

# 3<sup>rd</sup> International Training Program on *Marine Ecosystem Services Valuation and Spatial Management Tools*

23~26, August 2016 / Busan, Korea

## **Outline of the 3<sup>rd</sup> International Training Program**

### **1. Backgrounds and Objectives**

A group of experts from Asian countries and Western communities, in November of 2013, had a meaningful meeting on ecosystem service valuation and its application to marine spatial planning & management. The experts shared experiences on ecosystem service valuation and development of spatial management tools, and discussed how to incorporate the valuation process into spatial planning & management mechanism. It was, in Asian region, the first meeting dealing with ecosystem service valuation and its application to spatial management. All attendants recognized importance of development of sophisticated management tools, and as well capacity building.

In line with capacity building, the 1<sup>st</sup> and 2<sup>nd</sup> training programs were organized by Korea Maritime Institute (KMI) in cooperation with PEMSEA. 40 trainees participated in the training programs from Korea, China, Cambodia, Indonesia Philippines, and enjoyed learning of spatial management tools developed by KMI, Natural Capital Project Team, and PacMARA. Organizers and trainers had encouraged trainees to challenge a development of the tools for their countries.

KMI and PEMSEA plan to invite experts/practitioners/students to the 3<sup>rd</sup> training program on Marine Ecosystem Services Valuation and Spatial Management tools in Busan, Korea. The objective of the 3<sup>rd</sup> training program is to encompass more experts and practitioners in developing the spatial management tools and galvanizing their application to coastal and marine management of our region.

### **2. Organizers**

- Organizer : Korea Maritime Institute (KMI)
- Co-organizer: Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

### **3. Venue and Dates**

- Venue : Homeros Hotel, Busan, Korea
- Dates : August 23~26, 2016

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## 4. Expected participants:

- 8 persons from ICM Learning Centers and Practitioners of member states/entities of PEMSEA
- 20 persons from universities, research entities, and private sectors in Korea
- Requirements for desirable outcome : beginner level knowledge on TEEB (The Economics of Ecosystems and Biodiversity) & spatial planning, beginner level skill on GIS tools (e.g. ArcGIS, QGIS)

## 5. Financial support

- For trainees recommended by PEMSEA, round-trip airfare, accommodations, and meals during his/her stay will be covered by KMI.
- For Korean trainees, accommodations and meals will be covered by KMI

## 6. Main Contents

Participants would learn the theory on valuation of marine ecosystem, biophysical approach to the ecosystem spatial valuation (MAPS-SEV), integrated approach to ecosystem valuation and trade-offs (Marine InVEST), marine spatial assessment for planning (MAPS-MSA), and application of Ocean Health Index (OHI+). share marine assessment and its application tools for spatial planning & management, "MAPS" and "Marine InVEST". MAPS have been developed and operated by the Korea Maritime Institute, Marine InVEST by the Natural Capital Project Team, and OHI by Conservation International. Participants are expected to learn how to use the assessment and tools through several cases, and get lessons and implications for their countries' spatial management.

- MAPS (Marine Assessment and Planning Support system)
  - ✓ MSA (Marine Suitability Assessment)
  - ✓ SEV (Spatial Ecosystem Valuation; Biophysical approach to the valuation)
- Marine InVEST (Marine Integration Valuation of Ecosystem Services and Tradeoffs)
- OHI (Ocean Health Index)

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## **Provisional Program**

Dates/Time	Activity/Presentation	Lecturers / providers
<b>1<sup>st</sup> Day : Marine Ecosystem and Economic Valuation Methods</b>		
<b>08:30 – 09:00</b>	Registration Morning bread/cookies and coffee/tea	
<b>09:00 - 09:30</b>	Opening Ceremony <ul style="list-style-type: none"> <li>▪ Introduction of the courses/Welcoming Remarks</li> </ul>	KMI & PEMSEA
<b>09:30-10:30</b>	Keynote speech <ul style="list-style-type: none"> <li>▪ Marine ecosystems and their services</li> </ul>	Prof. Emeritus Chul-Hwan Koh (Seoul National University)
<b>10:30-10:50</b>	<i>Photos and refreshments</i>	<i>Ecosystems</i>
<b>10:50 - 12:30</b>	<ul style="list-style-type: none"> <li>• Theory and methods for valuing ecosystem services</li> </ul>	Dr. Tobias Borger (Plymouth Marine Lab)
<b>12:30 - 14:00</b>	<i>Lunch break</i>	<i>Ecosystems</i>
<b>14:00 - 16:00</b>	<ul style="list-style-type: none"> <li>• Theory and methods for valuing ecosystem services (cont'd)</li> <li>• Q&amp;A</li> </ul>	Dr. Tobias Borger (Plymouth Marine Lab)
<b>16:00 - 16:20</b>	<i>Refreshments</i>	<i>Ecosystems</i>
<b>16:20 - 18:00</b>	<ul style="list-style-type: none"> <li>• Valuation of marine ecosystems and Korea's case study</li> </ul>	Dr. Jeong-In Chang (Korea Maritime Institute)
<b>18:00 – 19:30</b>	<i>Welcome Dinner</i>	
<b>2<sup>nd</sup> Day : Application for Spatial Management : MAPS-SEV and Marine InVEST</b>		
<b>08:30 – 09:00</b>	Morning bread/cookies and coffee/tea	
<b>09:00 - 12:30</b>	<ul style="list-style-type: none"> <li>• Spatial Ecosystem Services Valuation by using biophysical approach, EMERGY (MAPS-SEV)</li> <li>• Q&amp;A, and refreshments (20')</li> </ul>	Prof. Daeseok Kang (Pukyong National University) Dr. Hyunwoo Choi (Korea Institute of Ocean Science and Technology)
<b>12:30 - 14:00</b>	<i>Lunch Break</i>	<i>Ecosystems</i>
<b>14:00 – 18:00</b>	<ul style="list-style-type: none"> <li>• Integrated Valuation of Ecosystem Services and Tradeoffs (Marine InVEST)</li> <li>• Q&amp;A and refreshment (20')</li> </ul>	Dr. Choong-Ki Kim (Korea Environment Institute)

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<b>18:00 – 19:30</b>		<i>Dinner</i>	
<b>3<sup>rd</sup> Day : Application for Spatial Management : MAPS-MSA</b>			
<b>08:30 – 09:00</b>		Morning bread/cookies and coffee/tea	
<b>09:00 - 12:30</b>	<ul style="list-style-type: none"> <li>• MAPS-MSA (Marine Suitability Assessment for zoning)</li> <li>• Q&amp;A, and refreshments (20')</li> </ul>	Dr. Jungho Nam (Korea Maritime Institute)  Mr. Jongseo Lim (Seoul National University, ex-research of KMI)	
<b>12:30 - 14:00</b>		<i>Lunch Break</i>	<i>Ecosystems</i>
<b>14:00 – 18:00</b>	<ul style="list-style-type: none"> <li>• Exercise for application of MSA to trainees' countries and areas</li> <li>• Refreshment (20')</li> </ul>	Mr. Jongseo Lim (Seoul National University, ex-research of KMI)	
<b>18:00 – 19:30</b>		<i>Dinner</i>	
<b>4<sup>th</sup> Day : Ocean Health Index and Field Trip</b>			
<b>08:30 – 09:00</b>		Morning bread/cookies and coffee/tea	
<b>09:00 – 12:30</b>	<ul style="list-style-type: none"> <li>• Ocean Health Index and its application to each country and area</li> <li>• Q&amp;A and refreshments (20')</li> </ul>	Dr. Erich Pacheco (Conservation International)	
<b>12:30 – 14:00</b>		<i>Lunch Break</i>	<i>Ecosystems</i>
<b>14:00 – 18:30</b>	<i>City Tour and Field Trip</i>		
<b>18:30 – 20:30</b>		<i>Farewell Dinner</i>	<i>Ecosystems</i>