

2022 Report of the Human Dimensions Committee

The Human Dimensions Committee (HD) meeting took place under the chairmanship of Prof. Mitsutaku Makino (Japan) from 18:00–20:30 h, September 25, 2022, KST and from 14:00–18:00 h, September 26, 2022, KST, at PICES-2022 in Busan, Korea. Some of the participants attended using Zoom. Each member introduced himself/herself (*HD Endnote 1*), and Dr. Takemura volunteered to take notes. The agenda was reviewed and adopted unanimously by the Committee (*HD Endnote 2*).

AGENDA ITEM 2

Reconfirmation of our mission

Prof. Makino provided an overview of PICES as an organization, including the tasks of the Human Dimensions Committee. The mission of the HD Committee is to support its two current working groups to conduct integrated research in close collaboration with FUTURE, and to promote collaboration with ICES and IMBeR.

AGENDA ITEM 3

Reports from Science Board and FUTURE SSC

Prof. Makino reported on the decisions made at ISB-2022 (April 2022), and as FUTURE liaison to HD, provided updates on FUTURE SSC activities.

AGENDA ITEM 4

Reports from the existing expert groups and projects

Joint PICES/ICES Working Group on Small Pelagic Fish (WG 43)

- An International Symposium on “*Small pelagic fish: New frontiers in science for sustainable management*” will be held in Lisbon, Portugal, from November 7–11, 2022; a proposal for a Topic Session on “*Responses of small pelagic fish to extreme events in Pacific ecosystems*” was submitted for PICES-2023.

Joint PICES/ICES Working Group on Integrated Ecosystem Assessment for the Northern Bering Sea - Chukchi Sea (WG 44)

- Three conceptual models have been developed by an interdisciplinary team based on input from indigenous peoples.

PICES-MAFF Ciguatera project

- Because of disruptions due to the COVID-19 pandemic, in-person Project Science Team meetings and training workshops were not held. To address the situation, PICES signed an MOU with the Institute of Technology of Indonesia (ITI) with the goal of integrating both faculty expertise and student involvement into the project to enhance its longer-term sustainability. The first capacity building workshop is scheduled for January 2023.

AGENDA ITEM 5

Proposal for a new working group

- Dr. Takemura introduced a proposal for a Working Group on ‘Exploring Human Networks to Power Sustainability’ (see *HD Endnote 3*).
- Dr. Minling Pan commented that the abstract is the result, while ToR is the plan, and it would be interesting to see the gap between the two. She suggested that if the bar chart (Slide 10 of the proposal presentation) from the ToR was the same color as the abstract, the gap might be more apparent to the members.
- Prof. Jongseong Ryu and Dr. Oleg N. Katugin commented that it would be helpful to have a database with translated publication lists from PICES member countries.
- Prof. Jongseong Ryu (Korea) has been appointed to this new WG.
- Dr. Oleg N. Katugin (Russia) suggested we should show what the format is for the data.
- Prof. Jingmei Li (China) commented that China has a publication database for economics.
- Prof. Keith R. Criddle (USA) suggested that ICES’ SIHD would be willing to partner in this WG either in a parallel study or as a shared effort. Canada, Russia, and US have members in both PICES and ICES, but there is also cross-participation among other nations in ICES and PICES. A government database may not do a good job of capturing academic publications.
- Vice-Chair Karen Hunter suggested the web of science could be used to augment the government’s publication list.

Finally, all HD committee members approved submitting the WG proposal to Science Board.

AGENDA ITEM 6

BECI project

Mr. Robin. Brown introduced the Basin Scale Coastal Impacts (BECI) project. The BECI project is endorsed by the UN Decade of the Ocean, and is supported by PICES, NPFC and other partners. The objective of the BECI project is to develop an observation system using an intelligence system. The system will then be demonstrated on salmon. The project will be funded from the partnership. In 2022, four technical workshops were held;

1. Climate and ocean ecosystem modelling: Predicting the state of oceans and fisheries in the North Pacific and Bering Sea
2. Linking ocean processes and ecosystem changes to fish production
3. Technology and tools for monitoring and data synthesis
4. Bringing it together: From climate change to ocean impacts and fish production

Mr. Brown also explained the BECI Science Plan: 1) Modeling and prediction, 2) Real-time monitoring and reporting, 3) Data mobilization and synthesis, 4) Targeted at-sea research and dialogue/communication/outreach. The BECI project is currently reviewing the Science Plan for outreach to potential partners. Mr. Brown encouraged HD to suggest potential partners (key person and organization).

AGENDA ITEM 7

Election of Chair and Vic-Chair

Prof. Makino and Ms. Hunter were voted by committee members to serve a second term as a Chair and Vice-Chair, respectively, of the HD committee.

AGENDA ITEM 8

Country reports

Canada: Ms. Hunter presented the Canada Country Report.

China: Prof. Li reported progress on 1) two reports by WG 41 and 2) Marine environmental protection planning (starting from 2021, China implemented the 14th Five-Year plan for marine environmental protection).

Japan: Prof. Makino reported on 1) The Fifth Basic Plan for Fisheries, 2) A-Plat (Climate change adaptation database in Japan), and 3) a Commission for carbon neutrality of domestic shipping.

Prof. Dohoon Kim noted that it was not possible to obtain eco-labeling for mackerel, *etc.* because catch data from foreign countries (Japan, China, Russia) are not available. He also commented that HD committee could contribute to the sharing data among PICES member countries.

Korea: Prof. Ryu presented a country report on Korea.

Russia: Ms. Ekaterina Kurilova presented on small-scale fisheries by small ethnic communities.

USA: Dr. Criddle reported on 1) a US infrastructure bill to improve fish passage, 2) Harmful Algal Blooms (HABS) continuing to affect Dungeness crab, and 3) status of salmon in Alaska. Dr. Minling Pan presented update on HD research in the Pacific Islands region. She introduced her new paper focused on Maximum Economic Yield. See:

<https://afspubs.onlinelibrary.wiley.com/doi/full/10.1002/nafm.10661>

AGENDA ITEM 9

HD Action Plan

HD members discussed “What is the role of HD? How to promote integrated research activities? And What topics/themes should be covered under HD?” A good example of a Committee Action Plan was by POC, which consisted of mission statement and several goals. See:

https://meetings.pices.int/publications/other/members/Action_Plans/POC_a_plan.pdf.

- Prof. Kim suggested that we need to further define the research focus of HD. - Academic (economics, sociology?), and should focus be on humans or society?
- Dr. Pan suggested that a SG is needed, with focus on economy. Research focused on indigenous peoples is also important.
- Dr. Oleg Katugin suggested that research focused on impacts of climate change on small-scale fisheries in Indigenous communities is needed. Also, a national report should be prepared to compare the results among PICES member countries.
- Ms. Hunter suggested that it would be good if the HD Action Plan could be linked to an active working group. She also suggested that it would also be good to have a framework or guidelines.
- Prof. Keith Criddle suggested we should define general area of research, and Action Plan and working group need to be related.

Based on discussion, Prof. Makino and the Vice-Chair will summarize comments and suggestions and send out the questionnaire to members (*HD Endnote 4*).

AGENDA ITEM 10

Other business

Prof. Makino reported on “Global survey on UNDOS 7 Outcomes”, which is a part of SMARTNET activities.

Prof. Criddle presented on the outcome of PICES-sponsored Theme Session “*Operationalizing resilience for climate change impacts*” co-convened by Criddle, Hunter and Makino at ICES ASC 2022 (Dublin, September 19–22) (<https://www.ices.dk/events/asc/ASC2022/Pages/Theme-session-C.aspx>).

HD Endnote 1

HD participation list

Members

Mitsutaku Makino (Chair)
Karen Hunter (Canada, Vice-Chair)
Shang Sunny Chen (China, by Zoom)
Jingmei Li (China, by Zoom)
Aoi Sugimoto (Japan, by Zoom)
Shion Takemura (Japan)
Dohoon Kim (Korea)
Tae-Goun Kim (Korea)
Jongseong Ryu (Korea)
Oleg Katugin (Russia, by Zoom)
Ekaterina Kurilova (Russia, by Zoom)
Anna Skvortsova (Russia, by Zoom)
Keith R. Criddle (USA, by Zoom)
Minling Pan (USA, by Zoom)

Members unable to attend

Canada: Natalie Ban
China: Yang Han
USA: Ron Felthoven, Sunny Jardine

Observers

Hiroki Wakamatsu (WG 49 Co-Chair)

HD Endnote 2

HD meeting agenda

1. Self-introductions, adoption of the Agenda and appointment of rapporteur
2. Reconfirmation of our mission
3. Reports from SB and FUTURE SSC
4. Reports from the existing expert groups and projects
5. Proposal of a new working group
6. Introduction of BECI project
7. Election of Chair and Vice-Chair
8. Country reports
9. Discussion on the Committee’s Action Plan
10. Others

HD Endnote 3

**Proposal for a Working Group on
Exploring Human Networks to Power Sustainability**

Term: October 2022 – October 2025

Potential co-chairs

Shion Takemura (Japan Fisheries Research & Education Agency)

Karen L. Hunter (Fisheries and Oceans Canada)

Collaborating organization

Rebecca G. Martone (Ocean Decade Regional Collaborative Center for NE Pacific)

Expected goals

1. Develop data and methodology, primarily using publication database, to evaluate how the human networks can power ‘Transformative Ocean Science’.
2. Increase our understanding of characteristics and gaps in ocean science between northeast and Northwest Pacific Ocean.
3. Using this understanding of characteristics and gaps, to provide recommendation to improve networking for UNDOS activities including SMARTNeT and other significant marine science organizations from around the globe.

(This methodology can apply not only English but also Chinese, French, Korean and Japanese.)

Terms of Reference

1. Summarize data availability of the database for research activities in PICES nations (Yr 1)
2. Compare similarity and difference of research topics between PICES nations and UNDOS goals based on case studies using text and correspondence analysis as per (Takemura *et al.* in prep). (Yr 1-2)
3. Identify key human networks and research focuses to bridge gaps in north Pacific Ocean. (Yr 1-2)
4. Evaluate human networks data sets with network analysis to map linkages for achieving “Transformative Ocean Science” (Yr 2-3)
5. Outline successes and gaps in ‘Transformative Ocean Science’ within PICES nations and other major marine science organizations from around the globe. (Yr 2-3)
6. Publish final report. (Yr 3)

HD Endnote 4

Action Plan 2023-2027 (Draft)

The HD Committee’s Key Tasks

Established in 2016, the Human Dimensions Committee plays a new and important role in the PICES organization and research community.

The Committee’s mission is vast. Formally, the HD area of responsibility is to **promote and coordinate interdisciplinary research** that leads to **increased understanding of the relationship** between North Pacific marine ecosystems and the **people, communities, and economies** that are part of those systems and rely on the resources and services they provide.

Particular emphasis will be given to fostering research on:

- (a) **methodological and empirical challenges involved in integrating human dimensions into ecosystem analyses;** and
- (b) **exploration of development pathways that are sustainable** from social, economic, and ecological perspectives. The HD committee will **support the work of other PICES expert groups**, including any integrated science program.

Where other PICES expert groups often consider the impact of human activities on ecosystems, the HD committee will **promote both the consideration of these impacts and how biophysical changes impact the well-being of people, communities, and economies** taking into account their characteristics and values. In addition, the committee will engage with kindred ‘**human dimension’ initiatives of other organizations** (e.g., ICES and IMBeR).

Action Planning Essentials

1. We, the members of the PICES HD Committee, recognize the broad range of faculties, disciplines, experts, training, methodologies, and topics included in “HD”.
2. The Action Plan must consider the key tasks of HD, and align wherever possible.
3. The Action Plan must consider that HD committee members bring a wide variety of skills and career experiences. This will likely be an ongoing benefit as well as a challenge for the Committee’s overall mission.

HD Action Plan

1. Key Task: Promoting interdisciplinary research

Action: Improve HD Committee Integration

- I. Determine current Human Dimensions ecosystem-related priorities for each member country. Compare and contrast these across member states to identify key focus areas for HD Committee.
- II. Seek more ECOP representation, preferably from each Member Country.
- III. Determine the types of approaches being taken in member states to achieve integrated ecosystem analyses or other HD integration. (preferably, by establishing an Expert Group).
- IV. Present outcomes and address new questions by hosting a workshop on “*Progress for social sciences/HD integration in our understanding of and responses to ecosystem change*” at the PICES Annual Meeting.

Action: Support interdisciplinary research in PICES

- I. Participate to FUTURE SSC and contribute to the planning of interdisciplinary research activities within PICES
- II. Define and determine areas of possibility in PICES to contribute to ‘transformative ocean science’ (New WG: Human Networks).
- III. Support existing and new SGs and WGs from the appropriate HD perspective (i.e. which faculty/expertise) by providing member state representation (e.g., WG 49, WG Human Networks, AP-SciComm, etc.).
- IV. Examine outputs from previous HD SGs and WGs. Compile new knowledge or next steps identified by WGs.
- V. Link MSEAS Meeting to Annual PICES meeting – i.e., “Highlight sessions” and Key note speakers. Have a central place on the 2025 PICES Annual Meeting agenda.

2. Key Task: Coordinating HD research within PICES

Action: Understand limitations, gaps, and opportunities of HD research in PICES

- I. Determine how HD is already involved within PICES and its impact on PICES research to date (e.g., Takemura *et al.* in preparation).
- II. Acknowledge and communicate the broad range of faculties, disciplines, experts, training, methodologies, and topics included in “HD”.
- III. Work with AP-SciComm to advertise HD opportunities within PICES.

3. Key Task: Explore development pathways from an interdisciplinary lens

Action: Explore this key task at the Committee level

- I. Committee level discussions on this Key tasks to determine opportunities to address it.
- II. Participate to planning process of ICES-PICES collaboration for UN Decade of Ocean Science for Sustainable Development and contribute to it from Human Dimension lens (AP-UNDOS).