



About this publication:

This publication contains the report of the Fifth Meeting of the Regional Working Group for the Fisheries Component, under the UNDP/GEF Project, “Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem.” The report includes a summary of the discussions and agreements from the Meeting. The fisheries management actions are reviewed and mechanisms suggested for their implementation in the potential 2nd Phase of the project. Progress in ongoing demonstration activities and the joint regional stock assessment are assessed.

For reference purposes, this report may be cited as:

UNDP/GEF 2008. Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem, Report of the Fifth Meeting of the Regional Working Group for the Fisheries Component. UNDP/GEF/YS/RWG-F.5/3.

**REDUCING ENVIRONMENTAL STRESS
IN THE YELLOW SEA
LARGE MARINE ECOSYSTEM**

**Report of the Fifth Meeting of the
Regional Working Group for the Fisheries Component
UNDP/GEF Yellow Sea Project**

Shanghai, China, 23 - 25 September 2008



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

UNDP/GEF/YS/RWG-F.5/3
Date: 25 Sept 2008
English only

**Fifth Meeting of the Regional Working Group
for the Fisheries Component**
Shanghai, China, 23-25 September 2008

Meeting Report

Table of Contents

1. OPENING OF THE MEETING	1
1.1 Welcome Addresses	1
1.2 Introduction of Members.....	1
2. ORGANISATION OF THE MEETING	1
2.1 Documents Available to the Meeting.....	1
2.2 Organisation of Work.....	1
3. ADOPTION OF THE MEETING AGENDA.....	2
4. EXPECTED OUTPUTS FROM THE 5TH RWG-F MEETING.....	2
5. REVIEW OF COMPLETED AND ON-GOING FISHERIES COMPONENT ACTIVITIES.....	2
5.1 Joint Regional Stock Assessment	2
5.2 Expert Exchange	2
5.3 Fisheries Demonstration Activities.....	3
5.4 Mariculture Demonstration Activities.....	3
5.5 Mariculture Conferences.....	4
5.6 Strategic Action Programme (SAP).....	4
6. SCIENTIFIC AND TECHNICAL INPUTS FOR THE 2ND PHASE PROJECT DOCUMENT	5
6.1 Review Management Actions	5
6.2 Activities required under each management action	5
6.3 Inputs for 2nd Phase Project Document.....	5
7. ACTIVITIES TO BE IMPLEMENTED FROM 2008 ONWARDS.....	6
7.1 Information on the operational changes at UNOPS	6
7.2 Mariculture workshop on demonstration activities.....	6
7.3 Other activities.....	6
8. WORKPLAN FOR 2009	6
9. PROPOSED CANCELLATION OF 6TH RWG-FISHERIES MEETING FOR THE 2ND REGIONAL SCIENCE CONFERENCE	6
10. ADOPTION OF THE MEETING REPORT.....	7
11. CLOSURE OF THE MEETING.....	7

ANNEXES

<u>Annex I</u>	List of Participants
<u>Annex II</u>	List of Documents
<u>Annex III</u>	Agenda
<u>Annex IV</u>	Technical outputs for Phase II (management activities)
<u>Annex V</u>	Condensed Workplan

1. OPENING OF THE MEETING

1.1 Welcome Addresses

- 1.1.1 On behalf of the UNDP/GEF Yellow Sea Project, Mr Mark Walton, Project Officer, opened the meeting and welcomed the members of the Regional Working Group-Fisheries (RWG-F) to Shanghai, China.
- 1.1.2 Mr. Walton gave an update on the project's progress so far (finalised version of the SAP produced and endorsed in principle by the governments and initial development of 2nd Phase Document underway). He stated that this meeting would focus on two main activities: the review of demonstration sites activities, and the 2nd Phase Document preparation. During the meeting participants will be reviewing the management actions/activities suggested by the experts during the 1st Phase 2 Working Group Meeting.
- 1.1.3 Mr. Xianshi Jin, the Chair of the Regional Working Group for Fisheries, welcomed the group to Shanghai, and thanked all participants for attending the meeting.
- 1.1.4 Ms. Inja Yeon also welcomed the participants to the meeting and urged the members to make it productive.

1.2 Introduction of Members

- 1.2.1 Members and other participants were invited to introduce themselves, and gave a brief introduction on their background and roles in the Project. The list of participants is attached to this report as [Annex I](#).

2. ORGANISATION OF THE MEETING

2.1 Documents Available to the Meeting

- 2.1.1 Mr. Jin invited the Secretariat (Project Management Office) to introduce this agenda item.
- 2.1.2 Mr. Walton introduced the meeting's working and information documents prepared by the PMO (Document UNDP/GEF/YS/RWG-F.5/inf.1). The list of documents is attached as [Annex II](#).

2.2 Organisation of Work

- 2.2.1 Mr. Walton presented the provisional working programme for the meeting (Document UNDP/GEF/YS/RWG-B.5/inf.3).
- 2.2.2 The meeting was conducted in English.

3. ADOPTION OF THE MEETING AGENDA

- 3.1** The Chairperson introduced the Provisional Agenda (Document UNDP/GEF/YS/RWG-F.5/1) and Provisional Annotated Agenda (Document UNDP/GEF/YS/RWG-F.5/2) prepared by the PMO.
- 3.2** There were no changes to the agenda, and the Meeting adopted the agenda, after the questions raised were duly answered, which is attached as Annex III to this report.

4. EXPECTED OUTPUTS FROM THE 5TH RWG-F MEETING

- 4.1** The Chairperson invited the Secretariat to present the expected outputs of the meeting (Document UNDP/GEF/YS/RWG-F.5/4).
- 4.2** Mr. Walton presented the list of expected outputs to be achieved by the meeting, providing some details for each agenda item's objective, reiterating the meeting's focus on reviewing the implementation of demonstration activities and reviewing the activities for the 2nd Phase Project Document.
- 4.3** The members noted the expected outputs.

5. REVIEW OF COMPLETED AND ON-GOING FISHERIES COMPONENT ACTIVITIES

5.1 Joint Regional Stock Assessment

- 5.1.1** Mr. Guo presented the progress of the Chinese joint regional fisheries stock assessment survey including the 1st and 2nd Stock Assessment Workshops (SAW) and the first cruise. When Mr. Jin was questioned on the delay to the survey he replied the ship was unavoidably delayed and the boat was now scheduled to leave for the survey 10th October.
- 5.1.2** Ms. Yeon presented the data from the Republic of Korea (ROK) joint regional fisheries stock assessment survey and informed the meeting that due to the mechanical failure the Korean Tamgu 8 was also delayed and the estimated departure date was 22nd September.
- 5.1.3** Ms. Yeon also reviewed the 2nd SAW outlining the agreement made during the workshop.
- 5.1.4** The members noted the information given and appreciated the clarifications given by the various participants

5.2 Expert Exchange

- 5.2.1** Ms. Yeon reviewed the Korean visit to the YSFRI to harmonise the stomach contents analysis. She reported that there was little difference in the methods used in both countries and that this activity was scheduled to continue into the second

cruise with 50 small yellow croaker and 50 Japanese anchovy being analysed for stomach contents from each countries' catch.

- 5.2.2 Mr. Guo explained the harmonisation of ageing techniques performed by Chinese scientists at WSFRI at Incheon, ROK.
- 5.2.3 Following the 4 presentations there was a long and open discussion on the outcomes of the Joint Regional Stock Assessment.
- 5.2.4 Mr. Jin suggested the major outcomes would be:
- i) the relative abundance of the 5 selected species in the two survey areas;
 - ii) the absolute abundance of the 5 selected species (with the acceptance that estimation of catchability is a problem)
 - iii) Agreement on age determination methods.
 - iv) The length/weight relationship of the 5 species
 - v) Agreement on the stomach contents analysis methodology
 - vi) Possibility of assessing length at age of the small yellow croaker populations if there was sufficient size range during the second survey.
- 5.2.5 A suggestion was made to identify the differences in survey methodology prior to any analysis. Mr. Jin responded indicating that prior to the onset of the survey at the 1st SAW we discussed how to harmonise the survey methodology including trawl speed and mesh size etc. but the most important effect on determining the absolute abundance was the reliability of the catchability estimates.

5.3 Fisheries Demonstration Activities

- 5.3.1 Mr. Guo explained that only limited progress had been made on the two demonstration activities performed by the YSFRI, on the assessment of the effectiveness of stock enhancement and the effectiveness of closed seasons/areas, as the contracts were only recently issued. However, for the stock enhancement they had successfully collected some historical data for stock enhancement in Liaoning province, set the location for the mark-recapture investigation and obtained agreement of cooperation with a factory in Yantai.
- 5.3.2 Mr. Lee commented that survival rate of the released individuals was one of the most important parameters to be estimated.
- 5.3.3 The secretariat presented the report of Dr Park from Pukyong National University who is performing a demonstration on the effectiveness of boat buy-back in reducing fishing effort.
- 5.3.4 Members noted the progress made.

5.4 Mariculture Demonstration Activities

- 5.4.1 Mr. Fang reviewed the progress of the demonstration activity on Integrated Multi-Trophic Aquaculture (IMTA). He reported that two areas were being studied: a long-line area in the north of Sanggou Bay; and a sea ranching area in Chudao Island in the south of Sanggou Bay. He reported that a number of studies had partially been completed in the Chudao Island including:
- i) The distribution & biomass of eel grass (seagrass)
 - ii) The densities of abalone, sea cucumber, clams & sea urchin

- iii) The survival of released animals (abalone & sea cucumber)
- iv) The environmental factors
- v) The carrying capacity of the area for sea ranching
- vi) The economic analysis of sea ranching

5.4.2 Mr. Jang presented the progress of the demonstration activity of heterotrophic shrimp culture. He reported on several trials that were in progress at the moment including those in outdoor ponds and indoor experimental raceways. Previous results had shown that the biomass at harvest using this bio-floc system was almost 10 times higher than that of conventional semi-intensive rearing systems. He suggested that next year the demonstration activities would concentrate on:

- i) Conducting the best management practice (BMP) of systems
- ii) Optimization of feeding scheme
- iii) Optimization of Biofloc system
- iv) Establishment of standard operating method
- v) Implementation of technology to private sector
- vi) Designing the prototype of the system in commercial scale
- vii) Publishing the manual of operation and construction of the systems
- viii) Workshop for Demonstration Project - Organize workshop in Korea only or Korea-China Joint Workshop should be discussed

5.4.3 When questioned on the impact of the demonstration activity in terms of the uptake of the farming system by other farmers, Mr. Jang replied that although the system is relatively simple, a lot of management was required, which is why the demonstration activity next year will concentrate on optimisation of feeding and biofloc systems and development of BMP for this farming method.

5.5 Mariculture Conferences

5.5.1 Mr. Walton informed members of the special session on "Reducing the environmental impacts of mariculture" that was held as part of the World Aquaculture Conference in Busan on 23 May 2008.

5.5.2 He went on to describe the Regional Mariculture Conference organised at the Yellow Sea Fisheries Research Institute.

5.6 Strategic Action Programme (SAP)

5.6.1 The secretariat updated the meeting on the progress of the SAP.

5.6.2 Mr Walton briefly explained that after a Consultation Meeting, 3 Ad-hocs Meetings, 2 Drafting group meetings, and a Special PSC meeting the result was a 40 page SAP document that had been endorsed in principal by the governments of China and ROK, but final endorsement was still pending.

6. SCIENTIFIC AND TECHNICAL INPUTS FOR THE 2ND PHASE PROJECT DOCUMENT

6.1 Review Management Actions

6.2 Activities required under each management action

6.3 Inputs for 2nd Phase Project Document

- 6.3.1 The Chair invited the secretariat to explain these agenda items.
- 6.3.2 Mr. Walton briefly explained the timeline that needed to be followed in order to ensure a smooth transition from the current phase to the 2nd Phase. The first deadline was that a Project Identification Form (PIF) needs to be submitted to the 1st GEF council meeting next year. In order to prepare this PIF or pre-proposal, a fairly detailed budget with identified co-funding is required. To do this members need to identify; what are we going to do in the 2nd Phase, how are we going to do it and what the mechanism we are going to use to implement these activities. To obtain this information for the PIF from the SAP Management actions we need to breakdown the management actions to a more detailed level providing activities and implementation mechanism.
- 6.3.3 Mr. Walton ran through the fisheries management actions and the activities identified during the 1st Phase 2 Working Group (1stP2WG) Meeting and explained that these activities were needed to work out the funding and co-funding required for each action. He further explained that since the 1stP2WG meeting the amount of funding requested from GEF had to drastically reduced in order to meet the expected level of funding. He therefore requested members to review the activities especially as no mariculture experts had been present at the 1stP2WG meeting.
- 6.3.4 Some concerns were raised that as the NSAP for ROK had not yet been drafted, it was difficult to suggest how the management action would be implemented and further how the scientists could raise the funding to perform these activities.
- 6.3.5 Mr. Walton suggested that the members should not act as country representatives, but scientists and use their expertise to examine the activities and review which one should be funded and suggest new actions if needed.
- 6.3.6 Participants split into two working groups mariculture and capture fisheries, first familiarized themselves with the relevant targets and management actions documented in the SAP, and then proceeding to examine activities proposed from 1st P2WG.
- 6.3.7 Members reviewed the table providing some good inputs and better wording/ explanation of the activities. Some activities were deleted and some new ones added. The revised table is attached as [Annex IV](#).
- 6.3.8 The issue of cost-benefit analysis for mariculture demonstration projects was raised. Mr. Isao Endo reported that there was no specific budget for cost-benefit analysis (CBA) in Phase 2, however CBA was already being performed on the IMTA systems in Sanggou Bay. Members agreed that if funding permitted CBA should be performed on the other mariculture demonstration activity – Limited water exchange culture systems and IMTA.

7. ACTIVITIES TO BE IMPLEMENTED FROM 2008 ONWARDS

7.1 Information on the operational changes at UNOPS

7.1.1 The secretariat informed members of the operation changes at UNOPS, explaining that the recent slowdown in the processing of proposals and payments were due to these operational changes, in particular the use of HQCPC.

7.1.2 Mr. Walton explained that HQCPC is a panel that examines the awarding of contracts to institutions or individuals with previously awarded contracts in the past 2 years of a cumulative value of USD >100,000. The increased usage of this panel is due to an effort to increase transparency within the organisation. However, the query and answer process from this HQCPC panel can slow the processing of contracts. The PMO apologised for the inconvenience this has caused and may cause in the future.

7.2 Mariculture workshop on demonstration activities

7.2.1 The secretariat suggested there was still some funding available for a further mariculture conference. Mr. Fang and Mr. Jang agreed to supply some funding from current projects to contribute to the organisation of the regional mariculture conference. The conference was suggested to be held in June, the location was not fixed.

7.3 Other activities

7.3.1 The secretariat requested members to identify other activities.

7.3.2 No new activities were suggested

8. WORKPLAN FOR 2009

8.1 **Based on the activities discussed during the course of the meeting, members created and agreed on a workplan for 2009 for submission to the next PSC Meeting (UNDP/GEF/YS/RWG-F.5.3 [Annex V](#))**

9. PROPOSED CANCELLATION OF 6TH RWG-FISHERIES MEETING FOR THE 2ND REGIONAL SCIENCE CONFERENCE

9.1 The Chairperson invited members to consider the suggestion by PMO of replacing the 6th RWG-F Meeting with a 2nd Regional Science Conference in Sept/Oct 2009. Some concerns were raised regarding the review of the final reports of the demonstration activities and future activities in preparation for the 2nd Phase. The secretariat answered the comments by suggesting that the PMO could review final reports and that it may be too early to discuss activities for the second phase before the awarding of the funding.

- 9.2** Members agreed to replace the 6th RWG-Fisheries meeting with the 2nd regional science conference.

10. ADOPTION OF THE MEETING REPORT

- 10.1** The Chairperson led the discussion of the draft meeting report. The report was reviewed, amended, and adopted by the Meeting.

11. CLOSURE OF THE MEETING

- 11.1** The Chairperson thanked all members for their contribution and support, cooperation and hoped that they would continue their cooperation during the second phase.
- 11.2** Ms. Yeon thanked the Chairperson and the Regional working group meeting members for their efforts during the meeting.
- 11.3** Mr. Jang appreciated the work of the Chairperson in leading the meeting and the frank exchange of information and ideas during the meeting.
- 11.4** The secretariat also thanks the Chairperson for his leadership and the members for their effort.

Annex I: List of Participants**People's Republic of China****Dr. JIN Xianshi**

Vice Director,
Yellow Sea Fisheries Research Institute
106 Nanjing Road
Qingdao 266071
PR China
Tel: 86-532-8584-9430
Fax: 86-532-8581-1514
Email: jin@ysfri.ac.cn

Dr. FANG Jian Guang

Director, Mariculture Ecology and Carrying
Capacity Division
Yellow Sea Fisheries Research Institute
106 Nanjing Road, Qingdao 266071
PR China
Tel: 86-532-8582-2957
Fax: 86-532-8581-1514
Email: fangjq@ysfri.ac.cn

Mr. GUO Xuewu

Research Fellow
Yellow Sea Fisheries Research Institute
106 Nanjing Road
Qingdao 266071, PR China
Tel: 86-532-8583-9430
Cell: 86-138-6989-3233
Fax: 86-532-8581-1514
Email: guoxw@ysfri.ac.cn

Mr. Li Xiansen

Research Fellow
Yellow Sea Fisheries Research Institute
106 Nanjing Road
Qingdao 266071, PR China
Tel: 86-532-8583-9430
Cell: 86-136-2532-3639,
Fax: 86-532-8581-1514
Email: lixs@ysfri.ac.cn

Republic of Korea**Dr. YEON Inja**

Senior Scientist
West Sea Fisheries Research Institute
National Fisheries Research & Development
Institute (NFRDI)
707, Ulwang-dong, Jung-gu, Incheon,
400-420, Republic of KOREA
Tel: 82-32-745-0551
Fax: 82-32-745-0549
Email: ijyeon@nfrdi.re.kr

Dr. JANG In Kwon

Director
West Sea Mariculture Research Center
National Fisheries Research &
Development Institute,
Sinjindo-ri 75, Geunheung-myeon, Taean-
gun, Chungnam, Republic of Korea
Tel. 82-41-675-3773
Fax. 82-41-675-7077
Email: jangik@nfrdi.re.kr

Dr. KIM Dohoon

Division of Fisheries Economics
National Fisheries Research & Development
Institute (NFRDI)
408-1 Shirang-ri, Gijang-gun, Gijang-eup
Busan, Republic of KOREA 619-702
Tel: 82-51-720-2081
Fax: 82-51-720-2089
Email: kimdh@nfrdi.re.kr

Dr. LEE Jang-Uk

Professor,
Pukyong National University
#599-1 Daeyeon 3-Dong, Namgu,
Busan,
Republic of KOREA 608-737,
Tel. 82-51-343-3898
Fax: 82-51-622-3306
E-mail: julee0922@korea.com

Observers

Dr. Jongsheek KIM

West Sea Mariculture Research Center,
NFRDI
Sinjindo-ri 75, Geunheung-myeon, Taean-
gun, Chungnam 357-945, Republic of Korea
Tel: 82-41-675-3773
Mob: 010-5195-7192
Fax: 82-41-675-7077
Email: phillip@naver.com

Project Management Office (PMO)

Dr WALTON Mark

Fisheries Officer
UNDP/GEF Yellow Sea Project
Korea Ocean Research and Development
Institute
1270 Sa-dong Sangnok-gu Ansan-si
Gyeonggi-do 426-744
Republic of Korea
Tel: (82-31) 400-7832 Cell: 010-8840-1964
Fax: (82-31) 400-7826
email: mark@yslme.org

Mr. ENDO Isao

Environmental Economics Officer
UNDP/GEF Yellow Sea Project
Korea Ocean Research and Development
Institute
1270 Sa-dong, Sangnok
Ansan City, Gyeonggi Province 426-744
Republic of Korea
Tel: 82-31-400-7793
Fax: 82-31-400-7826
Email: isao@yslme.org

Ms. KIM Junghwa

Secretary
UNDP/GEF Yellow Sea Project
Korea Ocean Research and Development
Institute
1270 Sa-dong Sangnok-gu Ansan-si
Gyeonggi-do 426-744
Republic of Korea
Tel: (82-31) 400-7829
Fax: (82-31) 400-7830
email: junghwa@yslme.org

Annex II: List of Documents

Working Documents

UNDP/GEF/YS/RWG-F.5/1	Provisional Agenda
UNDP/GEF/YS/RWG-F.5/2	Provisional Annotated Agenda
UNDP/GEF/YS/RWG-F.5/3	Report of the Meeting (<i>to be prepared at the meeting</i>)
UNDP/GEF/YS/RWG-F.5/4	Expected Outputs from the 5 th RWG-F Meeting
UNDP/GEF/YS/RWG-F.5/5	2008 Completed and ongoing activities of the Fisheries Component
UNDP/GEF/YS/RWG-F.5/6	Scientific and Technical Inputs for the Second Phase Project Document
UNDP/GEF/YS/RWG-F.5/7	Fisheries Component Activities for 2009 and Onwards
UNDP/GEF/YS/RWG-F.5/8	Fisheries Component's Workplan for 2009

Information Documents

UNDP/GEF/YS/RWG-F.5/inf.1	Provisional List of Documents
UNDP/GEF/YS/RWG-F.5/inf.2	Provisional List of Participants
UNDP/GEF/YS/RWG-F.5/inf.3	Provisional Working Programme for the Meeting
UNDP/GEF/YS/RWG-F.4/3	Report of "Fourth Meeting of the Regional Working Group for the Fisheries Component"
UNDP/GEF/YS/RSP.4/3	Report of the "Fourth Meeting of the Regional Scientific and Technical Panel"
UNDP/GEF/YS/PSC.4/3	Report of the "Fourth Meeting of the Project Steering Committee"
UNDP/GEF/YS/SAP	Strategic Action Programme
UNDP/GEF/YS/RMC	Regional Mariculture Conference (Abstracts)
UNDP/GEF/YS/WAS	World Aquaculture Conference (Abstracts)

Annex III: Agenda

1. OPENING OF THE MEETING
 - 1.1 Welcome Addresses
 - 1.2 Introduction of Members
2. ORGANISATION OF THE MEETING
 - 2.1 Documents Available to the Meeting
 - 2.2 Organisation of Work
3. ADOPTION OF THE MEETING AGENDA
4. EXPECTED OUTPUTS FROM THE 5TH RWG-F MEETING
5. REVIEW OF COMPLETED AND ON-GOING FISHERIES COMPONENT ACTIVITIES
 - 5.1 Joint Regional Stock Assessment
 - 5.2 Expert Exchange
 - 5.3 Fisheries Demonstration Activities
 - 5.4 Mariculture Demonstration Activities
 - 5.5 Mariculture Conferences
 - 5.6 Strategic Action Programme (SAP)
6. SCIENTIFIC AND TECHNICAL INPUTS FOR THE 2ND PHASE PROJECT DOCUMENT
 - 6.1 Review Management Actions
 - 6.2 Activities required under each management action
 - 6.3 Inputs for 2nd Phase Project Document
7. ACTIVITIES TO BE IMPLEMENTED FROM 2008 ONWARDS
 - 7.1 Information on the operational changes at UNOPS
 - 7.2 Mariculture workshop on demonstration activities
 - 7.3 Other activities (Other important fisheries meetings)
8. WORKPLAN FOR 2009
9. PROPOSED CANCELLATION OF 6TH RWG-FISHERIES MEETING FOR THE 2ND REGIONAL SCIENCE CONFERENCE
10. ADOPTION OF THE MEETING REPORT
11. CLOSURE OF THE MEETING

Annex IV: Technical outputs for Phase II (management activities)

Capture Fisheries							
	Activities	Implementation 2010-2014	GEF	China	ROK	DPRK	Required from countries
MA1-1: Control fishing boat numbers	Buy-Back of 25-30% of old fishing boats						
	Identification of boats	collect current existing national criteria & develop guidelines (1 workshop & 2 consultant *0.5 pm)	23,000				
	Buy back boats	Korea 42 million dollars /year*5yrs: China 30% total boats	-	65,000,000			
	Decommissioning	China & Korea		650000	21000000		650,000
	Institutional study on the effects of buy-back on the reduction of fishing effort and recovery of fish stocks.	Data collection, travel, data costs, monitoring		500,000			
	Cost-Benefit Analysis of boat buy-back	Consultant 2 sites*2 months*USD8000; reg. workshop 15,000	47,000				
	Fishing license						
	Improving licensing system	3 consultants*0.5 month* 8000 (nat'l)+ 1 reg workshop *15,000	27,000				
	Issue & renew licenses	Country Activity (CA)		1,500,000			
	Implementation of license system (enforcement & monitoring)	Demonstration at 2 sites*40,000					80,000
	Provision of Alternative livelihood						
	"small loan" & "tax free" system	Forum for exchange of ideas 15,000	15,000				
	Implementing "small loan" scheme	CA		200,000			
	implement tax free system	CA					
	Increase Tourism opportunities	1 international workshop + 3 natl workshop*10,000	35,000				10,000
Technical retraining programmes	Fisheries education and training center			1,500,000			

MA1-2: Stop fishing in certain areas/ seasons	Closure of Fishing grounds						
	Evaluation of the effectiveness of closure (the effects and effectiveness)	2 consultants*1month(USD 8000)*2 countries,	16,000				
	Enforcement of Closure	CA		65,000,000			
	Public Awareness of benefits	3 national workshops* USD 10,000	30,000				
	Alternative livelihoods (temp provision)	Consultant 2 person months* USD 8000 & 2 country workshops *10000	8,000				20,000
MA 1-3: Monitor and assess stock fluctuations	Joint regional stock assessments						
	Joint regional stock assessments	Surveys USD320,000/country * 4yr					2,560,000
	Regional network for harmonization of methodology and discussion of stock assessments	Expert group *4years* USD 15000	60,000				
	Regional training	1 scientists*3 countries* 2 years* 1 month*USD6600	39,600				
MA2-1: Increase mesh size	Gear Selectivity and performance and fish behaviour Studies	Exchange of ideas to improve selectivity of gears*15000	15,000				
	Joint study of fish behaviour / gear selectivity	Exchange of Scientists 2 scientists* 3countries*10 days	13,200				
	Improved enforcement of regulations	CA					
MA 2-2: Enhance stocks	Restocking of depleted fish stocks						
	Increase production of health fry fish	CA					
	Release of H-R fish	CA					
	Monitoring of success	together with the habitat improvement workshop					
	Habitat Improvement						
	Improve techniques of artificial reefs construction and placement	Exchanges of scientists*6*3000	18,000				
	Artificial Reefs CA						

	deployment						
	Improve techniques and implementation of sea grass / macro algae replanting	2 regional Workshop*15000, CA	30,000				
	Monitoring of success	Demo. 2 sites*40000	80,000				
MA 2-3: Improve fisheries management	Introduction of more scientific based management	1 regional symposium*50000+ 2 national workshops (combine with existing fisheries conferences like APFIC or PICES?)	-				
Project Management	project staff		316,869				
	Travel		34,472				
	UNOPS 6%		48,488				
			856,630	134,350,000	21000000	-	3,320,000
Mariculture							
	Activites	Implementation	GEF	China	ROK	DPRK	Required National
MA 3-1: Develop environment-friendly mariculture methods and technology	Develop regional guidelines for sustainable mariculture	(1 consultant X8,000 + 1 regional meetings x 15000	23,000				
	Develop national management plan for sustainable mariculture	2 consultant*8000	16,000				
	Develop BMP for sustainable mariculture	1 areas x 3cty x 30,000	30,000				60,000
	Implementation of Sustainable mariculture practice	1 activities x 3 countries x 80,000 (sea ranching and IMTA)	160,000				80,000
MA3-2: Reduce nutrient discharge	prepare guideline for reducing nutrient discharge	1 regional consultant	8,000				
	Implementation of reducing nutrient discharge activities	1 areas x 3cty x 40,000	40,000				80,000
	Enhance and exchange information	3 forum * 15,000	30,000				15,000
MA 3-3: Control diseases effectively	Establish regional network for disease prevention and warning	2 persons months X8,000 +1 regional meetings x 15,000	32,000				
	Improve capacity in disease diagnoses	expert exchange 3 * 3 countries*	9,000				
	Enhance	2 conference x 20,000	20,000				20,000

	information sharing and exchange						
Project Management	project staff		255,271				
	Travel		28,243				
	UNOPS 6%		39,091				
			690,605	-	-	-	255,000

Annex V: Condensed Workplan

Effectiveness of Stock Enhancement

Progress Report	30-Jan-09
Final Report	30 September 2009

Effectiveness of Closed Seasons/Areas

Progress Report	30-Jan-09
Final Report	30 September 2009

Heterotrophic Shrimp Culture

Progress Report	1 October 2008
Final Report	30 September 2009

IMTA demo

Progress Report	1 October 2008
Final Report	30 September 2009

Mariculture Conference

Held	June 2009
------	-----------

NYSAP

drafting NYSAP	NPC and national members	2008
govt approval of NYSAP	govt	

Project Phase 2 preparations

Working Session #2	Oct. 2008
Supporting services inputs to PIF <i>others actions to be added</i>	Oct/Nov. 22008

6th RWG-F Meeting/2nd RSC

PMO will arrange	autumn 2009
------------------	-------------