

2023 Report of the Advisory Panel on the United Nations Decade of Ocean Science

The Advisory Panel on the United Nations Decade of Ocean Science (AP-UNDOS) held its in-person business meeting on October 22 (9:00-17:30) during the PICES-2023 Annual Meeting in Seattle, USA. Co-chairs were Steven Bograd (NOAA) and Sanae Chiba (PICES Secretariat). Raphael Roman was appointed as rapporteur.

Agenda Item 1

Welcome and adoption of agenda

The co-chair, Dr. Bograd welcomed participants and adopted the agenda (see *Endnote 1* for the participant list).

Agenda Item 2

News and updates relevant to UNDOS

Dr. Bograd reported that SmartNet was adopted by the [Ocean Visions - Decade Collaborative Center](#) (DCC). The Ocean Vision DCC facilitates the collaboration of multiple UNDOS programmes and projects with a particular focus on ocean-climate solutions.

Given that there has been little information exchange among the National Decade Committees (NDC) of PICES member countries, some members suggested AP-UNDOS facilitate communications among them, for example, by assigning AP members to share the activities of NDC of their own countries at PICES Annual Meeting (e.g., by 1 page report). In reality, NDCs do not function in most member countries well due to a lack of resources except in China, and it was suggested the NDC [Best Practices Manual](#) be a good starting point for mobilizing the actions of the government.

Agenda Item 3

Review recent activities of IPOD (ICES-PICES Ocean Decade) and SmartNet

Responding to a question from some members, Dr. Bograd clarified the functions and structures of AP-UNDOS, IPOD, and SmartNet. IPOD which comprises both ICES and PICES experts is the steering committee of the SmartNet program. AP-UNDOS is the PICES component of IPOD, but its ToR include wider UNDOS-related topics in addition to coordination and implementation of SmartNet.

Dr. Bograd reported the delay of new ECOP membership appointments, including Drs. Raphael Roman (Canada), Khushboo Jhugroo (Canada), and Evgeniia Kostianaia (Russia). Members agreed to nominate ECOPs from other member countries, and continuously send requests for their appointments to respective national delegates through the Science Board (SB).

Dr. Bograd summarized the completed activities of IPOD since PICES-2022 as follows:

1. Participated in Ocean KAN ‘network weaving’ training session (**Oct 2022**)
2. Reviewed proposed Projects for UNDOS endorsement (**Oct 2022**)
 - a. Recommended endorsement of “*The Ocean Matter; COST Action - Marine Animal Forest of the World; sustainMare*”
 - b. Need more information for “*Monitoramento Mirim Costeiro; Frames; Conserve, Restore and Manage Coastal and Marine Habitats*”

3. Conference call to discuss SmartNet-SIDS engagement with Khush Jhugroo and Daniel Marie of Mauritius Oceanographic Institute (**Nov 2022**)
4. Chairs coordination discussion with Ocean Visions DCC (**Dec 2022**)
5. End-of-year update e-mail to IPOD & partners (**Dec 2022**)
6. Chairs check-in and planning call (**Feb 2023**)
7. IPOD members virtual meeting (**Feb 2023**)
8. Participated and presented on SmartNet at Ocean Visions Summit in Atlanta (**Apr 2023**)
9. Co-hosted ECCWO UNDOS co-design workshop in Bergen, Norway (**Apr 2023**)
10. Submitted SmartNet Annual Report to DCU (**May 2023**)
11. Submitted *PICES Press* article on ECCWO workshop & SUPREME (**Jun 2023**)
12. Represented SmartNet on the initial GPIB Project planning call (**Jun 2023**)
13. Represented SmartNet on Ocean Visions DCC planning call (**Jul 2023**)
14. Submitted PICES/SmartNet abstract for DITTO meeting (**Jul 2023**)
15. Check-in call (with SUPREME) with NEP DCC (**Aug 2023**)
16. Prepared PICES-2023 Workshop (**Sep-Oct 2023**)
17. Held AP-UNDOS business meeting (**Oct 2023**)

Agenda Item 4

Review endorsed UNDOS Projects under the SmartNet umbrella

Members reviewed the following UNDOS-endorsed projects which were recommended by UNDOS to join under the SmartNet umbrella:

1. **SustainMare** “COST Action - Marine Animal Forest of the World (MAF World)
2. “Monitoramento Mirim Costeiro; Frames; Conserve, Restore and Manage Coastal and Marine Habitats”
3. **GPIB** “Global Plastic Ingestion Bioindicators”

Projects 1 and 2 focused on the protection and sustainable use of coastal ecosystems. Because both were based mainly in European waters, members suggested it would be more effective for the ICES-IPOD team to take the lead in collaboration with them. Project 3 was derived from the outcomes of PICES Working Group 42 (PICES-2018–PICES 2023) on marine plastic pollution. The GPIB project leader, PICES WG42 and MEQ Committee member, Dr. Matthew Savoca, introduced the planning of the projects. GPIB expected the global knowledge network of SmartNet would help them connect world experts on harmonization of monitoring and analysis which are needed for the development of plastic bioindicators at the global level. Dr. Savoca noted that 40% of the GPIB members were early career scientists.

While AP-UNDOS members agreed on the mutual benefits of including GPIB in the SmartNet framework, they discussed how SmartNet could effectively facilitate the networking of GPIB. Some pointed out the lack of resources at PICES and ICES to develop (update) the SmartNet website and recruit a specialist who would coordinate SmartNet activities and collaboration with partner organizations and projects. Dr. Bograd noted that SmartNet has requested the funding to hire a SmartNet/UNDOS coordinator to GC at PICES-2022 and would resubmit the request at PICES-2023 (see **Agenda Item 7**).

Agenda Item 5

Review and strategize activities for 2024

5.1. UNDOS Global Survey project update

Dr. Makino updated the progress of his project “UNDOS Global Survey on “The Ocean We Want” for International Collaboration of Ocean Science” funded by the Tokyo University, the French government, and Lake Biwa Institute in Japan. This study aims to analyse differences in understanding, expectations, and priorities of the seven UNDOS Societal Outcomes among the general public in countries with different cultural backgrounds. The outcome of this study will contribute to SmartNet Programs.

Dr. Makino showed the results of the pilot questionnaire survey conducted in France, Australia, Japan, and the USA (1000 respondents per survey), which indicated the country-specific needs and perspectives. They plan to expand the survey to more diverse communities including small island states and indigenous communities. The main expected outcomes include guiding the direction of international science collaboration, making recommendations for science policy at national, regional, and international levels, and contributing to the assessment of UNDOS impacts on the world. They are preparing to publish the outcome on “Policy Forum” and plan to repeat the global survey to provide the assessment of the impacts of UNDOS upon the completion of UNDOS in 2030.

5.2. Ocean Visions 2030 Progress

Dr. Bograd reported the UNDOS Ocean Vision 2030 Process which was launched in 2023 to assess the achievement of UNDOS in its initial 3 years. Many experts joined the writing team of white papers to address each of the 10 Ocean Decade Challenges. Some PICES members are invited to the writing teams (Steven Bograd for WG2: Protect and restore ecosystems and biodiversity, Sonia Batten for WG5: Unlock ocean-based solutions to climate change, and Mitsutaku Makino for cross-cutting aspect/input). See the full list of members per working group [here](#). The outcomes of the white papers will be presented during the [UNDOS conference in Barcelona](#), in April 2024.

5.3. UNDOS 2024 Conference and Side Events

The next UNDOS Conference will be held in April 2024. Dr. Makino informed us that he was invited by the conference organizer to propose a side event featuring the global survey project (see **Agenda Item 5.1**). If accepted, it would be a great opportunity for SmartNet to appeal its activities. Dr. Makino agreed to submit his proposal as the SmartNet side event entitled “What is the Ocean We Want?: SmartNet Global survey to understand perspectives on Ocean Decade Outcomes.”

Dr. Roman reported the global ECOP group also planned to submit multiple side event proposals with the themes of networking table, inclusivity in ocean participation, and intergenerational dialogues. The proposal submission deadline was October 30th, 2023. Dr. Bograd noted that SmartNet partner UNDOS projects, SUPREME, and FishSCORE were also preparing the side-events on fisheries.

AP-UNDOS members agreed to request travel support funds to Science Board for an AP-UNDOS co-chair and an ECOP to attend the SmartNet side event at the Barcelona meeting (See **Agenda Item 7**),

5.4. BECI Project update

Robin Brown, PICES ex-officio, updated the progress of Basin Scale Events to Coastal Impact ([BECI](#)), a UNDOS-endorsed project proposed by NPAFC. BECI was seeking a PICES Expert Group for oversight and advice as they expected to secure funding and staff in a few months, and he suggested AP-UNDOS be the logical choice. Members agreed for AP-UNDOS to be a reporting body of BECI to the PICES community, including at Science Board, and suggested BECI appoint an observer or liaison to regularly attend AP-UNDOS meetings once its staff members were appointed.

5.5. Writing and Workshop Planning

Dr. Bograd updated the planning of two SmartNet papers.

1. Climate-Fisheries nexus paper: the idea came up with the discussion during the workshop “[*The Climate-Fisheries Nexus Within the UN Decade of Ocean Science for Sustainable Development: Co-Designing Actions and Solutions for a Productive, Healthy and Resilient Ocean*](#)” held at ECCWO5 conference in May, Norway. The workshop was co-convened with SmartNet partner UNDOS projects: [SUPREME](#), [FishSCORE](#), and [Marine Life 2030](#) focusing on the ocean-climate-fisheries/ecosystem nexus. The major purpose of this article would be to identify the progress, overlap, and gaps as well as strengths and weaknesses of these projects/programs to co-design an effective collaboration plan. The target publication venue would be an ICES JMS’s “Food for Thought” article. Drs. Bograd, Satterthwaite, Roman, Jackson, and Schmidt (maybe Lachance from SUPREME) signed up for the writing team.
2. Capacity development paper in Oceanography Special Issue on a “vision for capacity sharing in the ocean sciences”: SmartNet had submitted the proposal of interest as a placeholder for this special issue. This article will be in 3000 words and the deadline for draft submission is June 2024. The journal will inform us if our proposal is accepted by early 2024. Drs. Makino, Satterthwaite, Jhugroo, Jackson, Saito, Schmidt, Bograd, and Chiba signed up for the writing team.

The members reviewed and supported the proposal of AP-UNDOS workshop “Exploring international knowledge co-production: Lessons learned from international marine science organizations at the science-policy interface” (see *Endnote 3*) submitted by Dr. Satterthwaite for PICES-2024.

5.6. SmartNet Implementation, Co-Production, and Capacity Sharing Plan

There was not enough time to discuss this agenda item during this meeting.

5.7. Action Items for PICES-2023 to PICES-2024

Based on the discussion for the above agenda items, Dr. Bograd summarized the action items toward PICES-2024.

1. Revise/maintain SmartNet web presence
2. Organize SmartNet side events at the UNDOS Conference in Barcelona (April)
3. Prepare contribution to ‘Food for Thought’ article for *ICES Journal of Marine Science* or other venue
4. Develop partnerships with ‘Ocean Visions’ Decade Collaborative Center (DCC) and endorsed umbrella projects
5. Follow up on SmartNet-SIDS engagement (Khush, Jhugroo, and Daniel Marie of Mauritius Oceanographic Institute)
6. Facilitate collaborative activities with Empowering Women for the UN Decade of Ocean Science for Sustainable Development (WMU)
7. Facilitate collaborative activities with SmartNet-led Projects, with DCC support
8. Prepare SmartNet Implementation Plan (including Phase I action plan, products, and deliverables)
9. Contribute to UNDOS Global Surveys (led by Dr. Makino)
10. Planning and organization of workshops on community engagement (ITK; community-supported observation), with DCC support

Members agreed on the need for more frequent communication among IPOD/AP-UNDOS members through regular meeting calls, as well as between SmartNet and other UNDOS projects using various opportunities (e.g., webinars, scientific conferences, and events).

Agenda Item 6

Development of IPOD/SmartNet Task Teams

Members reviewed the IPOD task team assignments and were urged to sign up for any of the following tasks.

Task Teams

- 1) Writing Team (See **Agenda Item 5.5**)
- 2) Global Survey Team (led by Dr. Makino)
- 3) Outreach Team (website development, communication materials)
- 4) Network Team (coordination of collaboration of SmartNet and other projects/programs)
- 5) Capacity-sharing Team (link to SIDs, opportunity to reach out to [APN](#), etc.)

Agenda Item 7

Review requests to Science Board

AP-UNDOS requested Science Board recommendations/GC approvals on the following items:

- Membership request (see **Agenda Item 3**),
- Recruitment of a SmartNet/UNDOS Coordinator and mobilization of funding for it (see **Agenda Item 4** and *Endnote 5*),
- Funding support for an AP-UNDOS co-chair and an ECOP to attend the SmartNet side event at the UNDOS Conference in Barcelona, in April 2024 (CAD 6,000 for 1 co-chair and 1 ECOP; see **Agenda Item 5.3**).

AP-UNDOS Endnote 1**AP-UNDOS participation list**Members

Steven Bograd (USA, Co-chair)
 Sanae Chiba (PICES, Co-chair)
 Jennifer Jackson (Canada)
 Mitsutaku Makino (Japan)
 Hiroaki Saito (Japan)
 Sukyung Kang (Korea)
 Hanna Na (Korea)
 Sinjae Yoo (Korea)
 Kirstin Holsman (USA)
 Emily Lemagie (USA)
 Erin Satterthwaite (USA)

Members unable to attend

Canada: Andrea White
 China: Li Li, Fangli Qiao
 Korea: Hyung-Gyu Lim
 USA: Emanuele Di Lorenzo, Vera Trainer

Observers

Robin Brown (PICES Ex-officio)
 Eileen Hofmann (External Review Panel Chair)
 Khushboo Jhugroo (AP-UNDOS member prospect)
 Rebecca Martone (Tula/Northeast Pacific DCC)
 Raphael Roman (AP-ECOP/AP-UNDOS member prospect)
 Matthew Savoca (MEQ/ECOP/WG42)
 Jörn Schmidt (ICES, IPOD/SmartNet co-chair)

AP-UNDOS Endnote 2**AP-UNDOS meeting agenda**

1. Welcome and adoption of agenda
2. News and updates relevant to UNDOS
3. Review recent activities of IPOD (ICES-PICES Ocean Decade) and SmartNet
4. Review endorsed UNDOS Projects under the SmartNet umbrella
5. Review and strategize activities for 2024
6. Development of IPOD/SmartNet Task Teams
7. Review requests to Science Board

AP-UNDOS Endnote 3**Proposal for a Workshop at PICES-2024****Title**

Exploring international knowledge co-production: Lessons learned from international marine science organizations at the science-policy interface

Sponsors

Jointly proposed by AP-UNDOS, AP-ECOP, FUTURE

Co-conveners/Invitees/Speakers

Erin Satterthwaite, USA, esattethwaite@ucsd.edu - PICES, ECOP, SmartNet (*corresponding*)

Steven Bograd, USA, steven.bograd@noaa.gov - AP-UNDOS, FUTURE, SmartNet

Hanna Na, Korea, hanna.ocean@snu.ac.kr - FUTURE, AP-UNDOS

Mitsutaku Makino, Japan, mmakino@aori.u-tokyo.ac.jp - S-HD

Jörn Schmidt, ICES, joern.schmidt@ices.dk - SmartNet

Proposal

The vast and complex nature of the ocean necessitates large scale coordination of science and policy across local, national, and international institutions. We propose a workshop aimed at exploring the successful models of the North Pacific Marine Science Organization (PICES), the International Council for the Exploration of the Sea (ICES), and the UN Decade of Ocean Science for Sustainable Development (UNDOS) to inspire and guide institutions, scientists, and policymakers in fostering international marine science collaboration and knowledge co-production. The proposed workshop provides a unique opportunity to explore how ICES, PICES, and other organizations/programs are working to bridge the science-policy interface, offering valuable insights for the global scientific community. Experts from partner organizations and UNDOS Programs are strongly encouraged to participate in the discussion and we invite other examples/success stories/challenges to participate. We plan to produce a publication (e.g., PICES Press article or ICES IMS ‘Food for Thought’ article) detailing the outcomes of the workshop. By delving into the roles of institutions, interdisciplinary approaches, and the interface between research and application, participants can gain valuable insights to apply in their own regions and foster global science collaboration.

AP-UNDOS Endnote 4**Terms of Reference**

1. Define and promote the joint scientific activities of PICES and partner organizations (including [ICES](#)) that will contribute to UN Ocean Decade societal outcomes.
2. Implement the SmartNet program (in partnership with ICES), organize its activities and partnerships, monitor its progress, and communicate updates to the PICES community.
3. Implement a strategy that prioritizes engagement with early career ocean professionals, indigenous communities, and developing nations and recognizes the importance of promoting diversity and gender equity in our activities. Coordinate with [FUTURE SSC](#), [AP-ECOP](#), and [AP-SciCom](#) to develop these strategies.

4. Develop recommendations for new UN Ocean Decade activities for endorsement by [UNESCO-IOC](#), with new and existing partners, allowing for participation of additional partners throughout the Decade.
5. Develop recommendations for new and existing PICES Expert Groups to implement and maintain SmartNet and UN Ocean Decade activities and encourage and support Expert Group participation in all aspects of the UN Ocean Decade.

AP-UNDOS Endnote 5

SmartNet Coordinator — benefits and resources

Background

SmartNet (Sustainability of marine ecosystems through global knowledge networks) is a joint ICES-PICES activity and was announced by the IOC as a Program in the very first round of UNDOS activity endorsements. Momentum generated by the proposal's success was initially maintained with outreach, via websites and articles, and satellite activities as part of the IOC's suite of events but is increasingly difficult to sustain without additional resources. As other UNDOS activities at the national, regional, and global scale have been initiated there is an ever-increasing set of actors with which to coordinate.

SmartNet is meant to be the flagship contribution of ICES and PICES to UNDOS. The motivation was to use our legacy, infrastructure, expertise, and networks to provide leadership to the Decade. But without the capacity to coordinate activities across—and outside—our organizations we are not really providing that leadership, or having as big an impact in the Decade as we hoped. Most UNDOS Programs have a full-time coordinator to build networks, interact with the Decade Coordination Unit at the IOC, and liaise with regional and national Decade centres, programs, and projects. While the SmartNet leadership has been trying to achieve the required coordination they are busy people for whom this is one role, competing with many others. A dedicated coordinator is needed. Now that we are in year three of the Decade it is time for ICES and PICES to make an investment in the program if it is to succeed.

Goal

A two- to three-year dedicated position to coordinate SmartNet and other ICES/PICES UNDOS contributions. Coordination is required across both organizations, to connect our expert group activities with relevant UNDOS projects and programs, to organize workshops and meetings, to liaise with the Decade Coordinating Unit at IOC, regional Decade Collaborative Centres, and national Decade committees for ICES and PICES member countries.

Resource Requirements

Costs would be on the order of \$100,000 per year for salary and travel. The position could be primarily based at either Secretariat but would be shared. It could also be achieved by a secondment from a government agency active in ICES or PICES and perhaps might be of most interest to one active in both (such as DFO or NOAA). The position could be a straightforward administration role, or it could be designed as a post-doc, for an individual interested less in research and more in international science organization. There would be opportunities to work with scientists from different countries, to build networks, and to organize scientific meetings and products. It is also an intent to have SmartNet publications in the peer-reviewed literature (e.g., a vision for co-designing international science) so there could be opportunities to publish.

Benefits

Dedicated Smartnet coordination will result in a higher profile for ICES and PICES within the Decade and more visible leadership. It will result in more effective communication of our activities and outputs. A more rapid awareness of other relevant Decade activities will result in a more effective use of our limited resources and likely more tangible progress toward meeting the Decade Challenges than would occur without this coordination.

Member countries would benefit from a clearly-defined connection from national efforts to international UNDOS activities. It would provide a mechanism to facilitate access to ICES/PICES infrastructure to deliver UNDOS activities. Supporting the SmartNet coordination would be a way for member countries to show commitment to the Decade.