

3RD YSLME SCIENCE CONFERENCE

15-19 July 2019

Shangri-la Hotel Qingdao,
Qingdao, PR China

PROVISIONAL PROGRAMME



Implementing the Strategic Action Programme for the Yellow Sea Large Marine Ecosystem:
Restoring Ecosystem Goods and Services and Consolidation of a Long-term Regional
Environmental Governance Framework (UNDP/GEF YSLME Phase II Project)

3rd YSLME Science Conference

The 3rd YSLME Science Conference is the biggest gathering of stakeholders for this year in support of Yellow Sea conservation and sustainability. The Conference will run from July 15-19, 2019 at Qingdao, PR China. The Conference will showcase a Plenary Session, 4 Parallel Events focusing on Fisheries, Biodiversity, Marine Litter and Microplastics, and Nutrient Management in YSLME. An Ad Hoc Meeting of the YSLME Interim Commission Council and the Workshop on YSLME Strategic Action Programme (SAP) update will also be conducted during the event.

Objectives

- Release the initial scientific findings of the research projects funded by UNDP/GEF YSLME Phase II Project;
- Facilitate the scientific exchanges and collaborative research within the scientific community of countries bordering the YSLME; and
- Contribute to the update process of the transboundary diagnostic analysis (TDA) and strategic action programme (SAP) of the YSLME.

Hosts

- UNDP
- UNOPS

Organizers

- First Institute of Oceanography (FIO), Ministry of Natural Resources, PR China
- National Marine Environmental Monitoring Center (NMEMC), Ministry of Ecology and Environment, PR China
- Ministry of Oceans and Fisheries (MOF), RO Korea
- Korea Marine Environment Management Corporation (KOEM), RO Korea
- Korean Institute of Ocean Science and Technology (KIOST), RO Korea
- Yellow Sea Fisheries Research Institute (YSFRI), Chinese Academy of Fishery Science, Ministry of Agriculture and Rural Affairs (MARA), PR China
- West Sea Fisheries Research Institute (WSFRI), National Institute of Fisheries Science (NIFS), Ministry of Oceans and Fisheries (MOF), RO Korea

Schedule of the 3rd YSLME Science Conference, the ad hoc Interim YSLME Commission Council and the Workshop on Update of YSLME SAP

(July 15-19, 2019 • Shangri-la Hotel Qingdao, Qingdao, PR China)



With Lunch Break



With Coffee Break




The event is by invitation only


DAY 1: July 15 (Monday)

<p>09:00 – 12:00 Plenary session Venue: China Hall 1, Valley Wing Level 2</p> 	<p>13:30 – 18:00 Ad hoc ICC Venue: Function Room 22, City Wing Level 2</p>  	<p>13:30 – 18:00 Parallel event 1: Fisheries Venue: Function Room 25, City Wing Level 2</p> 	<p>13:30 – 18:00 Parallel event 2: Biodiversity Venue: Function Room 24, City Wing Level 2</p> 
<p>18:30 – 20:00 Reception Dinner</p>			

DAY 2: July 16 (Tuesday)

<p>09:00 – 12:00 Ad hoc ICC Venue: Function Room 22, City Wing Level 2</p>  	<p>09:00 – 18:00 Parallel event 1: Fisheries Venue: Function Room 25, City Wing Level 2</p>  	<p>09:00 – 18:00 Parallel event 2: Biodiversity Venue: Function Room 24, City Wing Level 2</p>  	<p>13:30 – 18:00 Workshop on update of YSLME SAP Venue: Function Room 22, City Wing Level 2</p> 
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DAY 3: July 17 (Wednesday)

<p>09:00 – 18:00 Parallel event 2: Biodiversity Venue: Function Room 24, City Wing Level 2</p>  	<p>09:00 – 18:00 Workshop on update of YSLME SAP Venue: Function Room 22, City Wing Level 2</p>  
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DAY 4: July 18 (Thursday)

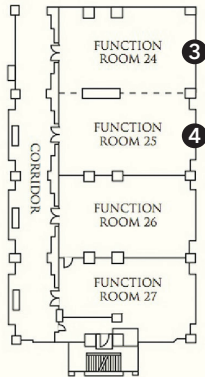
<p>09:00 – 12:00 Workshop on update of YSLME SAP Venue: Function Room 22, City Wing Level 2</p> 	<p>13:30 – 18:00 Parallel event 3: Marine litter Venue: Function Room 22, City Wing Level 2</p> 	<p>13:30 – 18:00 Parallel event 4: Nutrients Venue: Function Room 25, City Wing Level 2</p> 
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DAY 5: July 19 (Friday)

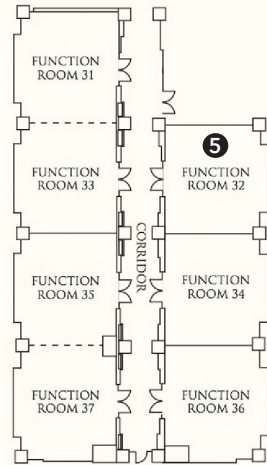
<p>09:00 – 12:00 Parallel event 3: Marine litter Venue: Function Room 22, City Wing Level 2</p>  	<p>09:00 – 12:00 Parallel event 4: Nutrients Venue: Function Room 25, City Wing Level 2</p> 
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Conference map

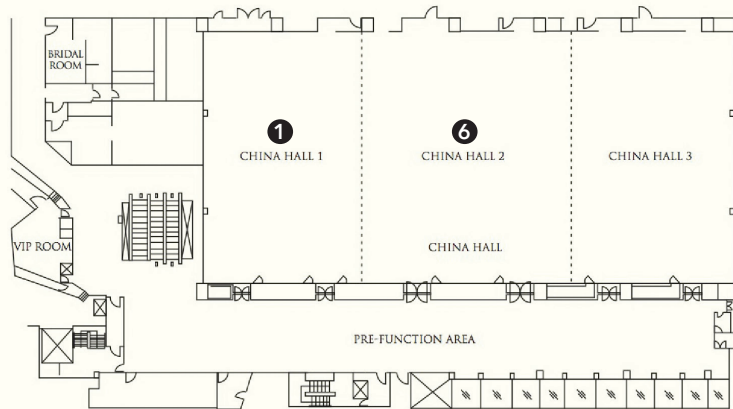
Level 2



Level 3



VALLEY WING
Level 2



① Plenary Session

② Ad Hoc ICC meeting

Workshop on
update of YSLME SAP

Parallel Event 3:
Marine Litter

③ Parallel Event 2: Biodiversity

④ Parallel Event 1: Fisheries

Parallel Event 4: Nutrients

⑤ Secretariat

⑥ Reception Dinner

Plenary Session

09:00 - 11:30; 15 July 2019

Venue: China Hall 1, Valley Wing Level 2

(Simultaneous interpretation for English-Chinese and English-Korean Provided)

TENTATIVE PROGRAM

08:30 - 09:30

Registration

09:30 - 09:40

Master of Ceremonies:

Dr. Sangjin Lee, Environmental Economist, UNOPS

Welcome Remarks

Dr. Chaode MA, Program Director, UNDP China

09:40 - 10:00

Congratulatory Remarks

Ms. Yueming DOU

Vice Director

North Sea Branch, SOA/MNR, PR China

Mr. Qingchun JIANG

Deputy Director General

Shandong Provincial Oceanic Administration

PR China

Dr. Jae-Ryoung OH

National Coordinator, UNDP/GEF YSLME Phase II

Project, RO Korea

10:00 - 10:10

Opening Remarks

Mr. Yinfeng GUO, Chief Technical Adviser and Project Manager, UNOPS

10:10 - 10:40

Coffee Break

10:40 - 11:35

Keynote Speeches

Keynote 1

State of the YSLME after 10 years of implementation of the YSLME Strategic Action Programme

Prof. Paul GREMILLION, International Consultant, UNOPS

Keynote 2

Sustainable Marine Ecosystem Services and Transboundary Marine Spatial Planning in Yellow Sea

Dr. Junggho NAM, Director of MSP Research Center, RO Korea

Keynote 3

Evolving the scientific research needs for advancing ecosystem-based management of the YSLME

Dr. Zhifeng ZHANG, Deputy Director General of National Marine Environmental Monitoring Center, the Ministry of Ecology and Environment, PR China

11:35 - 11:45

Group Photo

Contact persons

- Ms. Kathrine Rose Gallardo-Aguiling, Consultant Event Specialist, UNOPS
Email: krsgallardo@gmail.com
- Ms. Yifei Li, Administrative Assistant, UNOPS
Email: yifeiL@unops.org

Parallel Event 1

Fisheries Resources Research and Aquaculture Technology in the Yellow Sea

(14:00 - 18:00, July 15; 09:00 - 16:45, July 16, 2019)

Venue: Function Room 25, City Wing Level 2

Co-organizers:



Yellow Sea Fisheries Research Institute (YSFRI), Chinese Academy of Fishery Science, Ministry of Agriculture and Rural Affairs (MARA), PR China



West Sea Fisheries Research Institute (WSFRI), National Institute of Fisheries Science (NIFS), Ministry of Oceans and Fisheries (MOF), RO Korea

Contact persons

- Mr. Jiakun XU, Deputy Director, Division of Scientific Planning and Project Administration, Yellow Sea Fisheries Research Institute (YSFRI), Chinese Academy of Fishery Science, Ministry of Agriculture and Rural Affairs (MARA), PR China.
Email: xujk@ysfri.ac.cn
- Ms. Minji CHOI, West Sea Fisheries Research Institute (WSFRI), National Institute of Fisheries Science (NIFS), Ministry of Oceans and Fisheries (MOF), RO Korea
Email: ming85@korea.kr

TENTATIVE PROGRAM

14 July

Arrival and registration for participants

DAY 1: 15 July (Monday)

14:00 - 14:30

Opening Ceremony

Moderator: **Ms. Zhihong LIU**, Director, YSFRI

Welcome and Opening Address

Dr. Xianshi JIN, YSFRI

Opening Address

Dr. Woo Jeung CHOI, WSFRI

Session I. Annual Meeting

14:30 - 15:30

Achievement in 2019 and Cooperation Plan in 2020 (from China side)

Dr. Xianshi JIN, YSFRI

15:30 - 16:00

Coffee Break and Group Photo

16:00 - 17:30

Achievement in 2019 and Cooperation Plan in 2020 (from Korea Side)

Dr. Woo Jeung CHOI, WSFRI

17:30 - 18:00

Discussion

Dr. Xianshi JIN/Dr. Woo Jeung CHOI

DAY 2: 16 July (Tuesday)

Session II. Workshop

09:00 - 09:20

Opening Remarks

Dr. Xianshi JIN, YSFRI

09:20 - 09:40

Seaweed cultivation and its ecological effect in China

Dr. Fuli LIU, YSFRI

09:40 - 10:00	A study of the risk assessment on the marine environment using biological effects Dr. Un-Ki HWANG , WSFRI
10:00 - 10:20	Ecological footprint and vulnerability of marine capture fisheries in China Dr. Qi DING , YSFRI
10:30 - 11:00	Coffee Break
11:00 - 11:20	Characteristic of parasitic leech, <i>Limnotrachelobdella sinensis</i> in Carp Dr. Seok-Ryel KIM , WSFRI
11:20 - 11:40	Changing states of the food resources in the Yellow Sea large marine ecosystem under multiple stressors Dr. Qiang WU , YSFRI
11:40 - 12:00	The status of oyster culture in Korea Dr. Young Baek HUR , WSFRI
12:00 - 14:00	Lunch
14:00 - 14:20	Age, growth and microchemical characteristics of two <i>Loligo</i> squids Dr. Yue JIN , YSFRI
14:20 - 14:40	A study on technology for actions to high water temperature damage on the fish farm in the Cheonsu Bay, West Sea, Korea Dr. Kyung-Mi LEE , WSFRI
14:40 - 15:00	Genetic evaluation and selective breeding of sea cucumber (<i>Apostichopus japonicus</i>) Dr. Meijie Liao , YSFRI

15:00 - 15:20

Gradient pressure analysis based on spatial and temporal changes caused by fishery catch along Chinese Yellow (Bohai) large marine ecosystem
Prof. Ping ZUO, Nanjing University

15:30 - 16:00

Coffee Break

16:00 - 16:45

Summary
Dr. Xianshi JIN/Dr. Woo Jeung CHOI

Parallel Event 2

YSLME Biodiversity Forum – Charting the Biodiversity Conservation in the YSLME up to 2030

14:00 – 18:00, July 15; 09:00 – 18:00, July 16–17, 2019

Venue: Function Room 24, City Wing Level 2

Co-organizers:



안양대학교

Anyang University,
RO Korea



First Institute of Oceanography
(FIO)/Ministry of Natural
Resources (MNR), PR China



Korea Marine Environment
Management Corporation
(KOEM), RO Korea



International Union for
Conservation of Nature and
Natural Resources (IUCN)



East Asian Australasian
Flyway Partnership
(EAAFP)



YSLME Project
Management Office

Sponsors:

Department of Protected Areas
of the National Forestry and
Grassland Administration
(NFGA), PR China

Marine Policy Office of
Ministry of Oceans and
Fisheries (MOF) of RO Korea

Fisheries Management
Bureau of the Ministry of
Agriculture and Rural Affairs,
PR China

United Nations
Development
Programme (UNDP)

Background

The biodiversity in particular the intertidal mudflats in the Yellow Sea (YS) including the marine ecosystems services is unparalleled in the world but has already been changing due to the continued urban and coastal developments. Increasing demand for water, the damming of rivers, the dumping and accumulation of various pollutants, and invasive species continue to threaten the coastal and marine ecosystems. Coastal reclamation and other forms of land conversion have changed coastal habitat. These drivers have resulted in loss of biodiversity and ecosystem services which in return are affecting the well-being and livelihoods of people in the YS.

To effectively respond to the changing circumstances and chart the future of biodiversity in YS, UNDP/GEF YSLME Phase II Project is supporting the countries bordering the Yellow Sea to develop and implement a regional biodiversity conservation plan up until 2030. The parallel event of **Charting the Biodiversity Conservation in the YSLME up to 2030** at the 3rd YSLME Science Conference is meant to support the development and adoption of YSLME Biodiversity Conservation Plan covering 2020-2030 to contribute to the implementation of SDGs.

Objectives

- To understand status of biodiversity in YS following the 2007 TDA
- To capture accomplishment of best practice and knowledge in enhancing resilience of biodiversity and ecosystem of the YS by strengthening the coverage and connectivity of MPAs
- To reach consensus on measures to be taken to reduce the loss of coastal and marine habitats and species of critical global and regional significance in support of achieving SDG 14 and implementing CBD, RAMSAR and other relevant Conventions.

Expected Outcomes

- Strengthened partnership in biodiversity conservation and sustainable use in YS among governments, academia and NGOs
- Improved awareness among the public of the threats and status of biodiversity of YSLME
- Consensus on the way forward and concerted actions and targets of the draft YSLME Biodiversity Conservation Plan (2020-2030)
- Better understanding of the connectivity patterns of the YSLME MPA Network

Contact persons

- Dr. Gyung Soo PARK, Dean, College of Letters and Science, Department of Marine Biotechnology, Anyang University
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- Dr. Fangyuan QU, Associate Researcher, First Institute of Oceanography, Ministry of Natural Resources, PR China
Email: qfy@fio.org.cn

TENTATIVE PROGRAM

14 July

Arrival and registration for participants

DAY 1: 15 July (Monday)

13:30-13:50

Opening address

- **Mr. Hui YU**, Director, Division of Marine Protected Areas, Department of Protected Areas, NFGA
- Marine Environment Policy Office, Ministry of Oceans and Fisheries (MOF), RO Korea

Moderator:

Dr. Zhaohui ZHANG, Professor, FIO/MNR, PR China

13:50 – 15:30

Session 1: Global, regional and national priorities in application of ecosystem-based management of the YSLME

Session Moderator:

Dr. Dirk LAMBERTS, Environment Specialist, UNOPS

Rapporteur: **Dr. Fangyuan QU**, FIO/MNR, PR China

- **Marine biodiversity conservation in PR China up to 2020: achievements and new agenda**
Dr. Linlin ZHAO, FIO/MNR, PR China
 - **Marine ecosystem conservation of RO Korea in 2019-2028: strategy and priority**
Dr. Jongseong RYU, Anyang University, RO Korea
 - **Globally significant biodiversity in north coast of Yellow Sea in DPR Korea**
Mr. David Melville, Global Flyway Network
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- **Marine mammals and fish species conservation in the Yellow Sea**

Dr. Jilong LI, CAFS, MARA, PR China

Panel discussion: National priorities, achievements and future agenda

15:30 – 16:00

Coffee break

16:00 – 18:00

Session Moderator:

Dr. Xiubo YU, IGSNRR/CAS, PR China

- **Post-2020 Biodiversity framework - reflections of ongoing discussions**

Dr. Dirk Lamberts, Environment Specialist, UNDP/GEF YSLME Phase II Project

- **Activities on marine biodiversity conservation in the NOWPAP region**

Dr. Takafumi YOSHIDA, CEARAC/NOWPAP

- **Implementation of the IUCN World Conservation Congress resolutions in relation to Yellow Sea - status, progress and way forward**

Mr. Raphaël Glémet, IUCN Asia Regional Office

- **Initiatives of the East Asian-Australasian Flyway Sites Network in the Yellow Sea**

Dr. Cai LU, Adviser of Science Unit, EAAFP

Panel discussion: Regional reflections to post-2020 biodiversity agenda for the YSLME

18:00

Dinner reception

DAY 2: 16 July (Tuesday)

09:00 – 10:30

Session 2: Framework of biodiversity conservation planning in YSLME up to 2030

Session Moderator:

Dr. Bong-Oh KWON, Seoul National University, RO Korea

Rapporteur: **Mr. Young Nam KIM**, KOEM, RO Korea

- **Proposal of YSLME biodiversity conservation plan in PR China**
Prof. Zhaohui ZHANG, FIO/MNR, PR China
- **Proposal of YSLME biodiversity conservation plan in RO Korea**
Dr. Won-Tae SHIN, CEO, Global Ocean Inc.

Open discussion: Framework, priorities in geographical areas, species, ecosystems, and instruments, tools and mechanisms

10:30 – 11:00

Coffee break

11:00 – 12:00

Session 3: Strengthening the YSLME MPA Network

Session Moderator:

Dr. Zhaohui ZHANG, FIO/MNR, PR China

Rapporteur: **Dr. Linlin ZHAO**, FIO/MNR, PR China

- **Gap analysis in MPA in PR China**
Dr. Zhaohui ZHANG, FIO/MNR, PR China
- **MPA and marine ecosystem conservation and management in RO Korea**
Dr. Young Nam KIM, KOEM, RO Korea

Panel Discussion: Priority species of concern, management-oriented network of MPAs, and ways and approaches towards maximized joint management actions and application of new technologies to understand migration pattern of marine mammals.

12:00 – 13:30 Lunch

13:30 – 15:30 **Panel discussion on designation of MPAs for priority species and habitats**

- **Coastal wetland changes and priority areas for waterbird habitat conservation in the Yellow Sea Ecoregion in PR China**
Dr. Xiubo YU, IGSNRR/CAS, PR China
- **Migratory bird species in YS**
Mr. Yong LU, Senior Technical Officer, International Wetlands
- **Spotted Seal and Finless porpoise conservation plan in PR China**
Dr. Jiabo HAN, The institution of Marine Academy and Fishery Sciences of Liaoning Province, PR China

15:30 – 16:00 Coffee break

16:00 – 18:00 **Session 4: Coastal and marine ecosystem restoration technologies and evaluation**

Session Moderator:

Dr. Zongling WANG, PR China

Rapporteur: **Dr. Aslan Hwanhwi LEE**, RO Korea

- **Improving the effectiveness and impacts of coastal restoration projects**
Dr. Chaolun LI, IOCAS, PR China
 - **Coastal reclamation and restoration in RO Korea**
Dr. Bong-Oh KWON, Seoul National University, RO Korea
 - **Effective and simple statistical approaches for the interpretation and identification of ecosystem management targets from large volume data sets**
Dr. Gyung Soo PARK, Anyang University, RO Korea
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- **The potential of Korean vegetated coastal ecosystems for greenhouse gas abatement through blue carbon management**
Dr. Heung-Sik PARK, KIOST, RO KOREA

Panel Discussion: Lessons learnt and good practices replication

DAY 3: 17 July (Wednesday)

09:00 – 10:30

Session 5: Mainstreaming coastal wetland and marine biodiversity into spatial planning

Session Moderator:

Dr. Gyung Soo PARK, Anyang University, RO Korea

Rapporteur: **Dr. Shihao LIU**, Postdoctor Researcher, FIO, PR China

- **MSP application in China and future directions for biodiversity conservation**
Dr. Zhiwei ZHANG, FIO/SOA, PR China
- **Development of marine spatial planning (MSP) in RO Korea**
Dr. Hee-Jung CHOI, KMI, RO Korea
- **Emergy value maps as a decision support tool for marine spatial planning in Korea**
Dr. Daeseok KANG, Pukyong National University, RO Korea
- **The future of Marine Spatial Planning in Thailand: A case study in Koh Lan, Pattaya**
Dr. Sakanan PLATHONG, Prince of Songkla University, Thailand
- **Coastal wetland ecosystem services in RO Korea**
Dr. Aslan Hwanhwi LEE, Seoul National University, RO Korea

Panel Discussion: Application of MSP in YSLME scale, especially on biodiversity conservation

10:30 - 11:00

Coffee break

11:00 - 12:00

Session 6: Building enabling constituency for coastal and marine biodiversity

Session Moderator:

Dr. Dohoon KIM, Pukyung National University, RO Korea

Rapporteur: **Mr. Raphaël Glémet**, IUCN Asia Regional Office

- **Building a network of MPA education centers to increase awareness of threats, values, impact of loss and YSLME biodiversity**
Ms. Ji Young JANG, Eco-Horizon Institute, RO Korea
- **Engaging public and community participation through awareness raising education in protecting critically endangered Spoon-billed Sandpiper in Jiangsu Province, PR China**
Ms. Ziyou YANG, Spoonbilled sandpiper in China
- **Increasing economic impacts of the Yellow Sea fisheries through marine biodiversity conservation**
Dr. Dohoon KIM, Pukyung National University, RO Korea
- **Priorities for the blue economy in China**
Dr. Dahao CAI, National Marine Data and Information Service, PR China

Panel Discussion: Awareness raising for biodiversity conservation in both countries

12:00 - 13:30

Lunch

13:30 – 15:30

The Way Forward - Break-out group discussion

Session Moderator:

Dr. Zhaohui ZHANG, FIO, PR China

Based on the discussion and results of the 6 sessions, the forum will break into groups to discuss the objectives, targets and priority actions of a YSLME Biodiversity Conservation Plan up to 2030. Resource persons will summarize the results of discussions in the 6 Sessions to help roll out the group discussion. Each group will report the objectives, targets and actions for review at the plenary. Consultants will improve the framework of the plan based on the insights from the forum and this session.

15:30 – 16:00

Coffee break

16:00 – 17:30

Group report and Wrap-up

Parallel Event 3

Addressing the Challenges of Marine Litter and Microplastics in the YSLME

13:30 - 18:00, July 18, 2019; and 09:00 - 12:00, July 19, 2019

Venue: Function Room 22, City Wing Level 2

Co-organizers:



Ministry of Oceans
and Fisheries
Marine Policy Office, Ministry
of Oceans and Fisheries,
RO Korea



Department of Marine Ecology
and Environment of Ministry
of Ecology and Environment



National Marine
Environmental Monitoring
Center (NMEMC), PR China



Korea Institute of Ocean
Science and Technology
(KIOST), RO Korea



Shandong Marine Resource
and Environment Research
Institute, PR China



YSLME Project
Management Office

Background

Marine litter refers to persistent, man-made or processed solid waste in marine and coastal environments. Some of them stay on the beach while others float on the surface of the sea or sink to the bottom of the sea. The amount of marine litter in the Pacific alone has reached more than 3 million square kilometers. Relevant researches have shown that marine litter has become one of the common water pollution sources through surveys of rivers, bays, islands and offshore waters around the world. Human activities on coasts and recreational activities, marine activities such as shipping and fishing are the main sources of marine litter. According to statistics, plastic and polystyrene products account for 90% of floating marine litter. If no measures are taken, the ocean will not be able to bear the burden, and the environment in which humans and other living things depend will be greatly challenged.

Ecosystem-based management of the YSLME requires joint actions in catalyzing partnerships development and supporting the implementation of policies aimed at reducing marine litter and marine plastics while benefiting communities and sea-based economies in particular tourism in coastal areas. These enabling conditions will provide a conducive platform to engage business, academia, NGOs, youth and other stakeholders to take joint actions within their respective areas of expertise.

The parallel session on marine litter and microplastics will be held in Qingdao City of PR China on 18-19 July of 2019 co-organized by YSLME PMO in collaboration with NMEMC and Shandong Marine Resource and Environment Research Institute of PR China and KIOST of RO Korea.

Objectives

- Appreciate the methodologies in monitoring and analyzing marine litter (including microplastics) in the marine environment of the Yellow Sea
- Understand the sources and distribution;
- Identify solutions and good management practices to management challenges
- Engage local governments and the public to take actions and remediation measures
- Synergize actions and programs of regional organization through partnership development and resource sharing

Contact persons

- Ms. Weiwei Zhang, NMEMC/MEE, PR China
Email: wwzhang@nmemc.org.cn
- Dr. Jae-Ryoung OH, National Coordinator, YSLME Phase II Project, RO Korea
Email: Jroh@kiost.ac
- Mr. Jeenho MOK, Administrative Intern, YSLME PMO/UNOPS
Email: jeenhoM@unops.org

Note: *Forum language is English and translation services will not be provided during the session.*

TENTATIVE PROGRAM

**18 July
(Thursday)**

Arrival of participants

DAY 4: 18 July (Thursday)

13:30 - 14:00

Registration for participants

14:00 - 14:30

**Moderator for Opening Speech and Keynote
Addresses: Ms. Juying WANG, NMEMC, PR China**

Congratulatory Speech

- NMEMC/MEE, PR China

14:30 - 15:30

**Session 1: Monitoring and analyzing methodology
of marine litter in the marine environment of YS**

**Keynote Speech: From macro- to microplastics:
weathering and fragmentation of plastics**

Mr. Won Joon SHIM, KIOST, RO Korea

**Keynote Speech: Marine litter status and marine
plastics monitoring in PR China**

Ms. Juying WANG, NMEMC/MEE, PR China

Q&A session

15:30 - 15:50

Coffee Break

15:50 - 17:00

**Session 2: The Source and distribution of marine
litter in Yellow Sea**

Session Moderator: **Mr. Jong-Joo YOON, RO Korea**

- **Status quo of marine litter challenge faced by
RO Korea and national marine litter management
programs to address the problem**

Mr. Juyoung PARK, KOEM, RO Korea

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- **Status of marine litter in YSLME: consolidated baseline report supported by UNDP/GEF YSLME Phase II Project**
Mr. Maowei JU, NMEMC/MEE, PR China
 - **Status, sources and distribution of marine litter and plastics in Weihai City, Shandong Province of PR China**
Mr. Yuanqing MA, Vice President, Shandong Marine Resource and Environment Research Institute, PR China

Q&A session

17:00 - 17:50

Session 3: Special session on microplastics in YS

Session Moderator: **Mr. Maowei JU**, MEE, PR China

- **Horizontal and vertical distribution of microplastics in coastal and shelf waters from Yellow Sea of Korea**
Ms. Sang Hee HONG, KIOST, RO Korea
- **Distribution of microplastics in the Yellow Sea of PR China**
Ms. Xiaoxia SUN, Chinese Academy Sciences, PR China

Q&A session

17:50 - 18:00

Wrap-up and adjournment of the meeting

DAY 5: 19 July (Friday)

09:00 - 10:00

Session 4: Engaging local governments and the Public for effective solutions/remediation measures for marine litter and micro-plastics

Session Moderator: **Dr. Ning LIU**, Environment Officer, NOWPAP

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- **Status and programs to mitigate marine litter in Taean, Chungnamdo, RO Korea**
Mr. Jong-Joo YOON, ChungNam Institute, RO Korea
 - **Assessment of fishery-based marine litter in coastal areas of Yellow Sea**
Mr. Feng XIAO, Rendu, PR China
 - **Experiences of volunteerism in environmental education and beach clean-up through establishing a network of universities**
Mr. Tengfei CHU, Deputy Secretary General, BlueRibbon Conservation Association, PR China
 - **Journey from monitoring urban waste management pollution to sustainable waste management in rural China**
Ms. Liwen CHEN, Zero Waste Villages, PR China

Q&A session

10:00 – 10:20 Coffee Break

10:20 – 11:30 **Session 5: Synergizing actions of responses to marine litter and microplastics through cooperation at regional level**

Session Moderator: **Mr. Zhengguang ZHU**, Environment Officer, YSLME PMO

- **NOWPAP Regional Action Plan on Marine Litter: progress of implementation and lessons learnt**
Mr. Ning LIU, Environment Officer, NOWPAP
 - **Legal issues on marine litter problem in Indonesia and ASEAN countries**
Mr. Maruf, PhD Fellow Xiamen University, from Indonesia
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- **Building a sustainable platform for innovation and learning across cities in YSLME through establishing a city alliance**
Mr. Zhengguang ZHU, YSLME PMO, UNOPS

Q&A session

11:30 - 12:00

Wrap-up and closing remarks

Parallel Event 4

Nutrient Management in YSLME

13:30 - 18:00, July 18, 2019; and 09:00 - 12:00, July 19, 2019

Venue: Function Room 25, City Wing Level 2

Co-organizers:



Korea Marine Environment
Management Corporation
(KOEM), RO Korea



Korea Institute of Ocean
Science and Technology
(KIOST), RO Korea



National Marine
Environmental Monitoring
Center (NMEMC), PR China



YSLME Project
Management Office

Background

Coastal eutrophication is associated with large urban populations and agricultural production that has high fertilizer use or large numbers of livestock. Excessive nutrients transported by rivers into coastal waters can cause algal blooms that may be toxic and may deplete the oxygen in the water and make it turbid, affecting fish and other marine life. Atmospheric nitrogen deposition is also a contributor to coastal eutrophication. Policy responses that reduce nutrient inputs to watersheds will decrease risk to LMEs. Based on the data of 2000, coastal eutrophication in Yellow Sea is rated as high, according to IOC-UNESCO and UNEP (2016). The YSLME SAP adopted in 2009 by PR China and RO Korea specifically targets to reduce nutrient loadings in coastal areas from land-based, atmosphere and ocean-based sources. UNDP/GEF YSLME Phase II Project has been supporting the review of current status of coastal eutrophication and loading modelling in hotspots, demonstration of nutrient mitigation through natural solutions and sewage treatment to achieve reduction of nutrients in Yellow Sea.

Objectives

- To review the status of nutrient inputs from selected river basins, atmosphere-based and sea-based sources;
- To understand the progress being made in nutrient reduction through increase in fertilizer-use efficiency in crop production, improvements in management of manure, and upgrading sewage treatment, and use of artificial wetland as nutrient sinks in the Yellow Sea.
- To discuss opportunities for improved nutrient reduction through regional cooperation and policy developments.

Contact Persons

- Ms. Fan YANG, PR China, NMEMC/MEE, PR China
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- Dr. Jae-Ryoung OH, National Coordinator, YSLME Phase II Project, RO Korea
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- Mr. Jeenho MOK, Administrative Intern, YSLME PMO
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Note: *Forum language is English and translation services will not be provided during the session.*

TENTATIVE PROGRAM

DAY 4: 18 July (Thursday)

13:30 – 14:00

Registration for participants

14:00 – 14:10

Session Moderator for Opening Speech:

Ms. Milcah NDEGWA, UNEP

Opening Speech

- **Mr. Ziwei YAO**, NMEMC, PR China
- **Mr. Joong Ki CHOI**, Inha University, RO Korea

14:10 – 15:10

Keynote addresses

Moderator: **Mr. Joong Ki CHOI**, Inha University, RO Korea

GPA/Global Partnership on Nutrient Management (GPNM): Progress and Prospects

Ms. Milcah NDEGWA, UNEP

Shiwa Lake total pollutant load management in mitigation of COD and TP

Mr. Chang Hee LEE, Myongji University, RO Korea

Q&A session

15:10 – 15:30

Photo and Coffee break

15:30 – 18:00

Session 1: Status of nutrients inputs e.g. nitrogen and phosphorus from land-based from selected river basins, atmosphere-based and sea-based sources

Session Moderator: **Mr. Ziwei YAO**, NMEMC, PR China

- **Watershed modelling and nutrient loadings in Haizhou Bay of Jiangsu Province, PR China**
Mr. Lijun WANG, NMEMC of MEE, PR China

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- **Watershed modelling and nutrient loadings in Han River of RO Korea**
Dr. Hong-Lae CHO, Hydrocore, RO Korea
 - **Monitoring and acquisition of data from Yellow sea in RO Korea**
Mr. YoonSeok CHOI, National Institute of Fisheries Science, Ministry of Oceans and Fisheries, RO Korea

Q&A session

- **Monitoring and acquisition of data from atmosphere-based sources in PR China**
Ms. Limin YU, NMEMC of MEE, PR China
- **Atmospheric deposition of inorganic nitrogen to East Asian marginal seas**
Mr. Tae-Wook KIM, Assistant Professor, Division of Environmental Science and Ecological Engineering, Korea University

Q&A session

DAY 5: 19 July (Friday)

09:00 – 09:50

Session 2: Impacts of excessive nutrients loadings in the Yellow Sea

Session Moderator: **TBC**

- **A historical overview of trophic status in Jiaozhou Bay of Yellow Sea**
Dr. Baodong WANG, First Institute of Oceanography, MNR, PR China
- **Coastal Ocean Acidification and hypoxia: the other eutrophication problems**
Dr. Qinsheng WEI, First Institute of Oceanography, MNR, PR China

Q&A session

09:50 - 10:10

Coffee Break

10:10 - 11:30

Session 3: Nutrient reduction or remediation through nature-based solutions

Session Moderator: **TBC**

- **Restoring coastal wetlands as nutrient sinks: case studies and regional strategies**
Mr. Guoxiang LIAO, NMEMC of MEE, PR China
- **Variation in nutrients uptake by cultured seaweeds and a simple evaluation of *in situ* N demand at laver aquaculture farms in South Korea**
Ms. Jeong Hee SHIM, East Sea Fisheries Research Institute, NIFS, RO Korea
- **World Bank Guangdong Project on Nutrient Management**
Mr. Birun LIN, World Bank Guangdong Project
- **Implementation of Nitrates Directive in Romania**
Mr. Mihai CONSTANTINESCU, Specialist, Agriculture and Forestry, Ministry of Waters and Forestry, Romania

Q&A session

11:30 - 12:00

Wrap-up of the session and closing remarks

(By Invitation only)

Ad hoc Interim Commission Council Meeting on Options for a Regional Governance Mechanism for the YSLME

13:30 - 18:00, July 15, 2019; and 09:00 - 12:00, July 16, 2019

Venue: Function Room 22, City Wing Level 2

TENTATIVE PROGRAM

DAY 1: 15 July (Monday)

13:30 - 14:00 **Registration**

14:00 - 14:20 **1.0 Opening of the Meeting**

14:20 - 14:30 **2.0 Organization of the Meeting**

2.1 Election of Officers

2.2 Adoption of Meeting Agenda

14:30 - 15:30 **3.0 Establishment of the Regional Ocean Governance Mechanism for the YSLME**

3.1 Report on the Feasibility Study of Establishing A Regional Ocean Governance Mechanism for the YSLME

15:30 - 15:45 Coffee Break

15:45 - 18:00 **Establishment of the Regional Ocean Governance Mechanism for the YSLME (CONTINUATION)**

3.2 Basic instruments on establishment of the YSLME governance mechanism

18:00 **Adjournment of the Meeting**

18:30 - 20:00 **Welcome Dinner**

DAY 2: 16 July (Tuesday)

09:00 - 10:30

Establishment of the Regional Ocean Governance Mechanism for the YSLME (CONTINUATION)

3.3 YSLME Trust fund

3.4 Establishment of the Joint Task Force on Governance and Financial Mechanism

3.5 Workplan to institutionalize the regional ocean governance mechanism

10:30 - 10:45

Coffee Break

10:45 - 11:30

4.0 Project Progress Report

5.0 Project Audit and Termination Evaluation

6.0 Project Closure Plan

11:30 - 11:40

7.0 Other Business

7.1 Time and venue of next meeting

11:40 - 12:30

8.0 Adoption of Meeting Report

12:30

Closure of the Meeting

Workshop on Update of YSLME SAP

**13:30 - 18:00, July 16, 2019 - 09:00 - 18:00, July 17, 2019;
and 09:00 - 12:00, July 18, 2019)**

Venue:Function Room 22, City Wing Level 2

Organizer:



YSLME Project
Management Office

Objectives

- Review the scope and mission of the 2007 TDA and 2008 SAP;
- Review the technical and management actions undertaken during the YSLME Phase II project;
- Validation of the findings and conclusions of the updated TDA
- Evaluate the relevance of the 2008 SAP components, considering current perspectives on the YSLME ecosystem;
- Develop recommendations on the structure and content of 2019 SAP update.

Session 1: July 16, 13:30 - 15:00

Opening and Introduction to Workshop

- Opening comments by Project Manager and RWG-G
- Statements of objectives and desired outcomes
- Format of workshop and expectations for participation
- Overview of TDA / SAP process and the roles and major events of YSLME Phase I and II projects within this context

Session 2: July 16, 16:00 - 18:00

Technical Basis for SAP

- Priority transboundary problems (TDA)
- Causal chain analysis: Understanding root causes (TDA)
- Regional targets, technical actions, and management actions (SAP)
- Key findings and conclusions of updated TDA and validation

Session 3: July 17, 09:00 - 10:30

Workshop Activity: Validate the Causal Chain Analysis and Environmental Problems

- **Objective:** Evaluate the relevance of environmental problems and causes identified in the 2008 SAP
- **Activities:** Breakout groups consider following topics:
 - o What are the emerging transboundary environmental problems relative to the nine environmental problems identified in the 2007 TDA and 2008 SAP?
 - o What are the underlying and root causes changed since 2007 and what are they?
- **Reporting:** Breakout groups present their findings and plenary group discusses whether any modifications to the causal chain or list of environmental problems need to be made.

Session 4: July 17, 11:00 - 12:00

Workshop Activity: Evaluate Management Actions and Targets, Part I

- **Objective:** Review of management actions and targets for relevance and completeness considering TDA findings and conclusions, as the perspectives gained during YSLME Phase II
- **Activities:** Each group will take one of the four service-oriented blocks of management actions and targets (Provisioning, regulating, cultural, supporting).
- **Reporting:** In Session 6 below

Session 5: July 17, 13:30 - 15:00

Workshop Activity: Evaluate Management Actions and Targets, Part II

- **Progress Reporting:** Each group provides a 10-minute summary of their deliberations so far.
- Brief discussion on how to target activities for this session.
- Breakout activities from Session 4 continue.

Session 6: July 17, 16:00 - 18:00

Reporting from Sessions 4 and 5

- Reporting from Sessions 4 and 5: Groups present the results of their deliberations and conduct a discussion with the plenary group.

Session 7: July 18, 09:00 - 10:30

Workshop Activity: Governance and Economic Considerations

- **Objective:** Evaluate relevance and completeness of governance and economic considerations in the 2008 SAP and make recommendations for the SAP update
- **Governance**
 - SAP updates relevant to preparations for the regional governance mechanism for the YSLME
 - Capturing other national and regional governance actions in the SAP update
- **Economic Considerations**
 - Are valuations of ecosystem services linked to socioeconomic impacts of interventions?
 - Are economic justifications adequate in terms of analyses of cost/benefit, return on investment, or other relevant measures?

Session 8: July 18, 11:00 - 12:00

Reporting from Session 7 and Wrap up

- **Reporting from Session 7:** Groups present the results of their deliberations and conduct a discussion with the plenary group.
- **Other Considerations:** Open discussion of other aspects of the 2007 SAP that are appropriate to consider in the SAP Update
- **Wrap-up**
 - Comments from representatives of the RWG-G working group on the outcomes, impacts, and relevance of the workshop.
 - Next steps to implement the outcomes of the workshop into the draft SAP update, including provisions for workshop participants to review and comment on the draft SAP update.
 - Closing statements by the Project Manager.

Contact persons

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