

# NEWSLETTER

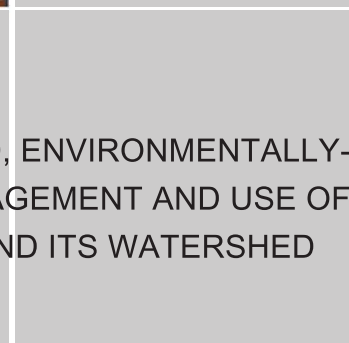
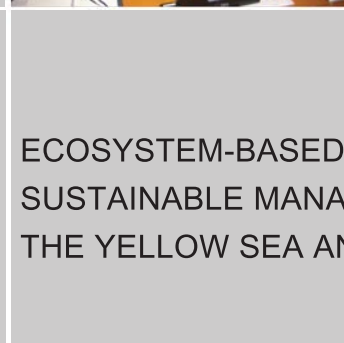
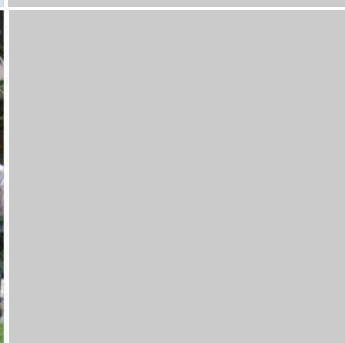
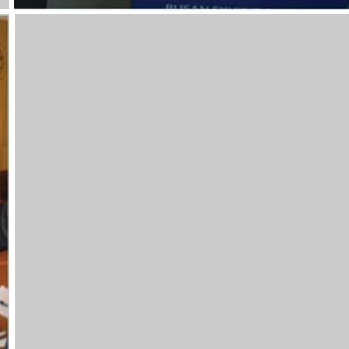
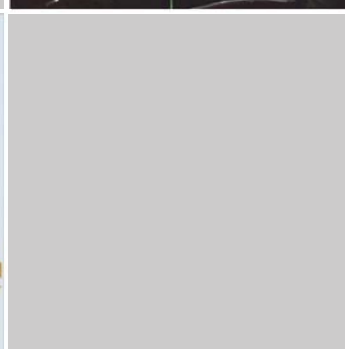
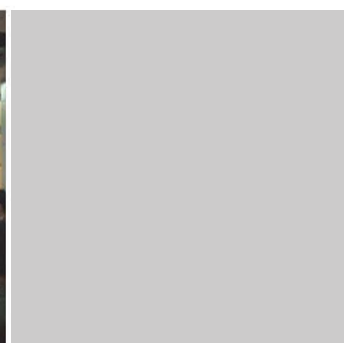
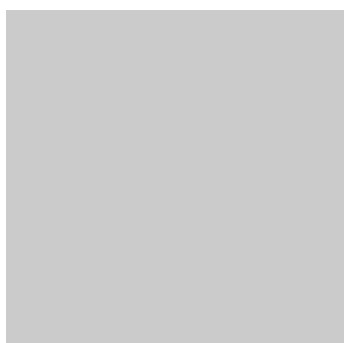
Yellow Sea Large Marine Ecosystem



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ECOSYSTEM-BASED, ENVIRONMENTALLY-SUSTAINABLE MANAGEMENT AND USE OF THE YELLOW SEA AND ITS WATERSHED

UNDP/GEF Project Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem

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## 1st Fisheries Stock Assessment Workshop Concluded

The first fisheries regional stock assessment surveys successfully took place in May 2008 using the agreed methodologies. Currently, there is an exchange of scientists between YSFRI and WSFRI who are working together to harmonise fish ageing techniques and analysis of fish stomach contents. The next meeting to discuss the findings from the 1st Stock Assessment Surveys will be held in WSFRI in Incheon 19-21 August 2008.

The workshop was held in the Yellow Sea Fisheries Institute (YSFRI), Qingdao 14-16 April to discuss how to harmonise fisheries stock assessment procedures in the Yellow Sea prior to the start of the Joint Regional Stock Assessment surveys. The workshop was attended by experts from West Sea Fisheries Research Institute (WSFRI), R. of Korea headed by Dr. Inja Yeon and from YSFRI, China headed by the Deputy Director General, Dr. Xianshi Jin.

During the meeting, participants agreed on the number and identity of the species targeted for stock assessment, compared the current methods used for collecting fisheries and biological data before selecting bottom trawl as the best method for assessing fish stocks in the Yellow Sea. Members also agreed on the survey methodology and gear to be used and how to calibrate the trawl results from each country by using the swept area method adjusted by water volume filtered, and for zooplankton to use similar net sizes and mesh.

One of the main problems that came to light during the first 2 years of the project was the differences in the way the data was recorded in the two countries, which prevented comparison of fisheries data. So members agreed on the data and data format required.



During the meeting.



## 3rd SAP Ad-hoc Meeting & 2nd Special PSC Meeting



During the meeting.

To prepare the Strategic Action Programme (SAP), the special Project Steering Committee (PSC) meeting was organised immediately after the third ad-hoc working group meeting (Hangzhou, China, 6-8 May 2008). The members of the special PSC, consisting of government officials and regional scientists, reviewed the draft SAP that was prepared by the Drafting Group, provided suggestions to improve the draft, and approved the SAP after all the suggestions were incorporated. Then, the approved SAP was submitted as the final draft to the participating governments for their consideration and endorsement. The PSC agreed to take necessary actions with each government so that the governments' endorsement would be secured by July/August 2008.

Several characteristics made the YSLME SAP unique compared to other SAPs. Firstly, the YSLME SAP employed the ecosystem-based approach rather than the traditional sector approach (as reported by the last issue of *Newsletter*). Secondly, the SAP provided concrete and measurable targets such as the 25-30% reduction in fishing efforts. Lastly, the SAP proposed mechanisms for regional co-ordination and co-operation, including the YSLME Commission. Those characteristics will help in addressing environmental issues holistically in the Yellow Sea and in improving the health of its food chain. As a result, people can continue to benefit from the abundant gifts and services that the Yellow Sea provides.



Participants focusing on the screen during the meeting.



## - YSLME Special Session

of nutrients, disease causing pathogens, chemicals from mariculture establishments in the region. Talks covered heterotrophic shrimp culture, shellfish disease, dietary improvements, bioremediation using macro-algae and Integrated Multi-trophic Aquaculture (IMTA).

Two of these topics have been selected for mariculture demonstration activities, IMTA and heterotrophic shrimp culture. IMTA is where lower trophic level species such as algae and filter-feeding bivalves are used to absorb the waste products from higher trophic levels such as fish or shrimp thereby reducing nutrient outflows, as well as improving the overall productivity and profitability. Heterotrophic shrimp culture is a zero-water exchange system that uses low protein diets and aeration to promote the growth of bacterial flocks. These flocks absorb nutrients from the water and provide an extra source of protein for the shrimp, thus significantly reducing the release of nutrients to the environment and reducing the proportion of fish protein in the diet thus reducing the demand for fishmeal. PDF versions of the presentations can be downloaded from our website ([www.yslme.org](http://www.yslme.org)).



The YSLME Booth.

The World Aquaculture Society (WAS) had their annual meeting in BEXCO, Busan City, Republic of Korea, 20-23 May 2008, attended by more than a thousand people from 95 countries around the world. During the meeting, YSLME project organised a special session on the Friday morning, chaired by Dr. Mark Walton and Dr. In Kwon Jang, titled "Reducing the environmental impacts of mariculture in the Yellow Sea". Participants from China and R. Korea presented papers on innovative methods of reducing the release

In combination with the successful special session, we also occupied a booth at the WAS trade show that ran in parallel to the conference. The booth, manned by Ms. Kyungsuk Lee, displayed our latest publications e.g. *The Yellow Sea: Analysis of environmental status and trends* (China and R. Korea country reports, and regional syntheses) and various YSLME mariculture workshop proceedings as well as a poster display of the most recent activities in the project focusing on the development of the Strategic Action



Programme and its impact on mariculture in the Yellow Sea. Special thanks go to Dr. Charles Sungchul Bae, Dr. (Albert) Kwang-Sik Choi, Dr. In Kwon Jang, Dr. Fang Jian Guang and Dr. Jihong Zhang for helping organise a special session for the YSLME, and for The Korean Aquaculture Society for their generous support of the trade show.



YSLME session.



During the talks.

On 22nd May 2008, the regional ocean colour experts of the YSLME Sea Ocean Colour task team met in Kota Kinabalu, Malaysia, to plan the activity for 2008. Led by Prof. Hiroshi Kawamura of Tohoku University, the task team reviewed the refined in-water algorithms for estimating chl-a, TSM, and CDOM ag440. The team also reviewed the outcomes from the earlier stages of the activity in 2007, discussed how to improve the common dataset, discussed further inclusion of data and cooperation with other scientists, and carried out an outreach event at the 7th WESTPAC Scientific Symposium. A summary of the 2007 results was presented to the symposium workshop "Ocean Remote Sensing – From Satellite Oceanography to Integrated Coastal Area Management (ICAM)."

The task team agreed to implement 2008's activity as follows:

- Error analyses of outlier points
- Additional match-up generation for the turbid water
- Examine the influence of geographically biased distribution of match-ups
- Develop satisfaction criteria for the final algorithms
- Design new approach for improving the in-water algorithms (i.e., using ratios, case separation, etc.)
- Inviting atmospheric correction scientists to contribute to the final outputs.



Participants of the YOC-2008 First Meeting, Kota Kinabalu, Malaysia.



First Ocean  
Colour 2008  
Meeting  
Successfully

Convened During 7th WESTPAC  
Scientific Symposium



## The Summer Co-operative Cruise Will Soon be Underway

From 10-12 June 2008, a reporting and planning session was held in Yantai, China, to report on the winter co-operative results, and plan for the summer cruise. Each group – Chemicals, Benthos, Biology – reported on its results from the winter co-operative cruise. A plenary discussion was held on the results, and suggestions for solving data discrepancies and further inter-comparison were given. Scientists will carry out data and potential error checking to ensure that the final results are comparable and can be reported on a basin-wide scale.

The work to be undertaken during the summer cruise was discussed and agreed on by each group. The summer cruise will take place from late July through mid-August 2008.



## Korea University Students Visit PMO

In May, a group of 20 students from the Graduate School of International Studies, Korea University, visited YSLME Project Management Office (PMO) to learn about international collaboration and YSLME activities. During their visit, the project manager, Mr. Yihang Jiang, briefed the students on the role the United Nations and provided diverse examples of international organisations that address transboundary environmental problems. Mr Isao Endo followed by presenting the activities conducted by the YSLME Project to address the particular issues faced in the Yellow Sea. The group actively participated in discussions with PMO members on transboundary environmental issues, fisheries problems, the importance of the marine environment and methods of enhancing stakeholder participation.

As a result, the students gained better understanding of the approaches taken by the project of became interested in learning more about the conservation activities conducted by the United Nations.



Scientists planning the summer cruise sampling procedures.



Korea University students learning about the UN.

develop basic guidelines and a management plan to restore Mokpo Wetland for Mokpo Municipal Government.

To have a glance of our entire small grant programme, please visit the project website ([www.yslme.org](http://www.yslme.org)).



## Small Grants 2008 Awards

The YSLME Project is pleased to announce the winners of the Small Grants Programme 2008. Five proposals were selected for funding.

The winning projects focus on a diverse array of themes: Activities that stimulate the development and adoption of management schemes to improve protection of the marine environment and sustainable resource use in the Yellow Sea.

The projects will begin in July 2008 and continue until June 2009. Rongcheng Fisheries Association in Shandong will initiate a project to protect the seagrass of Nianjin with the local communities. Nanjing University will conduct a pre-warning assessment using shellfish as bio-indicators of the environmental health of Yancheng coastal area, China. Ocean University of China will help to demonstrate the development of community-level strategies to reduce the threats of resource overexploitation in Binzhou wetland.

Black-faced spoonbill, an endangered bird species, feeds on the rice fields and coastal waters of Ganghwa Island (ROK) during its breeding season. PGA, a Korean organisation, will build partnerships and networks with other organisations and farmers to monitor and provide guidance on good agri-environment practices for spoonbill habitats. In the south of the Korean peninsula, Birds Korea will conduct wetland surveys and in partnership with experts, will



## Competitions Held During World Ocean Day

For the celebration of World Ocean Day (8th June 2008), PMO organised a painting competition for primary school children in R. Korea and China, and also a photo competition.

The painting competition focused on the Yellow Sea environment and actions to conserve the environment. More than 400 students participated in the competition from various schools in the Yellow Sea regions.

The paintings received from all the schools were really beautiful and of outstanding quality, letting us know how much these young artists are aware of the importance of the Yellow Sea and the environmental issues faced by us today.



It was nice to receive a note of appreciation from Miss Liu Xue Ya, Primary School teacher from China who wrote, *"Thank you very much to organise this activity which give a lot of us to know more about our Yellow Sea. Best wishes to you and a great success to your programme"*.

We also received some very interesting entries for the Yellow Sea Photo Competition, dealing with environmental issues from the oil spill in Taaen, to people enjoying the sea to stunning snapshots of wildlife.



### DINRAC Workshop

To facilitate the co-operation with NOWPAP, a representative of the Yellow Sea Project participated in the Seventh Focal Point Meeting of the NOWPAP's Data and Information Network Regional Activity Centre (DINRAC), which was organised in Beijing, China, 13-14 May 2008. The meeting discussed not only the activities that the DINRAC implemented itself and with other RACs, but also the possible future co-operation with other organisations in the region. The international organisations participating in the meeting, including the Yellow Sea Project, expressed their strong willingness to strengthen the co-operation with NOWPAP in the field of data and information management. Having appreciated these statements, the meeting decided to seek further co-operation with the relevant international organisations. It was expected that such a close co-operation would promote the data use and sharing to enhance regional efforts for sustainable development in the Yellow Sea as well as other relevant areas.



NMEMC and  
Liaoning  
Province,  
China, Host

### a Marine Assessment Workshop

NMEMC received a contract to organise a workshop in Shenyang, China, 2-4 June 2008, on assessing marine pollution. The Liaoning Oceanic and Fisheries Bureau co-hosted the workshop, and presented the opening address, emphasising the need to have basin-wide comparable information from monitoring and other research projects.

More than 20 scientists from China, Republic of Korea, United Kingdom, NOWPAP, and YSLME presented a wide range of monitoring and assessment work being carried out in the Yellow Sea. Suggestions on the objectives of monitoring and how to incorporate methods from outside the region were also provided. The discussion session allowed exchange of information, and noted some salient points to improve monitoring and assessing the data in this region. Participants also took the opportunity to expand their network to include scientists from other regions and institutes within the larger northeast Asian region.

A CD containing the abstracts and presentations will soon be available from the YSLME.



Right: Participants of the workshop.



## Euidea returns to the PMO

Ms. Euidea YUN returned to work after 16 weeks maternity leave and giving birth to a daughter named Yoomin Song. Euidea says, "To get baby gives biggest happiness with difficulties to take care. But happiness is more than difficulty, can't be compared with any others. After give a birth, life can step forward in comprehension." During her absence, Mr. Wooyeol Beak served in the IT admin position. He left Korea in July for studying master degree in e-businesses at Carnegie Mellon University. The PMO thanks him for his contribution. The PMO has several challenges in the IT system for the remainder of the project. For smooth operation and challenges of the YSLME PMO, we are happy to have Euidea back to do her best and see the project to a successful completion.



Yoomin Song on 100 days after her birth

For a copy of the newsletter or publications,  
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## Upcoming Events In second half of 2008

2nd Co-operative Cruise Launch	Qingdao, China	29 July 2008
Youth Programme	Buan, ROK	19-21 Aug 2008
2nd Fisheries Workshop for Regional Stock Assessment	Incheon, ROK	19-21 Aug 2008
Introduction for TDA/SAP	Dalian, China	21-22 Aug 2008
Phase 2 Working Group Working Session 1	Dalian, China	26-28 Aug 2008
5th Meeting of RWG-Biodiversity	Wehai, China	3-5 Sep 2008
Regional Science Conference on sustainable mariculture and disease control	Qingdao, China	9-10 Sep 2008
5th Meeting of RWG-Ecosystem	Taeon, ROK	23-25 Sep 2008
5th Meeting of RWG-Fisheries	Xian, China	23-25 Sep 2008
3rd Yellow Sea Partnership workshop	Changwon, ROK	Oct 2008*
5th Meeting of RWG-Pollution	Xiamen, China	8-10 Oct 2008
5th Meeting of RWG-Investment	China	14-16 Oct 2008
Phase 2 Working Group Working Session 2	Dalian, China	20-22 Oct 2008
5th Meeting of RSTP and PSC	China	24-28 Nov 2008

\* Tentative