



2018
Project Implementation Review (PIR)



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Yellow Sea LME phase II

Basic Data	2
Overall Ratings.....	4
Development Progress.....	5
Implementation Progress	33
Critical Risk Management	35
Adjustments	37
Ratings and Overall Assessments	38
Gender	44
Social and Environmental Standards	45
Communicating Impact	47
Partnerships	50
Annex - Ratings Definitions.....	51

A. Basic Data

Project Information	
UNDP PIMS ID	4552
GEF ID	4343
Title	Implementation of the Yellow Sea LME Strategic Action Programme for Adaptive Ecosystem-Based Management
Country(ies)	China, Rep Korea
UNDP-GEF Technical Team	Water and Oceans
Project Implementing Partner	UNOPS
Joint Agencies	<i>(not set or not applicable)</i>
Project Type	Full Size

Project Description
<p>Yellow Sea Large Marine Ecosystem is a water body bordered by China, RO Korea and DPR Korea, covering an area of 400,000 km². Rivers discharge about 1.6 billion tons of sediment and 1,500 billion tones of freshwater into the Yellow Sea. The low flushing rate between Yellow Sea and East China Sea of one every seven years, combined with weak water circulation, makes this sea vulnerable to pollution and its coastal areas highly susceptible to localized pollution discharges. Qingdao, Dalian, Shanghai, Seoul/Incheon (RO Korea) and Pyongyang/Nampo (DRP Korea) are the five cities with over tens of millions of inhabitants bordering the sea. This population relies on the Yellow Sea LME's ecosystem carrying capacity to provide capture fisheries resources in excess of two million tonnes per year, mariculture over 14 million tonnes per year, support for wildlife, provision of bathing beaches and tourism, and its capacity to absorb nutrients and other pollutants. Yet fishing efforts increased threefold between the 1960s and early 1980s, during which time the proportion of demersal species, such as small and large yellow croakers, hairtail, flatfish and cod, declined by more than 40 percent in terms of biomass. Other major transboundary problems include increasing discharge of pollutants; changes to ecosystem structure leading to an increase in jellyfish and harmful algal blooms; 40 percent loss of coastal wetlands from reclamation and conversions projects. Severe environmental degradation has cost the country approximately nine percent of its gross national income in 2009 . This situation has been further exacerbated by incomplete legislation and insufficient enforcement. The environmental foundation needed to sustain economic growth may be irreversibly altered, and the important human health implications of a deteriorating environment such as increased agriculture and food contamination and air and water pollution, have resulted in a series of efforts to improve the environment. In recent years, the Government aims to establish an 'ecological civilization' which indicates readiness for environmental transformation.</p> <p>The objective of the regional project is to achieve adaptive ecosystem-based management of the Yellow Sea Large Marine Ecosystem bordered by China, RO Korea and DPR Korea by fostering long-term sustainable institutional, policy and financial arrangements for effective ecosystem-based management of the Yellow Sea in accordance with the YSLME Strategic Action Programme (YSLME SAP) adopted by China and RO Korea in 2009. To achieve this objective, the project will support the formation of the YSLME Commission oversee the implementation of the YSLME SAP, innovate institutional arrangements, improve management capacity and quality of function. This includes, developing robust governmental coordination mechanisms, strengthening regulatory mechanisms while strengthening the incentive structure to promote environmental protection, developing mechanisms to link land and sea and resource use to carrying capacity, and systems for the participation of a range of stakeholders. The key benefits of the project include recovery of depleted fish stocks and improved mariculture production and quality; improved ecosystem health; maintenance of habitat areas;</p>

strengthened stakeholder participation in management and improved policy making; and skills and capacity significantly developed for region-wide ecosystem-based management. This project is in line with Outcome 2 of the Priority Area of Improved and Sustainable Environment of the UNDAF 2016-2020 in China: more people enjoy a cleaner, healthier environment as a result of improved environmental protection and sustainable green growth.

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Other Partners	<i>(not set or not applicable)</i>

B. Overall Ratings

Overall DO Rating	Unsatisfactory
Overall IP Rating	Unsatisfactory
Overall Risk Rating	High

C. Development Progress

Description					
Outcome 1					
Ensuring Sustainable Regional and National Cooperation for Ecosystem-Based Management					
Description of Indicator	Baseline Level	Midterm target level	End of project target level	Level at 30 June 2017	Cumulative progress since project start
Status of YSLME Commission and subsidiary bodies at regional level	Ad hoc regional co-ordination through the YSLME Regional Project Board and weak cross sector management at the national level	<i>(not set or not applicable)</i>	All the Terms of Reference for the YSLME Commission and Subsidiary Bodies) approved by all participating country Governments Functioning YSLME Commission	<p>1. The Project Manager, Environmental Economist, Environment Officer and Administrative/MIS/Finance Assistant were on board before March 24, 2017.</p> <p>2. Terms of reference of the Interim YSLME Commission Council and its Subsidiary Bodies, Rules of Procedures for the ICC, TORs of the six Regional Working Groups (RWGs) and Secretariat Staff were approved by the first meeting of the ICC held on July 13, 2017.</p> <p>3. RO Korea nominated National Project Coordinator (NPC), members of the Inter-Ministerial Coordinating Committee (IMCC), members to Regional Working Groups (RWGs) and National Working Groups (NWGs), while PR China nominated the NPC, members of IMCC and Chairs of NWGs. PR China will notify the Secretariat of full members to the RWGs and NWGs within two weeks after the project inception. The two countries agreed to seek further</p>	<p>On Track.</p> <p>The Project Manager, Environmental Economist, Environment Officer and Administrative/MIS/Finance Assistant were on board before March 24, 2017 to manage the project. TORs of the Interim YSLME Commission Council and its Subsidiary Bodies, Rules of Procedures for the Interim Commission Council (ICC), TORs of the six Regional Working Groups (RWGs) and Secretariat Staff were approved by the first meeting of the ICC held on July 13, 2017. Both PR China and RO Korea nominated National Project Coordinator (NPC), members of the Inter-Ministerial Coordinating Committee (IMCC), members to Regional</p>

			<p>internal consultation on the chairmanship of the six RWGs and notify the Secretariat of the result by end of July 2017.</p> <p>4.The project developed a roadmap for a sustainable regional environmental governance framework specifying the key elements of the YSLME Commission, gaps and barriers in terms of institution, policy and good governance for a sustainable Commission, and a plan of activities and timeframe for establishment of the Commission. The RWG on Governance will review and report to the next meeting of the MSTP to be held in the first quarter of 2018.</p>	<p>Working Groups (RWGs) and National Working Groups (NWGs). First meetings of the six RWGs were held: RWG-A (Incheon, ROK, November 21-22, 2017); RWG-F (Yantai, PRC, October 17-18, 2017); RWG-G (Seoul, ROK, Dec 14-15, 2017); RWG-H (Incheon, ROK, Sept 4-5, 2017); RWG-M (Weihai, PRC, Oct 26-27, 2017); RWG-P (Dalian, PRC, Oct 10-12, 2017). The roadmap for a sustainable regional environmental governance framework developed by the project is being implemented. ICC-2 held on March 28 approved the plan for establishing the Yellow Commission and the TORs of Task Force on Rules and Governance (TF-RoG) and TF on Financing Mechanism (TF-FM). The Ocean Governance Specialist is on board to assist the TF-RoG to develop the inception report specifying the process and legal documents necessary to institutionalize the YSLME Commission</p>
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<p>Status of Inter-Ministerial Coordinating Committee (IMCC)</p>	<p>Sector management has been the normal arrangements with limited inter-sector or inter-ministerial interactions; where coordination was done, it was on a case by case such as fishery management activities</p>	<p><i>(not set or not applicable)</i></p>	<p>Participation of Ministries in the IMCC will include but not limited to the following: Ministry of Foreign Affairs, Ministry of Finance, relevant department or ministry of ocean & fishery.</p> <p>Two meetings of IMCC every year and functioning coordination</p>	<p>1. In RO Korea, IMCC has been established with the following membership: Ministry of Foreign Affairs as GEF National Focal Agency; Ministry of Oceans and Fisheries as GEF National Implementing Agency; Other relevant Ministries including Ministry of Environment, Ministry of Unification etc., and NWG Chairpersons and representatives from private sectors and NGOs which will be decided as the Project goes on.</p> <p>2. In PR China, IMCC includes the following members: Ministry of Finance (MOF); State Oceanic Administration (SOA); Ministry of Agriculture (MOA); Ministry of Foreign Affairs; and provincial governments of Liaoning, Shandong and Jiangsu.</p> <p>3. Both PR China and the RO Korea held the first meetings of the IMCC right before the MSTP-1 and ICC-1.</p>	<p>On track.</p> <p>In RO Korea, IMCC has been established with the following membership: Ministry of Foreign Affairs as GEF National Focal Agency and Ministry of Oceans and Fisheries as GEF National Implementing Agency. Other relevant Ministries including Ministry of Environment, Ministry of Unification etc. will be engaged the project deems necessary.</p> <p>In PR China, IMCC includes the following members: Ministry of Finance (MOF); State Oceanic Administration (SOA); Ministry of Agriculture and Rural Affairs (MOARA); Ministry of Foreign Affairs; and provincial governments of Liaoning, Shandong and Jiangsu.</p> <p>Representatives from MOFA and MOF of ROK, and SOA and MOARA participated in the first and second meetings of the ICC. Both PR China and the RO Korea held the first</p>
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					and second meetings of the IMCC right before the MSTPs and ICCs.
Number of the YS Partnerships; Number of activities on capacity building and public awareness; Number of participants in capacity building activities	20 members of the Yellow Sea Partnership	<i>(not set or not applicable)</i>	Number of partnerships: 40 Number of capacity building activities: 25 Number of public awareness initiatives: 15 Number of participants in capacity building activities: about 200	1.By end of March 31, a total of 66 international organizations and entities from China and RO Korea are identified as existing and new partners, including 4 ministries and 6 provincial government partners, 1 local government, 5 regional partners, 8 universities, 15 academic institutions, and 27 NGOs. The list of partners can be found at project brochure and inception report. 2.On March 1, 2017, UNOPS signed an MOU with National Marine Environmental Monitoring Center of State Oceanic Administration (NMEMC/SOA) whereby the Secretariat Dalian Branch acquired a two-room office with a total of 33 square meters as branch office up to November 22, 2019 for Environment Officer. 3.On July 14, 2017, YSLME Phase II Project organized a MPA Seminar in Ganghwa Tidal Flat Center with NEAMPAN of UNESCAP and KOEM of ROK to raise awareness of the global, regional and local importance of the tidal flat of Ganghwa. FIO/SOA, CI, KEI, EAAFP and other partners shared experience in designation and management of MPAs in Japan, PR	On track. By end of March 31, a total of 66 international organizations and entities from PR China and RO Korea are identified as existing and new partners, including 4 ministries and 6 provincial government partners, 1 local government, 5 regional partners, 8 universities, 15 academic institutions, and 27 NGOs. Collaborative activities have been conducted with IW:Learn, NOWPAP, PEMSEA, SEAFDEC, EAAFP, IUCN, Hanns Seidel Foundation, FIO/PRC, NMEMC/PRC, YSFRI/PRC, Liaoning Ocean and Fisheries Institute/PRC, IOCAS/PRC, BlueRibbon/PRC, NIFS/ROK, KOEM/ROK, NEAMPAN/UNESCAP, Ganghwa Tidal Flat Center/ROK, EcoHorizon/ROK, WWF Korea, and local governments such as

				<p>China and RO Korea. The event was participated by Ganghwa County Governor and more than 80 persons from China, Japan and RO Korea.</p> <p>4.A project cooperation agreement with SOA was approved by the ICC-1 authorizing SOA to implement regional and demonstration activities in the amount of US\$1,331,200. The PCA will be signed in the third quarter.</p> <p>5.Guidelines for Strengthening Yellow Sea Partnership have been approved by the ICC-1.</p>	<p>Liaoning/PRC, Shandong/PRC, Jiangsu/PRC, Weihai/PRC, Incheon/ROK, etc.</p> <p>In partnership with KOEM and IOCAS, the project organized the China-Korea Workshop on Harmful Marine Organisms in Yellow Sea which reviewed the latest scientific knowledge and management practices of HAB, Jellyfish, cordgrass, and mixed ecological and economic roles of Sargassium to fishery and tourism.</p> <p>The project conducted a number of joint events with partners. For example, on July 14, 2017, the Project organized a MPA Seminar in Ganghwa Tidal Flat Center with NEAMPAN of UNESCAP and KOEM of ROK to raise awareness of the global, regional and local importance of the tidal flat of Ganghwa.</p> <p>UNOPS signed a MOU with SOA authorizing UNOPS to enter into PCAs with NMEMC, FIO and YSFRI, which were signed in March and April, 2018.</p>
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					Guidelines for Strengthening Yellow Sea Partnership have been approved by the ICC-1, and is now being implemented.
Status of recognition and compliance to regional and international treaties and agreements	Regional and international treaties and agreements are recognized by China, but not fully compliant.	<i>(not set or not applicable)</i>	Better compliance of the relevant regional and international treaties and agreement e.g. UNCLOS, The 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, CBD, Ramsar, The FAO Code of Conduct for Responsible Fisheries, and the bilateral agreements between China & ROK on environment protection and fisheries	1.An intern in the area of environment law is being recruited to establish a clearing house of environment laws related with YSLME and help review the implementation status of the laws. It is expected that the internship will last for 6 months and be on board in September, 2017.	Off track. The Assessment Report on China's Legal Framework in Compliance with the International and Regional Legal Instruments for the Implementation of SAP was completed by the Legal Expert. Legal reforms in the areas of marine litter, wetland, environmental risk assessment, fisheries and climate change adaptation are needed in accordance to the assessment. A regional seas governance workshop is scheduled in November 17-18 to set a dialogue with government partners on follow-ups with the findings of the study. .
Agreement on the financial arrangement for the YSLME Commission	YSLME Commission does not exist at start of project	<i>(not set or not applicable)</i>	Financing agreement between and among countries agreed to fully	1.The roadmap for a sustainable regional environmental governance framework has also specified the roadmap for achieving financial sustainability of the office. The proposed activities will be reviewed	On track. Initial discussion was held on financial arrangement of the regional marine environmental cooperation

			support YSLME for at least 5 years.	by the RWG-G and report to MSTP for review and guidance in the first quarter of 2018.	mechanism in the first meeting of the RWG-G. The meeting decided to continue to seek external grant such as GEF and GCF to support the operation of the YSLME Commission if established within the project timeframe. The Financing Specialist to develop the YSLME Trust Fund and financial rules is in the process of hiring to enable the Commission to accept resources from different donors as alternative financing to implementation of the YSLME SAP.
The progress of the objective can be described as:		On track			
Outcome 2					
Improving Ecosystem Carrying Capacity with Respect to Provisioning Services					
Description of Indicator	Baseline Level	Midterm target level	End of project target level	Level at 30 June 2017	Cumulative progress since project start
Number of fishing boats decommissioned from the fleet in YSLME waters	About 1.2 million fishing boats	<i>(not set or not applicable)</i>	Fishing boat numbers substantially reduced by 10%, in line with the 2020 target of 30% reduction	1.China has set the national targets to reduce 20,000 fishing vessels with a total capacity of 1.5 million kW and reduce fish landings by 15 percent during 13th FYP (2016-2020). Baseline fishing vessel number is yet to be determined. Field mission of CTA/Manager and Environment	On track. China has set the national targets to reduce 20,000 fishing vessels with a total capacity of 1.5 million kW and reduce fish landings by 15 percent during 13th FYP (2016-2020). Based

				<p>Officer in early April in 2017 found that with the gradual reduction of fuel subsidy to fishing vessels and implementation of buyback schemes, there are interests among fishermen to register for participation in the fishing vessels buyback program. In Weihai alone, over 1,000 boats will be bought back by local government in 2017, yet nearly 4,000 applicants have already registered for participation in the program.</p>	<p>on information provided by PR China in the review of SAP implementation (June 2018), the number of fishing vessels will be reduced from the baseline of 21,713 (Liaoning: 7,084; Shandong: 10,355; and Jinagsu: 4,274) in 2015 to 18,797 (Liaoning: 6,177; Shandong: 8,976; and Jiangsu: 3,644) by 2020. Achieving this target represents a reduction of fishing vessels by 13.4% of the baseline year of 2015.</p>
<p>Status of major commercially important fish stock from restocking and habitat improvement</p>	<p>Effectiveness of restocking and habitat protection not evaluated</p>	<p><i>(not set or not applicable)</i></p>	<p>Measurable improvement (5%) in standing stock and catch per unit effort;</p> <p>Future management decisions on restocking based on effectiveness</p>	<p>Not started</p>	<p>On track.</p> <p>Both PR China and RO Korea have introduced total allowable catch (TAC) system in fishery management. Currently RO Korea applies TAC system to 11 species with 70 TAC observers. PR China introduce the system in 2017 starting with two species. Swimming Crab (<i>Portunus trituberculatus</i>) is under TAC in both countries, providing an ideal example to conduct joint stock assessment to improve management effectiveness.</p>

					<p>Artificial Reef, Fry Release, Marine Ranching, Marine Forests plantations are the key promoting measures in the PR China and RO Korea to enhance fish stock and support fishermen's revenue.</p> <p>In Shandong Province, the restocking of fish through artificial reef has been monitored and evaluated in coastal areas of Haiyang City, with an investment of CNY 37 million from 2013 to 2017 in a sea area of 57 ha. Stones, tubular concrete reef, rectangular concrete reef, steel frame reef, square concrete reef, waste fishing vessels were deployed following technical advice from the project-recruited consultants. Seabed algae field in the artificial reef areas has been formed, and algae and shellfish start to stick to the reefs after one year of deployment, dominated by <i>Ulva pertusa</i>, Sea mustard, <i>Ostrea plicatula</i>, reaching 50% coverage of reef area. Fish, shrimps and crabs are also increasing significantly. Based on the</p>
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					<p>assessment in October of 2012, the abundance of 23 economic species in the reef area have increased 2.29 times. The number of fish caught per net is 90, 3.5 times increase. Catch per unit time is 7,154 g per net, an increase of 2.82 times than in 2012. In 2017, Shandong Fushan Marine Science and Technology Co. Ltd won the bidding to build and deploy 1,800 square steel-integrated monolithic reefs (3m X 3m X3m) and establish marine ranching observation system in a sea area of 7.8 ha in Haiyang Fuhun National Marine Ranching Demonstration Area in the external waters of Pipakou located in the east of Haiyang City, Shandong Province. With a total funding of CNY26 million, the project was approved in 2017 and is now being implemented in 2018 for completion in 12 months. The YSLME Project will continue to use the monitoring indicator system of marine ranching construction of Shandong Province to assess r the</p>
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					results of fish stock enhancement of the artificial reefs before and after construction. Monitoring of enhancement results will continue and be reported to ICC in December 2018.
Type of mariculture production technology Level of pollutant discharge from mariculture operations	Declining quality of mariculture products Declining quantity of production per unit area from mariculture Environmental impacts of mariculture not evaluated	<i>(not set or not applicable)</i>	Reduction of contaminants caused by mariculture production (5% reduction in the demo sites) Measurable increase (5% increase in the demo sites) in mariculture production per unit area Discharge of nutrient and other discharges from mariculture installations reduce 5%	1.A 120-square meter meeting room for use in training on integrated multi-tropic aquaculture has been constructed by Dongchu Fishery Cooperation, a community-based enterprise specializing in aquaculture of kelp, abalone, scallop, sea urchin and sea cucumber with technical assistance from Yellow Sea Fisheries Research Institute and a demonstration site in the first phase of the project. The training course for Chinese participants will be organized in October this year to replicate the IMTA to three more sites in Liaoning and Shandong. 2.The Secretariat is currently recruiting an Mariculture Specialist to prepare a training module on IMTA for use in the training course scheduled in October this year. 3.Three demonstration sites in Liaoning and Shandong have been selected for entering into agreements with the project.	On track. Baseline indicators of temperature, salinity, DIN, phosphorus, pCO ₂ , DIC, Chl-a (total), Chl-a (size classes of phytoplankton), sediment, production situation, general chemistry and carbon are continuously being monitored in a land-based aquaculture area in Haiyang, one oyster monoculture farm in Sungo Bay and one kelp monoculture area and one shellfish-seaweed IMTA area in Sungo Bay, Rongcheng. In earlier monitoring it was found that 1) water quality and sediment of monoculture areas were high; 2) oyster monoculture was a source of CO ₂ ;3) monoculture of shellfish has reduced the primary production of the sea; and 4) kelp monoculture has resulted

					<p>in higher Chl-a concentration along the coast and reduction of nutrient. Restocking of farmed species will continuously be monitored in three sites in 2017 and results of nutrient reduction will be reported in the 4th quarter of 2018.</p> <p>In RO Korea, IMTA was demonstrated from 2011 onwards in coastal areas beyond YSLME by NIFS of RO Korea on IMTA of sea tangle, Gulfweed, Korean rockfish, Pacific Oyster and sea cucumber indicating that sea cucumber grew 2.7 times faster; survival rate of Korean rockfish increased by 33.4% (from 56.8% to 90.5%); no fish disease occurred in IMTA (40% of Rockfish farmed in monoculture infected with disease). In the IMTA in Namhae of Korean rockfish, sea cucumber, Pacific Oyster, Undaria and <i>Saccharina japonoca</i>, studies found no significant difference in growth of body length and weight of Korean rockfish; no disease found in rockfish (36.7% under monoculture); Pacific Oyster grow faster by >20% in shell</p>
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					height and whole and meat weight, and 22.5% higher fatness; and sea cucumber grew >40% faster.
The progress of the objective can be described as:		On track			
Outcome 3					
Improving Ecosystem Carrying Capacity with respect to Regulating and Cultural Services					
Description of Indicator	Baseline Level	Midterm target level	End of project target level	Level at 30 June 2017	Cumulative progress since project start
Level of pollutant discharges particularly Nitrogen in YSLME tributaries	Discharge reductions do not meet the regional target	<i>(not set or not applicable)</i>	10% reductions in N discharges every 5 years	In 2016 China has initiated Blue Bay Action Plan incentivizing local governments to adopt integrated approaches to address coastal and marine challenges through innovative investment modalities to leverage knowledge and know and financing from private sector through public private partnership in sewage treatment, beach management, sea water desalination, etc. In YSLME, Rizhao, Dalian, Qingdao, Weihai, Yantai are selected as demonstration sites in the action plan. Each site will be supported with a total of 44 million US dollars to mitigate land-based pollutants entering the marine environment.	<p>Off track.</p> <p>The related actions implemented in PR China include 1) conduct intensive monitoring and assessment; 2) control contaminants discharge; 3) Implement MARPOL 1973/78.</p> <p>During the project implementation period, the following actions at national level have been adopted and implemented in PR China that will lead to reduction of N during the 13th FYP period (2016-2020)</p> <ul style="list-style-type: none"> In 2015, China issued "Water Pollution Control Action Plan", which

					<p>has strengthened pollution control in industrial agglomeration areas. The Plan requires that by the end of 2017, the industrial agglomeration area should be built into a centralized sewage treatment facility, and an automatic online monitoring device was installed, and that the urban sewage treatment facilities in the sensitive areas would meet the grade I-level A emission standards. Results of implementation of the Plan were not reported. Considering the action plan proposed that by 2020, the national water environmental quality must make staged-based improvements and the urgency, complexity, toughness, and long-term nature of water pollution control efforts requires full implementation of the Plan, the CPC Central Committee and the State Council have emphasized great importance to the prevention and control of water pollution and published a new notification on the battle of pollution prevention and</p>
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					<p>control in June of 2018. The new notification and opinion from The CPC central committee highlights the Action Plan for Prevention and Control of Water Pollution must be fully implemented and the targets raised in the “Water Pollution Control Action Plan” need to be fulfilled based on time schedule. The responsibilities of local governments for protection of water environment was also highlighted in the notification from The CPC Central Committee. Progress report on implementation of “Water Pollution Control Action Plan” has not yet been published by the ministry of Ecology and Environment.</p> <ul style="list-style-type: none"> • On July 11, 2016, State Council of China issued the Action Plan for Soil Pollution Prevention and Control. It clearly points out that a coordination mechanism among government, community, enterprises, and residents will be establishes. • On November, 2016, the General Office of
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					<p>the CPC Central Committee and the General Office of the State Council issued the Opinions on Full Implementation of River Chief System; it has been made clear that the major leaders of Party and government organizations need to shoulder the posts as river chiefs.</p> <ul style="list-style-type: none"> • The Ministry of Transport issued the Special Action Plan for Ship and Port Pollution Prevention and Control (2015-2020) in 2015 to explore and establish a new mechanism for the reception and disposal of ship pollutants, and promote the construction of receiving facilities for pollutants and improve receiving and disposing capabilities to meet the demand for receiving and disposing pollutants from ships • As imported solid waste, China banned imports of 24 types of solid waste since 2017 in a fresh move to reduce environmental pollution, which covers waste
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					<p>plastics, unsorted scrap paper, discarded textiles, and other kinds of waste.</p> <ul style="list-style-type: none"> On March 26, 2018, the Ministry of Ecology and Environment reviewed and adopted in principle the “Action Plan for the Implementation of the Proposal for the Reform of the Import Management System for the Prohibition of the Importation of Solid Waste into the Prohibition of Foreign Garbage for the 2018-2020”. <p>For 10% reductions in N discharge, NMEMEC will support a watershed model for the nutrients loading estimation in Haizhou Bay including N discharges from river basins and identify N sources. Achieving the target of the project relies very much on the local N discharge reduction program, including improvement of fertilizer use efficiency and building of more sewage reduction plants with use of co-financing from governments. The project currently is only supporting the demonstration of</p>
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					marine litter reduction in Weihai and restoration of wetland in Rudong as nutrient sinks for replication of experiences elsewhere through workshops and seminars.
Types of technologies applied for pollution reduction	Some innovations such as man-made wetlands are being undertaken nationally but without regional coordination or dissemination of results	<i>(not set or not applicable)</i>	Successful demonstration of use of artificial wetlands in pollution control in 1 site and replicated in about 2 coastal municipalities and local government units	Field visit conducted by PMO identified Rushan Bay and estuarine area as a demonstration site. TOR is being prepared to engage service provider to conduct the baseline assessment of river channels and inventory of benthic biodiversity in bay area, and identification of suitable wetland restoration technologies to improve water quality in the river and bay area.	On track. The project has selected Xiaoyangkou of Rudong as a demonstration site to conduct Common Cordgrass (<i>Spartina anglica</i>) eradication and tidal wetland restoration, with the targets of eradicating 200 ha of cordgrass and rehabilitation of 20 ha of natural wetland to enhance the suitability of habitat for waterbirds, ecosystem services and economic benefits. Feasibility study was completed in June, 2018 and implementation is on-going, to be completed in October, 2019.
Status of legal and regulatory process to control pollution	Weak legal and regulatory framework to control pollution in provinces bordering in the YSLME	<i>(not set or not applicable)</i>	Develop evaluation tools, in the first year, to assist in harmonizing national and provincial	not started.	Off track. A legal expert is on board to review the compliance of PR China and RO Korea with international legal requirements for pollution

			legislation to improve coastal water quality in Shandong, Jiangsu and Liaoning provinces		reduction, and the report has not yet been submitted. Initial findings indicate the absence of national legislation on marine litter and microplastics, etc. Capacity of national and provincial officials in implementation of global and national pollution-related legislation appears weak
Status of the control of marine litter at selected locations	Due to a lack of appreciation of the problem little action is currently being undertaken	<i>(not set or not applicable)</i>	Regional Guidelines on control of marine litter based on those initiated by NOWPAP produced and adopted for use in the Yellow Sea; Established regional data base in the first year, and significant reduction in the quantities of marine litter at selected beach locations	NOWPAP was engaged in the preparatory meeting for inception in January 23-24, 2017, and the inception workshop on July 11-13 the same year. While Guidelines on marine litter control is in place in UNEP, assessment of its applicability in China needs to be conducted by SOA who currently is developing marine litter and microplastics monitoring protocols based on the guidelines developed by NOAA. The project will explore participation by a SOA expert in NOWPAP CEARAC focal point meeting in Toyama, Japan, in September 2017 to assess the feasibility of using UNEP Guidelines for monitoring of marine litter and microplastics in YSLME.	On track. In the 1st RWG meeting on Pollution Reduction, it was agreed that the project would use the NOWPAP marine litter monitoring guidelines to conduct the baseline survey. In China, Weihai was selected as the demonstration site for reducing marine litter. A subcontract is being implemented to monitor the status of marine litter in two sites in Weihai, assess the legal and regulatory framework gaps, and propose incentive policies in recycling economies. A consultation meeting in Jinan was held to determine the scope of demonstration with initial interest from local government to support the

					<p>collection of abandoned fish cages in aquaculture, collection of garbage from fishing boats before closure season, and support to establish a coastal city partnership to integrate marine litter into overarching environmental agenda of local governments. TOR of demonstration project is under preparation.</p> <p>In RO Korea, an intensive survey was carried out in Jeolla Namdo province to make an inventory of litter in land, river, coast and estuary by OSEAN (Our Sea of East Asia Network) to estimate marine litters in this province in November 2017. Beach litter survey methodology of the CSIRO (Commonwealth Science and Industrial Research Organization) was used for this survey. KIOST and OSEAN have carried out the abundance and accumulation patterns of plastic marine debris on 6 beaches in the Korean YS since 2016.</p>
<p>The progress of the objective can be described as:</p>		<p>On track</p>			

Outcome 4					
Improving Ecosystem Carrying Capacity with respect to Supporting Services					
Description of Indicator	Baseline Level	Midterm target level	End of project target level	Level at 30 June 2017	Cumulative progress since project start
<p>Areas of critical habitats;</p> <p>Status of mitigation of reclamation impacts</p>	Coastal habitats critical to maintaining ecosystem services continue to be converted or reclaimed unchecked	<i>(not set or not applicable)</i>	<p>Areas of critical habitats maintained at current level. Increase 3% total areas as MPAs</p> <p>Impacts of reclamation prepared in 2 demo sites</p>	Not started	<p>On track.</p> <p>Until now, approximately 880,000 ha of YS mudflat areas have been reclaimed. This comprises 37% of the inter-tidal areas of the Chinese portion of the YS, which have been reclaimed since 1950, and 43% of the mudflats on the ROK coast, which has been reclaimed since 1917. Currently, a review process on the past and future reclamation projects up to 2016 and implication to the critical coastal habitats is ongoing. In 2018, critical habitats are expected to be identified and meeting with criteria for Ramsar wetlands and standards of important bird habitat areas to be provided by Birdlife International. Reclamation areas in the YS after 2009 will be mapped using satellite imageries of Landsat. GIS maps of critical habitats in YS</p>

					<p>coastal wetlands will be also developed, including information on important bird habitats, bird records across China. To date, reclamation map of 2008-2009 and 2016 were developed. The habitat areas loss will be also quantified by map overlaying. In 2018, Ministry of Natural Resource requested suspension of all reclamation projects in coastal areas of China, and this new order will place much hope to protect remaining but critically important intertidal of YS. In RO Korea, a 7 million US dollar project was completed in Ganghwa to restore the ecosystem connectivity of intertidal mudflats through replacing a causeway connecting two islands with a newly built bridge. In addition, a new monitoring project, "Fisheries Resources Changes based on Yellow Sea Ecosystem" will be implemented from 2018. The budget is in total 17.2 billion KRW for 5 years. The project is an expansion of the</p>
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					comprehensive ecosystem monitoring in coastal area to open sea. With project direct support, a proposal to set up a national MPA in 42.88 km ² in Xiaoyangkou of Rudong has been proposed and reviewed by SOA. Approval of the proposal was delayed because of the restructuring of SOA. Study on impact of reclamation in two sites is ongoing.
level of ecological connectivity in expansion of the Yellow Sea MPA system.	the planned expansion of the MPA system currently does not take into account ecological connectivity	<i>(not set or not applicable)</i>	the planned expansion of the MPA system currently does take into account ecological connectivity (measured by use of developed connectivity tool kit or other means)	In the project preparatory meeting for project inception held on January 23-24, experts from the two countries agreed focus conservation efforts of biodiversity on mammals, migratory waterbirds, Yellow Sea Cold Water Mass and fish spawning and nursery sites. The countries also agreed to adopt YSLME Biodiversity Conservation Plan, YSLME Marine Protected Area (MPA) Network and conduct of annual MPA Forum. Xiaoyangkou of Rudong Mudflat was identified as a site to be established into an MPA, a staging site along the eastern line of EAAF, habitat for 40% of the migratory populations of Spoon-billed Sandpiper (<i>Calidris pygmaea</i>), a critically endangered species in accordance with IUCN. With support from the Project, Prof.	On track. The 1st Institute of Oceanography of State Oceanic Administration of PR China completed a study to support the government of Rudong in Jiangsu Province of PR China to establish Xiaoyangkou wetland as a National Marine Protected Area for consideration by the State Oceanic Administration of PR China. This site is selected as the critical stopover habitat for critically endangered spoon-billed sandpiper along the East Asia and Austrasian flyway with highest irreplaceability index. A proposal to set a total of 42.88 km ² as MPA

				<p>Zhang Zhaohui of the First Institute of Oceanography of SOA is currently preparing a technical proposal to register the Xiaoyangkou mudflat as a national MPA at the request of local government.</p> <p>A similar initiative to expand MPA coverage of marine and coastal areas is under consideration in Ganghwa Island of RO Korea, one of tidal flats of the Han River estuary in Yellow Sea, the larger of the only two known breeding sites globally for the critically endangered Black-faced Spoonbill (<i>Platalea minor</i>).</p> <p>A 7 million US dollar project is now being implemented in Ganghwa to restore the ecosystem connectivity of intertidal mudflats by replacing a causeway linking Donggum-Do and Ganghwa-Do with a bridge in RO Korea. Pre-project assessment of ecological effects have been conducted and post-project assessment is also integrated into the project.</p>	<p>was reviewed and discussed by SOA and results of the review will be announced shortly. A MPA connectivity training is scheduled in July in RO Korea to further expand the coverage of coastal areas as MPA in an effectively managed network</p>
<p>Status of incorporation of adaptive management of climate change regional strategies and in ICM plans for selected coastal communities</p>	<p>Inadequate considerations are being given to the impacts of climate change</p>	<p><i>(not set or not applicable)</i></p>	<p>CC adaptation strategies incorporated in regional strategies such as YSCWM and plankton communities</p>	<p>Not started</p>	<p>Not yet started.</p> <p>The 1st Institute of Oceanography and State Oceanic Administration of PR China proposed to develop climate change adaptation ICM model framework plan. The impact of climate change in</p>

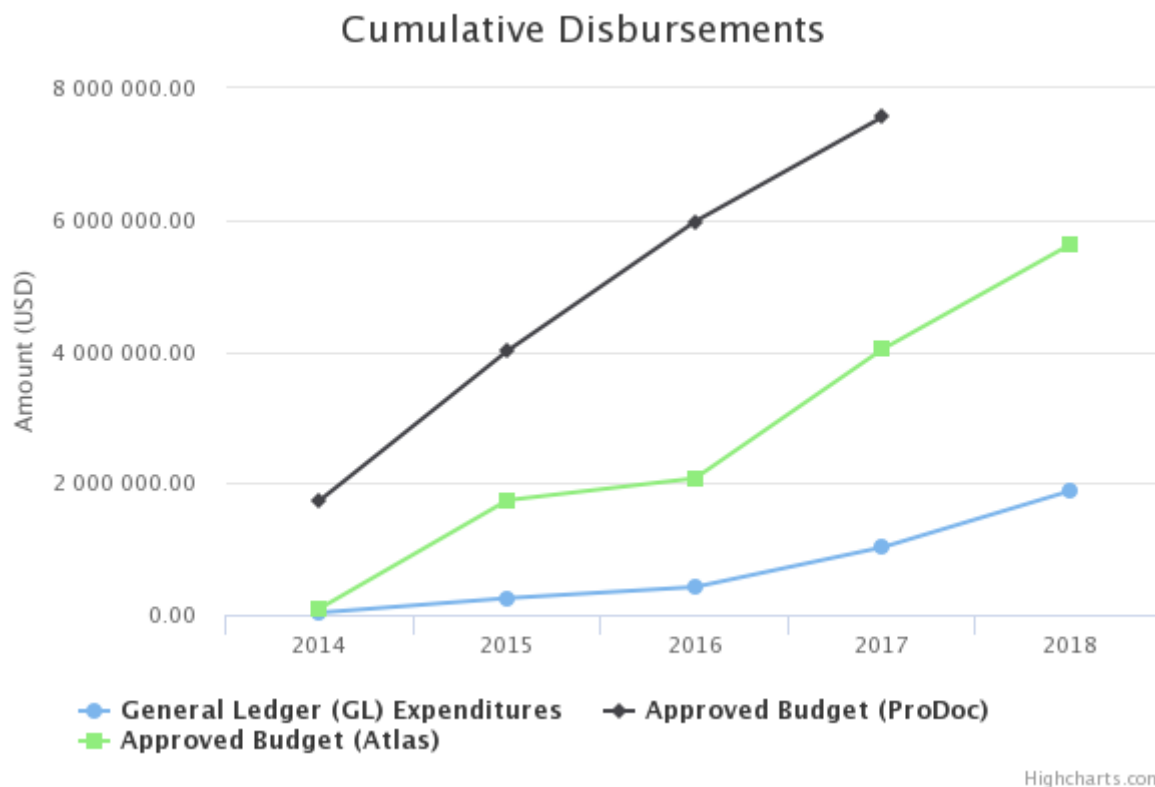
			<p>ICM plans in (specify number) coastal communities incorporate CC adaptation to improve climate resilience</p>		<p>YS is mainly reflected in the rising sea level, higher frequency and severity of various marine disasters, such as storm surge and sea ice. The objective of this study is to develop adaptation strategy of climate change of Dandong via vulnerability assessment of coastal communities and impact assessment of sea level rising. Dandong city locates the north coast of YS, facing DPR Korea across the Yalu river which is also critical spot for migratory birds. Through this study, it is expected to have results on 1) vulnerability assessment of sea level rising for coastal communities; 2) impact assessment of sea ice distribution on coastal zone development and marine species; 3) impact assessment of sea level rising for the mudflat habitat and wading birds and 4) adaptation strategy for climate change of Dandong city. This project is expected to be completed in December, 2019.</p>
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<p>Status of Regional Monitoring Network for application of ECBM</p>	<p>National Monitoring will continue without regional linkages and harmonisation making regional analyses difficult or impossible</p>	<p><i>(not set or not applicable)</i></p>	<p>Agreed number of cruises & parameters for the regional monitoring network established and data shared regionally via the project web site.</p> <p>Regular LME-wide assessments; enhanced information exchange; periodic scenarios of ecosystem change</p>	<p>not started.</p>	<p>On track.</p> <p>The National Marine Environmental Monitoring Center (NMEMC) of PR China prepared and submitted the draft monitoring programs of jellyfish, HAB and drifting macroalgal blooms and N/P/Si which were reviewed and recommended for adoption by RWG-A meeting held on June 29, 2018. In the plan, surveys are suggested to conduct 3 times at sampling locations, Donggang and Haizhouwan. Detailed methodologies on sampling and analysis are described for clarification at the meeting. Additional discussion on sampling station, monitoring frequency and key elements of HAB, monitoring is expected to be discussed between both countries. As for Jellyfish monitoring study, detailed methodologies with sampling and stations are described. As for monitoring, it was suggested to set 3 sections with 5 sections for each</p>
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					<p>section. It was recommended to have monitoring from July to August every year. To improve effectiveness of monitoring, assessment and data sharing on jellyfish and HAB, both countries recommended to establish scientific committee as an advisory group, expecting contribution not only on better coordination of national efforts especially on data sharing but also enhancing effectiveness of regional efforts by maintaining and operating monitoring program in a systematic way. The scientific committee is expected to be considered of 6 members, 3 from each country. In addition, the 1st Institute of Oceanography and State Oceanic Administration of PR China proposed to conduct series of scientific research on the ecological mechanism for the blooms of floating <i>Sargassum horneri</i> in western YS, which was identified to increasingly occur and impact the coastal ecosystems in recent years. Floating S.</p>
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					<p><i>horneri</i> has been increasingly observed in the western YS and caused detrimental impacts on the coastal aquaculture in recent years. It remained unclear about the dynamic biological and physical process for the bloom of these invasive brown seaweeds. This activity is to clarify seasonality, distribution and environmental drivers for the recent blooming and to provide the fundamental and consultative information for managing and controlling the floating biomass and reducing impairment to coastal ecosystem. Until the October 2019, findings on seasonality and inter-annual variability of the floating <i>Sargassum horneri</i> in western YS and environmental drivers for the increasing blooms in recent years will be available.</p>
<p>The progress of the objective can be described as:</p>	<p>On track</p>				

D. Implementation Progress



Cumulative GL delivery against total approved amount (in prodoc):	24.88%
Cumulative GL delivery against expected delivery as of this year:	56%
Cumulative disbursement as of 30 June (note: amount to be updated in late August):	1,881,623.44

Key Financing Amounts	
PPG Amount	<i>(not set or not applicable)</i>
GEF Grant Amount	7562430
Co-financing	225,481,766

Key Project Dates	
PIF Approval Date	Apr 12, 2013
CEO Endorsement Date	Feb 25, 2014
Project Document Signature Date (project start date):	Jul 11, 2014
Date of Inception Workshop	Jul 13, 2017
Expected Date of Mid-term Review	Apr 1, 2018

Actual Date of Mid-term Review	Mar 28, 2018
Expected Date of Terminal Evaluation	Jul 1, 2019
Original Planned Closing Date	Jul 15, 2019
Revised Planned Closing Date	Dec 31, 2019

Dates of Project Steering Committee/Board Meetings during reporting period (30 June 2017 to 1 July 2018)
2018-03-27

E. Critical Risk Management

Current Types of Critical Risks	Critical risk management measures undertaken this reporting period
Regulatory	<p>2.1 National, Provincial and Local Governments continue to encourage land reclamation.</p> <p>Mitigation Measure:</p> <p>In Bohai Sea reclamation is banned, and there are more restrictions to land reclamation from Yellow Sea in China. There are also local voices requesting the governments to reconsider the coastal reclamation plan in RO Korea. YSLME approach is to identify the coastal habitats with international and regional significance, and integrate these areas under various means of protection and restrictions within legal and policy framework of both countries through marine spatial planning, land use plan, redline system, etc. Working with IUCN, EAAFP, RAMSAR and CBD Secretariat to profile the significance of the intertidal mudflats is another approach the project is currently taking. This will be achieved through support to participation of government officials in workshops organized by other partners, and invitation of collaborators such as EAAFP in MPA networking and biodiversity forum, etc.</p>
Strategic	<p>3.1 Difficulties in negotiating the joint fisheries stock assessment, causes delay or cancellation</p> <p>Mitigation Measure:</p> <p>PMO has identified swimming crab and small yellow croaker as two target species for stock assessment workshop and sharing of stock assessment experiences between the two countries. Results of assessment using the agreed methodologies will be shared at the regional working group meeting on Fish Stock to be held in October 10-12 this year.</p> <p>3.2 Mariculture enterprises unwilling to adopt integrated multi-trophic aquaculture (IMTA) in place of monoculture</p> <p>Mitigation Measure:</p> <p>In addition to studies in China proving the increased productivity in IMTA operations than in monoculture, studies in RO Korea by National Institute of Fisheries Science indicate 2.7 times faster of sea cucumber growth, 40% increase in survival rate of rockfish, no report of disease in IMTA system and 5.5 times stronger in pollution mitigation. A training course to mariculture managers was held on May 20, 2018 to showcase that IMTA is the real sustainable mariculture practices that saves costs, increases productivity per unit area and generate more income. The project is planning to establish IMTA enterprise league in Shandong Province to help build the community of practice of IMTA. The project will also support to develop and implement an IMTA Promotion Plan.</p>
Operational	TBA
Political	<p>1.1 Potential partners unwilling to make formal commitments</p> <p>Mitigation Measures:</p> <p>Based on the agreement between PR China and RO Korea, the YSLME SAP specifies a target to establish YSLME Commission as the non-legally binding cooperation framework between the two countries. As a matter of fact, both PR China and RO Korea have made tremendous efforts in reducing fishing pressures, reducing nutrient inputs and protection</p>

	<p>of coastal wetlands and mandatory targets have been integrated into their social and economic development plans. However current restructuring of the SOA has major impact on the implementation of the project including making any new commitment to the establishment of the YSLME Commission. A planned study visit to HELCOM was planned by the project to enable decision makers from the two countries to learn the experiences of countries in HELCOM in translate national agenda into regional agreements and the pros and cons of having regional binding targets but was requested to be postponed by China in late July due to continuing restructuring of SOA. A regional ocean governance workshop is being planned in PR China on November 17-18 to enable further discussion on national laws and policies to enable good regional ocean governance .</p>
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F. Adjustments

Comments on delays in key project milestones

<p>Project Manager: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure.</p>
<p>The mid-term review, initially scheduled in 2016, was conducted in March 2018 following a decision of the Interim Commission Council (ICC-1) made in July 2017. The MTR mission made a number of recommendations including extension of the project until December 2019 following a decision of the ICC-2 in March 2018. The request was approved by UNDP in June 2019.</p>
<p>Country Office: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure.</p>
<p>According to the request by Ministry of Finance, the application for extension to end of 2019 has been approved by UNDP. However, UNOPS is still struggling for whether they could achieve the objectives to accept the approved extension.</p> <p>I hope both UNOPS and PMO could work together to deliver the project both from outcomes and financial perspectives to make sure the project fully success.</p>
<p>UNDP-GEF Technical Adviser: please provide comments on delays this reporting period in achieving any of the following key project milestones: inception workshop, mid-term review, terminal evaluation and/or project closure.</p>
<p><i>(not set or not applicable)</i></p>

G. Ratings and Overall Assessments

Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
Project Manager/Coordinator	Moderately Satisfactory	- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -
Overall Assessment	<p>During this reporting period, good progress has been made to operationalize the interim YSLME Commission through the tremendous efforts of the PMO and the enthusiasm from the two countries and partners in particular NOWPAP, PEMSEA and EAAFP. These include the adoption of the TORs of the interim commission and RWGs, organization of the 1st and 2nd ICC (July, 2017; and March 2018), meetings of all the six RWGs from July to December, 2017 which enabled consensus-making in methodologies and approaches towards taking integrated approaches to address common transboundary issues for better stocks management, MPA networking, establishment of two task forces to institutionalize the YSLME Commission. A YSLME Communication Awareness Strategy and logos have been developed for implementation during the remaining period.</p> <p>In Component 2, notable achievements are made in reduction of fishing efforts in PR China and RO Korea through fishing vessel buyback scheme, reduction of fishing production and integration in social economic development plan, extended closure of fisheries in Yellow Sea, and setting up a total of 98 marine ranches (62 in PR China and 36 in RO Korea). Both PR China and RO Korea have introduced total allowable catch (TAC) and quota system in fishery management, and this will provide good chances for joint stock assessment of transboundary species. Replication success of good aquaculture practices in sustainable and environmentally friendly way - integrated multitrophic aquaculture (IMTA) in RO Korea in other coastal areas of RO Korea is noteworthy, and efforts are also being made in PR China to replicate through a proposal submitted to central government to use carrying capacity of aquaculture areas as the management principle of sustainable mariculture. The training module on IMTA in Chinese and English versions have been prepared and used in the training of mariculture managers organized on May 20, 2018. New progress is being made in the demonstration of fish restocking and IMTA with completion of baseline studies and determination of project approaches.</p> <p>For Component 3, Inventory of marine litter in Yellow Sea is in progress with technical assistance of NMEMC/SOA and an initial report will be submitted late July. An intensive survey was carried out in Jeolla Namdo province to make an inventory of litter in land, river, coast and estuary by OSEAN (Our Sea of East Asia Network) to estimate marine litters in this province in November 2017. Beach litter survey methodology of the CSIRO (Commonwealth Science and Industrial Research Organization) was used for this survey. KIOST and OSEAN have carried out the abundance and accumulation patterns of plastic marine debris on 6 beaches in the Korean YS since 2016.</p> <p>For Component 4, the completed study on ecological and biological significance of Xiayangkou intertidal mudflat assisted the local government in proposing to designate this important wetland of 42.88 square meters as a MPA at national level to protect endangered Spoon-billed Sandpiper. In RO Korea, a 7 million US dollar project was completed in Ganghwa to restore the ecosystem connectivity of intertidal mudflats through replacing a causeway connecting two islands with a newly built bridge. In addition, a new monitoring project, "Fisheries Resources Changes based on Yellow Sea Ecosystem" will be implemented from 2018. The budget is in total 17.2 billion KRW for 5 years.</p>	

	<p>The project is an expansion of the comprehensive ecosystem monitoring in coastal area to open sea.</p> <p>The project has increased its awareness raising and visibility through timely update of project milestone events in LME:Learn and UNDP China websites, participation and discussion of SAP implementation progress in global and regional venues such as the regional Blue Economy Forum organized by PEMSEA, partnership events of the LME:Learn, and guest speech at the MOOC of LME:Learn, as well as the registration of 3 YSLME Phase II Project voluntary commitments at UN Ocean Conference.</p> <p>Signing of three Project Cooperation Agreement with FIO, NMEMC and YSFRI in the amount of more than 1.3 million US dollars will boost implementation of the project.</p> <p>Up to June 20, 2018, \$855,000 has been disbursed based on one UNOPS. Accumulated expenditure is \$1,821,104.19, representing 23.79% of total budget. Quality assurance was checked and monitored through meetings with the three PCA entities in June 2018.</p> <p>The request of China to extend the Project up until December 31, 2019, was approved by UNDP, and this decision implies that this complex four-year project is requested to deliver all results within a three-year timeframe. However, late launch of the project, time-consuming process to organize dialogues between the two countries, and restructuring of SOA make completion of the project implementation within the agreed extension period unrealistic. By June 30, 2018, the last day of project duration, the project extension has not yet been approved by UNOPS. It is urgent for UNDP and UNOPS to approve the extension plan to allow the project to continue to be implemented from July 1, 2018.</p>	
Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
UNDP Country Office Programme Officer	Unsatisfactory	Unsatisfactory
Overall Assessment	<p>This is the second PIR of the YSLME Phase II Project, the overall assessment is unsatisfactory for both DO and IP because no indicator has been achieved up to now, one indicator not started yet, two indicators are off track towards Objective Level End of Project targets (EOP targets), the delivery rate up to now is only 16.42% since Project Document Signature Date (project start date) on 11 July 2014, which was 4 years ago. The rate of actual achievement is significantly below planned achievement, at only 26% actual versus planned expenditure in 2017. The Original Planned Closing Date is 11 July 2018 if we do not approve the one and half years extension. According to the MTR, if no extension for the project, the rating is highly-unsatisfactory. Even UNDP put lots of efforts to push UNOPS and PMO for delivery and implementation during PSC, and daily push, but limited progresses have been achieved with heavy uncertainty.</p> <p>1. Key achievements against the targets of the project to date as following:</p> <p>From objective level indicators,</p> <p>Overall Objective 1 (Implement SAP) and Overall Objective 2 (Restore ecosystem goods & services): Nothing achieved in first three years and only foundational activities conducted in first eight months of fourth year (July 17 to March 18) (establishment of PMO, ICC, MSTP, RWG etc), very little start to</p>	

actual technical activities to support achievement of this overall Objective. According to the rating of MTR, they are highly unsatisfactory.

Overall Objective 3, Establish long-term regional governance (YS Commission): the foundational elements of YS Commission (the ICC, MSTP, RWGs etc) has been established. According to the rating of MTR, it is unsatisfactory.

Outcome 1. No indicator achieved, one indicator is off track.

1.1: Regional governance structure etc: the foundational elements of YS Commission (the ICC, MSTP, RWGs etc) has been established.

1.2: Improved inter-sectoral coordination etc: the foundational elements of YS Commission (the ICC, MSTP, RWGs etc) has been established, including national IMCCs and the ICC, MSTP, RWGs etc.

1.3 (Wider participation in SAP implementation etc), 1.4 (Improved compliance with regional and international treaties etc) and 1.5 (Sustainable financing etc.): PMO, ICC, MSTP, RWGs etc. have been established, implementation of technical activities has not yet properly commenced.

Outcome 2. No indicator achieved.

2.1, Recovery of depleted fish stocks: Achieving this target represents a reduction of fishing vessels by 13.4% of the baseline year of 2015.

2.2, Enhanced fish stocks etc: In Shandong Province, the restocking of fish through artificial reef has been monitored and evaluated in coastal areas of Haiyang City.

2.3, Enhanced and sustainable mariculture etc:

Baseline studies have been conducted in a land-based aquaculture area in Haiyang, one oyster monoculture farm, one kelp monoculture area and one shellfish-seaweed IMTA area in Sungo Bay, Rongcheng.

Outcome 3. No indicator achieved, one indicator is off track.

3.1 (Ecosystem health improved through a reduction in pollutants etc.) and 3.2 (Wider application of pollution-reduction techniques etc.): This is more a function of Project-design than implementation, as a national initiative PRC has been implementing the large-scale "Blue Bay Action Plan" at several sites in the YS region, which involves such large-scale engineering and technical solutions to marine pollution. Feasibility study for selected pilot was completed in June, 2018.

3.3 Strengthened legal and regulatory processes to control pollution: Off track, a legal expert is on board to review the compliance of PR China and RO Korea with international legal requirements for pollution reduction.

3.4 Marine litter controlled at selected locations: Weihai was selected as the demonstration site for reducing marine litter, some initial activities have been organized.

Outcome 4. No indicator achieved, one indicator is not yet started.

4.1 Areas of critical habitats: A review process on the past and future reclamation projects up to 2016 and implication to the critical coastal habitats is ongoing.

4.2 MPA Network etc: the plans are well developed, including baseline work for Rudong MPA and for the biodiversity planning workshop involving key partner. Trainings were organized.

4.3 Adaptive management mainstreamed etc: Not yet started.

4.4 Application ECBM etc: Baseline survey on seasonality and inter-annual variability of the floating *Sargassum horneri* in western YS and environmental drivers for the increasing blooms have been conducted.

2. Shortcoming and plans for achieving targets and objective

The shortcomings of the project are following:

2.1 Quite complex and difficult dynamics for coordination between countries including PRC, ROK and DPRK, which led to a crippling three-year delay to operational commencement, no actual milestone has been achieved yet up to now.

2.2 Unsatisfactory coordination capacity and implementation arrangement by UNOPS and PMO, lack of strategic approach to promote the implementation in efficient and effective management in a time manner. Lack of communications among most of key stakeholders of the project.

2.3 Low delivery rate both from financial and activities implementation perspectives, which demand PMO to take urgent actions for accelerating the efficiency and effectiveness of implementation modalities.

3. Overall suggest for the project implementation towards the end of the project.

The project applied one and half years extension has been approved, and has committed to deliver the project both for activities to achieve indicators with reasonable expenditure delivery according to the TYWP until the end of the project. UNDP would propose the following advice for the PMO and UNOPS:

The accumulative expenditure up to date is 927,931, the accumulative delivery rate up to now is only 48.6%, the delivery in the first half of 2018 is only 11%. UNDP pushed PMO for take concrete actions to make thing differently.

3.1 Enhance the leadership and strategic approach for the project implementation by both UNOPS and PMO. Capacity building of PMO and related stakeholders for improve project implementation from delivery and quality perspectives. CTA/PM of the project should play leading role for formulate the strategic approach for overall implementation including workplan, partnership building, coordination with three countries, timeline and performance management of PMO staff and activities, monitoring and evaluation etc. The CTA/PM play key role for success of the project to achieve targets, he should pay attention to delegate PMO staff for implementation and could only focus on key actions and only participate key activities personally.

	<p>3.2 Pay much attention to strengthen the coordination and facilitate the communications between the three countries for reach consensus for key issues during the implementation.</p> <p>3.3 Speed up the implementation of the project, set up tight schedule for project implementation with detailed count down timetable to achieve indicators one by one managed by PMO, with timely monitoring and supervision by CTA/PM. The project should strengthen the coordination and cooperation between the governments in three countries, and other related stakeholders. PMO should prepare everything well in advance for implementation in strategic manner, time management is the key.</p> <p>3.4 Try all the best to accomplish most of components according to the advice from MTR, pay much attention to summarize the results and achievements of the project, enhance the communications with media, NGOs and local residents to raise public awareness, as well as increase the visibility of the project. Well prepared for TE of the project in the third quarter of 2019 by speeding up activity implementation, timely M & E, public awareness, knowledge management etc. And preparation for potential application of extension.</p> <p>In summary, the overall progress of both ratings is unsatisfactory, we sincerely hope that the project could achieve the objectives in the end by all means of efforts and great support from all stakeholders.</p>	
Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
GEF Operational Focal point	<i>(not set or not applicable)</i>	<i>- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -</i>
Overall Assessment	<i>(not set or not applicable)</i>	
Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
Project Implementing Partner	Unsatisfactory	<i>- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -</i>
Overall Assessment	<p>During the reporting the project team has concentrated its efforts on accelerating project delivery which had fallen behind to no fault of the project team members. As part of this effort, Project Cooperation Agreements have been set up with Chinese government entities to allow for implementation across the 4 components of the project:</p> <p>First Institute of Oceanography of SOA; The National Marine Environmental Monitoring Center of SOA; and The Yellow Sea Fisheries Research Institute of Ministry of Agriculture</p> <p>Moreover, recruitments of consultants as well procurement contracts have been set up to allow delivery of some of the project outputs, e.g. in marine litter management</p>	

	<p>This allowed for expanded implementation support while assuring national ownership. Nonetheless, given the significant implementation delay and given internal restructuring processes within the Chinese Government, the project is still significantly behind its original timeline. From UNOPS perspective implementation progress is therefore below satisfaction. The ambitious work plan with a large number of activities to be carried out, has and is, a major challenge given the limited size of the PMO and the support unit of UNOPS Water and Energy Cluster, which was highlighted by the mid-term evaluator. Consequently, there is a strong need for detailed work planning exercises at task level, review and allocation of sufficient resources to accelerate delivery in the 18-months extension period while due diligence is exercised to ensure quality outputs and services, in order to achieve the main agreed and realistic outputs between the participating countries, UNDP and UNOPS. Lessons learned, issues and risks to be captured on an on-going basis and prior to project end date.</p> <p>The political nature of the project and intergovernmental mechanics that this project operates in, need to be managed carefully, which would require good stakeholder management to manage the expectations from the various stakeholders in this project. The project in the current geopolitical environment in North East Asia carries high visibility and it is in the interest of UNOPS to make it a success if it is to continue beyond the current phase.</p>	
Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
Other Partners	<i>(not set or not applicable)</i>	<i>- IP Rating provided by UNDP-GEF Technical Adviser and UNDP Country Office only -</i>
Overall Assessment	<i>(not set or not applicable)</i>	
Role	2018 Development Objective Progress Rating	2018 Implementation Progress Rating
UNDP-GEF Technical Adviser	Unsatisfactory	Unsatisfactory
Overall Assessment	Forthcoming	

H. Gender

Progress in Advancing Gender Equality and Women's Empowerment

This information is used in the UNDP-GEF Annual Performance Report, UNDP-GEF Annual Gender Report, reporting to the UNDP Gender Steering and Implementation Committee and for other internal and external communications and learning. The Project Manager and/or Project Gender Officer should complete this section with support from the UNDP Country Office.

Gender Analysis and Action Plan: <i>not available</i>
Please review the project's Gender Analysis. If the Gender Analysis is not attached or an updated Gender Analysis and/or Gender Action Plan is available please upload the document below or send to the Regional Programme Associate to upload in PIMS+. Please note that all projects approved since 1 July 2014 are required to carry out a gender analysis.
<i>(not set or not applicable)</i>
Please specify results achieved this reporting period that focus on increasing gender equality and the empowerment of women.
Please explain how the results reported addressed the different needs of men or women, changed norms, values, and power structures, and/or contributed to transforming or challenging gender inequalities and discrimination.
NA
Does this project specifically target woman or girls as direct beneficiaries?
<i>(not set or not applicable)</i>
Please describe how work to advance gender equality and women's empowerment enhanced the project's environmental and/or resilience outcomes.
NA

I. Social and Environmental Standards

Social and Environmental Standards (Safeguards)

The Project Manager and/or the project's Safeguards Officer should complete this section of the PIR with support from the UNDP Country Office. The UNDP-GEF RTA should review to ensure it is complete and accurate. For reference, the project's Social and Environmental Screening Procedure (SESP), which was prepared during project design, is available below. If the project began before the SESP was required, then the space below will be empty.

SESP: SESP_PIMS4552.pdf
<p>1) Please provide a brief update on the project's social and environmental risks listed in the SESP. If the project has not prepared an SESP (i.e. if the project began before the SESP was required), then please indicate when that screening will be done (recommended before the Midterm Review and/or Terminal Evaluation, or after a significant change to the project context). If the project has updated its SESP during implementation, then please upload that file to this PIR. If any relevant grievances have arisen during the reporting period please describe them in detail including the status, significance, who was involved and what action was taken.</p>
<p>A SESP was not undertaken during project formulation and before mid-term review on the basis that "impacts and risks are limited in scale and can be identified with a reasonable degree of certainty and can often be handled through application of standard best practice, but require some minimal or targeted further review and assessment to identify and evaluate whether there is a need for a full environmental and social assessment.</p> <p>Cognizant of the need for an assessment of the social and environmental impact of some of key interventions of the YSLME II Project in relation to implementation of fishing vessel buy-back scheme and mariculture development, a call for proposal for social and economic assessment of demonstration projects on marine litter reduction, mariculture development, MPA networking, climate change adaption and implementation of fishing vessel buy-back scheme is being organized by the Project. Findings and recommendations will be discussed at the third meeting of the Interim Commission Council to be held in December 2018.</p>
<p>2) Have any new social and/or environmental risks been identified during project implementation?</p>
No
<p>If any new social and/or environmental risks have been identified during project implementation please describe the new risk(s) and the response to it.</p>
No environmental risks have been identified yet fishing vessel buy-back scheme to achieve the 10 percent reduction of fishing efforts has been identified as a potential risk to affected fishermen.
<p>3) Have any existing social and/or environmental risks been escalated during implementation? For example, when a low risk increased to moderate, or a moderate risk increased to high.</p>
No

If any existing social and/or environmental risks have been escalated during implementation please describe the change(s) and the response to it.

Risks will be escalated to ICC-2 discussion if identified in the assessment.

J. Communicating Impact

Tell us the story of the project focusing on how the project has helped to improve people's lives.

(This text will be used for UNDP corporate communications, the UNDP-GEF website, and/or other internal and external knowledge and learning efforts.)

Improving the livelihoods of communities sharing the Yellow Sea

PR China and RO Korea are trying bring fish populations back to a sustainable level in a variety of ways including through closed seasons, fishing boat buyback schemes, restoring spawning and nursery grounds and setting up marine protected areas.

Turning to aquaculture has been another solution to satisfy growing seafood demands while fish stocks plummet worldwide. But this has been a mixed blessing because standard monoculture fish farming releases large amounts of organic waste, from uneaten fish food and fish faeces, into surrounding environments which can cause eutrophication or dead zones where no aquatic life can survive.

Nevertheless, the aquaculture industry is expected to grow over the next decade and account for about 60% of global seafood consumption.

Luckily, there is an alternative approach called Integrated Multi-Trophic Aquaculture (IMTA) which could set the Yellow Sea and other Large Marine Ecosystems on an economically viable yet sustainable path for blue and green growth.

So what is involved? Under IMTA, species from different trophic levels are grown together in a way that not only produces food but also ensures that nutrients arising from fish farms are recycled naturally. IMTA not only closes the nutrient but also sequesters carbon and increases the incomes of coastal communities.

There is more than enough evidence that IMTA makes economic, social and environmental sense. The Yellow Sea Fisheries Research Institute (YSFRI) of the Chinese Academy of Fishery Sciences found that the total annual value per hectare of kelp and abalone grown through IMTA is 3-4x higher than the combined value of producing kelp and scallop as individual monocultures. Other studies of IMTA in areas beyond the Yellow Sea by RO Korea's National Institute of Fishery Science (NIFS) on IMTA showed that sea cucumber grew 2.7x faster, the survival rate of Korean rockfish increased by 33.4% (from 56.8% to 90.5%) and no fish disease was recorded compared to a 40% rate of disease in rockfish monocultures.

The small fishing village of Dongchu Village in PR China has seen the positive impact of IMTA. This activity provides 300 seasonal jobs while maintaining first class water quality. Successful IMTA has also opened up tourism potential because the village now has about 15,000 visitors each year who find environmentally friendly seafood, stay with local women running household hotels, see locally unique thatched cottage houses and who generally come to enjoy the unique beauty of the Yellow Sea.

But some science is needed to ensure IMTA works. Mr. Wang Junwei, head of Dongchu Village said they experienced some financial losses in the 1990's because they ignored the advice of YSFRI scientists. After this lesson, they began to fully apply IMTA over 13,000 ha and now have an annual

production of 80,000 MT dry kelp, 2,000 MT fresh abalone, 120,000 MT fresh oyster, 10,000 MT fresh scallop, 100 MT fish and 50 MT sea cucumber.

IMTA has so many positive aspects, and considering that Asia accounts for over 80% of world aquaculture production and over 80% of fishers and fish farmers, there is especially great potential for IMTA across the region and elsewhere.

This is why UNDP and GEF is supporting the development of training modules and good IMTA practices based on experiences and knowledge gained from PR China and RO Korea. But success will also require engaging service providers, building partnerships with supply chains, linking with policy makers, engaging with customers, and access to financing through investors. The UNDP/GEF YSLME II Project will help develop an IMTA promotion plan across Shandong Province which produces 5 million MT of aquaculture products each year.

As global seafood consumption increases and fish populations keep plummeting around the world, IMTA offers the mariculture sector a chance to be environmentally sustainable while enhancing local livelihoods.

What is the most significant change that has resulted from the project this reporting period?

(This text will be used for internal knowledge management in the respective technical team and region.)

During this reporting period, the project has led to agreement on the TORs of the interim YSLME Commission and subsidiary bodies by PR China and RO Korea. The six regional working groups have been established and operational, providing a venue for discussion on frameworks and methodologies to address transboundary issues which have resulted in consensus on a number of regional cooperation initiatives, including the YSLME MPA network, Jellyfish monitoring program, HAB monitoring program, stock assessment of swimming crab and small yellow croaker. In addition, the two countries have agreed to establish two task forces to institutionalise the YSLME Commission. A study visit to HELCOM is also under planning to provide a chance for both countries to fully understand the regional ocean governance at a mature stage to facilitate consensus-building and common language on approaches and process. While the negotiation on location and financial agreements is still ahead, the warming-up exercise has already provided a good basis for constructive dialogue on establishment of the YSLME Commission.

Describe how the project supported South-South Cooperation and Triangular Cooperation efforts in the reporting year.

(This text will be used for internal knowledge management within the respective technical team and region.)

In November 2017, Prof. Fang Jianguang, Chair of YSLME Regional Working Group on Sustainable Mariculture, lectured on IMTA in an aquaculture training course to senior officials of ASEAN Member States during Xiamen Ocean Week. The project team also produced training modules of IMTA in both Chinese and English for further replication in other LMEs and countries.

Project Links and Social Media

Please include: project's website, project page on the UNDP website, Adaptation Learning Mechanism (UNDP-ALM) platform, Facebook, Twitter, Flickr, YouTube, as well as hyperlinks to any media coverage of the project, for example, stories written by an outside source.

Please upload any supporting files, including photos, videos, stories, and other documents using the 'file upload' button in the top right of the PIR.

<https://www.yellowseapartnership.org> (YSLME Project's website)

<https://www.yellowseapartnership.org/news> (up-to-date news about YSLME project's activities and events)

<https://www.yellowseapartnership.org/mstp-documents> (Meeting documents, proceedings, and publications for MSTP and ICC)

<https://www.yellowseapartnership.org/rwgs> (Meeting proceedings for the Six Regional Working Groups)

<https://www.yellowseapartnership.org/docs> (Publications for other meetings, workshop, and events)

<https://news.iwlearn.net/yslme-phase-ii> (news on Phase II launch on IW:Learn)

<http://www.un-rok.org/about-un/offices/yslme/> (UN-ROK promotion of the Phase II Project)

<https://mailchi.mp/unesco.org/ioc-news-june-2018>, link to the Yellow Sea LME article featured in the IOC-UNESCO newsletter this June 2018.

All the photos, news, and publications are available on the project website (<https://www.yellowseapartnership.org>)

K. Partnerships

Give the name of the partner(s), and describe the partnership, recent notable activities and any innovative aspects of the work. Please do not use any acronyms. (limit = 2000 characters). This information is used to get a better understanding of the work GEF-funded projects are doing with key partners, including the GEF Small Grants Programme, indigenous peoples, the private sector, and other partners. Please list the full names of the partners (no acronyms please) and summarize what they are doing to help the project achieve its objectives. The data may be used for reporting to GEF Secretariat, the UNDP-GEF Annual Performance Report, UNDP Corporate Communications, posted on the UNDP-GEF website, and for other internal and external knowledge and learning efforts. The RTA should view and edit/elaborate on the information entered here. All projects must complete this section. Please enter "N/A" in cells that are not applicable to your project.

Civil Society Organisations/NGOs
In the second ICC meeting, WWF Korea and Blue Ribbon Ocean Conservation Association (BROCA) from PR China introduced the work of NGOs in areas related with the SAP implementation. Recognizing the remarkable achievement of BROCA and other NGOs, the MTR consultant strongly suggested the countries to consider support to NGOs to conduct on-the-ground community-based activities. The meeting adopted the proposal of UNOPS for the project to facilitate the operation of the Yellow Sea Grant Program to support CSO and community-based activities addressing transboundary issues and promoting cooperation of the countries.
Indigenous Peoples
NA
Private Sector
The YSLME organized a training course on Integrated Multi-trophic Aquaculture (IMTA) for private sector in mariculture industry of Rongcheng City of Shandong Province on 20th of May 2018 in Chudao, Rongcheng of Weihai City, Shandong, PR China. In the experiencing sharing session, managers of Chudao Aquaculture company and Yandunjiao Aquaculture company of Rongcheng City shared their practical experiences in the control of density of kelp farming using carrying capacity as the basis. The stories from the two companies were well received by participants as use of carrying capacity as the stocking principle can increase production, reduce labor and save costs. The project will seek to establish an IMTA enterprise league through partnership Shandong Aquaculture Society to facilitate promotion and knowledge dissemination of IMTA in the province that produce 5 millions of aquaculture products each year.
GEF Small Grants Programme
The YSLME Project will support on-the-ground actions of CSOs. A consultation meeting with Dr. Sulan CHEN of UNDP/SGP, Ms. Katrin Lichtenburg, Ms. Yi Liu and CTA Yinfeng Guo was held agreeing not to transfer project fund to SGP due to closure of the project in December 2019. Currently a consultant is being hired to prepare the guidelines for call of proposal followed by a consultation meeting with CSOs on the terms of the guidelines. A total of \$300,000 is earmarked to support innovative project ideas at community level as a part of implementation of the YSLME SAP.
Other Partners
NA

L. Annex - Ratings Definitions

Development Objective Progress Ratings Definitions

(HS) Highly Satisfactory: Project is on track to exceed its end-of-project targets, and is likely to achieve transformational change by project closure. The project can be presented as 'outstanding practice'.

(S) Satisfactory: Project is on track to fully achieve its end-of-project targets by project closure. The project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Project is on track to achieve its end-of-project targets by project closure with minor shortcomings only.

(MU) Moderately Unsatisfactory: Project is off track and is expected to partially achieve its end-of-project targets by project closure with significant shortcomings. Project results might be fully achieved by project closure if adaptive management is undertaken immediately.

(U) Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets by project closure. Project results might be partially achieved by project closure if major adaptive management is undertaken immediately.

(HU) Highly Unsatisfactory: Project is off track and is not expected to achieve its end-of-project targets without major restructuring.

Implementation Progress Ratings Definitions

(HS) Highly Satisfactory: Implementation is exceeding expectations. Cumulative financial delivery, timing of key implementation milestones, and risk management are fully on track. The project is managed extremely efficiently and effectively. The implementation of the project can be presented as 'outstanding practice'.

(S) Satisfactory: Implementation is proceeding as planned. Cumulative financial delivery, timing of key implementation milestones, and risk management are on track. The project is managed efficiently and effectively. The implementation of the project can be presented as 'good practice'.

(MS) Moderately Satisfactory: Implementation is proceeding as planned with minor deviations. Cumulative financial delivery and management of risks are mostly on track, with minor delays. The project is managed well.

(MU) Moderately Unsatisfactory: Implementation is not proceeding as planned and faces significant implementation issues. Implementation progress could be improved if adaptive management is undertaken immediately. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are significantly off track. The project is not fully or well supported.

(U) Unsatisfactory: Implementation is not proceeding as planned and faces major implementation issues and restructuring may be necessary. Cumulative financial delivery, timing of key implementation milestones, and/or management of critical risks are off track with major issues and/or concerns. The project is not fully or well supported.

(HU) Highly Unsatisfactory: Implementation is seriously under performing and major restructuring is required. Cumulative financial delivery, timing of key implementation milestones (e.g. start of activities), and management of critical risks are severely off track with severe issues and/or concerns. The project is not effectively or efficiently supported.