



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

UNDP/GEF/YS/RWG-P.4/5
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English only

Fourth Meeting of the Regional Working Group for the Pollution Component *Jeju, Republic of Korea, 11 -13 October 2007*

Completed Activities of the Pollution Component in the Past Year

1. Pollution Component-relevant activities completed during the past year are described below.

Agenda 5.1 First Yellow Sea Regional Science Conference

2. The “First Yellow Sea Regional Science Conference was held from 14-16 August 2007 in Hangzhou, China. Oral and poster presentations were given, focusing on the current knowledge of the ecosystem’s provisioning, regulating, and cultural services. The presentations explained the status of the services with respect to fisheries, mariculture, biodiversity, pollution, and overall ecosystem structure and function. They also discussed the implications of those ecosystem services for society and economy in the region. The conference contributed to the Project’s Strategic Action Programme (SAP) goal to maintain and improve the “Carrying Capacity of Ecosystem” in the Yellow Sea.
3. During the conference summary given by the Chairperson of the Conference Organising Committee, participants were asked to contribute ideas for future directions in management of the physical, chemical and biological environments; enhancement of cultural services; and incorporation of legislative, political and institutional issues into management.
4. The contributions were considered during the 2nd SAP Ad-hoc Working Group Meeting held immediately after the RSC, when experts were asked to provide management actions for their responsible sections. Some suggestions from the RSC were incorporated into the SAP Meeting’s outcomes. During Agenda 6, members will be invited to review the management actions and other SAP-associated activities.

Agenda 5.2 Inter-calibration Exercises for Trace Metals and Organics

5. Once again, through the assistance of the now former Chairperson of the Korean NWG-P, the International Atomic Energy Agency - Marine Environment Laboratory (IAEA-MEL) was identified and contracted to implement the this activity. The Training

Officer of MEL took care of the entire activity, from providing the standard reference materials (SRM) to analysing the results submitted by participating labs.

- IAEA-MEL provided SRMs to 4 labs in China and 7 labs Republic of Korea for analysis of trace metals and organics in sediment and bivalves. Each lab was sent the SRMs in May 2007. Table 1 provides information on the chemical compounds analysed.

Table 1. Compounds analysed in the inter-calibration exercise.

Sediment	Trace metals (Zn, Cd, Pb, Cu, Cr, Hg, As)
	PCBs - see table below
	OCPs - see table below
	PAHs - see table below
Biota (bivalves)	Trace metals (Zn, Cd, Pb, Cu, Cr, Hg, As)
	PCBs - see table below
	OCPs - see table below
	PAHs - see table below

Priority PAHs	OCPs	PCBs
Naphthalene	Aldrin	CB 52
Acenaphthylene	Chlordane	CB 101
Acenaphthene	pp' DDE	CB 105
Fluorene	pp' DDD	CB 110
Phenanthrene	pp' DDT	CB 118
Anthracene	op DDE	CB 128
Pyrene	op DDD	CB 138
Benzo[a]anthracene	op DDT	CB 153
Chrysene	Dieldrin	CB 180
Benzo[b]fluoranthene	Endrin	CB 189
Benzo[k]fluoranthene	Heptachlor	
Benzo[a]pyrene	Heptachlor epoxide	
Indeno[1,2,3-cd]anthracene	HCB	
Benzo[ghi]perylene	HCH isomers (α -, β -, γ -)	

- The activity is still on-going and will be completed in December, when all results are analysed. Members should consider whether further exercises are needed. Note: the nutrients inter-calibration exercises consisted of 2 rounds so that labs could apply lessons learned from Round 1 and improve on their skills in Round 2.

Agenda 5.3 Inter-calibration Summary Workshop

- After the completion of the Nutrients in Seawater Inter-calibration Exercises, many of the laboratories and RWG-P members felt that a summary workshop was needed to exchange experiences and knowledge on how to improve the analytical skills of the labs.
- The workshop was held from 8-10 October 2007, immediately prior to the 4th RWG-P Meeting. Representatives from labs implementing the nutrients, trace metals, and organics exercises participated in the workshop. All labs reported on:

- results from the nutrients in seawater, and metals and organics in sediment and biota exercises;
 - exchanged information on their standard operating procedure, such as method for validating data, precision data, repeatability, reproducibility, bias, uncertainty, etc.;
 - exchanged information on QC methods used in analysis, e.g. What calibration standards were used? What control samples were used? How often were replicates measured? What types of quality control charts were used to monitor the various QC measures? What are the acceptance criteria for each of the QC measures? and
 - exchanged ideas on improving analytical skills.
10. As the workshop ended one day before the start of the 4th RWG-P Meeting, the outcomes of the workshop are not included in this document, but will be reported during the Meeting.