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

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UNDP/GEF/YS/RWG-B.2/3  
Date: 12 October 2005  
English only

**Second Regional Working Group Meeting  
For the Biodiversity Component of  
The UNDP/GEF Yellow Sea Project**  
*Jeju, Korea, 9<sup>th</sup> to 12<sup>th</sup> November 2005*

**Meeting Report**



## **OPENING OF THE MEETING**

### **1.1 Welcome addresses**

- 1.1.1 Mr. Jeffrey Archer on behalf of the United Nations Development Programme UNDP/ Global Environment Facility (GEF) Yellow Sea Large Marine Ecosystem (YSLME) Project Management Office (PMO) opened the meeting, welcoming all participants to Jeju Island. He thanked the Cheju National University International Centre for the splendid venue and for the meeting arrangements, and noted especially the attendance of a large number of observers.
- 1.1.2 Mr. LEE Yoon, the Chairperson of the Regional Working Group for Biodiversity, welcomed the group to Jeju. He briefly presented the agenda for the meeting and summarized the objectives of the meeting.

### **1.2 Introduction of the members**

- 1.2.1 Participants of the Regional Working Group (RWG) for Biodiversity were invited to introduce themselves and each gave a description of their background and involvement in the project. Observers also introduced themselves, describing their areas of potential input to the project. The list of participants is attached to this report as [Annex I](#).

## **2. ORGANISATION OF THE MEETING**

### **2.1 Documentation Available to the Meeting**

- 2.1.1 The Chairperson invited the Secretariat to introduce the documents prepared for the meeting.
- 2.1.2 Mr. Archer from the PMO introduced the list of documents (Document UNDP/GEF/YS/RWG-B.2/inf.1) and informed the meeting that the documents in front of them included the discussion documents (Expected Outcomes and Outputs of the 2<sup>nd</sup> RWG-B meeting, Activities to be Implemented 2005 to 2006, A Brief Description of the Governance Analysis, and Workplan for the Biodiversity Component 2005 to 2006), and the informational documents, Report of the 1<sup>st</sup> RWG-B Meeting, Report of the 1<sup>st</sup> RSTP Meeting, and the Report for the Technical Meeting for the Cooperative Study Cruises (October, 2005) provided as background documents for the discussion. The Secretariat made special mention that the document UNDP/GEF/YS/RWG-B.2/5 was missing from the documentation, as this relied on the data and information collection reports from the participating countries, which had not been received prior to the meeting.

### **2.2 Organisation of Work**

- 2.2.1 The Secretariat introduced the document UNDP/GEF/YS/RWG-B.2/inf.3 describing the Provisional Working Programme for the meeting and noted that the meeting would be conducted in plenary as best as possible, but suggested that some aspects be addressed in sessional working groups where necessary.

### 3. ADOPTION OF THE MEETING AGENDA

- 3.1 The Secretariat briefly explained each agenda item, referring to the Provisional Agenda (Document UNDP/GEF/YS/RWG-B.2/1) and Provisional Working Programme (Document UNDP/GEF/YS/RWG-B.2/inf.3).
- 3.2 Participants were then asked to consider the documents prepared by the Secretariat, and to propose any amendments or additions that they might wish.
- 3.3 **The meeting adopted the agenda with no modification, which is attached as [Annex II](#) to this report.**

### 4. EXPECTED OUTPUTS FROM THE SECOND RWG-B MEETING

- 4.1 The Chairperson invited the Secretariat to introduce Document UNDP/GEF/YS/RWG-B.2/4, and explain the expected outputs from this Meeting.
- 4.2 Mr. Archer presented the outcomes and outputs anticipated from the meeting, stating that the main objectives were: the review and synthesis of biodiversity data and information for the Yellow Sea acquired through the recent data collection exercise; to analyse gaps in this data; identify the difficulties and barriers to data and information collection; and to discuss the preparation of data and information for input to the Transboundary Diagnostic Analysis (TDA).
- 4.3 He reported that the major outcomes of the meeting were expected to be:
  - An awareness of the quality, gaps, difficulties and barriers to collecting data and information on Biodiversity, and an understanding of mechanisms to address these issues.
  - An awareness of the region-wide status and patterns-of-change in biodiversity, habitats and vulnerable species, and their protection in the Yellow Sea;
  - A revised list of 'perceived problems' and Causal Chain Analysis agreed at the first RWG-Biodiversity (RWG-B) meeting.
  - An improved state-of-knowledge of the existing national laws and regulations on biodiversity, habitat protection and vulnerable species and how these may contribute to potential governance issues.
  - An agreement on Biodiversity Component inputs for the preparation of the Draft TDA.
  - Understanding of the Biodiversity Component's role in the upcoming Cooperative Surveys of the Yellow Sea Marine Basin.
  - Agreement on activities to be implemented during 2005 to 2006 including the objectives of the body-of-work that is required to be implemented prior to the next RWG-B meeting, the role of consultants and members of the RWG-B in the process.
  - Agreement on list and schedule of activities for the RWG-B for 2005 to 2006.
- 4.4 Mr. Archer then informed the group of what tangible outputs were expected from the meeting. These were:

- A set of mechanisms to address the gaps, data issues and the barriers and difficulties to collection of data and information, etc.
- A listing of the format and presentation of data for input to the final TDA document.
- An updated causal chain and governance analysis based on contemporary biodiversity information, finalized for input to the Draft TDA.
- A workplan for the Regional Working Group – Biodiversity showing activities for 2005 to 2006, to submit for approval to the 2<sup>nd</sup> PSC Meeting.
- Approved statements of works for each of the impending consultant activities and proposals for suitable candidates.
- A workplan and list of responsibilities for activities leading up to, during, and after the co-operative cruise for the Biodiversity component.

4.5 Participants were then asked to consider the expected outcomes and outputs from the meeting, and to propose any amendments or additions that they might wish.

4.6 **There were no further issues or modifications to the list of outputs.**

## 5. CONSIDERATION OF THE ON-GOING ACTIVITIES UNDER THE BIODIVERSITY COMPONENT

### 5.1 REVIEW OF COLLECTED BIODIVERSITY DATA AND INFORMATION

5.1.1 The Chairman invited the Secretariat to introduce the expected outputs for this agenda item.

5.1.2 Mr. Archer briefly described the outputs expected from the collected biodiversity data and information and the actions required from the working group after considering the presentations from each country. These were to: discuss the results of the reports; review the data table (agreed at the First RWG-B Meeting); identify gaps in the data; discuss and agree upon the format of data to be analysed; and consider the presentation of data in the TDA, and later, in the GIS database.

5.1.3 Mr. Archer also mentioned that the group should relate the findings back to the original table of 'Perceived Problems of the Yellow Sea' to check for validity and, if possible, provide a diagnoses of the state of the Yellow Sea as it relates to Biodiversity issues.

5.1.4 Mr. Lee Yoon of the National Fisheries Research and Development Institute (NFRDI) and Ministry of Maritime Affairs and Fisheries (MOMAF, Korea, gave a presentation describing the status of data collection for Republic of Korea.

5.1.5 He stated that data for 'Habitat Loss: Changes in area and length of selected habitats' was available in Korea, with 'actions of reclamation' data from 1963 to the present (40 years) being available; Reclamation area data is also 'available' although no temporal scale was given, and habitat type

(using RAMSAR Classification) was also available but with only less than 20 years worth of data.

- 5.1.6 With regard to 'Habitat Loss: Percentage Change of Habitats Under Protection', Mr. Lee reported that number and total area information was 'available', and that there was a lack of GIS information, however maps were available depicting this information.
- 5.1.7 For 'Percentage Change of Habitats Utilized for Sustainable Use' - zoning plans, number and total area data were 'available', although there was no definition of temporal scale.
- 5.1.8 Data for 'Habitat Conservation: Change in selected habitats before and after utilization and non-utilization' was also available, with the number and size of area being available for only the last 2-3 years. Data on the conversion of areas to salt pans activities is available, but there exists no official version of aquaculture data.
- 5.1.9 For 'Introduced Species for Culture', number of species introduced for culture was available for the last 50 years, but for species accidentally introduced to the wild through culture activities, data is only available for some species (e.g the bivalve *Mytilus edulis*, but not for fishes), but date of introduction cannot be determined (not even to year, or decade). For Abundance of introduced species, data for number and abundance still requires further consultation but Mr. Lee noted that most-likely Korea does not possess this data.
- 5.1.10 For 'Loss of Species' data on number of endemic species is available, 20 years for fishes. 30 years for dominant phytoplankton and 20 years for zooplankton. Data is also available on other taxonomic groups, vulnerable species, listing and IUCN threat categories. No temporal scale was given for the latter.
- 5.1.11 For 'Degradation of Biodiversity: Changes in genetic diversity of important bio-resources tested by gene pool analysis', Mr. Lee stated that data on 'genes per selected species' was 'undefined at present'. Mr. Lee mentioned that he believes that Korea may have genetic information on more than 5 species.
- 5.1.12 The Chairman invited the First Institute of Oceanography (FIO), State Oceanic Administration (SOA), China to present the Biodiversity-related data and information collected for China during the past collection exercise.
- 5.1.13 Mr. Chen Shang of the FIO described the activities that the China group has undertaken for the data & information collection. He introduced the members of the data-collection group and described the contents of the planning meetings held for the exercise. Mr. Chen provided a view of some data in spreadsheet form.
- 5.1.14 For 'Habitat Loss' China has located information and reports for reclamation data but is not available now. China will acquire some remote sensing images to identify the information on this.
- 5.1.15 Mr. Chen also reported that there were different types of protected area recognised in China relating to different types of use of the zones, and their targets of protection.

- 5.1.16 China was only able to locate information and reports for 'marine functional zoning' of the Shandong Information from Jiangsu Province will be available in December, 2005 and information for Liaoning is not available as it is still being reviewed.
- 5.1.17 Mr. Chen further stated that only general information on 'Endemic Species' existed and that there was information on 10 taxonomic groups for 'Vulnerable Species'. For Genetic Diversity, information was available for more than 10 species. He also indicated that there were 'many' laws and regulations related to Biodiversity referring to an extensive list in the dataset.
- 5.1.18 Mr. Chen reported that they possessed data and information regarding distribution of important organisms (vulnerable, endemic, etc) and the population trend (plus causes of trends), however the data was still in the process of being translated.
- 5.1.19 He described the data for 'Introduced species' showing that they had data on the 'origin country' and 'first place of introduction', plus the references for each point of information. He stated that the data is only concerned with 'established species in aquaculture' and that there was no data to describe 'establishment of species in the wild', with the exception of the invasive plant *Spartina*.
- 5.1.20 He presented to the group some of the data and information he has collected on laws and regulations related to Biodiversity in China, showing details in the spreadsheet such as the issue date and approval department.
- 5.1.21 Mr. Chen proposed that a survey of coastal area be conducted to obtain more information on the status of exotic species and habitat loss, and he felt that this was more important to pursue than 'gene pool analysis'. He also stated that as they only possessed general information on endemic species and some vulnerable species, there is not much known of abundance and distribution therefore highlighted the need for a coastal survey.
- 5.1.22 He remarked in summary that the data and information that is currently available in China is 'not enough' to determine the status of biodiversity in the yellow Sea.
- 5.1.23 Mr. Chen stated that three data gaps existed: (1) lack of information on exotic Species, and the impacts from exotic species on native species; (2) lack of data and information on genetic diversity of aqua-cultured populations and wild populations; and (3) no current information on habitat loss.
- 5.1.24 Mr. Lee Tae Won noted an absence in both reports of data and information on species used in the 'restocking' of populations of native species, and suggested that this information be included if possible.
- 5.1.25 Both China and Korea reported that there is currently no data and information on re-stocking and suggested that re-stocking information should be considered by Fisheries in the mariculture section.

- 5.1.26 **The PMO agreed to discuss the 're-stocking' issue at the next RWG-Fisheries meeting on the 17<sup>th</sup> November, 2005.**
- 5.1.27 Mr. Tobai Sadayosi of the WWF/KORDI/KEI Yellow Sea Ecoregion Planning Programme (YSEPP) described some of the issues relating to same-species introduction citing the following examples: The Manila Clam – where introduction of the same species from China/Korea to Japan to augment wild populations has introduced foreign parasites in some populations; Also the importation of an octopus, thought to be the same species, from Korea (Jeju Island) to Japan, and introduction into the wild, has resulted in some identifiable ecological and biological changes, such as shift in the spawning season of the wild population.
- 5.1.28 **Both China and Korea reported that they possessed that type of data and agreed to include it in their data collection.**
- 5.1.29 Mr. Tobai also informed members that the YSEPP possesses a database of endangered species for the Yellow Sea region that may be useful to backup the data and information collected by the group.
- 5.1.30 **YSEPP agreed to distribute this information to the Chairs of each country's working group after the meeting.**
- 5.1.31 Mr. Archer asked both countries to agree on the national level that data would be collected to for each country.
- 5.1.32 **China agreed to collect habitat data at the 'city' level**, explaining that in China, the 'city' level may actually include several counties, for example, the City of Qingdao includes eight 'counties'.
- 5.1.33 **Korea agreed to collect habitat data at the 'do' level**, which is approximately equal to the Chinese 'city' level.
- 5.1.34 At the completion of the data and information reports, the group was invited to discuss the data presentation requirements for the RWG-B. The Secretariat described the requirements for presentation of the data and information for both the TDA in the immediacy and for GIS and public Awareness activities in the future.
- 5.1.35 The Chairman requested Mr. Tobai to give a brief overview of the data and GIS information developed by their programme and that is available for use by the YSLME.
- 5.1.36 Mr Tobai together with representatives from the GIS systems development company, Sundosoft, Inc, gave an overview of the data and information products from the YSEPP and explained for the benefit of new members and observers, how their designations of Ecologically Important Areas can contribute critical elements of the RWG-B data requirements for the TDA, and for use in the Strategic Action Programme (SAP).
- 5.1.37 Mr. Cho Woo Ik showed the GIS overlay maps and described some of the difficulties in defining the areas (polygon shapes) on the maps, and also how to integrate the data from both countries, and made suggestions for a coordinated GIS system (such as the Lambert Conformal Coordinate System) to record longitude and latitude information for both countries.

They recommended that the database software Microsoft Access be used as preferred data management software because of its usefulness and user-friendliness, although they stated, that Microsoft Excel was also suitable.

- 5.1.38 Mr. Cho offered to the group for Sundosoft to review the data and information provided by the RWG and standardise the format of certain data so that it could be used in the development of GIS, and noted that Sundosoft would discuss the GIS requirements of the RWG-B (and the other RWGs) at an upcoming meeting with a representative of the China-Korea Joint Ocean Research Centre, currently being arranged by the PMO.
- 5.1.39 The group discussed in detail the requirements for visual presentation of the data and information.
- 5.1.40 In the light of the new data and information gathered during the collection exercise, the Chairperson invited the group to re-examine the table listing the parameters for 'data and information collection' and the list of 'perceived problems' which were identified at the first RWG-B meeting, and make any modifications to this list as necessary.
- 5.1.41 Mr Tobai noted that 'reclamation data' for China is available in a reference that he can provide it to the relevant parties at a later date.
- 5.1.42 Mr. Lee Yoon queried the definition of 'artificial' coastal line and suggested that the definition should include 'reclamated coastal line' utilising the reclamation data that is being collected.
- 5.1.43 **After discussion, members agreed that the term 'artificial' coastline would comprise of a number of different information types including the construction of concrete structures, reclamation of land, development of extensive erosion barriers, sea dykes, and coastal dam, etc.**
- 5.1.44 Participants entered into detailed discussions and made further modifications to the data table, adding information on the availability of each data item for both China and Korea. The final 'parameters for collection' data and information table showing the updated terms and temporal availability of data is attached in Annex III.
- 5.1.45 The Chairperson asked the group to consider the format of raw data to be presented to the PMO at the end of the data and information collection exercise and invited the Secretariat to present an example of a dataset table for both countries to use.
- 5.1.46 Mr. Cornish posed two recommendations to the group:
- 1) To utilise the existing YSEPP ecologically important areas in the data table in order to ensure data from YSEPP was directly comparable in terms of location and scale, and
  - 2) To utilise the basic 'causal chain columns' in the dataset spreadsheet to facilitate the causal chain analysis at a later date.

- 5.1.47 **The group discussed the recommendations and will consider to use the YSEPP ecologically important areas in the data table although anthropogenic data is already collated at city level in China (refer 5.1.32). Mr. Tobai was satisfied this scale was sufficiently detailed for a direct comparison. And will consider to utilise the basic 'causal chain columns' in the dataset spreadsheet in their analysis if it is appropriate.**
- 5.1.48 Members completed reviewing the data-entry templates and after making various comments and modifications finalised the spreadsheets. **The agreed spreadsheets are attached in Annex IV.**
- 5.1.49 **The group recognised the new data table format, and understood that completion of this table is not a necessary requirement for the signed data collection contracts, but a mechanism to synthesise the data and information between both countries. The group will try their best to collect data according to the new table format.**

## 6. CONSIDERATION OF THE COOPERATIVE STUDY CRUISE

- 6.1 The Chairperson invited the Secretariat to present a summary of the Technical Meeting for the Co-operative Study Cruises (17-18 October 2005) (Document UNDP/GEF/YS/JC.1/3).
- 6.2 Mr. Archer presented the outcomes and agreements of the Technical Meeting for the Co-operative Study Cruises (17-18 October 2005), describing the agreements on cruise dates, survey route, sampling stations and transect locations, and the personnel allocations made for each working group that will be onboard during the survey. He also described the discussions and agreements on transportation of equipment and personnel, the role of Scientists and their responsibilities, the preparation of equipment and the research vessel, sample and data sharing and follow-up work.
- 6.3 He discussed the fact that the Biodiversity Component has since decided to send two scientists on the winter and summer cruises to survey seabirds and marine mammals, and provided an overview of the decisions made relating to this. He noted that the Chinese researcher has been chosen, but are waiting for the nomination from Korea.
- 6.4 Mr. Archer also noted that the Chief Scientist for China and Chief Scientist for Korea have both been selected for the cruise, and both have the appropriate authority and responsibility for the cruise. He also stated that the Captain of the ship was ultimately responsible for the safety of the ship and personnel and would make the relevant decisions based on this.
- 6.5 The Chairperson invited members to consider necessary technical details of the joint cruise, and to decide on the workplan and responsibilities to finalise the preparation of the Biodiversity component of the co-operative study cruise.
- 6.6 Mr. Lee Yoon suggested that participants on the cruise should include an expert on birds and one on mammals, and that Korea and China should work together to select a complementary specialist (seabird or marine mammal specialist) from their country.

- 6.7 **The members discussed this suggestion and the group agreed that the Chinese side would provide an expert on marine mammals and that the Korean side would try to provide an expert on seabirds. Both countries agreed to reassess the situation if Korea could not locate a suitable person.**
- 6.8 Ms. Choi Young Rae informed that there is a recommendation for one more expert from each field to attend the cruise to fully cover both sides of the ship, and also to develop a policy for the purchase and disposal of equipment for the survey.
- 6.9 Mr. Archer replied that the number of scientists on board was limited and allocation had already been made. The number of scientist participating on behalf of the Ecosystem Component had been reduced by 2 to accommodate the recent wishes of the RWG-B to send 2 scientist on the cruise. It would be difficult for the RWG-B to seek an additional 2 slots for more people at this time. However if the group agreed to it, the PMO would raise the issue with the relevant parties to request that the wishes of the RWG-B are accommodated. He also noted that the PMO are currently developing a policy paper to deal with the issue ownership and disposal of equipment from the Cooperative Cruise, and for the Project. He stated however, that it is the policy of the UNDP/GEF that all equipment purchased with project funds will remain the property of the GEF until such time as an agreement on its disposal was made.
- 6.10 **The group discussed this recommendation and agreed to not change the original number of scientists to represent the RWG-B on the cruise, but will consider this at a later date for the spring cruise later next year.**
- 6.11 Mr. Seo Kyung Suk raised the issue about the financial support to purchase a few items such as a telescope and digital video recording system for the Cooperative Study Cruise. And also mentioned that we need time to discuss about which item we are going to purchase. They would let the PMO know about this in two weeks. The amount of money will not be dramatically different from that of the Chinese budget proposal.
- 6.12 China has already supplied the name of the nominated marine mammal specialist and the Secretariat urged Korea to provide their nomination as soon as possible so that they could initiate the visa application process. He also urged the two countries to collaborate and finalise the budgets for the cruise to provide to the PMO as soon as possible.
- 6.13 **Korea agreed to provide the name and passport details of the Korean specialist to attend the cruise, to the PMO by the 19<sup>th</sup> November, 2005.**
- 6.14 Mr. Tobai informed the group that an 'on-ship manual for seabird observation', developed by a North American Seabird Group and adopted by a Japanese Seabird Group for on-vessel observations of seabirds at sea that potentially could be adopted for this cruise.
- 6.15 **The Biodiversity group agreed to obtain copies of these guidelines and work with the biodiversity scientist participating in the study cruise to develop a manual and methodology for the observation of birds and marine mammals for use in this survey. Members agreed to submit this to PMO by December 10, 2005.**

- 6.16 Mr. Cornish pointed out that 'genetic information' is not included in the list of data to be collected during the cooperative cruise, and suggested that this may be a good opportunity to collect such information.
- 6.17 Mr. Archer replied that it might be too late to include the collection of Gene Pool data during the winter cruise; however, there is an opportunity for that analysis in the spring cruise should we decide to pursue gene pool analysis in the future, and pending approval by the Project Steering Committee (PSC). **He stated that the PMO would discuss the acquisition and storage of samples with the other groups to determine whether the RWG-B could retroactively undertake genetic analysis should they decide to pursue this topic.**
- 6.18 The Chairperson invited the members to examine the workplan of the Cooperative Study Cruise (Document UNDP/GEF/YS/JC.1/3) and consider the activities of Biodiversity Component leading up to the cruise and after the cruise.
- 6.19 **After some discussion, members agreed to work with the seabird and marine mammal specialist on the development of the workplan when they are selected, with full consideration of the time constraints. Members agreed to finalise the workplan for the cruise and submit it to PMO by November 20, 2005.**

## 7. ACTIVITIES TO BE IMPLEMENTED DURING 2005 TO 2006

- 7.1 The Chairperson invited the Secretariat to introduce Document UNDP/GEF/YS/RWG-B.2/6 and describe the body of work that is required to be implemented prior to the 3<sup>rd</sup> RWG-B meeting.
- 7.2 Mr. Archer summarized the tasks of this agenda item and asked the members to familiarise themselves with the upcoming activities, the input required by both the members of the RWG-B and external consultants, the schedule of implementation of the work, and asked the members to propose appropriate candidates to undertake the consultant tasks.
- 7.1 He described the immediate activities of the RWG-B in lieu of the recent data and information exercise and considering the approaching deadline for inputs to the TDA.
- 7.2 Mr. Archer then described the mid-term activities that following these describing the discrete actions for the various sub-components:
- Habitat Conservation, Restoration, and Protection of Vulnerable Species.
  - Conservation of Genetic Diversity
  - Introduced Species, Impacts and Controls.
- 7.3 The Chairperson invited members to consider the activities of the RWG-B for 2005 to 2006, make any comments necessary and propose appropriate candidates for the required consultant activity.
- 7.4 Mr. Chen drew attention to the lack of exotic species data in the Yellow Sea and suggested that the RWG should undertake a survey on species diversity and habitat loss in coastal waters, referring to his proposal submitted to the

Chairperson in June, 2005. He added that the cooperative cruises do not include the coastal areas and will only yield information about basin-located species. He enquired to the PMO whether a survey of this nature was possible from a project point of view.

- 7.5 Mr. Archer replied that if it serves the purposes of the project, and a detailed proposal, workplan and budget for the survey were produced soon enough, then PMO could seek approval at the next PSC meeting. However, a full justification for the survey would be required and an assessment of the quality of existing data would need to be made to see if there is a lack of data to justify the survey. Without the above, it would be impossible.
- 7.6 **After much discussion members agreed that the reviewing of the existing data and information, and the identifying of data gaps should be completed first, before the issue of an additional coastal survey is discussed (at the next RWG-B meeting).**
- 7.7 **Both Korea and China agreed to provide proposals for candidates for the Biodiversity consultant contract by the 18<sup>th</sup> November, 2005.**
- 7.8 Mr. Tobai suggested the following items for possible inclusion in the Terms of Reference for the consultant contract for the regional strategy for biodiversity. These were:
1. To develop a procedure for the prioritization of demonstration sites for biodiversity conservation, especially for MPAs.
  2. To produce a draft result of prioritized demonstration sites based on the proposed procedure with datasets collected by the RWG-B and YSEPP.
  3. He also recommended that this should take place in the form of a training workshop.
- 7.9 **The PMO thanked Mr. Tobai for this critical input and agreed to discuss how the consultant TOR may be modified with WWF, to include this important element.**
- 7.10 The Chairperson invited the Secretariat to introduce Document UNDP/GEF/YS/RWG-B.2/7 and provide a brief description of governance analysis and the process that will be employed by the Investment Component to facilitate the overall governance analysis for the project.
- 7.11 Mr. Endo Isao, Environmental Economics Officer for the PMO, presented the process of Governance analysis for the Project describing the background, the components and a suggested implementation structure of governance analysis. He stated that during the reviewing of the implementation plan and discussions with experts, there is a need for a consultant to undertake a full governance analysis integrating the outcomes from each component. He noted that there is currently no budget allocation for this consultant activity and was seeking an agreement from all the component groups to present the proposal to the PSC meeting for approval so that funds for the consultant activity may be sought.
- 7.12 The Chairman invited comments from the group in response to Mr. Endo's presentation.
- 7.13 Mr. Chen recommended to the PMO to examine the possibility of a training workshop on governance analysis.

- 7.14 Mr. Huh Sik on behalf of KORDI offered to host and support this workshop at their institute.
- 7.15 Mr. Chen, on behalf of FIO also offered to support the workshop in Qingdao.
- 7.16 The group agreed with the recommendation and requested that the PMO examine the possibility of a training workshop on governance analysis to be held before the next RWG meeting.**
- 7.17 Mr. Kim Jong Deog made a number of suggestions regarding the governance analysis:
- That the scope of work might be too large to be complete in a proposed study period and that collecting data at the provincial level would be difficult and time-consuming, though he recognized the importance of the Governance Analysis for developing a strategy or a policy in the TDA/SAP process.
  - That the analysis should focus on country level and not at finer resolutions in order to complete the analysis in time for the TDA. The time and scope of work need to be considered to determine whether the work is feasible.
  - That local government, in addition to the public, should be informed about the YSLME Project before conducting a consultation for governance analysis with them.
  - Moreover, while agreeing with the proposed plan, pointed out the capacity of consultants (who would conduct the analysis) as a potential challenge for the actual implementation.
- 7.18 Korea provided several suggestions for Korean institutions that are capable of conducting such an analysis, such as the Korea Maritime Institute (KMI), the Korea Ocean Research and Development Institute (KORDI), the Korea Environment Institute (KEI), and the Seoul National University as well as other universities. He recommended that the KMI should be involved in this project, and that KORDI should also be considered as they have strong marine policy teams. They also mentioned that many of these institutions have commitments to complete before end of year, so that we should work fast to initiate any plans with these organisations.
- 7.19 China suggested the First Institute of Oceanography and the Ocean University of China (Qingdao) as potential candidates for the Governance Analysis, reporting that both organizations have extensive expertise and experience in this field.
- 7.20 The PMO replied that it would follow up on these suggestions and will eventually select an appropriate consultant to undertake the consultant for this task based on the rules and regulations of the UNOPS. The evaluation of the consultant will depend on their abilities to be able to complete the contract within the given amount of time. The PMO emphasized the due date for the finalization of the TDA and noted that we must be prepared to compromise on the outcome of the Governance Analysis due to the time constraint.
- 7.21 Mr. Chen emphasized the importance of hiring two consultants, one from each country (China/Korea) for the governance analysis.
- 7.22 Mr. Huh Sik recommended forming a 'governance analysis group' consisting of one designated member from each project component (5) as well as the

contracted consultant(s) who would be in charge of overall analysis and integration.

- 7.23 **The PMO agreed to consider these recommendations during the consultation process.**
- 7.24 The PMO agreed to consider, if necessary, to reduce the scope of work, manage the schedule to produce the results in time, and discuss the challenges with the Investment Group at the next meeting.
- 7.25 Mr Archer noted that there are some implications to the RWG-B should there be an agreement, stating that there may be an additional data requirement from the Biodiversity Component to provide data and information for the governance analysis to assist the consultant and expedite the consultant activity to meet the deadline.
- 7.26 **The group agreed on the proposed governance analysis presented by the PMO, and expressed a continuous commitment and willingness to support the PMO and the consultants in the process of the analysis by providing additional relevant data if necessary. Both agreed to begin identifying the location of data after the meeting to be handed over to the consultant when they are selected.**
- 7.27 With the agreements made, the Chairperson further invited the members to consider possible data items for the Governance Analysis.
- 7.28 After careful consideration, members prepared a list of suggested data items relating to Biodiversity for the Governance Analysis. **The agreed list is attached in Annex V.**
- 7.29 The Chairman invited the PMO to introduce the original Causal Chain Analysis table finalized at the last RWG-B meeting and asked members to review it based on contemporary conservation and vulnerable species information and finalize the Causal Chain Analysis for input to the Draft TDA.
- 7.30 Mr. Chen Shang recommended that the term “Introduced Species” was changed to “Exotic Species” to cover a larger subset of organisms that are ‘foreign’ to the Yellow Sea, including: organisms intentionally introduced by man (for culture, aquariums, pets, ornamental, etc); organisms non-intentionally introduced by man (ballast-water and bio-fouling organisms) and; naturally invasive organisms (via currents, rafting and climate change).
- 7.31 **The members agreed that the term ‘Introduced Species’ should be replaced with ‘Exotic Species’. The PMO agreed to go through all documentation at a later date and make the necessary adjustments.**
- 7.32 **The updated causal chain analysis is attached in Annex VI.**

## 8. WORKPLAN FOR 2005 TO 2006

- 8.1 The Chairperson invited the Secretariat to introduce Document UNDP/GEF/YS/RWG-B.2/8, the project workplan.
- 8.2 Mr. Archer presented the schedule format of the current workplan for the Regional Working Group – Biodiversity, stating that some changes have been made to reflect the current situation. He invited members to review and revise the workplan for the RWG-B, for submission and approval at the 2<sup>nd</sup> PSC Meeting in December 2005.

**8.3 The updated Schedule for the Biodiversity Working Group for 2005 to 2006 is attached in Annex VII.**

8.4 The group recommended that a joint meeting with Pollution and Ecosystem (and any other necessary working group) be arranged to discuss tropic linkages, and other cross-component issues.

**8.5 The PMO agreed to examine the budget and logistics for the additional separate meeting sometime around October, 2006.**

**8.6 The PMO also agreed to examine the agenda for the 3<sup>rd</sup> RWG-B meeting and determine whether there was time to hold a special meeting on Genetic Diversity during the RWG meeting, or whether an extra one-day meeting should be held after it.**

**9. OTHER BUSINESS**

9.1 *The Chairperson invited* Members to raise any other issues to be considered by this meeting.

9.2 Mr Archer raised the issue of gene pool analysis and stated that an agreement on whether this group still wanted to pursue this as part of activities of this component was still required. If an agreement to proceed was reached then the PMO would need to present this requirement to the PSC to seek funding for these activities during the budget revision at that meeting.

9.3 The group recommended to continue collecting existing data for the genetic diversity and agreed to address the subject of gene pool analysis and produce an agreement on this subject at the 1 day workshop.

9.4 Mr. Chen suggested that two members participate in the next Regional Science and Technical Panel (RSTP) meeting to improve communications.

9.5 The PMO replied that the membership to the RSTP has been already been agreed and that we would need to seek approval for this. He stated that observers may be allowed at the RSTP meeting, and that this may adequately satisfy the request.

9.6 Mr. Archer encouraged better communications between members of working groups and between countries participating in the working groups, and emphasized that the mutual understanding and cooperative environment is a major desired outcome of the project.

9.7 Mr. Archer briefly introduced the UNOPS/PMO contracting procedure for the benefit of the group, describing the different contract modalities, contract types, the general contractual processes and procurement system, emphasizing the time it takes to complete the process and the urgency for expedient actions by members of the working group.

**9.8 Members took the overview into consideration, appreciating the complexity of the process and agreeing to follow the UNOPS procedures in order to facilitate the process.**

**10. VENUE FOR THE NEXT REGIONAL WORKING GROUP MEETING**

- 10.1 The Chairperson invited members to consider the venue for the third RWG-B meeting.
- 10.2 Mr. Archer noted that during the organisation of the 2<sup>nd</sup> round of RWG meetings for the different components many changes to the previously agreed meeting schedule. He emphasized that this had created a significant load of additional work for the PMO, and produced 'downstream' effects that may lead to the delay in other meetings and activities of the project. He requested that members consider their schedules when selecting a meeting date and venue.
- 10.3 **Members of the group agreed to have the 3<sup>rd</sup> RWG-B meeting in Chengdu, China, from the 24<sup>th</sup> to 27<sup>th</sup> July, 2006.**

## 11. ADOPTION OF THE MEETING REPORT

- 11.1 **The report was considered paragraph by paragraph and adopted as contained in this document.**
- 11.2 The Chairman moved the formal motion for the adoption of the report of the second Meeting for the regional Working Group for the Biodiversity of the YSLME Project which was passed by acclamation.

## 12. CLOSURE OF THE MEETING

- 12.1 Mr. Archer, on behalf of the PMO, thanked all the participants for their hard work and dedication to producing a good final-product. He remarked that he was impressed by the broad spectrum of input in this meeting, due in part to the large number of observers, and also to the diverse range of expertise exhibited by the members of the group. He noted, that although some topics had to be repeated and issues had to be revisited during the meeting due to the attendance by many new members, he felt that the meeting had benefited from this overall by a greater range of input. He voiced his hope that the RWG-B membership would remain consistent in the future, and that observers would continue to participate in future meetings.
- 12.2 On behalf of Korea, Mr. Seo Kyung Suk gave thanks to the Chairman for his duty of managing the long meeting, gave thanks to his counterparts in China and the PMO for their hard work.
- 12.3 Mr. Chen Shang also gave thanks to the Chairman on behalf of the Chinese delegation and to the participants for their hard work.
- 12.4 The Chairperson thanked the participants of the meeting, the Project Manager, PMO staff and observers for their hard and constructive work, and formally closed the meeting at 20:00 hrs, November 12<sup>th</sup>, 2005.



## Annex I

### List of Participants

#### PARTICIPANTS OF THE MEETING

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## **Annex II**

### **Agenda**

#### **1. OPENING OF THE MEETING**

- 1.1 Welcome addresses
- 1.2 Introduction of the members

#### **2. ORGANISATION OF THE MEETING**

- 2.1 Documentation Available to the Meeting
- 2.2 Organisation of Work

#### **3. ADOPTION OF THE MEETING AGENDA**

#### **4. EXPECTED OUTPUTS FROM THE 2ND RWG-B MEETING**

#### **5. CONSIDERATION OF THE ON-GOING ACTIVITIES UNDER THE BIODIVERSITY COMPONENT**

- 5.1 Review of collected Biodiversity data and information

#### **6. CONSIDERATION OF THE COOPERATIVE STUDY CRUISE**

#### **7. ACTIVITIES TO BE IMPLEMENTED DURING 2005 TO 2006**

- 7.1 Regional Data and Information Synthesis
- 7.2 Data and Information Input for TDA
- 7.3 Habitat Conservation, Restoration and Protection of Vulnerable Species
- 7.4 Conservation of Genetic Diversity
- 7.5 Introduced Species, Impacts and Controls

#### **8. WORKPLAN FOR 2005 TO 2006**

#### **9. OTHER BUSINESS**

#### **10. VENUE FOR NEXT REGIONAL WORKING GROUP MEETING**

#### **11. ADOPTION OF THE MEETING REPORT**

#### **12. CLOSURE OF THE MEETING**



### Annex III

#### Updated 'Parameters for Collection' Table

Problem	Indicators/Information Needed to Detect Problem:	Type:	Unit:	Temporal Requirements:	Spatial Requirements:	Availability:		Priority:	Trans boundary?:
						ROK	CHINA		
<b>Habitat Loss</b>	Change in extent (Area and Length) of selected marine and coastal habitats	Reclamation Data (includes developing and approved)	Area, %	20 - 30 Years	Coastal Areas of Yellow Sea	For last 30 years (since 1963)	For last 20 years (only have 10 years data)	H	Y
		Artificial vs. Natural Coastline (artificial = concrete structures, reclamation, erosion barriers, sea dyke, coastal dam)	Length, %	20 - 30 Years	Coastal Areas of Yellow Sea	Yes (more than 40 years)	Yes (only have 10 years data)		
		Habitat Type (e.g using RAMSAR Classification System for Wetland types)	Area, %	20 - 30 Years	Coastal Areas of Yellow Sea	Yes, less than 20 years (have 15 years)	Yes (only have 10 years data)		
	Percentage change in marine and coastal habitats under protection	International Registered, National (all relevant departments), Provincial, County (local), by protection type.	Number, Total Area and map and GIS info where possible	30 Years	Coastal Areas of Yellow Sea	National, Provincial, County (local), 20 years (20 years for each category)	National, Provincial, County (local), more than 10 years (No County info, 10 years only)	H	Y
	Percentage change in marine and coastal habitats utilised for sustainable use (e.g. to encourage	Zoning Plans, National (all relevant departments), Provincial, County (local).	Number, Total Area	NA	Coastal Areas of Yellow Sea	National, Provincial, County (local), 10 years (10 years for	National, Provincial, County (local), 10 years (No County Info)	H	

	Ecotourism)*					each category)			
<b>Habitat Conversion</b>	Change in extent (Area) of selected marine and coastal habitats. e.g mariculture, salt pans	Habitat Type before and after, by utilisation (salt pan, mariculture, estuary barrages, etc) and by non-utilisation	Number, Area, number of barrages and size	20-30 Years	Coastal Areas of Yellow Sea	Y (mariculture 2 years, saltpan est. 10 years)	Y (10 years)	H	Y
<b>Introduced Species (includes natural and human-related)</b>	List of all species introduced for culture	Species, Origin and date of introduction	Number of species	30 Years		Y (50 years)	Y (A few species 30 years, most 10 years)	H	Y
	All species introduced to the wild through culture	Species, location, date of introduction	Number of species, date.	20 Years for some	Yellow Sea	Info for some species, but cannot determine date (not have - except mussel M. edulis)	Info for some species (a few species, mostly Spartina and some fishes from fisherman only)	H	Y
	Abundance of introduced species	Species, abundance and distribution	No. Species, abundance and distribution	20 Years for some	Yellow Sea	Need consultation (none)	Info for some species (only Spartina)	H	Y
<b>Loss of Species</b>	Endemic Species	Species	Number	50 Years	Yellow Sea	Need Consultation (only name list, found site)	Need Consultation (only name list, found site)	H	Y

	Vulnerable Species	IUCN Threat Categories, IUCN Red List, National Vulnerable Species Listings	Number species in each threat category	20 Years	Yellow Sea	Y (20 years, mainly fish and marine mammals and seabirds)	Y (some fish 20 years)	H	Y
<b>Degradation of Bio-Diversity</b>	Changes in genetic diversity of important bio-resources	Gene Pool Analysis	Genes per selected species	Undefined at present	Undefined at present	Y (many species)	Y (some papers on some species)	M	Y
	* Recommend to refer this issue to relevant RWG								



## Annex IV

### Agreed Data Format Tables

The following are the agreed parameters for data and information collection and data entry.

#### Protected Area

Site Name (or ID)	Site			Location (range)		Objectives of Protection	Area (ha)				
	Province	City or County	Description	Long	Lat		Total	Core Area	Buffer Area	Experiment Area	Map of Distribution

Habitat			Community type		Human Activities	Management institution					References	Remarks
Type	Area	Trend	Important Species	Major Communities		Level	Responsible Department	Date of Establishment (Approval Date)	Active Management	Staff No.		

#### Reclamation

Name of Reclaimed Region	Site			Location (Range)		Date	Reclamation Rstatus
	Province	City or County	Description	Long	Lat		

Natural Coastal Habitat			Artificial Coastal Habitat			Impact by Human Activities		References
habitat type	area km <sup>2</sup>	length km	habitat type	area km <sup>2</sup>	length km	rank 1	rank 2	

**Habitat Conversion**

Site Name (or ID)	Site			Location (range)		Date
	Province	City or County	Description	Long	Lat	

Habitat Type	Habitat Area km <sup>2</sup>	Major Utilization	Human Activity			References	Remarks
			rank 1	rank 2	rank 3		

**Functional Zoning**

Site				Location (Range)		Area	Major Function	Current Utilization	Approval Year	Approval Government	References
Site Name (or ID)	Province	City or County	Description	Long	Lat						

**Vulnerable Species**

Group Name	Latin Name	English Name	Chinese Name	Korean Name	Distribution in YS (Description)	Quantity or catch	
						Date of Peak Catch	Date of Lowest Catch

IUCN Threatened Categories	Trend	Major Causes	IUCN Red List	China Red List Category	Korean Listing (To be defined)
	↓ or ↑				

### Endemic Species

Group Name	Latin Name	English Name	Korean Name	Chinese Name	Distribution in YS	Found Date	High-level Year	Low-level Year
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Threatened Categories	Trend	Major Causes	China Red List	Korean List (to be defined)	IUCN Red List	References
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### Exotic Species

Latin Name	English Name	Chinese Name	Korean Name	Pathway of Introduction	Objective of Introduction	Date of Introduction	Origin of Import
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Rearing Site (Place or Facility Broodstock Held or Raised)	Date of First Record in Wild	Site of First Record in Wild	Wild Population Yes or Not	Wild Population Distribution	References	Remarks
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### Genetic Diversity

Group Name	Latin Name	English Name	Chinese Name	Korean Name	Genetic Information	References	Remarks
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**Laws and Regulations**

<b>Group Name</b>	<b>Name</b>	<b>Issued Date</b>	<b>Issued By</b>	<b>References</b>	<b>Remarks</b>
Biodiversity-related laws					
Biodiversity-related regulations					
Biodiversity-related standards					
Biodiversity-related international agreements					

## **Annex V**

### **List of Recommended Data and Information to be Included in Governance Analysis**

- I. List of stakeholders of the Yellow Sea
- II. List of management related departments (e.g. government structure, including county level)
- III. List of biodiversity related laws and regulations and standards, etc
- IV. List of current and planned developments (e.g., Marine Protected Areas - MPAs)
- V. Current and planned relevant national and provincial budgets, systems, legal basis, and person in charge of each responsible entity (government organizations which are responsible for the conservation efforts). Focus on identifying the budget allocation, rather than suggesting the specific revision on the budgets.



## Annex VI

### Causal Chain Analysis after the 2<sup>nd</sup> RWG-B Meeting

Problem	Impact	Immediate cause	Underlying cause	Root cause	Governance analysis	Priority rank
<b>Habitat Loss</b>	Reduction in habitat area, quality and community	Reclamation, erosion, sand extraction, ocean dumping, <b>construction activities.</b>	increased demand for coastal land resources, building materials, waste disposal field, <b>natural change</b>	Requirement for more land for rapidly growing population	Inadequate planning, management practices, and coastal development systems, lack of knowledge and or infrastructure base, <b>weak enforcement</b>	
	Change in extent (Area and Length) of selected marine and coastal habitats	Extensive reclamation, development of Mariculture, construction of estuary barrage	increased demand for coastal land resources between 1970's and early 1990's	requirement for more land for rapidly growing population	Development-oriented policies in coastal and marine areas, Inadequate planning, management practices, and coastal development systems, lack of knowledge and or infrastructure base, stakeholders interests, <b>legislative loop-holes encourage reclamation, inadequate laws, weak enforcement</b>	
	Change in marine and coastal habitats under protection	Designation of protected areas, Development of habitat management plan	Decreased coastal and marine development pressure since late 1990's	Extended knowledge for the importance of coastal and marine habitats	<b>Lack of an integrated coastal and marine management authority,</b> International agreement, treaties and conventions for environment and living resources	
	Change in marine and coastal habitats utilised for sustainable use (e.g. to encourage Ecotourism)	Demand for sustainable coastal development	New demand for multi-purpose use in coastal and marine areas	Improved standard of living	<b>Intentions for sustainable use for marine resources and conservation of marine ecosystem</b>	
<b>Habitat Conversion</b>	Change of habitat structure	Reclamation for culture and salt production, <b>and recreational activities</b>	Increased demand for food and salt	Requirement for more food and salt for rapidly growing population	<b>Inadequate planning, weak enforcement for marine function zoning practice (especially local government)</b>	

<b>Exotic Species (includes natural and human-related)</b>	Impact on native species	Increased demand for culture, and from ballast water, <b>climate change</b>	Demand for food, increased shipping transportation	Requirement for more food <b>and salt (deleted)</b> for rapidly growing population, inadequate knowledge	<b>No or weak management practice, inadequate regulations, weak controls on greenhouse gases</b>
<b>Loss of Species</b>	Reduction in Species Diversity	Improper use of bio-resources, Over-exploitation, habitat degradation and loss of spawning and nursery grounds, <b>introduced species, change of community structure and food web</b>	Improperly utilisation, pollution, dumping,	Inadequate knowledge	<b>Inadequate management practice, weak enforcement, poor policy for habitats and living resources</b>
			Improperly managed and controlled fisheries systems, lack of knowledge of intentionally introduced spp. (physiology, ecology etc), and poor education of importance of species diversity.	Lack of knowledge of function and mechanism for ecosystem	Inadequate planning, management practices, and coastal development systems, lack of knowledge and or infrastructure base. Lack of integrated inter-ministerial approaches
<b>Degradation of Bio-Diversity</b>	Changes in genetic diversity of important bio-resources	Release of cultured species to the natural environment		Inadequate knowledge	<b>None, or weak management practice, inadequate regulations</b>

## **Annex VII**

### **Updated Biodiversity Workplan After the 2<sup>nd</sup> RWG-B Meeting**

