

## **TERMS OF REFERENCE**

### **Natural Resource Specialist to Assess Coastal Reclamation and Impact to Critical Coastal Habitats of Yellow Sea Large Marine Ecosystem**

**Consultancy:** national  
**Estimated start of work:** September, 2017  
**Duty Station:** Home-based

#### **Background and Justification**

UNDP/GEF is providing assistance through UNOPS to countries bordering Yellow Sea in support of their efforts to address among others the increasing trends of depleting fishery stocks, loss of coastal wetland, land and sea-based pollution and implementation of the Yellow Sea Large Marine Ecosystem Strategic Action Programme (YSLME SAP) adopted by China and RO Korea with support of DPR Korea. One of the assistance programs to implement the SAP is the UNDP/GEF/UNOPS project entitled 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, or the UNDP/GEF YSLME Phase II Project. The project was launched in July 2017.

The objective of this 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 SAP.

There are four components of the project:

1. Sustainable national and regional cooperation for ecosystem based management.
2. Improved Ecosystem Carrying Capacity with respect to provisioning services.
3. Improved Ecosystem Carrying Capacity with respect to regulating and cultural services.
4. Improved Ecosystem Carrying Capacity with respect to supporting services.

The key outcomes sought are:

1. Establishment of a self-sustaining cooperative mechanism for ecosystem-based management.
2. Recovery of depleted fish stocks and improved mariculture production and quality.
3. Improved ecosystem health;
4. improved inter-sectoral coordination and mainstreaming of ecosystem based management principles at the national level, maintenance of habitat areas, strengthened stakeholder participation in management and improved policy making.
5. Skills and capacity significantly developed for region-wide ecosystem-based management.

Component 4 will address the habitat loss in particular coastal habitats. The main cause of the habitat loss has been land reclamation, especially in estuaries and shallow bays. Coastal mudflat reclamation has been mainly for expansion of aquaculture and mariculture, building houses,

apartment and industrial areas. Approximately 880,000 ha of Yellow Sea mudflat areas have been reclaimed. This comprises 37% of the inter-tidal areas of the Chinese portion of the Yellow Sea, which have been reclaimed since 1950, and 43% of the mudflats on the ROK coast, which has been reclaimed since 1917. The main effect of habitat loss is on the composition of assemblages of organism communities in tidal mudflats, especially benthic organisms, water birds and reduced resting and feeding grounds for migratory birds.

In Outcome 4.1 of Component 4 entitled “Maintenance of current habitats and the monitoring and mitigation of the impacts of reclamation”, the project will support a series of activities leading to the development and adoption of the YSLME Biodiversity Conservation Plan including the targets to ensure areas of critical habitats at baseline level. Output 4.1.1 of Outcome 4.1 specifically seeks to arrive at an agreement at all levels to implement the relevant management actions to regulate new coastal zone reclamation project.

### **Objectives:**

The development objective underlying the proposed consultancy is improved understanding of the trends and impact of reclamation projects and identification of opportunities for maintaining the critical habitats covered by RAMSAR and Birdlife International.

### **Immediate Objectives**

Specific objectives of the consultancy include:

1. Review of the status of critical coastal wetlands in estuarine and shallow bays in particular, and the areas and locations of reclamation projects up to 2016, and projected future reclamation plan and their impact to the identified critical habitats in the YSLME.
2. to develop policy and legal recommendations and propose management measures to maintain the areas of critical habitats.

### **Expected Outputs**

The consultant is expected to deliver the following results:

- A review report of the past and future reclamation projects and implication to the critical coastal habitats identified by RAMSAR and Birdlife International;
- Legal, policy and management measures recommended for maintenance of the existing critical habitats to improve the ecosystem carrying capacity of supporting services of YSLME.

### **Activities**

Activities include but not necessarily limited to the following tasks:

1. Desk review of conservation gaps of coastal habitats using the criteria of RAMSAR and Important Bird Areas (IBAs) of Birdlife International in coastal areas of Yellow Sea;
2. Review of status, patterns, areas and number of reclamation projects in coastal areas of Yellow Sea as of 2016, and develop maps;
3. Review the areas, location and timeframe of projected reclamation projects in Yellow Sea overlapping with the identified critical habitats, and develop maps;
4. Assess the potential ecological implications of previous, existing and future projects;
5. Assess the adequacy and rigorousness of legislation, policies and guidelines in the control of reclamation projects with impacts on the identified critical habitats, and propose recommendations for improvements.

6. Present the initial results of the assessment at the YSLME Biodiversity Conservation Planning Workshop to be held in the second week of November, 2017, in Rudong, China
7. Finalize the report for publication as a YSLME Knowledge Product.

### **Inputs**

UNDP/GEF YSLME Phase II Project Management Office (PMO) will provide the background information and documents, and will be responsible for providing financial support and the logistics support to participation in the planning workshop by the PMO.

### **Timing**

The consultancy will start in mid-September 2017 and complete in December 31, 2017

### **Reporting**

The consultant will produce a review report of the past and future reclamation projects and implication to the critical coastal habitats identified by RAMSAR and Birdlife International with recommended legal, policy and management measures for maintenance of the existing critical habitats to improve the ecosystem carrying capacity of supporting services of YSLME.

The consultant will submit both electronically and in hard copy in the number of 2 copies to PMO. The initial draft should be submitted to PMO before October 31 for inclusion in workshop documents. Second version should be submitted before December 1 for review by PMO. Final version should be submitted before December 31 for publication as a knowledge product of the YSLME. All reports should be submitted in English.

### **Competencies**

- Advanced university education at MSc or PhD level with expertise in the area of remote sensing, natural science, oceanography, and environmental policy making;
- At least 3 years of professional experience
- Previous experiences in conservation gap analysis and application of remote sensing and mapping is advantageous
- Ability to produce high quality reports within deadline;
- Excellent written and spoken Chinese and English

### **Payment and Submission**

The consultant will be paid for a lump sum of USD8,000 for the consultancy. Costs for participation in the YSLME Biodiversity Planning Workshop will be covered by separate project budget.