



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

UNDP/GEF/YS/RWG-F.3/13

Date: 26 September 2006

English only

**Third Meeting of the Regional Working Group
for the Fisheries Component**

Weihai, China, 25 - 28 October 2006

FISHERIES COMPONENT ACTIVITIES FOR 2007 AND ONWARDS

1 GENERAL ISSUES

- 1.1 During the past two years of Project Implementation, members of the RWG-F have provided technical guidance for implementation of activities under this component. Certain activities have been identified for implementation during the first two years of the Project, but not all have been implemented. The delay has been due to various reasons, including lack of budget and human resources, and/or lack of clear directions on how to implement the activities.
- 1.2 Agenda 7.1 will focus on the main activities over the next two years that will contribute to the Strategic Action Programme (SAP). This agenda item (7.2) will consider the remaining activities that do not directly contribute to SAP, and which generally focus on capacity building.

2 AGENDA ITEM 7.2.1

Regional Workshop on Sustainable Mariculture and Diseases, Diagnosis and Control Techniques

- 2.1 The guidelines to conduct this activity were included within the consultancy aiming to produce a Joint-Applied Research Programme for Sustainable Mariculture.¹
- 2.2 Likewise, the immediate objectives of the above mentioned consultancy are to develop guidelines for a joint research programme on sustainable mariculture and, as part of that programme, develop the technical guidelines and detailed work-plan for a training course on: i) Sustainable Mariculture Techniques; and, ii) Diseases, Diagnosis and Control Techniques.

¹ Small Contract for Services (F-06-maricult-PNU-1203). The major objective of this task is for the development of regionally agreed methods for observing, monitoring and managing mariculture activities in the Yellow Sea, enhancing co-operative mechanisms for regional monitoring and observation; upgrading of skills; and an increased mutual understanding and trust amongst the participating institutions.

2.3 During the discussion of this agenda item, members are invited to provide technical guidance to complement the two major topics of the training, including the following:

- a. Major issues to be included within the proposed guidelines
- b. Target participants e.g. local/international scientists/institutions, etc.
- c. Collaboration with other institutes/regional programmes
- d. Size, duration, approximate dates and venue for workshop

3 AGENDA ITEM 7.2.2

Regional Workshop on Carrying Capacity

- 3.1 During the 1st and 2nd Meeting of the Regional Scientific and Technical Panel (RSTP) Carrying Capacity in the YSLME was extensively discussed. Recently, the consultancy on Joint-Regional Fisheries Stock Assessment Programme (Agenda Item 7.1.1.1) contributed to the understanding and applicability of this issue.
- 3.2 After discussions on Agenda Items No. 5, 6 and 7.1 the meeting may suggest on what kind of information is necessary towards the development of suitable guidelines for modelling and analysis of carrying capacity for the Yellow Sea for integration into the YSLME Project Strategic Action Programme (SAP) and, develop the training programmes required to ensure that the analysis is carried out appropriately. The TOR of the activity is attached as Appendix A.
- 3.3 Members are invited to suggest how does the RWG-F may co-ordinate further approach on Carrying Capacity issues with the RWG-E. Members should keep in mind that the focus of the Project in the next two years is development of the SAP, and recommended activities should be proposed in this context.

4 AGENDA ITEM 7.2.3

Suggestions for other activities

- 4.1 Members are invited to suggest additional activities that meet the technical and capacity building needs of the region and also the objectives of the Project. Members should keep in mind that the focus of the Project in the next two years is development of the SAP, and recommended activities should be proposed in this context.
- 4.2 Document UNDP/GEF/YS/RWG-F.3/12 will explain the SAP-related activities in more detail. The RWG-F is requested to provide guidance on how to develop activities for the SAP.

Appendix A

Terms of Reference for Developing Methods for Serial Carrying Capacity Analysis for the Yellow Sea Large Marine Ecosystem

1 BACKGROUND

In the approved Implementation Plan of the UNDP/GEF Yellow Sea Project, "Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem (YSLME)," one of the activities of the Fisheries Component is to assess the carrying capacity of the Yellow Sea (as it applies to fisheries).

The development objective of this task is to produce an appropriate mechanism for the reliable, continuous, joint-regional monitoring of the state of carrying capacity in this Large Marine Ecosystem (LME) for improved management of fisheries/aquaculture resources for the future. For this to be possible, current methods of evaluating carrying capacity in this system will be assessed, and improvements made where possible, to ensure accurate and reliable monitoring of the state-of-the-ecosystem.

The immediate objectives of this task are to assemble information on the existing methods for assessing the carrying capacity of fisheries/aquaculture stocks in the Yellow Sea, highlighting the knowledge gaps and/or barriers to carrying capacity analysis in this region, and try to fill those knowledge gaps with contemporary global information and/or recommendations on how to obtain the lacking data. From this point, then prepare guidelines for the analysis of carrying capacity as it applies to the Yellow Sea, undertaking training of personnel where required to implement a multiple series of carrying capacity analyses of the Yellow Sea Large Marine Ecosystem.

The details of this task are described hereunder:

Geographic Scope: The Yellow Sea Large Marine Ecosystem is defined in this Project Document as the body of water delineated at the south, by a line connecting the north bank of the mouth of the Chang Jiang (Yangtze River) to the south side of Cheju Island; at the east, by a line connecting Cheju Island to Jindo Island along the coast of the ROK; and to the north, a line connecting Dalian to Penglai (on the Shandong Peninsula).

2 DESCRIPTION OF REQUIRED SERVICES

A competent incumbent², selected through the required United Nations bidding procedure, will be contracted to carry out the identification of knowledge gaps for carrying capacity analysis in the Yellow Sea, and based on the outcome, will develop suitable guidelines for the repetitive modelling and analysis of carrying capacity for the Yellow Sea for integration into the YSLME Project Strategic Action Programme (SAP) and National Yellow Sea Action Plans (NYSAP), and develop the training programmes required to ensure that the repetitive analysis is carried out appropriately. The incumbent(s) shall carry out the following activities:

² The name of institution or person coordinating the activity

2.1 Prepare a detailed report on the current techniques/methodologies used to model carrying capacity. The summary should describe:

- a. A description of the techniques/methodologies used to model carrying capacity in this region.
- b. A description of other contemporary techniques/methodologies used to model carrying capacity of similar marine systems around the globe.
- c. The types of data and information collected, and used in the analysis, for all these methods.
- d. The analytical and statistical methodology utilised in each model.
- e. The benefits, drawbacks and difficulties of each method.
- f. The knowledge gaps in the current method of Yellow Sea carrying capacity analysis, and the barriers to obtaining data.
- g. A recommendation for the most practicable and appropriate method to use to assess carrying capacity in the Yellow Sea with recommendations on how to fill knowledge/data/information gaps in the future.

This should be done by utilising data and information collected during the YSLME initial data/information collection activities, existing locally and internationally, accomplished through internet searches, telephone interviews, library research, visits to/communication with national fisheries offices, research institutions, government agencies and related NGOs, compare methodologies and fill in gaps in knowledge.

2.2 Prepare guidelines for a reiterative series of carrying capacity analysis for the Yellow Sea comprising of:

- a. Recommendations for the frequency of a 'reiterative series' of carrying capacity analysis.
- b. Instructions for carrying out a reiterative analysis of carrying capacity of the Yellow Sea;
- c. Recommendations for the acquisition of data – methodology, type, etc;
- d. Recommendations for the analysis of data – analytical and statistical models; and
- e. Recommendations for outputs – charting and graphical display of resultant data.
- f. Recommendations on how data should be archived and/or managed.
- g. Recommendations on where final results should be published and how stakeholders and the general public can access these guidelines.

The guidelines should take into consideration:

- i. Existing national agreements; and
- ii. The geographic parameters of the Yellow Sea Project.

2.3 Prepare guidelines for a regional training course on carrying capacity including:

- a. An assessment of the training needs in this region as it applies to carrying capacity analysis for the Yellow Sea, indicating the major topics required to be taught.

- b. A curriculum of topics, activities and schedule for a single regional training course on carrying capacity;
- c. Presentation and training materials (in English, and in Chinese and Korean language if possible);
- d. A list of proposed invitees by institute/expertise;
- e. A list of proposed venues/locations for the training course;

2.4 Present the report and both sets of guidelines (#1, #2 & #3) to the Meeting of the Regional Working Group (RWG) - Fisheries. The guidelines will be reviewed with all members of the RWG and the Project Management Office.

2.5 Based on the comments of the Regional Working Group, revise the guidelines and prepare a work-plan for the regional analysis of carrying capacity in the Yellow Sea and present to the next Meeting of the Regional Working Group Meeting - Fisheries, for finalisation.

Qualifications:

The incumbent selected to carry out this task should have the following qualifications:

- At least 10 years experience in the area of coastal and pelagic fisheries/aquaculture assessment, most preferable in the Yellow Sea.
- An extensive knowledge of contemporary carrying capacity analysis methods and the analysis of relevant data and information.
- Ability to access necessary data and information through the databases, information centres, and other relevant institutions.
- Have the appropriate academic qualifications, available time to undertake the task.
- Financial accountability with a professional financial management system.

3 EXPECTED OUTPUTS

The final product (report) should be a set of reports as listed below:

- i. A comprehensive report on the current techniques used to model carrying capacity in this region and comparing with other methodologies, describing data types, analytical methods, highlighting knowledge gaps and barriers to obtaining data, and providing information to fill the gaps.
- ii. A list of data and information sources to indicate the sources of the data and information collected in item (i), location of these data and information centres, conditions of access to data and information by different users;
- iii. A report providing suggested method(s) and guidelines for reiterative analysis of carrying capacity analysis for the Yellow Sea.
- iv. Guidelines for a regional training course on analysing carrying capacity in the Yellow Sea including a workplan for the activities.
- v. Project progress reports and financial report as described in the Section on Monitoring/Progress Control and shown in Appendix 2.

All documents must be written in English (and in Chinese and Korean if possible) and provided in both print and electronic form. Three printed copies of each report and one electronic copy will be submitted to the Yellow Sea Project Management Office (PMO) on the due date, and at least three weeks in advance of the RWG Meeting at which it will be reviewed. The contracted institution(s) should then incorporate the comments from the RWG Meeting(s) into the final report(s).

SUGGESTED FINAL REPORT TABLE OF CONTENTS

- I. Background of assignment
- II. Methods used to carry out assignment
- III. Summary of current Carrying Capacity methodology
- IV. Location of data & info and access to each site by the public
- V. Summary of related RWG-F meeting recommendations
- VI. Guidelines(s) for reiterative carrying capacity assessment
- VII. Guidelines for training course on carrying capacity assessment
- VIII. Summary and Recommendations
- IX. Progress and Financial Summary Reports

Annex containing:

- Persons / institutions / websites visited or interviewed
- List of References

4 DELIVERABLES AND DEADLINES

The commissioned assignment will be carried out from (*) through (*), according to the following schedule:

| Task | Deadline |
|---|----------|
| Contract signature | 2006 |
| Report on the current techniques used to model carrying capacity in this region with gaps in knowledge described and information to fill those gaps supplied, for review at the next Regional Working Group Meeting; Guidelines for a reiterative series of carrying capacity analysis for the Yellow Sea for review at the next Regional Working Group Meeting; Guidelines for a regional training course on carrying capacity analysis for review at the next Regional Working Group Meeting; | 2007 |
| Progress report and interim financial statement submitted to PMO/UNOPS | 2007 |
| Revised guidelines and a new work-plan for a reiterative series of regional carrying capacity analysis in the Yellow Sea, for review at the Regional Working Group Meeting; | 2008 |
| Final Report and Final financial statement submitted to PMO/(UNOPS | 2008 |

5 MONITORING/PROGRESS CONTROL

The PMO will assume overall supervision and co-ordination of this task. Programmatic guidance should be sought from the Project Manager, Mr. Yihang Jiang (yihang@yslme.org), copied to Ms. Connie Chiang (connie@yslme.org) at the Yellow Sea PMO. All deliverables should be submitted to Ms. Connie Chiang. The format of the progress, final and financial reports should follow the templates included in Appendix 2 and the schedule as above.