Final Report

Political and Social Acceptance Analysis for the Strategic Action Programme of UNDP/GEF YS LME Project

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I. Background

The rapid economic growth of China and the Republic of Korea (ROK) has brought environmental stresses that threatened the ecosystem of the Yellow Sea. Considering the geographical characteristic of the Yellow Sea, being located between China and the ROK, the two countries' cooperation and coordination are requested to reduce the marine pollution for not only the present but the future generation. Therefore, the well prepared regional Strategic Action Programme (SAP) is important to legislate practical management actions based on approvals by the stakeholders. For the better understanding, and ultimately, for the success of the SAP, the Political and Social Acceptability Analysis (PSAA) is imperative to analyse the overall opinions on the SAP. The result of the analysis of this report shows the opinions from various stakeholders including the government, NGOs and private sectors to enable further improvements of the SAP.

II. Methodology

In order to improve the analysis and assist for a better understanding for implementing the Strategic Action Programme, the Political and Social Acceptance Analysis (PSAA) is carried out as follows.

1) The Distribution of the information on the SAP

The draft SAP was distributed to all the stakeholders including relevant ministries that are responsible for marine environment protection.

2) Inter-ministerial Meetings

The inter-ministerial meeting was held with the ministries that are relevant to marine environment protection and sustainable use of marine and coastal resources. Such include the Ministry of Foreign Affairs and Trade, the Ministry of Environment, and the Ministry of Land, Transport and Maritime Affairs. The inter-ministerial meeting aimed at discussing appropriate management actions and the subsequent impact as well as achieving cooperation and consistency between the SAP and national policies and guidelines.

3) Public Hearing Meeting

A public hearing meeting was organised to reflect public opinions on the implementation of the SAP. The current environmental issues in the Yellow Sea, proposed management actions, the merits and demerits of action plan and relevant activities were discussed.

4) Interviews and Questionnaire for NGOs and Local government

To reflect the opinion of NGOs and local governments, interviews and questionnaire were used to identify the necessary information.

III. Interministerial Meeting

- **Date:** 25 April, 2008
- **Venue:** Ministry of Foreign Affairs and Trade

<Picture 4,5,6. Interministerial Meeting >

1. Introduction

The stance of relevant ministries on the SAP was expressed in the Interministerial Meeting which was held in conjunction with the Inter-Ministerial Coordinating Committee Meeting (IMCC), consisting of officials and experts from each ministry. While the overall opinion on the SAP was positive, certain ministries or related institutions raised concerns on particular issues. Especially, more detailed and realistic suggestions for marine resources were called for since it is a sensitive issue concerning national interests of both China and the ROK. An agreement was also made to acknowledge the need to involve Democratic People's Republic of Korea (DPRK) to the YS LME Project and for the ways to encourage the DPRK's participation. The necessity of a close cooperation among the relevant ministries was stressed due to the reorganisation of the Korean government.

2. Major Issues Discussed

1) Fisheries

The issue of marine resources, directly related to the livelihoods of fishermen and economic interests of both nations, raised concerns for a more precise and detailed strategic guidelines. This emphasised on the need for a specific guideline concerning the standards for reduction in fishing effort and the criteria and timeline for releasing billions of fry. Although it was not shared by all the participants, the discussion brought an idea was forwarded to include the East China Sea in the YS LME Project area considering the migration of fish stocks. Furthermore, for the effective implementation, it was pointed out that the above specific actions require joint research and monitoring on marine

resources and examination on the financial mechanism and requirements that are acceptable for the Global Environment Facility (GEF), China, the DPRK and the ROK.

2) Pollution

The meeting agreed that the overall proposed actions on the issue of pollution are acceptable as they are general and similar to those of other international organisations. The specific content seems to comply with the domestic and international standards of marine environment protection. However, the meeting recognised the necessity of further discussions among relevant ministries on the appropriateness of use of organic fertilisers, the incorporation of a total nutrient loading control programme in the national development plans, and the standards of the legislation of closure of sub-standard recreational waters.

3) Ecosystem and Biodiversity

In principle, the meeting agreed that government actions are generally acceptable. However, a participant raised an issue that a more detailed guideline is needed for the content is general and extensive. The meeting also recognised that the means to obtain sufficient information on the Yellow Sea ecosystem is also required.

4) Governance

This issue was generally accepted as the opinions of the two countries of China and the ROK were already reflected and mediated in advance. Yet, the stakeholders and experts recognised the need for the DPRK's participation in every issue for the successful outcome. Thus, meeting agreed that further

efforts need to be made by participating countries and relevant international organisations such as GEF for securing their formal participation in the YS LME and financial resources to support the DPRK's participation.

The meeting also recognised that it is necessary to allow more time for the successful endorsements of the participating countries. In this context, the need and importance of the participation by the Ministry for Food, Agriculture, Forestry and Fisheries were recognised as the role of the Ministry of Maritime Affairs and Fisheries had been divided into two of the Ministry of Land, Transport, and Maritime Affairs and the Ministry for Food, Agriculture, Forestry and Fisheries after the reorganisation of the ROK government.

Ⅳ. Public Hearing

- **Date:** 22 April, 2008
- **Venue:** Korea Ocean Research and Development Institute

< Picture 1, 2, 3. Public hearing at Korea Ocean Research and Development Institute >

1. Introduction

The experts of the issues dealt in the SAP and the representatives of NGOs made positive remarks to the guidelines for the protection of the Yellow Sea provided by the SAP, while some of them raised issues such as the necessity of expanding geographical scope of the YS LME Project as well as of the specific guidelines in the NASP (which to be developed later).

2. Major Issues Discussed

1) The Nature of the SAP and Its Institutional Aspects

It was introduced that the SAP is non-legally binding and cooperation based guidelines which allows flexibility to the governments in implementing regional standards at the national level.

During the discussions, the need for establishing the YS LME Commission was emphasised for the effective and integrated management of the Yellow Sea and its coastal area.

Also, the discussions stressed that capacity building for NGOs and local governments is necessary as they are the important stakeholders in achieving the objectives of the YS LME Project. The discussions also stressed on the involvement of the DPRK for both regional peace in Northeast Asia and effectiveness in the protection of the Yellow Sea through regional cooperative institutions.

Finally, it was also discussed and agreed that the principles of regional standards provided in the SAP need to be further elaborated by the domestic legislation along with the important role of the civil society to ensure effective implementation of the policy measures.

2) Pollution

While optimistic views on the monitoring mechanism for effective management of pollutants and international standards in the SAP were put forward, some concerns were raised by participants on the following issues:

- More specific standards and sustainable financial mechanism are further required.
- The recommendation for the use of organic fertilisers in the SAP is too detailed and that the closure of sub-standard recreational waters needs more elaborated description.

There was an emphasis on the importance of monitoring based on accurate information and researching on the detrimental effect of pollutants. Even though the periodic monitoring and assessment on marine environment every 5 years received positive responses from the participants, some participants emphasised a necessity of a more specific methodology. Effective sharing of information on the pollution and the efforts to ensure such communication were also suggested.

3) Ecosystem and Biodiversity

Various monitoring activities should be conducted for a better understanding and prediction of ecosystem changes to gather the necessary information on adaptive management. For the issue of biodiversity, it is necessary to protect endemic and endangered species from the risk of introduced species.

Meanwhile, accurate information on the Yellow Sea ecosystem is needed for an effective implementation of the SAP.

Also, the awareness of the significance of the Yellow Sea environment status and the guidelines for the high concentrations of nitrogen are requisite to remove the marine litter and the increasing nutrient load.

More specific plans should be prepared for the problems of habitat loss for biodiversity, and the preservation of endemic species.

Moreover, the monitoring of the Bohai Sea might be necessary, since the area is a part of the Yellow Sea ecosystem.

4) Fisheries

Much debate takes place on the issue of fisheries resources due to the sensitive nature of the fisheries issues. In a situation where a catch of commercially valuable species has been decreasing while that of less valuable species has been increasing in the Yellow Sea, 25 – 30% reduction in fishing effort and rebuilding of depleted fish stocks to reduce environmental stress are necessary to preserve fisheries resources.

Also, it is necessary to have the agreed upon standards that mediate the previous disagreements between China and the ROK in the sea area and the achievements by each, in controlling fishing boat numbers. The quality of monitoring needs to be alike in the two countries. There is also a strong necessity to prepare guidelines for the illegal fishing of small vessels, fishermen's understanding on the situation, and countermeasures for the affected fishermen.

5) Others

Beyond the four issues mentioned above, the public hearing had a discussion on the need for a project on terminology, concerning the possible incongruity in Korean-English translation. An early warning system of diseases in recreational waters for the issue of pollution was also suggested.

Ⅴ. Interviews

1. Introduction

From April 14, 2008 to April 18, 2008, interviews were conducted by means of fax and email with those from local governments, NGOs and private sectors. There was an agreement among the interviewees on the overall acceptability of the SAP for the protection of the Yellow Sea and on the need for intergovernmental cooperation between China and the ROK, participation of other stakeholders, and financial support by the GEF. Positive remarks were also made on the DPRK's participation, the institutionalisation of intergovernmental cooperative mechanism, and the establishment of education programmes for the environmental awareness.

2. Analysis

1) Questions on the level of knowledge on the YS LME Project

Regarding the impacts of environmental problems in the Yellow Sea, the representative of the local government answered them to be significant, and a member of the NGO community answered them to be moderate. Interviewees of both entities regarded that marine environment links directly to economic factors such as the profits of the local residents, consumers' confidence in the quality of fish, and mariculture industry. However, private enterprises do not seem to recognise the impact of pollution in the Yellow Sea as much. In addition, the local government and the NGO are informed well of the activity of the UNDP/GEF YSLME Project, but private enterprise was not. Therefore, more efforts need to be made to increase understanding of environmental problems in the Yellow sea as well as the YSLME Project by the private sectors.

2) Questions on the SAP

In general, the suggested actions received much agreement. The respondents were especially aware of the need of regional and domestic network for preservation of the Yellow Sea, monitoring and assessment on marine environment, financial support from GEF and participation of the DPRK. The interviewee from the private sector also consented that civil participation is necessary. However, interviewees from both local government and private sector concerned about providing subsidies to the fishermen. Additionally, the active participation of the Chinese government was recommended since the major causes of pollution are from China. At the same time, there was a suggestion that the term 'depleted fish stocks' should be changed to 'rebuilding of decreased fish stocks' because the term 'depleted' is a strong expression that is used by the media mostly, and it is inappropriate as the stocks are not depleted.

3. List of Participants[1]

Mr. Gyu-Seok PARK,
Maritime Affairs and Fisheries Division,Jeollabuk-do

Mr. Byung-Hwa KANG,
Division of Safety and Environment,
Hyndai Heavy Industries

Prof. Jong-Ho HONG,
Hanyang University / Citizens' Movement for Environmental Justice

[1] Detailed information of participants is attached to Appendix

VI. Preliminary Analysis on the Consistency of the Proposed Management Actions with National Policies and Guideline[2]

1. Fisheries

The overall suggested actions are consistent with national policies and guideline of the ROK as it has been adopting licensing system, Total Allowable Catch (TAC) system, marine ranching, sustainable mariculture, and prevention of illegal fishing to sustain fisheries resources for sufficiently long period of time. In the case of the licensing system, it seems the proposed management actions concerning the license system are well consistent with that of the ROK because it has been already implemented. Moreover, the ROK government has introduced the TAC system in 1999 in order to maintain the commercially important fish stocks in a sustainable way, The ROK policy on the mariculture seems to be consistent with the management actions proposed by the SAP. For example, to manage pollution caused by mariculture, efforts have been made with “environment-friendly mariculture methods” as suggested by the SAP. Furthermore, the ROK government has been preventing illegal fishing with biannual statement on illegal fishing, effective surveillance, and punishment policies. Finally, the fact that the ROK government, is active in joining international cooperation with regional and bilateral agreements concerning the fisheries issues demonstrates that the means proposed by the SAP are not only consistent with the policy of the ROK but also help the ROK strengthen its efforts to manage sustainable fisheries resources.

Despite, some concerns may need to be considered. For the consistent and effective implementation of the management actions proposed by the SAP,

[2] The analysis on the consistency of the proposed management actions with national policies and guideline in this chapter is preliminary. Detailed analysis of consistency between the SAP and the national policy and guidelines may be further required as it extends beyond the scope of this report.

more cooperation among the relevant ministries is necessary due to the recent reorganisation of the government. It is also necessary to clarify the meaning of the 25~30% reduction of fishing efforts as it may be less feasible for the ROK to reduce its fishing efforts by 25~30% in its own part as it has already reduced its fishing efforts drastically by 2004.

2. Pollution

In case of the land-based pollution, two major legislations concerning the marine environment (the Marine Pollution Prevention Act (MPPA) and the Water Quality Conservation Act (WQCA)) have not addressed the problem effectively. On the other hand, two legislations have contributed to preventing pollution originated in the sea area. The ROK introduced the Comprehensive Plan for Marine Environment Preservation, and incorporated the MARPOL into the MPAA. The ROK government has also implemented the London Dumping Convention in addressing the problem of ocean dumping.

The recommendations in the SAP are not only consistent with the ROK government's policy but also helps it to improve its efforts to address the marine pollution as evidenced by the fact that the SAP encourages the regional states including the ROK to ratify and implement relevant treaties including the 1996 Protocol of the London Convention, which the ROK has not signed yet.

3. Ecosystem and Biodiversity

The ecosystem and biodiversity are harmed by the degradation of the Yellow Sea environment, loss of habitat and over-exploitation. To address such problems, the ROK government has endeavored to improve the situation with efforts through implementing multilateral treaties and domestic policies. They include the Natural Environment Conservation Law and the Marine Ecosystem Conservation and Management Law, which implement the CBD standards as

well as develop the information sharing system. These efforts by the ROK government can be regarded as being in consistent with the SAP as it proposed to implement management actions on joint monitoring, information sharing, raising public awareness and incorporating the international treaties such as the CBD.

4. Governance

In general, the proposed management actions are also consistent with national policies and guidelines on the issues concerning the governance. The SAP emphasises the importance of full participation of the DPRK. This is in the same policy line of the ROK toward the DPRK for its engagement in the multilateral framework on various issues. The creation of the YS LME Commission seems to be also welcomed by the ROK government as it has not only put an emphasis on the necessity of institutionalising current efforts by the YS LME Project but also has a strong interest in holding permanent secretariats of international organisations in its own territory.

Ⅶ. Recommendations

1. The opinions from the public hearing, the interministerial meeting, and interviews should be reflected in the SAP for the future endorsement of the SAP by the participating countries including the ROK government.

2. The nature of the most of the concerns expressed in the public hearing requires them to be dealt with by the National SAP, not the Regional SAP. Further efforts need to be made to help the interested parties understand such nature that requires the issues to be dealt with by the National SAP. The Regional SAP needs to maintain its guidelines as general and abstract as they are now, so that it would facilitate each participating government, including the ROK government, to endorse the SAP.

3. The issues considering the fisheries matters require the consideration of not only the aspects of the YS LME Project but also the geopolitical situation of the area. In particular, opinions on the necessity of expanding geographical scope including the East China Sea need to be considered in a more careful way. Despite some advantages of including the East China Sea in the second stage of the YS LME project after 2010, geopolitical situation in this region does not welcome this approach at this stage. There are possibilities on the serious disputes over the territory, natural resources and other issues in the region in case participating countries would start negotiation on the expansion of geographical area of the YS LME Project as those issues are interlinked together as evidenced in the frequent conflicts between China and Japan over those issues. Furthermore, increased financial implications in case of expanding geographical scope in order to cover the East China Sea area also poses concerns as the total budget for the second stage would be decreased according to the sources available, it doesn’t look feasible to expand

geographical area which would require a lot more financial resources to the project.

Another issue concerning the fisheries matters, the necessity of developing more precise and detailed strategic guidelines, needs to be addressed during the time of the implementation of the SAP at the second stage. There exist also some concerns among the ROK fisheries scientists that data on fisheries matters collected by the Chinese counterparts is not accurate and does not reflect the situation in the Yellow Sea. Therefore plans for the implementation of the SAP during the time of 2010 and 2020 need to include detailed roadmap on developing detailed and more precise guidelines on fisheries matters as well as ensuring the quality of the data on fisheries matters especially in the Chinese side.

Finally it is necessary to clarify the meaning of the regional target of reducing 25~30% of fishing efforts during 2010 ~ 2020. This regional target aims at reducing the fishing efforts by 25 ~ 30% in the YS LME region as a whole. However, many questions have been raised on whether 25 ~ 30% reduction of the fishing efforts need to be made by each participating country including the ROK considering the fact that the ROK government has already reduced a lot of fishing efforts by itself by 2004.

4. The ROK expresses its optimism for the issue of the DPRK's participation, and close cooperation between the ROK government and related institutions is necessary for ensuring the DPRK's full participation during the years 2010 - 2020.

5. A cooperative mechanism between the Ministry of Land, Transportation, and Maritime Affairs and the Ministry for Food, Agriculture, Forestry and Fisheries is called for as the Ministry of Maritime Affairs and Fisheries, which used to

deal with the matters, had been divided into the two ministries after the reorganisation of the ROK government. In this context, the PMO of the YS LME Project needs to work closely with the relevant ministries of the ROK to address the issue of coordination among the ministries.

In this context, the role of the Ministry of Foreign Affairs and Trade is important as it is the focal point of the YS LME Project for the ROK. It needs to establish a cooperative mechanism not only with the Ministry of Land, Transportation and Maritime Affairs, but also with other relevant ministries such as the Ministry of Environment and the Ministry of Education, Science and Technology

In addition to the establishment of cooperative mechanisms among the relevant ministries, it is equally important to ensure the continuous participation of relevant research institutes and other organisations such as the Korea Ocean Development and Research Institute, the Korea Maritime Institute, the National Fisheries Resources Research and Development Institute and Korea University.

6. Capacity building for NGOs and local governments is essential for their full participation in the YS LME Regional Governance as suggested in the Regional Governance Analysis Report and the Regional SAP. During the course of preparation for the second phase of the YS LME Project, detailed plans need to be developed to address the issue of capacity building for NGOs and local governments.

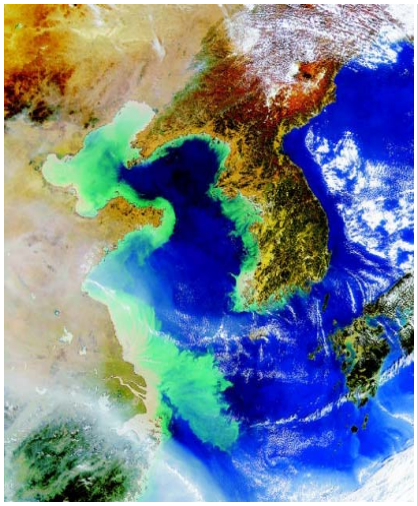
7. The issues on ocean dumping and oil spills, which had become serious in the region recently, need to be dealt with more carefully in the years 2010 – 2020 without any duplication with the currently existing cooperative institutions such as Northwest Pacific Action Plan(NOWPAP).

8. Some concerns were raised on the lack of participation by the interested governmental bodies and institutions of China. It is desirable that China provides explanations on this matter and makes efforts to address these concerns in order to continue the current YS LME Project without any interruption.

9. It is necessary to raise the awareness of the YS LME Project, especially the SAP, through various means, including symposiums.

ANNEX I

Proceeding of the Public Hearing



Public Hearing on Political and Social Acceptance Analysis for the Strategic Action Programme of UNDP/GEF Yellow Sea Marine Ecosystem Project

- **Host : Division of International Studies, Korea University**
- **Date : 22 April 2008**
- **Venue : Korea Ocean Research and Development Institute**

KOREA UNIVERSITY 고려대학교 KOREA UNIVERSITY

Yellow Sea UNDP / GEF Yellow Sea Large Marine Ecosystem Project

Schedule

▪ Date : 22 April 2008
▪ Venue : Korea Ocean Research and Development Institute
▪ Host : Division of International Studies, Korea University
▪ Chair : Sukjae Kwon Director, Senior Researcher
Policy Research Division
Korea Ocean Research and Development Institute

Schedule		
3:00~3:15	Registration	
3:15~3:30	**Opening Address**	Hyung-Tack Huh National Coordinator UNDP/GEF YS LME Project
	Congratulatory Address	Yihang Jiang Project Manager UNDP/GEF YSLME Project
Session Ⅰ 3:30~4:30	**SAP Outline& Institutional Aspects**	Suh-Yong Chung Division of International Studies Korea University
	Pollution	Dong-Beom Yang Senior Research Scientist Marine Environment Research Department Korea Ocean Research and Development Institute
	Ecosystem & Biodiversity	Hyung-Ku Kang Senior Research Scientist Marine Environmental Research Department Korea Ocean Research and Development Institute
4:30~4:45	Coffee Break	
Session Ⅱ	**Fisheries**	Jang-Uk Lee Pukyong University
4:45~5:30	**General Q&A**	
5:30	**Closing Ceremony**	

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1. Opening Address

Good Afternoon,

Situated between the Korean Peninsula and the Mainland China, the Yellow Sea has been an essential part of life for fisheries and marine commerce. Even when lacking depth, the Yellow Sea has been contributing largely to the development of the area by supporting the supply of food and the development of industries and cultural activities with its abundant resources.

However, the Yellow Sea ecosystem today is facing serious threats as the Sea became one of the most excessively exploited seas. This is due to rapid environmental changes by the coastal area countries and such changes are; the exploitation of coastal area, overfishing, oil spills, pollution from the land, and the increased volume of marine traffic. The Yellow Sea is experiencing significant decrease in its major marine resources and biodiversity, loss of coastal habitats, red tides, sudden increase in harmful organisms such as jellyfish, and water pollution. In other words, the Yellow Sea ecosystem is now reaching its limit of capacity.

Fortunately, UNDP/GEF Yellow Sea Large Marine Ecosystem Project (YSLME) has been establishing the Strategic Action Programme (SAP) since 2005 for the purpose of environmental protection and sustainable

development of the Yellow Sea. The SAP aims at assisting the maintenance of the Yellow Sea ecosystem by reducing the factors of pollution and by restoring the damaged environment and resources through the ecosystem-based management approach.

The first Draft of the SAP had been completed with the cooperation of specialists supported by the United Nations and by the two countries, China and Korea. Currently, the review of the draft is in process by the two countries' specialists, related institutions, and NGOs. The public hearing on the Strategic Action Programme for the Yellow Sea Large Marine Ecosystem today is held as one of the processes of the review. The candid statements and constructive suggestions by you today will surely make significant contribution to modifying the SAP and completing it.

I sincerely request for your full cooperation for the success of the public hearing on the SAP. Thank you.

Hyung-Tack Huh
National Coordinator
UNDP/GEF YSLME Project
22nd April 2008

2. Congratulatory Address

YSLME Management Actions Should

Improve the Ecosystem in the Yellow Sea and Beneficial for All

Yihang Jiang
Project Manager
UNDP/GEF Yellow Sea Project

Dear Friends and Colleagues,

First of all, I would like to take this opportunity to thank Prof. Chung Suh-Yong for inviting me to give a talk at this occasion. I would like to express my appreciation to all the experts who contribute to the successful implementation off the YSLME project, in particular to the development of the Strategic Action Programme (SAP).

The SAP prepared by the YSLME project is based on the ecosystem-based approach, to provide comprehensive actions to address environmental problems in the Yellow Sea as a whole, in particular those cross-component problems. During the meeting, you will be able to understand better about the process and the document.

With understanding that co-operation is critically important to solve the problems in the Yellow Sea, all the partners have tried very hard during last several decades to build up good co-operation mechanism, and to establish good co-operation spirits. We all know we have different views on the ways of co-operation due to different political systems and social economic

conditions. The YSLME SAP proposed to have a better mechanism for co-operation: the YSLME Commission. We are sitting together to discuss our general goals and targets in the Yellow Sea. Therefore, it would be more effective to discuss the co-operation not in my Yellow Sea, not in your Yellow Sea, but OUR Yellow Sea.

The draft SAP for the Yellow Sea has identified the measurable targets to improve the ecosystem of the Yellow Sea. Once approved by the governments of the participating countries, it is more important to find ways to implement the management actions identified in the SAP. The successful implementation is largely depending on the good co-operation between all partners: between the participating countries, between the relevant governmental ministries and agencies, between governmental and non-governmental organisations, and between all communities and stakeholders.

Before the implementation of our management actions, we need to ask ourselves questions:

(i) Have our management actions considered the technical feasibilities of the participating countries?

(ii) Have our management actions consider the balance of environmental protection and economic development in the participating countries?

(iii) Have our management actions considered political and social conditions of the different stakeholders, including coastal communities in the participating

countries?

For the first two questions, we will answer them by implementing technical feasibility studies, and by the coat and benefit analysis. In addition, for the third question, we are implementing the Political and Social Acceptance Analysis (PSAA) in China and Republic of Korea. Thanks to the efforts of Prof Chung, the PSAA is well implementing in Korea. This meeting is one of the activities within the PSAA.

Following the approval of the participating governments How we going to implement the SAP? I am pleased to inform you that discussions on the implementation of YSLME SAP are undertaken by the participating countries and the Project Management Office of YSLME. We have received some positive response from the participating countries, GEF Secretariat and UNDP/GEF.

I wish we would find better solutions and actions to improve the ecosystem of the Yellow Sea.

Thank you.

1. 1) SAP Outline & Institutional Aspects

Suh-Yong Chung
Division of International Studies
Korea University

I. Introduction

UNDP/GEF YS LME Project has been active since 2005 for the protection of the Yellow Sea with its project office in KORDI located in Ansan, Korea.[3] As one of the many projects by the governments and experts of China and the ROK, Transboundary Diagnostic Analysis (TDA)[4] identifies the fundamental causes of the environmental challenges in the Yellow Sea. The Draft of the Strategic Action Programme (SAP) is prepared with the TDA, regional and two national governance analysis reports, and reports by each working-group and includes the recommendations to protect the Yellow Sea during the years 2010 to 2020. The Draft is now waiting for the endorsement in June by the two governments. The awareness on the UNDP/GEF Yellow Sea Large Marine Ecosystem Project of all stakeholders is crucial as the procedure to request for GEF financial support for the five years (2010-2015), after the expiration in 2009, is possible only when the endorsement takes place as scheduled.

II. SAP Outline

[3] www.yslme.org

[4] UNDP/GEF 2007, UNDP/GEF Project: Reducing Environmental Stress in the Yellow Sea Large Marine Ecosystem. Transboundary Diagnostic Analysis.

1. Legal Nature of the SAP

The SAP is not legally binding, as a result of UNDP/GEF YS LEM Project by the two governments, because the two have not expressed their intention to be bound by the SAP as such. Even in the case of endorsement, there is no obligation and no responsibility for failures in implementing the SAP. Without future standards of regional or national level is prepared based on the SAP, the SAP is incapable of functioning as legal standards, even if it has binding power, since the recommendations the SAP has are general in their characteristics.

2. Preparation of the SAP

YS LME Project Management Office and the governments and experts of the two governments has been preparing for the SAP. The SAP ad-hoc Working Group was formed in the early 2007 to discuss the drafting of the SAP and decided to carry out the drafting with two experts from each China and the ROK and the SAP Draft Working Group with five members including Project Manager of the YS LME Project Management Office. The SAP Draft Working Group held two meetings, one in China and the other in the ROK, and prepared the SAP. Today's public hearing is a part of the Political and Social Acceptance Analysis to facilitate discussions at the Special Project Steering Committee (Special PSC) scheduled in the early May in China. It aims to gather the opinions from the stakeholders for future endorsement by the two countries. The public hearing conducted in the two countries will be discussed in the SAP ad-hoc Working Group before the Special PSC meeting to finalize the SAP.

III. Institutional Aspects of the SAP[5]

So far, the regional efforts in protecting the Yellow Sea were mostly of individual cases, rather than of a comprehensive approach. Therefore, to continue and expand current efforts, an institutional vehicle is needed for more effective and integrated protection of the Yellow Sea and its coastal area. The SAP suggests the establishment of the YS LME Commission in such context.

The YS LME Commission is a soft, non-legally binding and cooperation based institution. Considering complex geopolitical situation in the Yellow Sea region, it is not appropriate to have a legally binding treaty-based institution, and the YS LME Commission and its characteristics will better contribute to enhancing effectiveness of the protection of the Yellow Sea and its coastal area.

The institutional framework for the YS LME Commission consists of YS LME Commission Steering Committee (YS LME CSC) as a supreme decision making body, the Secretariat, and Sub-Commissions mainly composed of experts. The DPRK's participation has significant implication for protection of the Yellow Sea and its coastal area and peace and security of the region. Therefore, much effort is needed to ensure the DPRK's full participation.[6]

The YS LME Commission needs to improve effectiveness of legal instruments for better implementation of the SAP, with the actions:

- Improving the implementation of regional and national treaties and guidelines,

[5] Second Draft of the Strategic Action Programme (SAPP, UNDP/GEF/YS/SDG.2/3 (2008),

[6] Suh-Yong Chung, Regional Governance Analysis, Project Report for the UNDP/GEF YSLME Project (2007).

- Periodic review of the implementation of treaties,
- Exchange of information on relevant domestic legislation,
- Harmonisation of domestic legislation.

The YS LME Commission also will put much effort to ensure wide participation by not only the governments but also stakeholders by:

- Strengthening partnerships with existing regional cooperative institutions,
- Strengthening coordination with bilateral cooperation mechanisms,
- Strengthening the Yellow Sea Partnership among related stakeholders,
- Strengthening partnerships to address the oil spill problems,
- Private sector's involvement,
- Capacity building for NGOs and local governments.

2. 2) Pollution

Dong-Beom Yang

Senior Research Scientist
Marine Environment Research Department
Korea Ocean Research and Development Institute

The Regional SAP of the UNDP/GEF YS LME Project has the following four management targets in the Pollution component.

(Regulating Services)

Target 4. Meeting international requirements on contaminants

Target 5. Reduction of total loading of nutrients from 2006 levels

(Cultural Services)

Target 6. Reduced standing stock of marine litter from current level

Target 7. Reduce contaminants, particularly in bathing beaches and other marine recreational waters, to nationally acceptable levels

Target 4. Meeting international requirements on contaminants

- **Management Action 4-1**

:Conduct intensive monitoring and assessment

- A new mechanism for regional monitoring and environmental assessment is needed. It is recommended to have monitoring and assessment on marine environmental pollution and regional workshops every 5 years on monitoring technology and assessment methodology. Also, a diagnostic strategy for identifying sources and sinks of pollutants is needed. Regional methodologies for monitoring and assessment of status and

trends of environment should be developed and the environmental status and trends report on YS LME should be issued.

- **Management Action 4-2**

  :Control contaminants discharge with reference to Codex alimentarius and Stockholm Convention

- A basin-wide strategy should be developed to reduce discharge from industrial and municipal sources with the reference to the seafood safety and reducing health risks. Economic instruments to reduce pollution loads and a protocol to control dumping at sea must also be developed. Stockholm Convention was established to protect human and environment from Persistent Organic Pollutants (POPs) by controlling the production, use and emission POPs. The ROK became a Member State in February 2007. POPs are highly toxic and have the characteristics of bioconcentration, persistence, long-range mobility and Stockholm Convention identifies 12 sources including Dioxins, DDT, and PCB as POPs.

- Codex alimentarius is international food standards for consumers, producers, and institutes. The United Nations General Assembly resolution of 16 April 1986 for consumer states that when formulating national policies and plans with regard to food, governments should take into account the need of all consumers for food security and should support and adopt standards from the Food and Agriculture Organisation of the United Nations and the World Health Organisation Codex Alimentarius.

- **Management Action 4-3**

  :Implementing MARPOL 1973/78 effectively

- Effective implementation of MARPOL with improvements in national and regional contingency strategies is necessary for control of oil pollution in the Yellow Sea. Also, early warning system and response to extreme pollution events are recommended.

Target 5. Reduction of total loading of nutrients from 2006 levels

- **Management Action 5-1**

  :Control total loading from point sources

- Control of pollution load from point sources is essential. The routine monitoring of major input sources and loads must be improved with exchange of data and information at a regional level.

- It is necessary to have the total-quantity-control methodologies of pollutant discharge in combination with best available techniques, and periodic review every 5 years on the current and future waste treatment facilities. Improvements are needed in clean production techniques, recycling, and waste treatment systems.

- **Management Action 5-2**

:Control total loading from non-point sources and sea-based sources

- The research on atmospheric deposition, especially of nitrogen and toxic substances should be expanded. Monitoring and assessment on fertiliser use, improvements in the management of fertiliser use, and assistance in technical developments for fertiliser use are needed. Also needed are the monitoring and assessment of sea based sources, sustainable mariculture, and removal of contaminated sediments.

- **Management Action 5-3**

:Apply new approaches for nutrient treatment

- The expanded wetlands can be used as nutrient sinks, and bio-technology for treatment of nutrients in wastewater and sewage can be developed.

Governance actions (Target 4, 5 - Regulating Services)

- Sharing of monitoring results, ecotoxicological data and relevant information

should be developed.

- A regional forum for integrated review of hot spots and for improved understanding on environmental capacity should be established.
- A mechanism to promote best available techniques and best environmental practices should be established.
- A mechanism to encourage use of organic fertilisers should be implemented.
- A mandatory review of environmental quality standards every 5 years should be conducted.
- Existing regulations, with international requirements, on clean production, recycling use, eco-agriculture and organic fertiliser use, sustainable utilisation of wetland, etc. should be improved.
- A total nutrient loading control programme should be incorporated in the national development plans.

Target 6. Reduced standing stock of marine litter from current level

- **Management Action 6-1**

  :Control source of litters and solid wastes

- Management of waste from coastal cities should be expanded. The technologies for waste reduction, re-use, recovery, and disposal should be implemented and the clean production and development of re-cycling economy be promoted.

- **Management Action 6-2**

:Improve removal of marine litter

- Development and implementation of a monitoring program for marine litter is encouraged, with the exchange of data and information in the region. Also, the local governments and NGOs develop and implement programmes for cleaning marine litter in YS LME coastal waters.

- **Management Action 6-3**

:Increase public awareness of marine litter

- Improved environmental awareness and education programmes on marine environmental protection are recommended.

Target 7. Reduce contaminants, particularly in bathing beaches and other marine recreational waters, to nationally acceptable levels

- **Management Action 7-1**

:Conduct regular monitoring, assessment and information dissemination particularly in bathing beaches and other recreational waters

- Intensive monitoring, early-warning, assessment in the seasons should be conducted. Development and improvement in national acceptable criteria or guidelines on water quality for bathing waters and other marine recreational waters should be made.

- **Management Action 7-2**

:Control pollution in bathing beaches and other marine recreational waters

- Control of pollution discharge in bathing and other marine recreational waters is encouraged.

Governance actions (Target 6, 7 – Cultural Services)

- More funding opportunities for recycling enterprises should be provided.
- The operational approach or system for litter removal should be developed.

- The environmental awareness and education programmes should be mainstreamed into national plans.
- Legislation of closure of sub-standard recreational waters should be promoted.
- More regular and stricter enforcement of marine litter laws should be carried out and compliance with waste management laws and regulations be improved.
- Clear national & regional guidelines on marine litter monitoring and assessment should be established.

3. 1) Ecosystem & Biodiversity

Hyung-Ku Kang

Senior Research Scientist

Marine Environmental Research Department
Korea Ocean Research and Development Institute

Ecosystem provides human with the four services: provisioning services, regulating services, cultural services, supporting services. Benefits of provisioning services, regulating services, and cultural services are direct, and supporting services are not indirectly supporting the other three service. Ecosystem carrying capacity, the capacity of ecosystem to provide human with services, should be maximised for the best service quality. The core strategy to realize the maximised and sustainable ecosystem carrying capacity is adaptive management, based on ecosystem-based management. A comprehensive and integrated approach is necessary, because, like climate change, causes of the changes in ecosystem structure may not be in human's control.

The actions primarily aiming to improve supporting services are: 1) maintaining habitats and biodiversity and 2) providing relevant information of current status and forecasts on the Yellow Sea ecosystem for adaptive, scientific, ecosystem-based management. Management actions for supporting services are divided into three: technical actions, governance actions, and indicators of management actions. The first focuses on activities with scientists, the second focuses on intergovernmental cooperation and legislation, and the third serves as criteria to evaluate the progress of the implementation of management actions.

Technical actions are again divided into four targets: 1) better understanding and prediction of ecosystem changes for adaptive management, 2) Maintenance and improvement of current populations/distributions and genetic diversity of endangered and endemic species, 3) Maintenance of current

habitats according to standards and regulations of 2007, and 4) Reduction of the risk of introduced species.

First, better understanding and prediction of ecosystem changes for adaptive management can be divided into five management actions.

1. Assess and monitor the impact of N/P/Si ratio change

The impacts of the changes of nutrient ratio affect on the ecosystem are not assessed well. The long-term trend in the nutrient ratio and its impacts on the ecosystem structure should be monitored and assessed. Thus, existing national monitoring and assessment methodologies need to be reviewed and harmonised.

2. Assess and monitor the impact of climate change

Due to climate change, the Yellow Sea ecosystem and its ECC are expected to experience fundamental changes. Basin-scale monitoring and assessment of the ecosystem status is necessary. For this, the existing national monitoring and assessment should be reviewed, and monitoring and assessment schemes should be improved, if necessary.

3. Forecast ecosystem changes in the long time scale

Climate-induced long-term changes in ecosystems cannot be managed by human. Integrating models regionally and developing scenario-based projections for the future ecosystem changes are necessary.

4. Monitor the transboundary impact of jellyfish blooms

Outbreaks of jelly fish is a transboundary problem and harms not only the fisheries but also the ecosystem. An international cooperation is required for proper monitoring and mitigation of jellyfish blooms on regional scale.

5. Monitor HAB occurrences

Continued eutrophication in the coasts of the Yellow Sea for the past decades resulted in increase in algal blooms since late 1980's. Monitoring the blooms should be conducted for potential impacts of mariculture, fisheries ad public health. In addition, the regional capability for HAB monitoring and mitigation need to be improved.

The second target is maintenance and improvement of current populations/distributions and genetic diversity of endangered and endemic species, with the management actions.

1. Establish regional conservation plan to preserve endemic and endangered species

As signatories to the Convention of Biological Diversity (CBD), both countries already have national conservation strategies, the next step is to establish a regional conservation plan that would include: the establishment of new nature reserves/MPAs and restoration of habitats needed to preserve endemic & vulnerable species; regular regional biodiversity monitoring to assess the effectiveness of the conservation plan; and the promotion of the concept of sustainable use.

Thirdly, the target of maintenance of current habitats according to standards and regulations of 2007 has four management actions.

1. Develop regional guidelines for coastal habitat management

Signatories of the CBD are obliged to identify areas that are important for biological diversity in combination with management plans for protecting these critical habitats through promotion of the sustainable use and the creation of protected areas.

2. Establish network of MPAs

Inter-linkage of MPAs is important to ensure that migration routes and genetic exchange are maintained. A representative network of nature preserves/MPAs at national level should be established, and enforcement

should be strengthened and management improved through annual assessments

3. Restrict new coastal reclamation

Intertidal wetlands play a vital role in the provision of supporting services such as nutrient absorption, carbon sequestration, sediment deposition, and shore line stability. Thus, governments should enforce strict limits on new coastal reclamation according to current government plans.

4. Promote public awareness of the benefits of biodiversity conservation

The benefits of biodiversity conservation are not appreciated by the general public. Public awareness should be increased of the benefits of biodiversity conservation and the need for conservation measures.

Fourthly, the target of reduction of the risk of introduced species includes the two management actions.

1. Control and monitor ballast water discharge

The introduction of non-native species through exchange of ballast water can reduce the productivity of native species in the existing ecosystem. Control and monitoring of ballast water discharge are needed following the International Convention for the Control and Management of Ships Ballast Water & Sediments.

2. Introduce precautionary approach and strict control of introduction of non native species

Mariculture farmers frequently select non-native species for their growth performance, but this results in serious consequences for native species. The precautionary principle should be employed when assessing the risk of introducing a non-native species, and once introduced strict monitoring of the organism should be continued until the risk of ecosystem modification is negligible.

Governance actions, besides technical actions, are related to intergovernmental cooperation or legislation and implementation of law. The major governance actions are as follows.

1) Cross-basin monitoring network and monitoring activities are needed to monitor the impacts of nutrient ratio change and climate change. For this,

regional committee to coordinate monitoring and assessment, routine monitoring, and annual meetings to conduct joint assessment are crucial.

2) For ecosystem modeling activities and HAB assessment, the establishment of two regional science committees is necessary to coordinate the activities.

3) For monitoring jellyfish blooms, international monitoring network, regional monitoring strategy, and implementation of regional monitoring are necessary.

4) Development of a regional framework is needed to incorporate the assessment into management policies for climate change impacts, HAB, and jellyfish blooms. Thus, monitoring strategies in national management policy, the existing policy making framework, and incorporation of assessment activities in management policy need to be developed.

5) Development of a framework to incorporate the forecasts of ecosystem change into management policy is recommended, and a review of national management policy regarding climate changes and a revision of the national framework to incorporate forecasts of ecosystem change are necessary.

6) Creation of a regional mechanism for cooperation (such as the YS LME Commission) is recommended and strengthened national mechanisms for interagency coordination and between government agencies and

stakeholders to share information on biodiversity and biodiversity management are needed.

7) Improved legislation and enforcement are required to ensure that vulnerable and endemic species and sensitive habitats are protected.

8) Regional and national mechanisms for raising awareness of environmental issues and legislation should be improved and public involvement should be encouraged through educational programmes and the promotion of eco-tourism and ecotourism livelihoods.

9) A regional conservation plan and strengthened national legislation on coastal habitat management (including MPAs) as agreed under the "Convention of Biological Diversity" in addition to the creation of appropriate enforcement bodies should be established.

10) Clear national and regional guidelines on biodiversity monitoring and assessments of the benefit of biodiversity to the local economy and the effectiveness of management should be identified.

11) Improved enforcement of international regulations on the introduction of non-native species in combination with a strengthening of national

legislation on species introductions and the use of risk assessment procedure is recommended.

Lastly, Indicators of management actions are as follows.

1) Continuation of cross-basin monitoring of N/P/Si change, climate impacts, and HAB trends.

2) Working international monitoring network for jellyfish blooms.

3) Regular status reports of N/P/Si change, climate impacts, jellyfish blooms, HAB trends

4) Scenario-based long-term projection of ecosystem changes

5) Development of adaptive management strategies using ecosystem status assessment and forecasting

6) Policy making based on adaptive management strategies

7) Species composition, species diversity indexes, and the density of vulnerable and endemic species at selected sites is maintained and improved compared to the 2007 situation

8) Area of current habitats is maintained according to standards and regulations of 2007

9) The incidence of disease/parasites and impacts endemic/vulnerable species caused by introduction of non-native species is reduced.

The ultimate aim of the SAP is to maximise the Ecosystem Carrying Capacity and to maximise the sustainable benefit from the ecosystem given to the people.

4. 1) Fisheries

Jang-Uk, Lee

Pukyong National University

Actions primarily addressing provisioning services

UNDP/GEF Yellow Sea Large Marine Ecosystem Project is preparing for actions plans, dividing the Strategic Action Programme (SAP) into four services, to relive the environmental stress and restore the ecosystem of the Yellow Sea by 2020. This report presents provisioning services among the four services.

1. Status and Challenges in the Yellow Sea ecosystem

The Transboundary Diagnostic Analysis (TDA) shows how over-exploitation of fisheries resources caused large commercially valuable species to be replaced by less valuable species. The fish catch in YS LME has increased from 0.4 million tons in 1986 to 2.5 million tons, which exceeded the maximum sustainable yield (MSY) of 1.6-1.7 million tons. Over-exploitation has caused decrease in fish size and changes in fish composition, yellow corbina and hairtail in 1950-60s, herring in 1970s, anchovy since 1980s, and sandlance currently.

Mariculture production quantity of China and the ROK, 44 million tons (95% from China) in 2005, including that of the sea level and of inland waters, is 70% of the world's total mariculture production quantity. Sea level farming amounts to 14 million tons in 2004 and mostly consists of mollusca. The quantity of mariculture production per area unit is decreasing. Inappropriate use of farms,

mariculture diseases and transmissions, raised concentrations of organic wastes, and competition for food resources amongst cultivated organisms are the factors contributing to environmental stress and hindered growth and survival rates of the culture organisms, thus reducing productivity. Moreover, habitat loss and degradation, changes in the ecosystem, jellyfish blooms, and harmful agal blooms (HABs) exert much impact.

2. Management strategy

Prepared for the restoration of the Yellow Sea large marine ecosystem by 2020, the SAP of provisioning services presents the targets to reduce fishing effort, rebuild depleted fish stocks, and improve mariculture technique.

2.1. Technical actions

Target 1. 25-30% reduction in fishing effort

Management Action: Control fishing boat numbers

Reduction in fishing effort has been implemented in the region for several years, and a reduction of 25-30% is planned during 2004-2020 based on the current stock level. Building of new boats should be strictly controlled and the landings should be substantially reduced to optimum level to keep biomass at biologically safe levels.

Management Action: Stop fishing in certain areas/ seasons

Limitation of fishing in spawning and nursery grounds in certain seasons is necessary and should continue, based on improved scientific knowledge. Summer ban fishing in China has been efficiently demonstrated to conserve the juveniles after 12 years practices, and should be continued. Also, marine protected areas and conservation of genetic resources of living resources are needed.

Management Action: Monitor and assess stock fluctuations

Joint monitoring and analysis of major stocks, compatible data and assessment methodology needs to be undertaken, and establishment of regional database is recommended.

Target 2: Rebuilding of depleted fish stocks

Management Action: Increase mesh size

Yellow Sea is exploited by many different types of fisheries and gears. The main fishing method used in the YS LME is the bottom trawl, and more selective fishing gears and optimum mesh-size, based on the studies of gears and fish behaviour, reduce by-catch.

Management Action: Enhance stocks

Healthy fry of high value fish and shellfish species should continue to be released into the sea in order to increase the recruitment and rebuild stocks. Building of artificial reefs and appropriate monitoring are encouraged to increase fishery resources, improve environment, and enhance stocks. Impact of the release of hatchery-raised juveniles and construction of artificial reefs on the ecosystem should be monitored and assessed.

Management Action: Improve fisheries management

Ecosystem-based fisheries management (EBFM) has been widely discussed worldwide due to its failure of single species management. EBFM Introduction of DBFM is suggested based on improved knowledge. Development of a self-regulation system by fishermen and community-

based management in the coastal areas are recommended, and Use of Total Allowable Catch (TAC) and Individual Transfer Quota (ITQ) should be used in fisheries management.

Target 3: Improvement of sustainable mariculture techniques to reduce environmental stress

Management Action: Develop environment-friendly mariculture methods and technology

Yellow Sea region is one of the most productive areas in mariculture, many methods have been used. As an environment-friendly mariculture methods, integrated multi-trophic aquaculture (IMTA) is an important method to increase economic benefit and is recommended. Standard offshore technologies to different conditions should be developed, and Good Aquaculture Practice (GAP) should be demonstrated at commercial scales.

Management Action: Reduce nutrient discharge

Mariculture in the region developed the fastest in the world. To reduce such negative impacts of such development on the ecosystem, limited water exchange systems, recirculating systems are recommended, and artificial diet improvement should be practiced on a commercial scale.

Management Action: Control diseases effectively

Mariculture diseases seriously affect the production. Diagnosis and control techniques for major diseases should be developed, and the network for an early warning and diagnosis system of diseases is also needed. New techniques and management measures to control disease should be introduced to the farmers of mariculture.

2.2. Governance Actions

① Public awareness of the future benefits from a reduction of fishing boats, closed seasons/areas and improved regulations should be raised, especially among fishermen. A mechanism should be created to increase

the public awareness of the benefits of IMTA, offshore mariculture and limited-water exchange systems and artificial feeds.

② Alternative livelihoods should be provided, and preferential taxation should be given to the fishermen who are engaged in non-fishing work. Also, subsidies for impoverished ex-fishermen are recommended.

③ Training programmes should be encouraged to provide new techniques, information and skills.

④ Coordination of stakeholders for marine resource management, coastal zone management, pollution management, etc. is required.

⑤ Current laws and regulations for fisheries management need to be improved to meet the requirements of today, to the development of fisheries industries and international ocean environment.

⑥ Illegal fishing and mariculture should be strictly controlled, and capacity building for enforcement of relevant regulations should be increased.

⑦ Licenses to control farm areas and species are recommended, and standards and regulations for offshore mariculture are needed to comply with the development of this industry.

⑧ Improved regulations to control nutrient discharge and diseases in mariculture and policies related to the used of trash fish are needed.

⑨ Establishment of regional fishery scientific committee to conduct joint assessment of trans-boundary fish stock and provide advice for fishery management is required.

2.3. Indicators of management actions

The following indicators are considered for management actions that address the provisioning service function of YS LME SAP:

① Control in fishing effort with a 1/3 reduction in the number of motorised fishing boats by 2020 from 2004, and a harvesting level to meet the "surplus yield."

② Recovery of depleted commercial fish stocks.

③ Billions of fry released into the sea for enhancement.

④ Establishment of at least ten protected areas for fishery resources.

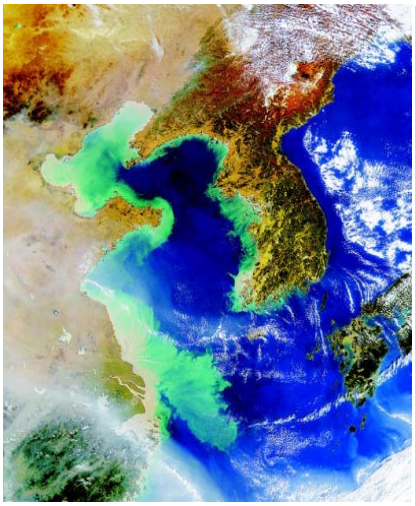
⑤ Reduced environmental stress with environment-friendly mariculture and sustainable mariculture techniques.

⑥ Efficient operation of a network of an early warning and diagnosis system of mariculture diseases.

It can be assured that the Yellow Sea ecosystem will improve with a synergy effect when the previously discussed provisioning services are implemented with other services.

ANNEX II

The Survey for the Strategic Action Programme



The Survey for the Strategic Action Programme

Division of International Studies

Korea University

Prof. Suh-Yong, Chung

Project Consultant

고려대학교 KOREA UNIVERSITY

UNDP / GEF Yellow Sea Large Marine Ecosystem Project

The Survey for the Strategic Action Programme

Purpose of Research

The survey will be used for reflecting the opinions of all the stakeholders and examining the acceptability of the Strategic Action Programme. The UNDP/GEF Yellow Sea Marine Ecosystem Project is carrying out the SAP in order to protect the Yellow Sea ecosystem from the aggravating environment status due to extensive economic development of China and Korea.

Means of Research

Means: Through visits, mails, fax and email

Date : April, 2008

Means of Reply

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The Contents of the Strategic Action Programme

The Yellow Sea ecosystem is now experiencing significant threat. It is challenged by the reduction of marine resources, habitat loss and deterioration of biodiversity, increase in red tides caused by rapid growth of population and economic development, unsustainable fisheries, and climate change.

Consequently, the Yellow Sea Large Marine Ecosystem Project (YS LME Project) of the United Nations Development Programme (UNDP) suggested the Strategic Action Programme to protect the Yellow Sea.

There are 11 goals for preserving the Yellow Sea ecosystem and minimising the negative effects.

1. **25~30% reduction in fishing effort**
2. **Rebuilding of depleted fish stocks**
3. **Improvement of sustainable mariculture techniques to reduce environmental stress**
4. **Meeting international requirements on contaminants**
5. **Reduction of total loading of nutrients from 2006 levels**
6. **Reduced standing stock of marine letter from current level**
7. **Reduce contaminants, particularly in bathing beaches and other marine recreational waters, to nationally acceptable levels**
8. **Better understanding and prediction of ecosystem changes for adaptive management**

9. Maintenance and improvement of current populations / distributions and genetic diversity of endangered and endemic spp

10. Maintenance of current habitats according to standard and regulations of 2007

11. Reduction of the risk of introduced species

To implement the 11 goals, the Strategic Action Programme concerns the relevant legislation, increasing the participation of local communities, institutionalising intergovernmental cooperation, and increasing the public awareness on the environmental issues. The Programme, in addition, emphasises on the need of economic efficiency of the policies. Also, based on the agreement and participation of all stakeholders, the SAP focuses on a sustainable financial mechanism and civil participation, and further, encouraging the participation of DPR Korea

Part Ⅰ

Q1	Please mark the relevant affiliate of the respondent.

① Local government
② Research institute
③ NGO(School)
④ Private enterprise

Q2	How much do you think the environmental problems of the Yellow Sea are affecting the respondent?

① A lot ② Moderate ③ Insignificant ④ None

Q2.1	If the respondent chose ① or ②, please elaborate on the effects.

Q3	How much are you informed on the UNDP/GEF Yellow Sea Large Marine Ecosystem Project?

① Well informed ② Informed ③ Not informed

Part Ⅱ

Q1	Do you think the practice of the SAP by the UNDP/GEF YS LME Project is acceptable, concerning the current environment status of the Yellow Sea?

① Yes ② No

Q2	Do you think the following recommendations for preserving fish stocks are acceptable? - To control fishing boat numbers - To stop fishing in certain areas/seasons - To increase mesh-size and monitor stock fluctuations - To conduct the network for an early warning and diagnosis system of diseases - To require license for fishing

① Yes ② No

Q3	Do you think it is appropriate for the government to provide subsidies to the fishermen, for the purpose of the preservation of fish stocks?

① Yes ② No

Q4	Do you think it is appropriate to establish the networks of governmental organisations, local research institutes, and NGOs, for the purpose of the preservation of fish stocks?

① Yes ② No

Q5	Do you think monitoring and assessment on marine environment every 5 years is appropriate?

① Yes ② No

Q6	Do you agree that the participation of local communities, not only governments, is crucial in executing the Strategic Action Programme?

① Yes ② No

Q7	Do you think the intergovernmental cooperative mechanism should be institutionalised in order to facilitate the protection of the Yellow Sea?

① Yes ② No

Q8	Do you think it is appropriate to establish educational programme for raising the public awareness of the Yellow Sea protection?

① Yes ② No

Q9	Do you think the actions in the Strategic Action Programme must be accompanied with economic benefits?

① Yes ② No

Q10	Do you think the financial support by the GEF is appropriate for the implementation of the Strategic Action Programme in 2010 ~ 2014?

① Yes ② No

Q11	Do you think civil participation is appropriate for further Yellow Sea protection?

① Yes ② No

Q12	Do you think the participation of North Korea is appropriate for further, effective, Yellow Sea protection?

① Yes ② No

Q13	Do you think the recommendations of the Strategic Action Programme are appropriate for the Yellow Sea protection in general?

① Yes ② No

Q14	How do you think the Strategic Action Programme will affect your activities in the future?

Q15	Please elaborate on any additional comments on the Strategic Action Programme.

♣ Your survey is very much appreciated, and will be reflected.

☎ Contact, if you have any question

- Sun-Young Chae , Research Assistant,

Division of International Studies, Korea University

02) 3290-2512, 011-9454-5838

ANNEX III

Press Release on the Public Hearing

PRESS RELEASE

April 17, 2008 Thursday

Public Hearing on the Strategic Action Programme of the GEF/ YS LME Project

o Based on its MOU with UNDP/GEF YS LME Project, Division of International Studies (DIS) of Korea University organises a public hearing on April, 22 at Korea Ocean Research and Development Institute, to hear the opinions of all stakeholders and to analyse political and social acceptance of the Strategic Action Programme (SAP) of the United Nations Development Programme (UNDP) Yellow Sea Large Marine Ecosystem Project (YS LME Project).

o The hearing will discuss issues related to marine pollution, ecosystem structure and biodiversity, and fisheries resources of the Yellow Sea.

o The public hearing will encourage participation and raise awareness of the local communities, and institutionalise intergovernmental cooperative mechanism by revising domestic legislation. It is also expected to induce more fund and better civil participation. The hearing bears more significance as the discussions on the establishment of the YS LME Commission can be a public notification that forms the institutional basis for managing environmental problems after 2010.

o For further information, please contact the office of Professor Suh-Yong Chung of Korea University at (02) 3290-2424.

ANNEX IV

List of Participants

List of Participants - Interministerial Meeting

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List of Participants - Public Hearing

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