



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

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Draft Proposal for Training Workshop for Data Information Management

**Data Analysis for Marine and Coastal Management in the Yellow Sea: How to Apply
the GIS Data and Information to Science and Management of the Yellow Sea?**
(tentative)

1. Background

The UNDP/GEF Yellow Sea Large Marine Ecosystem (YSLME) Project aims at implementing an ecosystem-based approach to reduce stress from unsustainable development on the Yellow Sea ecosystem and at initiating management actions leading to the long-term sustainability of the marine environment and resources of the YSLME. To fulfil this mission, it is important for the Project to effectively manage data and information relevant to the Yellow Sea and facilitate their active use.

To improve the access to and the use of the data and information, the YSLME Project established the Regional GIS and Meta Databases that are located at the China-Korea Joint Ocean Research Centre (CKJORC) in Qingdao, China. The Databases enable a wide range of users to obtain, in an organised manner, vast amounts of data and information in the field of both natural and social science, that are collected from not only YSLME Project activities, but also other relevant data centres from around the world. As more data are added and more linkages are established with other relevant international, regional, and national databases and data centres, the Project’s Databases continue to evolve into a “one-stop on-line shop” for Yellow Sea physical, chemical, and biological data.

Through Project implementation, it became clear that there was a need for a “data acquisition centre” where users can easily access raw data and use the data according to their needs. The YSLME Project’s databases will provide these opportunities for environmental practitioners and scientists in the region to become familiarized with the system and contents of the Databases for each sector’s own use

There is also a need to provide information on how to apply the geographic information systems (GIS) techniques to actual management practices for the Yellow Sea ecosystem by disseminating an effective way to collect, analyse, use, and present the data.

Based on the above understanding, the Project proposes to organise a training workshop on data and information management, targeting environmental researchers and practitioners in the region. The Project Steering Committee (PSC), a decision making body of the YSLME Project, endorsed this activity at its third meeting in Jeju, Republic of Korea (ROK), 23-24 November 2006.

2. Objectives

Following the decision made by the PSC, the YSLME Project will organise the "Training Workshop for Data Information Management" in winter 2007. The Workshop, with approximately 20 regional practitioners scientists invited, will be a lively, hands-on programme that features a set of instructions and exercises for effective data analysis. Through the Workshop, it is expected that the participants will develop a good understanding of not only how to access and retrieve the data through the Project's databases, but also how to analyse the data and how to apply the results effectively to management practices. Participants will also produce short pieces of work displaying the newly acquired skills.

The specific objectives of the Training Workshop are to:

- familiarise regional scientists and managers with the web-based YSLME GIS system to access the data and information collected through Project activities as well as other relevant data centres; and
- provide practical skills for the participants to effectively retrieve, analyse, and prepare the information for better use and management of marine and coastal resources in the Yellow Sea.

Through the Workshop, it is expected that the participants will prepare basic information with both numerical and graphical data for marine and coastal environmental management and planning, such as the Environmental Impact Assessment and the "Marine Spatial Planning." The Marine Spatial Planning, considered as a practical approach to long-term ecosystem-based management, scientifically analyses and allocates marine space to specific uses to achieve given ecological, economic, and social objectives. For more details, see a proposal attached to this proposal as Annex for the Marine Spatial Planning that will be organised in summer 2007 .

3. Participants

The Workshop participants will come from national and local government agencies and relevant marine research organisations in China and ROK. Approximately 20 participants (10 persons from each country) will be invited to the Workshop.

The participants should be professionals who deal with marine and coastal management. To benefit most from the hands-on nature of the Workshop, the participants are expected to actively participate in and contribute to discussions and exercises provided in the Workshop.

4. Workshop Topics

The Workshop consists mainly of lectures and hands-on exercises. Specific topics may include the following:

- System structure and features of the regional GIS and Meta Databases
- Data access from and use of the Databases

The instruction will be provided on how to access and retrieve data. Retrievable data may include the location and size of:

- Physio-chemical and biological parameters of sea water (e.g., salinity, temperature)
 - Substrate type (e.g., rock, sand)
 - Density and composition of biological organisms (e.g., fish, plants)
 - Nutrient concentration
 - Pollutant concentration
 - Industrial estates
 - Fishing communities
 - Coastal cities
 - Population/demography
 - Critical habitats
 - Historical data of all of the above
- Techniques of GIS data analysis for management purposes

The techniques will be provided for analysing GIS data and applying the results of analysis to management with case study analyses used. Case studies may include the GIS application to:

- Prediction of intertidal communities
- Critical habitat identification
- Wetland park designation
- Evaluation of effectiveness of management actions (e.g., Marine Protected Areas)
- Environmental Impact Assessment
- Marine Spatial Planning/functional zoning

Demonstration and/or case studies should not be limited to the regional cases; cases from outside region should be presented, if appropriate.

5. Organization of the Workshop

(1) Dates and venues

The workshop should be organised in late 2007 or in 2008. Specific dates and venue will be determined later with workshop topics and other requirements considered.

(2) Identification of participants and lecturers

In consultation with the National Project Co-ordinators (NPCs) and the relevant national and local organisations, the PMO will invite the lecturers and the participants to the workshop.

(3) Administration

The YSLME Project Management Office (PMO) will make necessary arrangements for the workshop in co-operation with participants and other relevant organisations.

(4) Financial arrangement

Required budget will be shouldered by the YSLME Project and co-sponsors.