby seas and countries, such as the Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas, and PEMSEA.

As one of the several projects in the GEF IW portfolio that will progress from TDA/SAP formulation to implementation, the project will provide valuable lessons to similar projects that are about to go through these GEF 'foundational' processes, e.g., Sulu-Celebes Seas and Arafura-Timor Seas in the Asia Pacific region and other LMEs in other parts of the world. The project will thus actively engage in knowledge sharing primarily through IW:LEARN and through other fora. The Project will set aside about 1% of the GEF project budget to support IW LEARN activities, such as: set up and run a project website consistent with the IW LEARN guidance and tool kit; participation of project staff in IW LEARN activities (IWC's and relevant regional conferences); and production of at least 2 project experience notes.

Wider co-ordination between partners, stakeholders, NGOs, and regional and global initiatives is inherent to project implementation. The "Yellow Sea Partnership (YSP)", with about 20 members, has been a distinctive feature of the 1st phase of the YSLME Project's achievements. Activities implemented with parliamentary organisations, local government officers and NGOs have increased stakeholder involvement in the project and will continue under the proposed project, by engaging all sectors into the management processes, including allowing stakeholders to take the lead in implementing actions under their geographical jurisdiction.

## **B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:**

### ***B.1 Describe how the stakeholders will be engaged in project implementation.***

The central governments of the two participating countries are the most important stakeholders since both the project and the actions to date seek to establish and strengthen the regional governance regime with respect to the Yellow Sea. The role of each of the central governments of the participating countries has been important in the past in promoting regional approaches.

Below the central government in each country are the Provincial and Municipal Governments that have jurisdiction over various aspects of coastal land and water uses and planning and for licensing and enforcing local regulations and standards. These government entities are significant stakeholders with the power and authority to control and regulate the actions of both public and private sector enterprises operating in the coastal zone.

The coastal communities are stakeholders that derive benefit both directly and indirectly from the various uses of the coastal ecosystems including for agriculture, mariculture, the operation of tourism businesses, and subsistence. At the same time these communities are impacted by ecosystem changes occurring as a result of both their own actions and those of others. For example small scale tourist businesses, or mariculture operations that depend on the quality of the marine environment can be adversely impacted by red tides and harmful algal blooms that causes mass mortality of marine organisms and human health problems. During the first phase of the UNDP/GEF Project the Rongcheng Fisheries Association and a number of commercial mariculture companies in Sanggou Bay, in China and the Fisheries Co-operative of ROK have been involved in workshops, publicity campaigns, protection of seagrass beds and the conduct of SAP demonstration activities.

Several international organizations have participated in the past in aspects of regional governance.

UNDP has actively participated in the regional governance mechanisms while UNEP has been involved through the Regional Seas Programme in general, and NOWPAP in particular, and the IMO through the operation of the various earlier phases of PEMSEA, and the implementation of ballast water demonstration project in Dalian.

The scientific and academic communities have participated at both the regional and national levels in conducting aspects of the regional analyses that have been undertaken during the first phase of the project and in providing scientific and technical advices to the political decision makers represented on the Project Steering Committee. It is anticipated that these institutions and individuals will continue to provide such functions in the implementation of the next phase of the Yellow Sea project and in providing advice to the Yellow Sea Large Marine Ecosystem Commission when it is established.

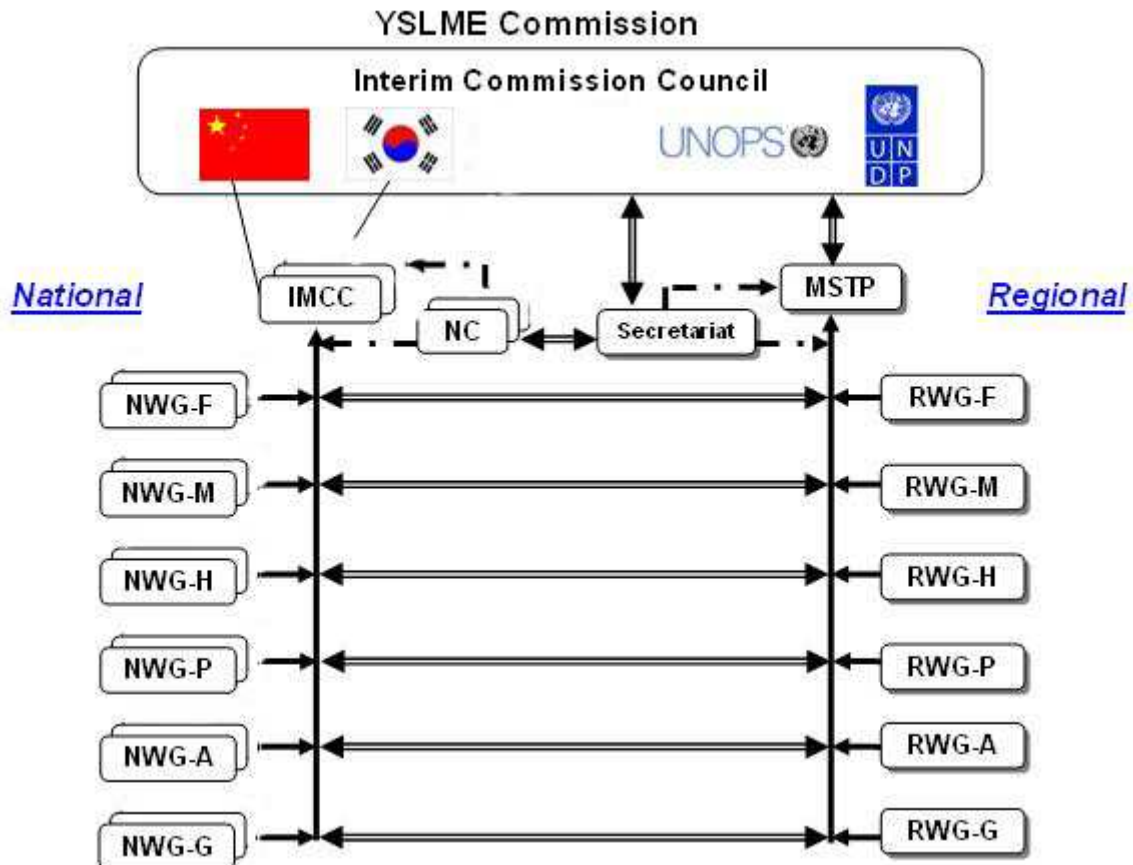
Other stakeholders including parliamentary organisations, international NGOs such as WWF and local ones together with private sector groups such as mariculture associations have participated in the regional governance less actively than other stakeholder groups to date. In the ROK, NGOs such as Birds Korea; Citizens Institute for Environmental Studies, the Eco-horizon Institute, Korea Marine Rescue Center, Shihwa Lake Saver, and the PGA Wetlands Ecology Institute, and In China the Global Village of Beijing, have all undertaken activities during the first phase under the small grants programme. Incorporation of stakeholders into the various decision-making systems related to marine resource management, coastal zone management, pollution management and other aspects of SAP implementation is encouraged. At the national level co-ordination is also desirable between scientists, managers, fishermen, farmers, and government officers.

Securing the participation of all the coastal countries and relevant stakeholders in the regional governance whilst necessary will be an enormous task and capacity building of some stakeholder groups particularly local NGOs and governments will be required before they are in a position to fully participate in the regional governance and management decision making. It is anticipated that involvement of both the NGO community and Private sector enterprises will build on the successes of the first phase and the range of organisations will be expanded to include industries, small and medium sized enterprises and tourism operators.

In order to enhance overall effectiveness of SAP implementation, strengthening partnership with existing regional co-operative institutions, is necessary including, but not limited to, bilateral co-operation mechanisms such as the Joint Committee on Environmental Co-operation, the Joint Fisheries Commission, China-Korea Joint Ocean Research Center; and further strengthening the current Yellow Sea Partnership.

This project marks the second stage of GEF financial support to the Yellow Sea. It also marks a change in focus and a change in the stakeholders mix of the project itself. By focusing on the problems of depleted fisheries and conservation of biodiversity, this project places more emphasis on sustainable development and as such the fisheries sector itself is important. Add to this the fact that regional governance is critical to this project and the most important stakeholder groups are the Ministries responsible for: Foreign Affairs, Maritime Affairs, the Environment/Natural Resources, and fisheries in each country.

The project management and implementation structure designed will ensure the institutional arrangement for the participation of all the stakeholders of the project in the decision-making and implementation processes.



**B.2 Describe the socio-economic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):**

Five large coastal cities with tens of millions of inhabitants border the sea: Qingdao, Dalian and Shanghai in the People’s Republic of China (PRC); Seoul/Incheon in the Republic of Korea (ROK), and Pyongyang/Nampo in the Democratic People’s Republic of Korea (DPPK). This population relies on the Yellow Sea LME for many services such as: provision of capture fisheries resources (in excess of two million tonnes per year) and mariculture (6.2 million tonnes per year); the support of wildlife; provision of bathing beaches and tourism; and its capacity to absorb nutrients and other pollutants. The ability of the Yellow Sea to provide these services is defined here as “ecosystem carrying capacity”.

Commercial use of the living marine resources of the Yellow Sea dates back several centuries but intensification of capture fisheries followed the introduction of the bottom trawl in the early twentieth century, resulted in rapid loss of economically important species such as the red seabream by the 1930’s. Fishing effort steadily increased post-war and increased threefold between the early 1960s and early 1980s during which time the proportion of demersal species such small and large yellow croakers, hairtail, flatfish and cod declined by more than 40% in terms of biomass.

About 100 species including cephalopods and crustaceans are commercially harvested but most species are not abundant and only 23 species exceed 10,000 mt per annum; these species form between 40 and 60 percent of the total landings. During the 1950’s and early 1960s the dominant species were the small yellow croaker, and hairtail and the mean body length of the catch exceeded 20cm. Pacific herring Chub and Spanish mackerel became dominant in the 1970s and the mean body

length of the catch had declined to 12 cm. In the 1980s smaller bodied, fast growing and short lived species such as the anchovy and scaled sardine came to dominate the catch with a consequent decline in the quality of the fisheries resources. Recently even catches of anchovy have declined and been replaced by a new target species, sandlance.

In 1978 an area of 148,000 ha was used in China for mariculture and by 1997 this had expanded to 540,000 ha. The yield of flesh from bivalves in 1978 was 200,000 mt or 44% of the mariculture yield, in 1997 this had risen to 300,000 mt. Scallops, sea cucumbers and mussels dominate production in China whilst the dominant species in ROK are oysters 20% of production and mussels 6% of production but a variety of other species including abalone, short-necked clam, hard clam, ark and pen shells and hen calms are cultivated in various areas of both countries.

Seaweeds are an important crop in the Yellow Sea but some of the species such as *Pelvetia siliquosa* (deer horn seaweed) which was historically exported in large quantities from ROK to China have declined in abundance and been replaced by other species. The most important cultivated seaweed in China is the brown alga *Laminaria japonica*, introduced from Japan. This is now grown over more than 3,000 hectares with a production of 10,000 dry tonnes per year. Half of this is consumed directly and half is used in the production of alginates.

The semi-enclosed nature of the Yellow Sea (YS) and the rapid economic development of the surrounding area have resulted in an increasingly polluted and over-exploited sea. This large marine ecosystem (LME) faces major transboundary problems, including: a dramatic increase in fisheries landings that has grown from 400,000 tonnes to 2.3 million tonnes in the past 20 years; continued increases in the discharge of pollutants; changes to ecosystem structure and function leading to an increase in jellyfish and harmful algal blooms; and a 40% loss of coastal wetlands from reclamation and conversion projects representing a major loss of habitat for many species resulting in a significant degradation of biological diversity. On top of these immediate threats lie the potential impacts of climate change and sea level rise, in particular, changes in basin circulation and the extent of the Yellow Sea “warm pool”.

Critical to the achievement of the long term development and environmental goals is the development of a strong capacity for ecosystem based management of the Yellow Sea and its associated resources and a substantial proportion of the project’s activities are directed towards achieving this capacity.

The YSLME SAP has clear defined the tangible management targets, e.g. reducing up to 30% fishing boats, reducing 10% nutrient discharge every 5 years, and sustainable mariculture. With successful implementation of the management actions to achieve these targets will definitely assist in recovery of fishery resources, sustainable provision of healthy food and living environment to the large population living in the coastal areas of the Yellow Sea.

With wide participation of all stakeholder, including school student to the parliamentary members as shown in the first phase of the project, the SAP implementation will certainly provide useful example to the coastal communities and wide audience that sustainable development is not only possible, but will provide more benefits. Through the participation the gender issue will be well covered. Involvement of women in the project design and implementation has been a good practice in the first phase of the project, including involvement of women parliamentary members, scientists, governmental officials, NGOs experts, etc. The good practice will be continued and enlarged in the implementation of YSLME SAP.

### ***B.3 Explain how cost-effectiveness is reflected in the project design:***

This is a GEF grant co-financed project for which UNDP is the Implementing Agency and UNOPS the Executing Agency. Financial management of the GEF grant is the responsibility of UNOPS that will disburse funds to the national partner agencies, monitor expenditures and maintain fiscal



oversight of all expenditures. Activities in ROK will be financed through the national budget and funds will be managed in accordance with the ROK financial rules and regulations.

It is difficult to see how this project could be made more cost-effective since the project management represents less than 10% of total project costs and substantial co- and parallel financial contribution, about US\$ 10.8 billion, from the countries augments this management overhead. Costs associated with the management and dispersal of country co-financing are assumed by the countries and institutions concerned.

Strategic sustainability has already been greatly enhanced with the approval of the Yellow Sea SAP, which effectively demonstrates that the countries are committed to long range environmental objectives and are willing to begin the process of SAP implementation. Linkages between the SAP and each country's NSAP will form a crucial element of the Project's sustainability strategy. Furthermore the implementation of the NSAPs can be seen as an indicator of real commitment by the participating countries.

A more lasting indicator of sustainability will be Yellow Sea countries commitment to financing a long-term YSLME Commission signs that this will be achieved can already be seen in the expressed willingness of China and ROK to provide bridging finance for the operation of the PMO following completion of the first phase project and commencement of the SAP Implementation Project.

***Institutional Sustainability:*** The preliminary investments in developing the SAP and TDA, were not designed as planning processes that would be sustained beyond the life of the project, nevertheless the Inter-Ministry Co-ordination Committee established under the first phase project in China and ROK will be maintained and strengthened during the second phase project in order that these might play a seminal role in the functioning of the YSLME Commission once established. The proposed regional and national bodies that will form part of the Interim Commission represent a continuation of bodies and functions tried and tested during the first phase of the project. It is anticipated that once the YSLME Commission is legally established these bodies will continue to exist.

***Financial Sustainability:*** The main indicator of financial sustainability will be the extent to which the countries themselves undertake the financing of the YSLME Commission as the body responsible for implementation of SAP activities. The present project seeks to engage the countries in a dialogue that will result in agreement on future financing of SAP implementation once the project is completed. Ample evidence exists to demonstrate the willingness of China and ROK to make substantial financial inputs to addressing the environmental problems of the Yellow Sea as evidence by the extent of co-financing approved by each of these countries to this project.

***Social Sustainability:*** Broader involvement of stakeholders in as many aspects of the Project as possible is an important factor of overall project success. The Project will especially promote broad stakeholder involvement in the preparation of legislative changes as this sector will have the most widespread and long lasting impact on residents of the Yellow Sea.

### **C. DESCRIBE THE BUDGETED M& E PLAN:**

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

**Project start:** A Project Inception Workshop will be held within the first 2 months of project starting with those with assigned roles in the project organisation structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan. An Inception Workshop report is a key reference document and must be

prepared and shared with participants to formalize various agreements and plans decided during the meeting.

The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and PMO staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

**Quarterly:**

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc... The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

**Annually:** Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objectives and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual)
- Lesson learned/good practice
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS Quarterly Project Report (QPR)
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

**Periodic Monitoring through site visits:** UNDP CO and the Project PMO will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A

Field Visit Report/BTOR will be prepared by the CO and the Project PMO and will be circulated no less than one month after the visit to the project team and Project Board members.

**Mid-term of project cycle:** The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Project Management Office and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

**End of Project:** An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Project Management Office and UNDP-GEF. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

**Learning and knowledge sharing:** Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

### ***M& E work plan and budget***

<b><i>Type of M&amp;E activity</i></b>	<b><i>Responsible Parties</i></b>	<b><i>Budget US\$ Excluding project team staff time</i></b>	<b><i>Time frame</i></b>
<i>Inception Workshop and Report</i>	<ul style="list-style-type: none"> <li>▪ <i>Project Manager</i></li> <li>▪ <i>UNDP CO, UNDP GEF</i></li> </ul>	<i>Indicative cost: 10,000</i>	<i>Within first two months of project start up</i>
<i>Measurement of Means of Verification of project results.</i>	<ul style="list-style-type: none"> <li>▪ <i>UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate</i></li> </ul>	<i>To be finalized in Inception Phase and Workshop.</i>	<i>Start, mid and end of project (during evaluation cycle) and</i>

<i>Type of M&amp;E activity</i>	<i>Responsible Parties</i>	<i>Budget US\$ Excluding project team staff time</i>	<i>Time frame</i>
	<i>responsibilities to relevant team members.</i>		<i>annually when required.</i>
<i>Measurement of Means of Verification for Project Progress on output and implementation</i>	<ul style="list-style-type: none"> <li>▪ <i>Oversight by Project Manager</i></li> <li>▪ <i>Project team</i></li> </ul>	<i>To be determined as part of the Annual Work Plan's preparation.</i>	<i>Annually prior to ARR/PIR and to the definition of annual work plans</i>
<i>ARR/PIR</i>	<ul style="list-style-type: none"> <li>▪ <i>Project manager and team</i></li> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>UNDP RTA</i></li> <li>▪ <i>UNDP EEG</i></li> </ul>	<i>None</i>	<i>Annually</i>
<i>Periodic status/ progress reports</i>	<ul style="list-style-type: none"> <li>▪ <i>Project manager and team</i></li> </ul>	<i>None</i>	<i>Quarterly</i>
<i>Mid-term Evaluation</i>	<ul style="list-style-type: none"> <li>▪ <i>Project manager and team</i></li> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>UNDP RCU</i></li> <li>▪ <i>External Consultants (i.e. evaluation team)</i></li> </ul>	<i>Indicative cost: 40,000</i>	<i>At the mid-point of project implementation.</i>
<i>Final Evaluation</i>	<ul style="list-style-type: none"> <li>▪ <i>Project manager and team,</i></li> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>UNDP RCU</i></li> <li>▪ <i>External Consultants (i.e. evaluation team)</i></li> </ul>	<i>Indicative cost : 40,000</i>	<i>At least three months before the end of project implementation</i>
<i>Project Terminal Report</i>	<ul style="list-style-type: none"> <li>▪ <i>Project manager and team</i></li> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>local consultant</i></li> </ul>	<i>0</i>	<i>At least three months before the end of the project</i>
<i>Audit</i>	<ul style="list-style-type: none"> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>Project manager and team</i></li> </ul>	<i>Indicative cost per year: 3,000</i>	<i>Yearly</i>
<i>Visits to field sites</i>	<ul style="list-style-type: none"> <li>▪ <i>UNDP CO</i></li> <li>▪ <i>UNDP RCU (as appropriate)</i></li> <li>▪ <i>Government representatives</i></li> </ul>	<i>For GEF supported projects, paid from IA fees and operational budget</i>	<i>Yearly</i>
<b><i>TOTAL indicative COST</i></b> <i>Excluding project team staff time and UNDP staff and travel expenses</i>		<i>US\$ 187,000 (+/- 5% of total budget)</i>	

**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 form. For SGP, use this OFFP endorsement letter)

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Jiandi YE	GEF Operational Focal Point for China	Ministry of Finance, China	19 November 2012

THE LETTER OF ENDORSEMENT IS ATTACHED

**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 CEO endorsement/approval of project.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
			Jose Erez Padilla	+662 304 9100 ext 2730	jose.padilla@undp.org

**ANNEX A: PROJECT RESULTS FRAMEWORK** (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

<p><b>This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:</b> China: Enhance the national capacity at all levels in managing, adapting, and mitigating climate change, and promote environmental sustainability and cleaner and renewable energy.</p>
<p><b>Country Programme Outcome Indicators:</b> Strengthened co-ordination mechanism set up among national and international partners for effective management of biodiversity for mainstreaming biodiversity into planning and investment processes; biodiversity conservation in protected areas; biodiversity conservation in production landscapes.</p>
<p><b>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one):</b> <b>1. Mainstreaming environment and energy OR</b>  <b>2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.</b></p>
<p><b>Applicable GEF Strategic Objective and Program:</b> International Waters Strategic Priority 1; and Strategic Priority 2</p>
<p><b>Applicable GEF Expected Outcomes:</b></p> <p><b>COMPONENT 1. Ensuring sustainable regional and national co-operation for ecosystem based management, based on strengthened institutional structures and improved knowledge for decision making</b>  <b>OUTCOMES:</b></p> <ol style="list-style-type: none"> <li>1.1 Regional Governance structure, the YSLME Commission established and functional based on: strengthened partnerships &amp; regional co-ordination; wider stakeholder participation and enhanced public awareness.</li> <li>1.2 Improved inter-sectoral co-ordination and collaboration at the national level, based on: more effective IMCCs;</li> <li>1.3 Wider participation in SAP implementation fostered through capacity building and public awareness based on: strengthened the Yellow Sea partnership and wider stakeholder participation; improved environmental awareness; enhanced capacity to implement ecosystem-based management.</li> <li>1.4 Improved compliance with regional and international treaties, agreements and guidelines</li> <li>1.5 Sustainable financing for regional collaboration on ecosystem-based management secured based on cost-efficient and ecologically-effective actions</li> </ol> <p><b>COMPONENT 2. Improving Ecosystem Carrying Capacity with respect to provisioning services</b>  <b>OUTCOMES:</b></p> <ol style="list-style-type: none"> <li>2.1 Recovery of depleted Fish stocks as shown by increasing mean trophic level</li> <li>2.2 Enhanced stocks through restocking and habitat improvement</li> <li>2.3 Enhanced and sustainable mariculture production by increasing productivity per unit area as a means to ease pressure on capture fisheries</li> </ol> <p><b>COMPONENT 3. Improving Ecosystem Carrying Capacity with respect to regulating and cultural services</b>  <b>OUTCOMES:</b></p> <ol style="list-style-type: none"> <li>3.1 Ecosystem health improved through reductions in pollutant discharge e.g. 10% reduction in N per 5 years from land-based sources</li> <li>3.2 Wider application of pollution-reduction techniques piloted at the demonstration sites</li> <li>3.3 Strengthened legal and regulatory process to control pollution</li> <li>3.4 Marine litter controlled at selected locations</li> </ol> <p><b>COMPONENT 4. Improved Ecosystem Carrying Capacity with respect to supporting services</b>  <b>OUTCOMES:</b></p>

- 4.1 Maintenance of current areas of habitats through relevant management actions (e.g. the Total Quantity Control of Reclamation) to strictly control land reclamation.(no new permissions granted for coastal zone reclamation)
- 4.2 Stronger regional MPA networks established and functioning
- 4.3 Adaptive management mainstreamed to meet the potential challenges of: climate change impacts on ecosystem processes and other threats identified in the TDA and SAP
- 4.4 Application of Ecosystem-based Community Management (EBCM) in preparing risk management plans to address climate variability and coastal disasters

DRAFT

<b>Applicable GEF Outcome Indicators:</b>						
<b>Components</b>	<b>Outcomes</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
1. Sustainable Regional and National Cooperation for Ecosystem-Based Management	1.1 Regional governance structure, the YSLME Commission established, operational and sustained	YSLME Commission and subsidiary bodies functioning at regional level; enhanced cross sectoral co-ordination at the national level	<i>Ad hoc</i> regional co-ordination and weak cross sectoral management at the national level	Functioning YSLME Commission;  Terms of Reference for the YSLME  Commission approved by all participating country Governments	Meeting reports; Government approvals issued by the competent national authorities	External risks stem from the geopolitical situation and may result in one or more countries either not participating or participating only partially
	1.2. Improved inter-sectoral coordination and collaboration at national level	IMCC's functioning and meeting regularly regarding the management of marine environment and resources	Sector management has been normal situation, while co-ordination was done case by case.	Regular meetings of IMCC and functioning co-ordination	meeting reports;  Joint management decisions	Reform on the governmental agencies; it would be relatively stable during the 2 <sup>nd</sup> phase.
	1.3 Wider participation in SAP implementation fostered through capacity building and public awareness	Number of the YS partnership; numbers of activities on capacity building and public awareness	Temperate arrangement for co-ordination and capacity building activities	Frequent coordinating activities and produce meaning benefits on capacity building and public awareness	Signed Partnership agreements;  Active stakeholder participation in regional and national implementation of the SAP and NSAPs	The partnership become YSLME's responsibility;  All partners should be encourage to take more responsibilities



<b>Applicable GEF Outcome Indicators:</b>						
<b>Components</b>	<b>Outcomes</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
	1.4 Improved compliance with regional and international treaties, agreements and guidelines	Numbers of treaties and agreement be recognized and implemented	regional and international treaties and agreements are recognized, but not fully compliant	Better compliance of the relevant regional and international treaties and agreement	Regional Guidelines for implementing the FAO Code of Conduct;  Domestic legislation amended to meet international standards	Government Ministries/departments unwilling to share development and management plans, unlikely given the history of collaboration established during the phase 1 project
	1.5 Sustainable financing for regional collaboration on ecosystem-based management secured based on cost-efficient & ecologically effective actions	Agreement on the financial arrangement for the YSLME Commission	Insufficient funding for regional actions and collaboration;	Sustainable financing (150% of present contributions);  Cost efficient and ecologically effective actions	Letters of commitment: Agreement of YSLME Commission	Internal & external financial situation do not allow sufficient investment into the marine environment
2. Improved Ecosystem Carrying Capacity with Respect to Provisioning Services	2.1 Recovery of depleted fish stocks as shown by increasing mean trophic level	Number of fishing boats removed from the fleet	Actions to reduce fishing boat numbers remain uncoordinated	Fishing boat numbers substantially reduced in line with the 2020 target of 30% reduction	Government reports of boats decommissioned	Government policy changes, making boat buyback a low priority. This is unlikely to happen
	2.2 Enhanced stocks through restocking and habitat improvement	Depleted Fish stocks gradually recovering; Stocks enhanced through restocking and habitat improvement	Some recovery depending upon national actions:  Effectiveness of restocking and habitat protection not evaluated	Measurable improvement in standing stock and catch per unit effort;  Future management decisions on restocking based on effectiveness	Published reports of evaluations by the RWG-F	Difficulties in negotiating the cruises, causes delay or cancellation low probability due to past success in their organisation

<b>Applicable GEF Outcome Indicators:</b>						
<b>Components</b>	<b>Outcomes</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
	2.3 Enhanced and sustainable mariculture production by increasing productivity per unit area as a means to ease pressure on capture fisheries	Enhanced mariculture production, sustainability and quality;  Reduction and control of pollutant discharge from mariculture operations	Quality and quantity/unit area decline;  Little reduction in impacts of mariculture,	Mariculture production per unit area increased, with less contamination of products;  Reduced nutrient and other discharges from mariculture installations	Reviews of production data published by the RWG-M; Reviews of discharge data published by the RWG-M	Mariculture enterprises unwilling to adopt IMTA in place of monoculture, this is considered of low probability
3. Improved Ecosystem Carrying Capacity with respect to Regulating and Cultural Services	3.1 Ecosystem health improved through reductions in pollutant (e.g., N) discharge from land-based sources	Reductions in pollutant discharges e.g. 10% reduction in N per 5 years	Discharge reductions do not meet the regional target	Reductions in key contaminants of 10%	Monitoring reports and data published on the project website	Possible risk of non-compliance by polluting enterprises, considered a moderate risk
	3.2 Wider application of pollution-reduction techniques piloted at the demonstration sites	New and innovative techniques for pollution reduction applied	Some innovation may be undertaken nationally but without regional co-ordination or dissemination of results	Demonstration of use of artificial wetlands in pollution control successful, and adopted by other coastal municipalities and local government units	Published reports on effectiveness of artificial wetlands in reducing nutrients	New techniques not widely adopted considered a moderate risk if publicising the outcomes of the demonstration sites is inadequate
	3.3. Strengthened legal and regulatory process to control pollution	Strengthened legal and regulatory process to control pollution	Little change likely from the present situation	Improved legislation governing sub-standard waters	Approved legislation:	Harmonization of legislation may take longer time than the project period

<b>Applicable GEF Outcome Indicators:</b>						
<b>Components</b>	<b>Outcomes</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
	3.4 Marine litter controlled at selected locations	Marine litter controlled at selected locations	Due to a lack of appreciation of the problem little action will occur	Regional Guidelines on control of marine litter based on those of NOWPAP produced and adopted for use in the Yellow Sea;  Quantities of marine litter at selected beach locations significantly reduced	Published guidelines; Data and information contained in RWG-P reports available via the project website	There would be unwillingness to publically identify the sources of marine litter
4. Improved Ecosystem Carrying Capacity with respect to Supporting Services	4.1 Maintenance of current areas of habitats through relevant management actions	maintenance of current areas of habitats;  monitoring and mitigation of reclamation impacts	Highly likely that coastal habitats will continue to be reclaimed unchecked	Where possible new reclamation projects stopped or impacts mitigated	Reports of the meetings of the RWG-H. Biennial state of the environment reviews	Provincial and Local Governments continue to encourage land reclamation. This is considered a moderately high risk.
	4.2 Stronger regional MPA network established and functioning	MPA networks strengthened & operational in the Yellow Sea with wider participation of MAPs	Unlikely to occur since this requires regional co-ordination	Existing MPAs networked and gaps identified leading to identification of priority sites for future MPA establishment	Published GAP analysis for MPA network; Numbers of stakeholder groups represented in meetings or engaged as sub-contractors/partners in execution of SAP related activities	Provincial and local governments may not agree to the establishment of new MPAs

<b>Applicable GEF Outcome Indicators:</b>						
<b>Components</b>	<b>Outcomes</b>	<b>Indicator</b>	<b>Baseline</b>	<b>Targets End of Project</b>	<b>Source of verification</b>	<b>Risks and Assumptions</b>
	4.3 Adaptive management mainstreamed to enhance the resilience of the YSLME and reduce the vulnerability of coastal communities to climate change impacts on ecosystem processes & other threats identified in the TDA and SAP	Appropriate considerations were given in the management plan to allow adaptive management of climate change	Inappropriate consideration were given to the impacts of climate change in the management plans	Better understanding of the impacts of climate change in marine environment; Adaptive measures for climate change;	Demonstration project reports on the impacts of climate change; Provision of management measures facing to the challenges	Lacking of scientific understanding of the impacts of climate change on marine ecosystem
	4.4. Application of Ecosystem-based Community Management (EBCM) in preparing risk management plans to address climate variability and coastal disasters	Regional Monitoring Network established, and operational.	National Monitoring will continue without regional harmonisation making regional analyses difficult or impossible	Comprehensive regional monitoring network established and data shared regionally via the project web site.  Regular basin wide assessments; enhanced information exchange; periodic scenarios of ecosystem change	Monitoring data reported to RWGs and lodged on project website,;  models developed and published; regional forecasts and scenarios of future conditions published.	Data & information on the relevant monitoring and research will not be fully opened & shared.

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**ANNEX B: RESPONSES TO PROJECT REVIEWS** (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

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**ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS<sup>5</sup>**

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

N/A. This project does not request the PPG.

PPG Grant Approved at PIF:			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount(\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
<b>Total</b>	0	0	0

<sup>5</sup> If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

**ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

N/A

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**中华人民共和国财政部**  
**Ministry of Finance, People's Republic of China**

November 19, 2012

To: Yannick Glemarec  
GEF Executive Coordinator  
United Nations Development Programme  
One United Nations Plaza  
New York, NY 10017 USA

**Subject: Endorsement Letter for Implementation of the Yellow Sea LME Strategic Action Program for Adaptive Management (part of the PROGRAM: Reducing Pollution and Rebuilding Degraded Marine Resources in the East Asian Seas through Implementation of Intergovernmental Agreements and Catalyzed Investments)**

In my capacity as GEF Operational Focal Point for China, I confirm that the above project proposal (a) is in accordance with the government's national priorities and the commitments made by China under the relevant global environmental conventions and (b) has been discussed with relevant stakeholders, including the global environmental convention focal points.

I am pleased to endorse the preparation of the project proposal with the support of the GEF Agency listed below. If approved, the proposal will be prepared and implemented by the State Oceanic Administration.

The total GEF financing being requested for this project is USD 8,243,049, inclusive of project preparation grant (PPG), if any, and agency fees for project cycle management services associated with the total GEF grant. The GEF financing requested for China is detailed in the table below.

Source of Funds	GEF Agency	Focal Area	Amount (in US dollar)			
			Project Preparation	Project	Fee	Total
GPFFR	UNDP	International Water	0	7,562,430	680,619	8,243,049
<b>Total GEF Resources</b>			<b>0</b>	<b>7,562,430</b>	<b>680,619</b>	<b>8,243,049</b>

Sincerely yours,



Jiandi Ye  
GEF Operational Focal Point for China  
International Department  
Ministry of Finance, P.R.C

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