



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

UNDP/GEF/YS/RWG-F.2/7
Date: 22 October 2005
English only

**Second Regional Working Group Meeting
For the Fisheries Component of
The UNDP/GEF Yellow Sea Project**
Busan, Korea, 17th to 20th November 2005

**Activities to be Implemented
2005 to 2006**

One of the responsibilities of the Fisheries Regional Working Group is to provide technical guidance for implementation of activities under this project component. Certain activities have previously been identified for implementation during the first two years of the Project. Many of these activities require the technical inputs of the RWG members whilst others involve consultant contracts that will be issued to individuals through a bidding process following UNOPS guidelines.

The results of these activities will contribute to the Transboundary Diagnostic Analysis (TDA), to the development of the Strategic Action Plans and prioritisation of project interventions, and will enhance capacity to manage fisheries-related problems on a regional scale.

The successful completion of the activities should produce:

- Regionally agreed methods for observation, monitoring and sampling of biological and environmental parameters in the Yellow Sea;
- An enhanced co-operative mechanism for regional marine environment monitoring and observation;
- Upgraded skills in basin-wide observation and monitoring;
- And ultimately, a better scientific understanding of the basin-wide status of the Yellow Sea marine environment/ecosystem.

Following are descriptions of the upcoming activities requiring action and/or technical guidance from the Regional Working Group for the Fisheries Component. These fall under the 4 major activity categories for the Fisheries Component: 1) Regional Stock Assessment; 2) Carrying Capacity; 3) Sustainable Mariculture; and 4) Laws, Regulations and Fisheries Management Plans, as listed in the Implementation Plan.

Members are asked to review and familiarise themselves with these activities, especially with regards to the RWG input that may be required and how the results of these activities will contribute to the TDA and Strategic Action Programme. Members are also asked to suggest suitable candidates for implementing the consultant activities which follow at the rear of this document.

Members should consult the List of Activities and Workplan (Document UNDP/GEF/YS/RWG-F.2/9) that lists the current schedule of project activities relating to the Fisheries Component and describing the expectant start dates and the order in which they occur. Note that the PMO has made modified the schedule to reflect the current status of activities and members will be given the opportunity to review the project schedule later in Agenda 8.

Description of Activities for Fisheries Component

1. Regional Stock Assessment

The current RWG-Fisheries meeting will review the data and information at the completion of the current data & information collection activities, and from this, a regional diagnosis of stock conditions will be developed by the group for input to the TDA.

Members of the RWG-F are asked to create a mechanism for a series of joint-regional, multi-species assessments of fisheries resources in the Yellow Sea. A consultant will be asked develop a common methodology(s) for regional stock assessment (refer to TOR. A), which will be discussed and modified if necessary at the next RWG-F meeting (Meeting 3). The RWG-F will work with the consultant through RWG meetings to revise and finalise these guidelines, and considering the major barriers to stock assessment and the species that need to be assessed, finalise the mechanism for the use in assessment of stocks on an annual basis.

2. Carrying Capacity

At the completion of the current data & information collection activities, the RWG-F will prepare a statement on the state-of-knowledge as it relates to carrying capacity in the Yellow Sea for input to the TDA. This statement will describe knowledge gaps and any barriers to obtaining information on carrying capacity.

A consultant will then be required to prepare guidelines and workplan for undertaking a reiterative series of carrying capacity analysis (refer TOR B) in the Yellow Sea, which includes providing guidelines for the filling in of knowledge gaps and guidelines for a training course on the analysis of carrying capacity, to be discussed and finalised by the RWG. These guidelines and workplans will be handed over to the National Focal Points for implementation and the results will be discussed and evaluated during a scientific seminar that will coincide with the 5th Meeting for the RWG-F.

3. Mariculture Production

Upon completion of the current mariculture data & information collection activities the RWG-F, using the contemporary data & information, will review the existing status and trends of mariculture in the Yellow Sea for input to the TDA. The review will include a description of the knowledge gaps and the barriers to obtaining information on mariculture in the region.

A consultant will prepare a draft joint research plan for sustainable mariculture and will work with the RWG-F to finalise the plan and prepare technical guidelines for a training course on

mariculture techniques, demonstration projects on sustainable mariculture and a training course on disease diagnosis, prevention and control.

The RWG-F will work with the PMO to develop mechanisms to facilitate communications about new mariculture diseases, diagnoses and control techniques, and establish a regional network for information sharing and quick response to mariculture diseases.

4. Regional Agreements, National Laws and Management Plan

The current data & information collection activities will assemble and provide detailed information on the laws and regulations, and the national responsibility of regional and International conventions as it relates to fisheries, fisheries resources and mariculture in the Yellow Sea for input to the TDA. This information will be published together with an analysis and suggestions made by the RWG-F.

A consultant is required to perform a feasibility study on the development of a regional agreement for the sustainable use of fisheries resources, and in particular, to implement the FAO Code of Conduct for Responsible Fisheries (refer TOR D) and propose measures for strengthening laws and regulations, and for the development of a regional fisheries management/implementation plans, that will include a plan for regional recovery. The consultant will also identify the regional requirements and targets for a regional SAP and prepare national SAP which will be contracted to National Focal Points for implementation.

In collaboration with the consultant, the RWG-F will discuss, call for revision, and finalise the draft for proposal to the respective governments for approval.

Description of Upcoming Consultant Requirements

A. Developing Methods for Joint Regional Stock Assessment for the Yellow Sea Large Marine Ecosystem.

Background

One of the problems common to each country highlighted by a Preliminary Transboundary Analysis of the Yellow Sea Large Marine Ecosystem (Feb, 2000) is the "inadequate capacity to assess the ecosystem and perform basin-scale assessments". The approved Implementation Plan of the UNDP/GEF Yellow Sea Project, "Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem (YSLME)," lists one of the activities of the Fisheries Component as 'developing a common methodology for joint-regional stock assessment for the Yellow Sea' that will ultimately enable researchers to determine the condition of stocks and manage fisheries into the future.

The development objective of the task is to develop recommendations for future stock assessments for the Yellow Sea for integration into the YSLME Strategic Action Programme (SAP) and National Yellow Sea Action Plans (NYSAPs). It is hoped that this process of joint-regional stock assessment will contribute to continued development of regionally agreed methods for observation, monitoring and sampling of the marine environment in the Yellow Sea, enhanced co-operative mechanism for regional monitoring and observation; upgrading of skills in basin-wide observation and monitoring; a better scientific understanding of the basin-wide marine environment/ecosystem status; and an increased mutual understanding and trust amongst the participating institutions.

The immediate objectives of this task are to collate information on methods currently used for assessing fisheries stocks in the Yellow Sea, comparing them with methods used in other

regions and for different aquatic systems, where possible filling gaps and providing improvements and developing a set of best-practice guidelines for stock assessment using adequate tools for assessing the condition of stocks in the Yellow Sea.

The details of this task are described hereunder:

Description of Required Services

A competent incumbent, selected through the required United Nations bidding procedure, will be contracted to *develop a common methodology for joint regional stock assessment* as per the list of activities (Objective I: Fisheries; Sub-Objective A: Stock Assessment; Activity 3) of the Implementation Plan.

The incumbent shall carry out the following activities:

- 1) Prepare a comprehensive summary of methods used for assessing fisheries stocks in the Yellow Sea. The summary should include:
 - a. A description of the contemporary and historic techniques/methods used to assess and model stocks in this region.
 - b. A description of methods used for regular, multi-species, stock assessment in other large marine ecosystems and/or in other aquatic systems.
 - c. A description of the types of data and information collected, and used in the analysis, for all these methods.
 - d. A description of the analytical and statistical methodology utilised in each model or technique.
 - e. A description of the benefits, drawbacks and difficulties of each method.
 - f. A description of the knowledge gaps in the current method of Yellow Sea stock assessment, and the barriers to obtaining data.
 - g. A recommendation for the most practicable and appropriate method for regular, multi-species, stocks assessment 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) Prepare recommendations for a comprehensive guideline for annual, multi-species, joint-regional stock assessment for the Yellow Sea comprising of:
 - a. Instructions for jointly-carrying out a reiterative series of multi-species stock assessments for the Yellow Sea;
 - b. Recommendations for the acquisition of data – methodology, type, etc;
 - c. Recommendations for the analysis of data – analytical and statistical models;
 - d. Recommendations for outputs – charting and graphical display of resultant data;
 - e. Recommendations on how data should be archived or managed; and
 - f. Recommendations on where final results should be published, integrated into global databases and how public can access these guidelines.

The guidelines should take into consideration:

- a. Existing national agreements
 - b. Temporal changes in climatic regimes, and
 - c. The geographic parameters of the Yellow Sea Project.
- 3) A Presentation of the results-to-date at the Meeting of the Regional Working Group Meeting-Fisheries, reviewing the preliminary results with all members of the RWG and the Project Management Office.
 - 4) Based on the comments and approval of the Regional Working Group, revise the guidelines and provide a comprehensive proposal or list of recommendations for joint-regional stock assessment (highlighting the major barriers to stock assessment, and indicating the species to be assessed) to the next Regional Working Group – Fisheries meeting, for finalisation.

Expected Outputs/Results

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 both locally and internationally and comparing with other methodologies, describing data types, analytical methods, highlighting the differences, benefits, drawbacks and major barriers;
- (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 recommendation for undertaking an regular, multi-species, joint-regional fisheries stock assessments in the Yellow Sea Large Marine Ecosystem highlighting the suggested frequency of assessments, potential barriers and the species to be assessed;
- (iv) Project progress reports and financial report as provided by the PMO.

Qualifications:

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

- Extensive knowledge of contemporary regional and international fisheries stock assessment methodology and the analysis of relevant data and information.
- Ability to access the necessary fishery stock assessment information through databases, information centres, and other relevant institutions in the country.
- Appropriate academic qualifications and available time.
- Understanding of financial accountability, management and scientific report writing.

Deliverables and Deadlines

The commissioned assignment will be carried out from November 2005 through July 2007, according to the following schedule:

<u>Task</u>	<u>Deadline</u>
Contract signature	November, 2005
Progress report and interim financial statement submitted to	Feb, 2005

PMO/UNOPS	
Comprehensive report on existing stock assessment methods for review at 3 rd Regional Working Group Meeting; Suggestions for a comprehensive strategy for joint-regional stock assessment for review at the Regional Working Group Meeting	May, 2006
Revised guidelines for joint-regional stock assessment (based on revisions from 3 rd RWG Meeting and completion of first survey);	July, 2006
Final Report and Final financial statement submitted to PMO/(UNOPS	July, 2006

B. *Developing Methods for Serial Carrying Capacity Analysis for the Yellow Sea Large Marine Ecosystem*

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 resources. For this to be possible, the 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 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, 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:

Description of Required Services

A competent incumbent, 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 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:

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

The guidelines should take into consideration:

- a. Existing national agreements; and
 - b. The geographic parameters of the Yellow Sea Project.
- 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 institutes/expertise;
 - e. A list of proposed venues/locations for the training course;
- 4) Present the report and both sets of guidelines (#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.
- 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.

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 provided by the PMO/UNOPS.

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 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 in the country.
- Have the appropriate academic qualifications, available time to undertake the task.
- Financial accountability with a professional financial management system.

Deliverables and Deadlines

The commissioned assignment will be carried out from November 2005 through June 2007, according to the following schedule:

<u>Task</u>	<u>Deadline</u>
<p>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 3rd Regional Working Group Meeting;</p> <p>Guidelines for a regional training course on carrying capacity analysis for review at Regional Working Group Meeting;</p> <p>Guidelines for a reiterative series of carrying capacity analysis for the Yellow Sea for review at Regional Working Group Meeting;</p>	May, 2005
<p>Progress report and interim financial statement submitted to PMO/UNOPS</p>	Feb, 2006
<p>Revised guidelines and a new work-plan for a reiterative series of regional carrying capacity analysis in the Yellow Sea, for review at the 4th Regional Working Group Meeting;</p>	May, 2007

Final Report and Final financial statement submitted to PMO/(UNOPS	Jun, 2007

C: *Development of a joint applied research programme for sustainable Mariculture in the Yellow Sea Large Marine Ecosystem.*

Background

As populations of adjacent countries and the world increase, the demand for marine products also increases and more reliance is placed on the aquaculture industry to provide for the nutritional needs of the growing population. As a direct result, Mariculture is an important activity in virtually all coastal areas around the Yellow Sea.

As more mariculture facilities spring up along the respective coastlines, the potential for impact to the environment has increased, and some believe, has reached a point where the carrying capacity of the ecosystem has been impacted beyond the abilities of the ecosystem to cope. A point where mariculture is considered unsustainable. Amongst some of the problems associated with unsustainable mariculture is a reduction in environmental quality, loss or modification of coastal habitats, pollution from mariculture activities, and the spread of pathogens and disease.

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 develop action programmes to encourage sustainable mariculture to mitigate the mariculture-related problems of the Yellow Sea.

Mariculture is defined here as 'The cultivation of marine organisms under controlled conditions, either in their natural environment or in ponds, pens, tanks, or other containers, and/or when feed is used (A hatchery is also considered as mariculture even if fish are released before harvest size is reached; A synonym for marine aquaculture; Mariculture is a marine (ocean) subset of aquaculture'.

The development 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.

The immediate objectives of this task are to develop guidelines for a joint research programme on sustainable mariculture and, as part of that programme, develop the guidelines for specific training courses on sustainable Mariculture techniques. These guidelines will be used in the development of the YSLME Strategic Action Programme (SAP) and National Yellow Sea Action Plans (NYSAPs) and will lead to the development and implementation of pilot activities and demonstration projects around the Yellow Sea.

The details of this task are described hereunder:

Description of Required Services

A competent incumbent, selected through the required United Nations bidding procedure (and based on the Breakdown of Costs given by the incumbent in Annex I), will be contracted to develop a joint applied research programme for mariculture in their region, and prepare technical guidelines for training courses on sustainable mariculture techniques and disease, diagnosis and control techniques as per the list of activities of the Implementation Plan. The incumbent shall carry out the following activities:

- 1) Prepare a report summarizing the existing issues affecting the sustainability of the Yellow Sea Mariculture industry;

- 2) Prepare a draft plan for a joint applied research programme for sustainable mariculture including;
 - a. A list of prioritised scientific research studies/activities to facilitate the development of a sustainable mariculture industry;
 - b. A list of prioritised mariculture training programmes about new technologies and methodologies;
 - c. A list of critical pilot demonstration projects describing:
 - i. The nature of project; and
 - ii. Potential sites for the demonstration activity.
 - d. A list of proposed mechanisms to facilitate regional communication about new diseases occurrences, diagnosis and control techniques.
- 3) Present the draft plan at the meeting of the Regional Working Group (RWG) - Fisheries. The preliminary document will be reviewed with all members of the RWG and the Project Management Office.
- 4) Based on the comments of the Regional Working Group, revise the guidelines for presentation to the next meeting of the Regional Working Group, for finalisation and implementation.
- 5) From here, prepare technical guidelines and detailed work-plan for a training course on each of the following topics and present results to the PMO for implementation.
 - a. 'Mariculture techniques': Towards Sustainability.
 - b. 'Diseases, diagnosis and control techniques'

Expected Outputs/Results

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

- (i) A description of the existing issues affecting the sustainability of the Yellow Sea Mariculture industry;
- (ii) A detailed plan for a joint-regional applied research programme for sustainable mariculture including:
 - a. Agreed scientific research activities
 - b. Mariculture training programmes
 - c. Pilot demonstration projects
 - d. Potential demonstration sites; and
 - e. A mechanism for facilitating regional communication on new diseases occurrence, diagnosis and control.
- (iii) A summary of the comments and recommendations from the Regional Working Group Meeting on the plan for the joint applied research programme.
- (iv) Technical guidelines (including a detailed work-plan and budget) for undertaking a training course on Sustainable Mariculture techniques;
- (v) Technical guidelines (including a detailed work-plan and budget) for undertaking a training course on disease diagnosis, prevention and control;
- (vi) Project progress reports and financial report as described in the Section on Monitoring/Progress Control and shown in Appendix 2.

Qualifications:

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

- At least 20 years experience with the Mariculture industry or in the field of aquaculture research in the Yellow Sea.
- Global knowledge of contemporary and sustainable Mariculture methodology and the management of diseases in aquaculture.
- Ability to access necessary Mariculture-related information through databases, information centres, and other relevant institutions in the country.
- With appropriate qualifications and available time.
- Knowledge of financial accountability and report writing.

Deliverables and Deadlines

The commissioned assignment will be carried out from November 2005 through July 2007, according to the following schedule:

<u>Task</u>	<u>Deadline</u>
Contract signature	November, 2005
Draft Joint Research Plan for applied research program for sustainable Mariculture for review at 3 rd Regional Working Group Meeting;	May, 2005
Progress report and interim financial statement submitted to PMO/UNOPS	February, 2005
Based on the comments from the 3 rd Regional Working Group Meeting, revise Joint research plan and present for review at 4 th Regional Working Group Meeting for finalisation.	May, 2007
Prepare technical guidelines for training course on Mariculture techniques to be submitted to the PMO; Prepare technical guidelines for training course on disease diagnosis, prevention and control to be submitted to the PMO;	June, 2007
Final Report and Final financial statement submitted to PMO/(UNOPS)	July, 2007

D. *Developing Regional Agreement for Sustainable Use of Fisheries Resources*

Background

In the approved Implementation Plan of the UNDP/GEF Yellow Sea Project, "Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem," one of the activities of the Fisheries Component is to develop a regional fisheries management/implementation plan for the sustainable use of fisheries resources.

The development objective of this task is to achieve, through development of a regional agreement for the exploitation of fisheries resources, and by proposing measures for strengthening laws and regulations, sustainable management of fisheries and mariculture activities in the Yellow Sea.

The specific objectives of this task are for the development of regionally agreed methods of managing fisheries and mariculture activities in the Yellow Sea, enhancing co-operative mechanisms for regional monitoring and enforcement, upgrading of skills of managers and enhancing mutual understanding and trust amongst the participating national ministries.

The details of this task are described hereunder:

Description of Required Services

A competent incumbent, selected through the required United Nations bidding procedure will be contracted to assess information on national laws & regulation, and national responsibility of regional and international conventions, and from this information, develop a proposal for regional fisheries management for the sustainable use of fisheries resources in the Yellow Sea.

The incumbent shall carry out the following activities:

- 1) Prepare a report summarizing the existing national laws, regulations, regional and international conventions as it applies to the Yellow Sea and including an analysis of:
 - a. The feasibility of a regional agreement on sustainable use of fisheries resources; and
 - b. The feasibility of implementing the FAO 'Code of Conduct for Responsible Fisheries' in a regional management plan for fisheries resources in the Yellow Sea.
- 2) Prepare a draft plan for a regional agreement on sustainable use of fisheries resources for presentation to the respective governments, inclusive of;
 - a. The highlighting of legislative issues and proposal of measures for strengthening laws and regulations;
 - b. Suggestions of ways to improve and strengthen enforcement.
- 3) Present the draft plan at the meeting of the Regional Working Group (RWG) - Fisheries. The preliminary document will be reviewed with all members of the RWG and the Project Management Office.
- 4) Based on the comments of the Regional Working Group, revise the guidelines for presentation to the next meeting of the Regional Working Group, for finalisation and implementation.

- 5) Prepare a draft plan for a regional fisheries management/implementation plan;
 - a. Including a regional recovery plan;
 - b. Identifying regional requirements;
 - c. Targets for a regional Strategic Action Programme (SAP).
- 6) Present the draft plan at the next meeting of the Regional Working Group (RWG) - Fisheries. The preliminary management plan document will be reviewed with all members of the RWG and the Project Management Office, and a national SAP will be developed by national focal points based on the draft plan.
- 7) Incorporating the national SAP developed in item 6), prepare a draft regional SAP for regional management of sustainable fisheries in the Yellow Sea.
- 8) Present the draft plan at the meeting of the Regional Working Group (RWG) - Fisheries. The preliminary regional SAP document will be reviewed with all members of the RWG and the Project Management Office.

Expected Outputs/Results

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

- (i) A report detailing the existing national laws, regulations, regional and international conventions as it applies to the Yellow Sea; Including:
 - a. An analysis of the information and describing the feasibility of a regional agreement on sustainable use of fisheries resources; and
 - b. Describing the feasibility of implementing the FAO 'Code of Conduct for Responsible Fisheries' in a regional management plan.
- (ii) A report specifying a draft plan for a regional agreement for sustainable use of fisheries resources, proposing measures for:
 - a. strengthening laws and regulations, and
 - b. Improving and strengthening enforcement.
- (iii) A report summarizing the comments and recommendations on the draft plan for regional agreement made by the Regional Working Group Meeting.
- (iv) A report detailing a draft plan for a regional fisheries management/implementation plan incorporating:
 - a. A regional recovery plan for fisheries resources,
 - b. Identifying regional requirements for regional fisheries management, and
 - c. Proposing targets for a regional Strategic Action Programme (SAP) for management of sustainable fisheries.
- (v) A report summarizing the comments and recommendations on the draft fisheries management/implementation plan report made by the Regional Working Group Meeting.
- (vi) A report describing a SAP for the regional management of sustainable fisheries in the Yellow Sea.
- (vii) A report summarizing the comments and recommendations on the regional SAP

report made by the Regional Working Group Meeting.

(viii) Project progress reports and financial report as provided by the PMO.

Qualifications:

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

- Extensive knowledge (at least 10 years) of the national laws, regulations, as it relates to the Yellow Sea.
- Knowledge of regional and international conventions as it applies to fisheries, and fisheries law particularly in this area.
- Ability to access necessary fisheries legislation-related information through databases, information centres, and other relevant ministries/institutions in the country.
- With appropriate qualifications and available time.
- Knowledge of financial accountability and report writing.

Deliverables and Deadlines

The commissioned assignment will be carried out from November 2005 through July 2006, according to the following schedule:

<u>Task</u>	<u>Deadline</u>
Contract signature	November, 2005
Draft Joint Research Plan for applied research program for sustainable Mariculture for review at 3 rd Regional Working Group Meeting;	May, 2005
Progress report and interim financial statement submitted to PMO/UNOPS	February, 2005
Based on the comments from the 3 rd Regional Working Group Meeting, revise Joint research plan and present for review at 4 th Regional Working Group Meeting for finalisation.	May, 2007
Prepare technical guidelines for training course on Mariculture techniques to be submitted to the PMO; Prepare technical guidelines for training course on disease diagnosis, prevention and control to be submitted to the PMO;	June, 2007
Final Report and Final financial statement submitted to PMO/(UNOPS)	July, 2007