



IMPLEMENTING THE STRATEGIC ACTION PROGRAMME FOR THE YELLOW SEA LARGE MARINE ECOSYSTEM: RESTORING ECOSYSTEM GOODS AND SERVICES AND CONSOLIDATION OF A LONG-TERM REGIONAL ENVIRONMENTAL GOVERNANCE FRAMEWORK

First Meeting of Regional Working Group on Fish Stock (RWG-F)

Yantai, PR China, 17-18 October 2017

Terms of Reference of activities in Component 2 in relation to mandate of RWG-F in UNDP/GEF YSLME Phase II Project

Background

1. These terms of reference are prepared by Members of NWGs of PR China.
2. Upon receipt of these terms of reference, the Secretariat has reformatted these documents to keep consistency in structure in all TORs. Contents of some TORs were also edited with occasional inputs to some TORs in line with original design in the project document. Methodologies, activities to achieve deliverables and start and end dates of activities remain the same to respect the intellectual outputs of the authors.

Contents

Activity 3 of Output 2.1.1 (PR China).....	2
Activity 4 of Output 2.2.1 (PR China).....	4
Activity 9 of Output 2.2.1 (PR China).....	7
Activity 2 of Output 2.1.1 (PMO)	9

Activity 3 of Output 2.1.1 (PR China)

Establish the regional methodology to assess effectiveness of license system and provide the recommendations for improvement of licensing system: legal and policy adequacy, institutional capacity, individual capacity, availability of capacity, fish landings.

TERMS OF REFERENCE

Assessing effectiveness of fisheries license system

Classification: subcontract (YSFRI)

Budget line: 72100, Output 2.1.1, Component2. Budget: USD36,000;

Estimated start of work: Mid-October 2017–June 30, 2019

Background and Justification

License system has been conducted in the YS since the 1980s, it still plays an important role in fishery management by controlling the fishing intensity of target species, including the limit of fishing patterns, fishing gears, the number of fishing vessels and so on. The license system evolves in the license of fishing waters, the license of fishing time, the license of fishing species, the license of fishing gears. The licenses of fishing waters and fishing time are similar as fishing moratorium, all the species can be protected in the target waters and specific time. The licenses of fishing gears and fishing species, with obvious selectivity, mainly focus to protect the target species. Overall, the license system reduces the number of fishermen, fishing vessels and gears by common-of-piscary right, then reaches the goal of TAC limit. The license system is easily to be conducted, but the effectiveness of license system is not well addressed until now. So, this subcontractor will assess the effectiveness of license system, and give some recommendations to improve the license system in line with the targets of the YSLME Strategic Action Programme.

Objectives

The objective is to improve the effectiveness of the license system, including legal and policy adequacy, institutional capacity, individual capacity, availability of capacity, fish landings changes; based on the results, provide some recommendations for improvement of licensing system.

Expected Outputs

The activity is expected to deliver the following results:

- 1,methodologies and workplan to assess the effectiveness of license system;
- 2,an assessment report with recommendation for improvement of licensing system

Activities

Under supervision of the Chief Technical Advisor and technical guidance of RWG-F in close collaboration with the local project team, the subcontractor will:

- summarize and review the existing methodology to assess effectiveness of license system;
- identify the indicators to assess the license of fishing gears, fishing waters, fishing time, and fishing target species;
- further to assess the legal and policy adequacy, institutional capacity, individual capacity, availability of capacity;
- collect the existing relevant technical files of RO Korea. According to the analysis, develop a draft recommendation plan for improvement of licensing system.
- Compare the similarities and differences of the license system between China and RO Korea, and the potential capacity of harmonizing them on the regional level.
- Analyze their advantages and disadvantages, the problems, the potential technical and administration needs, give some recommendations to improve license system.
- Participate the relevant workshops or training course conducted by the Project management Office (PMO).
- Prepare the draft report on regional license system, and submit it for consultation and review by members of the RWG-F of the YSLME Phase II Project.

Inputs

UNDP/GEF YSLME Phase II Project management Office (PMO) will provide the background information and documents, and will be responsible for providing logistics support to facilitate travel to project sites and meeting with relevant stakeholders, including access to information and data about the project sites.

Timing

The subcontractor will begin in mid-October 2017 and complete in June 30, 2019.

Reporting

The subcontractor will produce the following reports within the specified timeframe:

1. By February 10, 2018, submit the assessment methodologies and workplan;
2. By Oct 31, 2018, submit the assessment report of regional license system;
3. By Mar 30, 2019, submit the draft recommendation plan for improving the license system in the Yellow Sea;

The subcontractor can submit reports electronically to Mr. Yinfeng Guo, CTA/Manager at email: yinfengg@unops.org. to the PMO. All reports should be submitted in English.

Activity 4 of Output 2.2.1 (PR China)

Establishment of an effective sea grass seed select and seedlings culture system in laboratory; establishment of a sustaining donor supply at semi-closed ponds for sea grass transplant without disturbance of the current sea grass meadows; improved transplanting techniques of seagrass based on the protection of seagrass at the early replanting stage.

TERMS OF REFERENCE

Technical assistance to improve techniques of replanting of seagrass/microalgae

Classification: subcontract (NMEMC)

Budget line: 72100, Activity 4 of Output 2.2.1, Component 2. Budget: USD 30,000;

Estimated start of work: Mid-October 2017 – mid March, 2019

Background and Justification

As the well-known important nursing ground seagrass meadows support the fisheries' health and sustainability. Seagrass meadows provide shelter and food for assemblages of fish. Increased food availability to juveniles and protection from predators are the main reasons why such large numbers of organisms are associated with seagrass. However in the recent decades seagrass are declining and the speed are accelerating in the worldwide. China is not the exception and seagrass distribution are shrinking in the past four decades. The loss of spawning and nursing ground provided by seagrass beds has significantly influenced fisheries habitats availability and replenishments. In order to restore the seagrass beds, more detailed and efficient technology are needed to provide assistance to fisheries restock.

Objectives:

The subcontractor is to improve transplanting techniques of seagrass and establish a seagrass donor supply sites. Specific objectives of this task include: to establish an effective seagrass seed selection and seedlings culture techniques; to establish an sustainable seagrass donor supply sites; to improve seagrass replanting techniques and seagrass meadow establishment.

Expected Outputs

The subcontractor is expected to deliver a technical report demonstrating the following:

- Establishment of an effective seagrass seed selection and seedlings culture system in laboratory;
- Establishment of a sustaining donor supply at semi-closed ponds for seagrass transplant without disturbance of the current seagrass meadows;
- Improved transplanting techniques of seagrass based on the protection of seagrass at the early replanting stage.

Activities

Under supervision of the Chief Technical Advisor and technical guidance of RWG-F in close collaboration with the local project team, the subcontractor will conduct the following activities under the three outputs:

Output 1: Establishment of an effective seagrass seed select and seedlings culture system in laboratory

- Laboratory study to assess seagrass seed vigor and identify seed maturity;
- Assess the feasibility of seed sorting, density sorting, and gravitational sorting on the seed ripening ability assessment of eelgrass;
- Inquire into the effectiveness of seed fraction sorting and density sorting;
- Conduct the study of water triggers function for breaking eelgrass seeds dormancy, obtaining time consistent germinated seedlings;
- A technical report on seagrass effective and sustainable transplant.

Output2: Establishment of a sustaining donor supply at semi-closed ponds for seagrass transplant without disturbance of the current seagrass meadows

- For the wide distribution of sea cucumber ponds in coastal area of Shandong Province, PR China, it can be selected as the natural environment for eelgrass donor cultivation.
- Through adult's transplant from natural eelgrass beds or seedling from the laboratory to sea cucumber ponds, the establishment of eelgrass can be achieved. Then in the next year, eelgrass plants in the sea cucumber ponds can be transplanted to the target coastal area.
- Establishment of eelgrass donor sites.

Output3: Improved transplanting techniques of seagrass based on the protection of seagrass at the early replanting stage

- According to the temperature change of the sea area, clarify the optimal transplant time and transplanting specifications of the seedlings and adults.
- When the activities of transplant are in design, the water flow rate and sediment contribution of the target coastal area will be considered.
- Design of the protective grafting device to get eelgrass survival rate as high as possible.
- Transplanting technique of seedlings and adults in target coastal area.

Inputs

UNDP/GEF YSLME Phase II Project Management Office (PMO) will provide the background information and documents.

Timing

The subcontractor will begin on October 15, 2017 and end on March 15, 2019.

Reporting

The subcontractor will produce reports within the following timelines:

- By July 31, 2018, submit proposal for eelgrass donor sites establishment and seedlings culture;
- By October 1, 2019, submit final draft report.

All reports should be submitted in English. Reports should be submitted to Mr. Yinfeng Guo, CTA/Manager at email: yinfengg@unops.org.

Activity 9 of Output 2.2.1 (PR China)

Establish regional stock enhancement, sea ranching and artificial reef monitoring guideline, and network based on any existing ones: harmonize regional methodology and update regional monitoring guideline, realize the scientific assessment of effectiveness on these implementations.

TERMS OF REFERENCE

Monitoring of implementation results in three demo sites in the Yellow Sea

Consultancy classification: subcontract (YSFRI)

Budget line: 72100, Activity 9 of Output 2.2.1, Component 2. Budget: USD 120,000;

Estimated start of work: Mid-October 2017–June 30, 2019

Background and Justification

The global fisheries are continuously in decline because of overfishing, pollution, and climate changes and so on, as well as in the YS fisheries. Many fishery species in YS have been co-exploited by PR China and RO Korea, such as small yellow croaker, Japanese anchovy and chub mackerel. In order to realize the sustainable fisheries in YS, PR China and RO Korea both have conducted the fishery implementations, including stock enhancement, sea ranching and artificial reef; however, the monitoring and effectiveness assessment of these implementations have not been well addressed. In order to better conserve fishery resources, the subcontractor will develop and implement monitoring program to assess the progress of implementation of SAP in demo sites in line with the results framework of the Project.

Objectives:

The objective is to establish a regional monitoring guideline of implementations, e.g. stock enhancement, sea ranching and artificial reef, as well as to harmonize the effectiveness assessment of these implementations.

Expected Outputs

The subcontractor is expected to deliver the following results:

1. A regional monitoring guideline of implementations, e.g. stock enhancement, sea ranching and artificial reef;
2. To harmonize the effectiveness assessment of these implementations between both countries.
3. Submission of regular monitoring reports in accordance with the project M&E framework

Activities

Under supervision of the Chief Technical Advisor and technical guidance of the RWG-F, in close collaboration with the local project team, the subcontractor will conduct the following activities.

1. Review the existing monitoring guideline and methodology on stock enhancement of PR China and RI Korea, as well as the effectiveness assessment methodology; understand the National programs of stock enhancement;
2. Review the existing monitoring guideline and methodology on sea ranching of PR China and RO Korea, as well as the effectiveness assessment methodology; understand the National programs of sea ranching;
3. Review the existing monitoring guideline and methodology on artificial reef of China and Korea, as well as the effectiveness assessment methodology; understand the National programs of artificial reef;
4. Try to harmonize the monitoring guideline and methodology on implementations in demo sites both in China and Korea, as well as the harmonized effectiveness assessment methodology for both countries;
5. Hold the training program for these implementations in both countries;
6. Based on agreement methodologies and indicators, taking into account the requirements of the Project M&E plan, to monitor and collect data and report the status of implementation in demonstration sites on a quarterly basis to the PMO;
7. build the regional monitoring network for sea ranching in demo sites;

Inputs

UNDP/GEF YSLME Phase II Project Management Office (PMO) will provide the background information and documents.

Timing

The subcontractor will begin in Oct30, 2017 and end in June 30, 2019.

Reporting

The subcontractor will produce reports within the following timelines:

1. By March1, 2018, indicators, methodologies and frequency agreed and submit the baseline reports of the demonstration sites;
2. By June30,2018, submit the first quarterly report to PMO;
3. By Dec31, 2018, based on the monitoring results and triangulation, submit a draft monitoring guideline on stock enhancement, sea ranching and artificial reef. As well as the methodology of effectiveness on these implementations;
4. By June 1, 2019, provide final monitoring reports on the status of implementation of the demonstration projects.

All reports should be submitted in English. Reports should be submitted to Mr. Yinfeng Guo, CTA/Manager at email: yinfengg@unops.org.

Activity 2 of Output 2.1.1 (PMO)

Assess Socio-economic implications of buy-back scheme at two demonstration sites (one site each in PR China and RO Korea)

TERMS OF REFERENCE

Assessing socio-economic implications of fishing vessels buy-back scheme in one demonstration site in PR China

Classification: subcontract

Budget line: 72100, Activity 2 of Output 2.1.1, Component 2. Budget: USD 30,000;

Estimated start of work: November 2017 – March, 2019

Background and Justification

Both PR China and RO Korea have been implementing fishing vessel buy-back scheme to reduce the fishing efforts in the Yellow Sea to restore the fishery resources. In the YSLME Phase II Project, both countries have agreed to reduce 10% of fishing vessels during the project cycle in line with the 2020 target of 30% reduction. With baseline level of 1.2 million fishing vessels, the social and economic implications of the buy-back scheme need to be better understood so as to advise national and local governments to take appropriate social safeguards measures in implementation of the scheme.

Objectives:

The underlying objective of this subcontract is to ensure adequacy of social safeguards measures in support of the full and successful implementation of the fishing vessels buy-back scheme.

Expected Outputs

The subcontractor is expected to deliver the following report:

- Report on the social economic implications of the fishing vessel buy-back scheme to fishermen in one city or county

Activities

Under supervision of the Chief Technical Advisor and technical guidance of RWG-F in close collaboration with the local project team, the subcontractor will conduct the following activities:

- Determination of study area in collaboration with members of the Inter-Ministerial Coordination Committee members in Shandong, Liaoning or Jiangsu;
- develop the assessment methodologies, sampling and data collection methods;
- assess income generation and contribution of fishing of sampled households, and social

- attitude to buy-back scheme;
- assess economic implications of participation in buy-back scheme of sampled households;
 - review opportunities of alternative livelihoods for subsistence of participating households and assess adequacy and sustainability of social safeguards;
 - conduct two follow-up surveys of sampled households in subsequent two years after joining the scheme;
 - prepare and submit final report including recommendations for sustainable livelihoods of participating households;

Inputs

UNDP/GEF YSLME Phase II Project Management Office (PMO) will provide the background information and documents as well as logistics arrangements for conduct of studies and assessments.

Timing

The subcontractor will begin in November 2017 and end in November 2018.

Reporting

The subcontractor will produce reports within the following timelines:

- By March 10, 2018, submit research methodologies and workplan based on initial survey;
- Submit preliminary assessment report after joining the scheme;
- submit assessment report of sample households one year after joining the scheme;
- submit final report after second year of participation in the report;

All reports should be submitted in English. Reports should be submitted to Mr. Yinfeng Guo, CTA/Manager at email: yinfengg@unops.org.