

WG-41 Report to FUTURE

WG-MES/WG41: Marine Ecosystem Services



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- **Marine Ecosystem Services (MES):** The direct or indirect contributions marine ecosystems make to human well-being
- Types: provisioning, regulating, habitat, cultural
- **How are societies affected by changes in these ecosystems?**
- **What tools and methodologies do we employ to measure, value, and manage MES?**

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October 2013: Introducing ecosystem services to PICES

First session of MES held by S-HD w/ support from FIS, BIO, IMBER
BIO/FIS Topic Session: “Marine ecosystem services and the contribution from marine ecosystems to the economy and human well-being”

October 2015

FIS topic session at PICES-2015: “Marine ecosystem services and economics of marine living resources”

November 2016 – October 2017: Study Group (SG-MES)

Initially proposed Oct 2013; established Oct 2016 w/ support of S-HD
Chaired by Shang (Sunny) Chen

Goal: To exchange and share studies on MES in North Pacific ecosystems, to promote ecosystem service sciences, and to suggest how consideration of MES could improve marine ecosystem (integrated) management

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From left: Tetsuichiro Fumamoto, Jungho Nam, Jingmei Li, Olga Lukyanova, Keith Criddle, Shang Chen, Wei Liu

Study group members

- Shang Chen (chair)
- Miriam O
- Jie Chen
- Wei Liu
- Wenbo Yang
- Shion Takemura
- Jong Seong Khim
- Jungho Nam
- Dan Lew

SG-MES at 2017 PICES meeting in Vladivostok

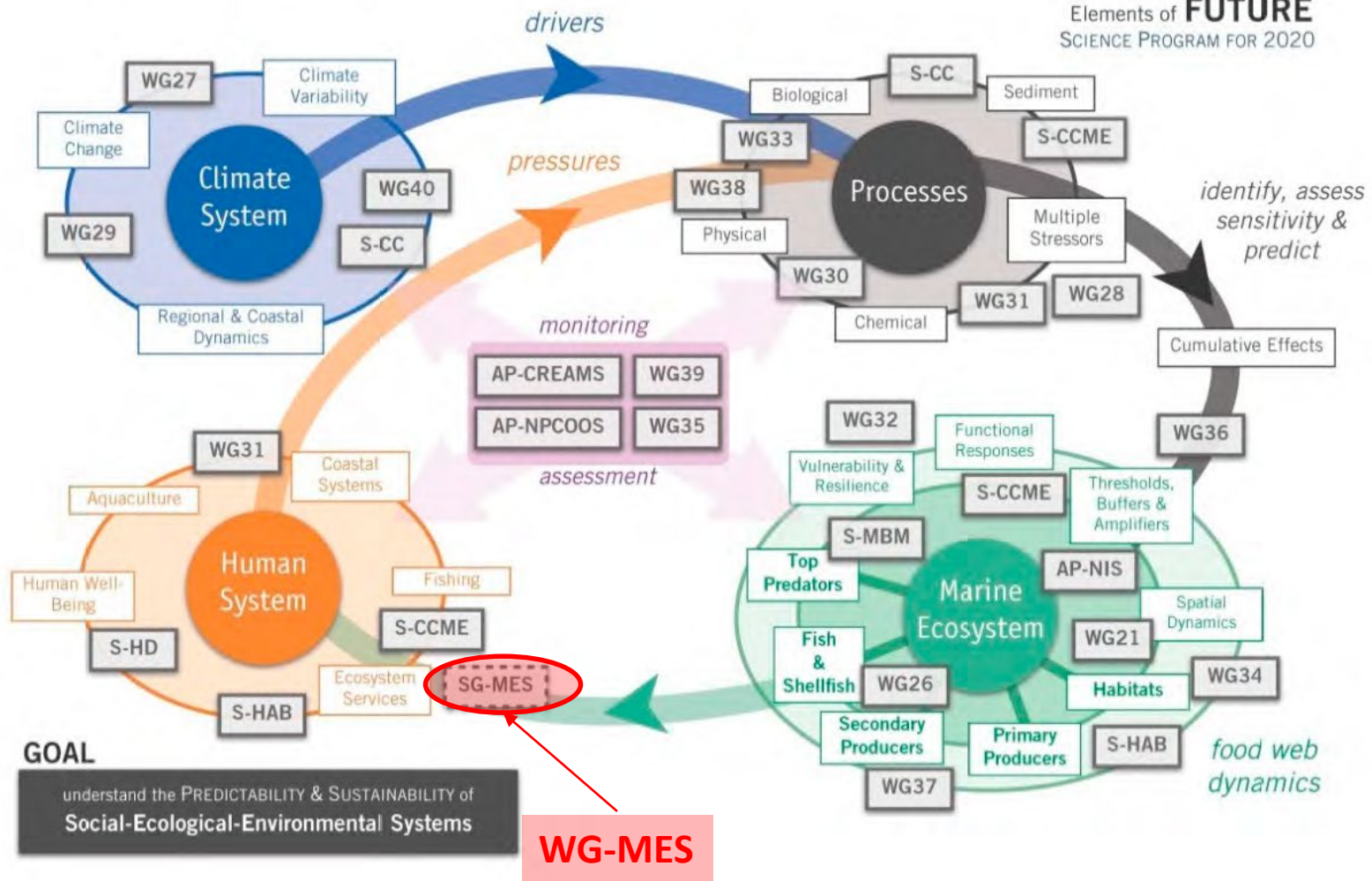
W2: Coastal ecosystem services in the North Pacific and analytical tools/methodologies for their assessment

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- **October 2017:** WG-MES (WG41) established
 - WG term goes through September 2020
- **October 2018:** Workshop (W8)
 - “Taking stock of Marine Ecosystem Services in the North Pacific - Exploring examples and examining methods”
 - Half-day workshop
- **October 2018:** Business meeting

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Elements of **FUTURE**
SCIENCE PROGRAM FOR 2020



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- **Co-chair recommendations: Dan Lew (USA) and Shang (Sunny) Chen (China)**

Members:

- Shang Chen (China)*
- Sarah Dudas (Canada)
- Hye Seon Kim (South Korea)*
- Changsu Lee (South Korea)*
- Dan Lew (USA)
- Jingmei Li (China)
- Wei Liu (China)*
- Benrong Peng (China)*
- Seung-Hoon Yoo (South Korea)*
- Aoi Sugimoto (Japan)
- Kristy Wallmo (USA)

* Not pictured



WG-41 Products Related to FUTURE

- **Primary planned projects**

1. Review of MES studies in member countries

- Assessment of MES in North Pacific (what are the range of MES in North Pacific?)
- Review methods for assessing MES (ecological, economic, and sociocultural)
- Select case studies of applications of methods for assessing MES in North Pacific countries

2. Country-specific surveys of agencies and decision makers

- Common set of questions about MES information to understand how decision makers, analysts, and scientists view and use it, as well as prospects and challenges

WG-41 Products Related to FUTURE

- Anticipated

Timeline

TORs – Year 1-2

- 1 – identify tools and methods for measuring and valuing MES in North Pacific marine ecosystems
- 2 – identify role existing studies have played in policy analysis and management
- 3 – develop typology of MES, tools and methodologies (regional technical guidelines on assessment, utilization, and policy integration)

TORs – Year 3

- 4 – apply 2 or more methods to assessment of MES in case studies in multiple regions of North Pacific
- 5 – collaborate with WG-36 and WG-40

Deliverables

- Meeting, Workshop, and Topic Session (PICES-2018)
- Annual report to FUTURE

- Workshop at PICES-2019
- Annual report

- Topic session or workshop at PICES-2020
- Manuscript on comparative survey of MES
- Manuscript on review of MES methods in North Pacific countries
- Final report

WG-41 Products Related to FUTURE

Completed activities:

- *Working Group Meeting (WG41, Oct 27-28)*
- HD-sponsored workshop W8 at PICES-2018
“Taking stock of Marine Ecosystem Services in the North Pacific - Exploring examples and examining methods” Co-conveners **Shang Chen and Dan Lew**
- HD Topic Session at PICES-2018 *“Integration of science and policy for sustainable marine ecosystem services”* Co-conveners **Shang Chen, Dan Lew, and Jungho Nam**

WG-41 Products Related to FUTURE

Ongoing and planned activities:

- 1-day workshop “*Assessing Marine Ecosystem Services: A Comparative View Across the North Pacific*” at the 2019 annual PICES meeting in Victoria, Canada
- 1-day business meeting at the 2019 annual PICES meeting

