

2024 Report for AP-UNDOS

AP-UNDOS held its online meetings on October 7 (North America) /8 (Asia) and in-person business meeting on October 30 in Honolulu, USA.

Co-chairs: Steven Bograd (USA/NOAA), Sanae Chiba (PICES Secretariat)

Part I: Online Business Meeting

Date: October 7 (Mon) in North America / October 8 (Tue) in Asia.

Part II: In-person Business Meeting (with online option)

Date: 900-1230, October 30 (Wed), 2024, during the PICES-2024 Annual Meeting.

Location: Hawaii Convention Center, Honolulu, USA

Note: Participants discussed the same Agenda Items through the Part I and Part II meetings.

Agenda Item 1: Welcome and adoption of agenda

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

Agenda Item 2: News and updates of SmartNet activities

2.a. New ICES Co-Chair and AP-UNDOS new members

Bograd announced that Dr. David Reid, the Chair of the ICES Science Committee, succeeded the ICES SmartNet Co-chair after his predecessor, Dr. Jörn Schmidt, left ICES. Reid has worked on the Ecosystem-Based Fishery Management at the Marine Institute of Ireland.

He also introduced newly appointed AP-UNDOS members, Dr. Khush Jhugroo, Raphael Roman, and Dr. Kathryn Berry. Jhugroo and Roman, both ECOPs from Canada, have actively been involved in AP-UNDOS and SmartNet. Berry, the Science Director of [BECI](#) (Basin Scale Events to Coastal Impacts), was appointed as the ex-officio member to liaise SmartNet and BECI activities. Participants welcomed the new co-chair and new members.



David Reid



Khush Jhugroo



Raphael Roman



Kathryn Berry

2.b. Participation in the UN Ocean Decade Conference

Bograd reported participation to the UN Ocean Decade Conference held in April 2024 in Barcelona, where SmartNet co-organised three satellite events: "[What is the Ocean We Want?](#)", "The Inclusivity We Need for the Ocean We Want" on April 9, and "Building Ocean Leadership" on April 12. The first event focused on the SmartNet Global survey project aimed at understanding perspectives on Ocean Decade Outcomes led by Dr. Mitsutaku Makino (see 2.e.). The latter two were organised by the [UNDOS ECOP Programme](#) and Edinburgh Ocean Leaders Programme to promote networking among global ECOPs,



where Roman played a key role in the event. SmartNet sponsored the participation of two PICES ECOPs from SIDS, Jhugroo from Mauritius and Dr. Naya Sena from Cabo Verde. They participated in various events as speakers and panellists, not only in those organised by SmartNet but also in other ECOP and SIDS-relevant events. Full reports on SmartNet activities during the Ocean Decade Conference in Barcelona are available in [PICES Press Vol. 32 \(2\)](#): the [SmartNet summary report](#) by Bograd et al. and the [ECOP perspectives](#) report by Jhugroo et al.

2.c. "Ocean We Want" survey updates

The project lead, Makino, reported the progress of their survey. To achieve sustainable use of the global ocean in a harmonising way, this project was designed to understand the difference in the perception and prioritisation of the UNDOS slogan "the ocean we want" among different countries with diverse social and cultural backgrounds. This is the collaborative work of scientists from the University of Tokyo, NOAA, Scripps Institution of Oceanography CSIRO, and French Ocean of Solution Programme. They completed the pilot survey in Australia, France, Japan, and the USA in 2024 (see Table below), planning to expand their survey to wider geographical areas.

Issues to prioritize	Ocean outcome(s)	ALL	Australia	Japan	USA	France
Reducing marine pollution	A clean ocean	73,2%	77,1%	69,0%	70,9%	75,7%
Protecting marine life from extinction	A healthy & resilient ocean	72,9%	78,1%	64,9%	73,3%	75,1%
Ensuring commercial harvesting of marine life (like fish and seagrass) in the ocean is sustainable	A productive ocean	62,8%	72,7%	45,5%	65,7%	67,3%
Improving ways of communicating information about ocean conditions and hazards to the public	A safe ocean	59,6%	63,3%	55,3%	60,1%	59,6%
Increasing public education about how human activities affect the ocean	An inspiring & engaging ocean	60,7%	68,0%	44,1%	61,7%	69,1%
Increasing clean energy (wind, solar, wave, and geothermal) in the oceans	A productive ocean	58,5%	66,1%	53,3%	61,3%	53,4%
Ensuring people have access to the ocean and its resources	An accessible ocean	44,9%	55,2%	30,8%	52,0%	41,5%
Protecting ocean-related tourism and recreation opportunities	A productive ocean	43,6%	56,1%	23,9%	48,2%	46,0%
Developing ocean-based business opportunities	A productive ocean	36,6%	45,1%	24,8%	39,7%	36,8%

Table. Comparison among countries on ocean priority. The percentage indicates the extent of citizens' concern toward various ocean-related issues in each country.

2.d. Publications (*ICES Journal of Marine Science, Oceanography*)

SmartNet published two peer-reviewed journal papers in 2024.

1. Bograd et al. 2024. Advancing the climate-biodiversity-fisheries nexus in the UN Decade of Ocean Science for Sustainable Development, *ICES Journal of Marine Science*, fsae111, <https://doi.org/10.1093/icesjms/fsae111>

Collaborating with the SmartNet UNDOS partner programmes, [Blue Food Future](#), [FishSCORE](#), [GEOS](#), [Marine Life 2030](#), [OBON](#), and [SUPREME](#), the paper assess the scope, objectives, capacities, and critical gaps in advancing the “climate-fisheries nexus” and describes ongoing and planned activities on this topic within the UNDOS framework.

2. Chiba et al. 2024. Knowledge sharing and capacity development to promote early career ocean professionals in small island developing states: The SmartNet Approach. *Oceanography*, <https://doi.org/10.5670/oceanog.2025.108>

This paper describes how SmartNet can enhance the opportunities for capacity development of SIDS in ocean science for sustainable development by effectively leveraging existing ICES/PICES frameworks for promotion of ECOPs from SIDS.

2.e. PICES-2024 Workshops

The SmartNet sponsored a Workshop during the PICES-2024.

[Workshop 5](#): Exploring international knowledge co-production: Lessons learned from international science organizations at the science-policy interface.

Convenors: Erin Satterthwaite, Steven Bograd, Mitsutaku Makino, Hanna Na, Jörn Schmidt (all SmartNet members). The full report is available in [PICES Press Vol. 33](#).

Description

The vast and complex nature of the ocean necessitates large scale coordination of science and policy across local, national, and international institutions. This workshop was 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 workshop provided 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 participated in the discussion. Proceedings of the Workshop were reported in [PICES Press, vol 33\(1\)](#). 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.

Agenda Item 3: Task Teams: member and plans

Co-chairs noted the current Task Team structure (see below) was outdated and needed re-development and revision of task assignments. As there was not enough time at the business meetings at PICES-2024, members agreed to discuss this topic during the online meeting to be held early in 2025.

- 1. Writing Team:** (a) Peer-reviewed publications; (b) update SmartNet Phase II Implementation Plan
- 2. Survey Team:** (a) Execute national UNDOS surveys; (b) Interpret & disseminate results
- 3. Outreach Team:** (a) Plan & execute workshops; (b) Prepare SmartNet/IPOD reports and meeting materials
- 4. Network Team:** (a) Facilitate engagement with Decade Collaborative Center; (b) Facilitate engagement with UNDOS partners (Climate-Fisheries Nexus, ECOPs, SmartNet-umbrella projects)
- 5. Capacity-Sharing Team:** Facilitate engagement with SIDS and international partners

Agenda Item 4: ICES ASC 2025 and PICES-2025 Session and Workshop Proposals.

4.a. ICES ASC 2025 theme session

SmartNet will co-convene a theme session at the [ICES Annual Science Conference 2025](#) to be held in September 2025 in Klaipeda, Lithuania. AP-UNDOS requested the Science Board for funding support of a few ECOPs to attend the ICES ASC. The Science Board and Governing Council approved the request (**the extent of the support will be determined when the ECOP participants to support are identified and the PICES budgetary plan for 2025 becomes clearer*).

Theme session C: Climate-ready fisheries management in the UN Ocean Decade

Convenor: Steven Bograd, Sanae Chiba, Kathy Mills, David Reid (Bograd, Chiba and Reid are SmartNet members; Mills is the lead of FishSCORE, a SmartNet Partner Programme).

Description: The UN Decade of Ocean Science for Sustainable Development (2021–2030) exhorts global partners to address challenges associated with climate change, marine ecosystem health, and food security. The Ocean Decade Programme "Sustainability of Marine Ecosystems Through Global Knowledge Networks" (SMARTNET), jointly sponsored by ICES and PICES, works to build shared knowledge and capacity to understand, forecast, manage, and adapt to climate-driven changes in marine ecosystems and their associated fisheries.

In this session, we aim to evaluate our collective capacity, within and beyond the Ocean Decade "climate–fisheries" nexus, to develop the decision-support tools needed to promote effective fisheries management and adaptation strategies in a changing climate. We invite participants to

- Compare various mechanisms used to integrate climate information into ecosystem-based fisheries management
- Help develop a global inventory of capacities, gaps, and paths forward for climate-ready fisheries management (including data streams, models, information infrastructure, communication avenues, co-development practices, governance frameworks).

An outcome of this session will be a white paper outlining best practices for supporting climate-ready fisheries management.

4.b. PICES-2025 workshop proposals

Bograd showed two proposals of SmartNet-sponsored Workshop for PICES-2025. Participants discussed the workshop ideas and revised the proposals. **The revised proposals were submitted to PICES Secretariat after PICES-2024, and Science Board and Governing Council approved both proposals to be held at PICES-2025.*

Workshop 1: Climate-Ready Fisheries Management: Reviewing Effective Strategies for Developing Decision Support Tools.

Convenors: Steven Bograd, Kirstin Holsman, Mitsutaku Makino, Hanna Na, Kathryn Berry, Viv Tulloch, Erin Satterthwaite, David Reid (All except Tulloch are SmartNet members. Tulloch is a member of BECI, a SmartNet partner project).

Description: Building networks to share knowledge and capacity is essential to understand, forecast, manage, and adapt to climate-driven changes in marine ecosystems and their associated fisheries. The UN Decade of Ocean Science for Sustainable Development (Ocean Decade; 2021-2030) provides a unique opportunity to convene global partners to address challenges associated with climate change, marine ecosystem health, and food security. The Ocean Decade Programme ‘Sustainability of Marine Ecosystems Through Global Knowledge Networks’ (SmartNet), jointly sponsored by PICES and ICES, works with S-CCME and other Programmes to advance the ‘climate-fisheries’ nexus within the Ocean Decade. In this workshop, we will explore decision support tools needed to implement effective fisheries management and adaptation strategies in a changing climate. We invite a broad array of participants, across international and management organizations, to: (1) explore the various mechanisms used to integrate environmental information into ecosystem-based fisheries management; and (2) review the existing tools/systems, gaps and pathways forward for climate-ready fisheries management (including data streams, models, information infrastructure, communication avenues, co-development practices, governance frameworks). This workshop will build upon the PICES-2024 workshop on the ‘science-policy interface’ and the ICES-2025 theme session on ‘climate-ready fisheries’. An outcome of this Workshop will be a white paper outlining effective strategies for supporting international climate-ready fisheries management.

Workshop 8: Engaging with Local & Traditional Knowledge Holders to Co-Design Ocean Science in Pacific Small Island Developing States.

Convenors: Raphael Roman, Naya Sena, Khush Jhugroo, Steven Bograd, Sanae Chiba, Mitsutaku Makino, David Reid, Saurav KC, Naomi Young (All except KC and Young are SmartNet members; KC and Young are from [Asia Pacific Network for Global Change Research](#), a PICES strategic partner organization).

Description: The UN Decade of Ocean Science for Sustainable Development (Ocean Decade; 2021-2030) provides a unique opportunity to convene global partners to address challenges associated with climate change, marine ecosystem health, and food security. The Ocean Decade Programme ‘Sustainability of Marine Ecosystems Through Global Knowledge Networks’ (SmartNet), jointly sponsored by ICES and PICES, works with several other Programmes to advance knowledge generation and sharing to support ocean sustainability, with an emphasis on coordination and collaboration with Small Island Developing

States (SIDS). We will highlight the role of local and traditional knowledge from Pacific SIDS in shaping ocean science. This knowledge, rooted in cultural practices and environmental stewardship, offers unique insights that complement scientific approaches, making it essential for effective ocean management and climate resilience in SIDS. In this Workshop, we aim to convene ocean practitioners, stakeholders, and rightsholders from Pacific SIDS with members of the PICES and Asia Pacific Network for Global Change Research (APN) communities to assess the opportunities, priorities, methods and challenges for co-designing ocean science in SIDS. We will explore a wide variety of issues of immediate concern to SIDS, including sustainable fisheries, ecosystem services, food security, impacts of climate extreme events on coastal and island communities, and disaster risk reduction. We will synthesize local and traditional knowledge frameworks from Pacific SIDS with the PICES and APN scientific enterprise to optimize strategies for actionable science, trust building, and respectful collaborative practices. An outcome of this Workshop will be a white paper outlining good practices for the co-design and implementation of ocean science in Pacific SIDS.

Agenda Item 5: Status of SmartNet Coordinator

Chiba reported the current status of the SmartNet Coordinator appointment. Responding to our request for PICES Science Board and Governing Council to appoint a coordinator, Ocean Decade International Cooperation Center, China (ODCC) agreed to offer in-kind support for SmartNet by appointing a coordinator who works remotely from ODCC to help PICES UNDOS-related activities, including SmartNet coordination. At the end of PICES-2024, PICES and ODCC signed the [MOU](#) to officially agree on this arrangement officially. (**As of February 17, 2025, SmartNet is still waiting for ODCC to appoint the coordinator.*)

Background: Given that the lack of personnel had hindered coordination of SmartNet activities and its networking with partner organisations and programmes, SmartNet co-chairs had requested ICES and PICES to consider appointing a SmartNet coordinator. While it was unrealistic to secure the funding to hire the new personnel from both organisations, the PICES Governing Council urged their national delegates to seek the opportunity to provide in-kind support for the SmartNet activities.

Agenda Item 6: Status of Phase II SmartNet Implementation Plan

Bograd reported the current status of the SmartNet Phase II Implementation Plan. The plan he drafted was shared with and reviewed by SmartNet members before the AP-UNDOS business meetings. The co-chairs initially planned to request approval of the plan from the Science Board and Governing Council at PICES-2024 and to seek the PICES Program status after FUTURE. However, since the PICES science plan and structure for the coming years remain uncertain until discussions on PICES response to the External Review Panel Recommendations take place, Science Board advised us to submit it at ISB-2025 or PICES-2025. (**The draft is not attached to this report.*)

Agenda 7: Other issues7.a. UNDOS National activity survey

Dr. Hiroaki Saito suggested gathering information on the UNDOS activities of PICES member countries to assess how SmartNet outcome could contribute to their needs. Most of the participants had no connection to their UNDOS national focal points or had limited information about them. Chiba committed to conducting an online survey among all AP-UNDOS members on this matter (**The survey was made in December 2024. The survey result will be reported during the online AP-UNDOS meeting in early 2025*).

7.b. SmartNet website reconstruction

Participants agreed that the development of a new SmartNet website was a high-priority issue and urged the appointment of a UNDOS coordinator at ODCC to work on this task in collaboration with the PICES Communication Officer.

7.c. The term IPOD

The name IPOD (ICES and PICES Ocean Decade) has been used for the SmartNet Steering Committee since before its establishment. However, due to the confusion caused by the multiple SmartNet-related terminologies, the members agreed to discontinue its use.

- the end of the report -

Endnote 1**AP-UNDOS online business meeting (Oct 7, 2024) participation list**

<u>Members</u>	<u>Members unable to attend</u>
Steven Bograd (USA, Co-chair) Sanae Chiba (PICES, Co-chair) Raphael Roman (Canada)(ECOP) Mitsutaku Makino (Japan) Hiroaki Saito (Japan) Fangli Qiao (China) Sukyung Kang (Korea) Hyunggyu Lim (Korea) Hanna Na (Korea) Sinjae Yoo (Korea) Kathryn Berry (BECI ex-officio)	Andrea White (Canada) Khushboo Jhugroo (Canada) (ECOP) Li Li (China) Emanuele Di Lorenzo (USA) Vera Trainer (USA) Kirstin Holsman (USA) Erin Satterthwaite (ECOP) (USA) Emily Lemagie (USA) <u>Observers</u> Naya Sena (Japan)(ECOP)(new member prospect) N/A

AP-UNDOS in-person business meeting (Oct. 30, 2024) participant list

<u>Members</u>	<u>Members unable to attend</u>
<i>In-person participants</i> Steven Bograd (USA, Co-chair) Sanae Chiba (PICES, Co-chair) Jennifer Jackson (Canada) Raphael Roman (Canada)(ECOP) Mitsutaku Makino (Japan) Hiroaki Saito (Japan) Fangli Qiao (China) Sukyung Kang (Korea) Hanna Na (Korea) Korea: Hyng-Gyu Lim (Korea) Sinjae Yoo (Korea) Kirstin Holsman (USA) Erin Satterthwaite (USA) Emily Lemagie (USA) Kathryn Berry (BECI ex-officio) <i>Online participants</i> Khushboo Jhugroo (Canada) (ECOP)	Canada: Andrea White (Canada) China: Li Li,(China) Emanuele Di Lorenzo (USA) Vera Trainer (USA) <u>Observers</u> <i>In-person participants</i> *SungHyun Nam (Korea)(new member prospect) *Talen Rimmer (Canada)(new ECOP member prospect) David Raid (SmartNet ICES Co-chair) <i>Online participants</i> *Naya Sena (Japan)(new ECOP member prospect) <i>*Nam, Rimmer and Sena were officially appointed as the AP-UNDOS members after PICES-2024.</i>

*Endnote 2***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 Programme (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, 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.

Endnote 3**Meeting Agenda****Part I: Online Business Meeting**

Date: October 7 (Mon) in North America / October 8 (Tue) in Asia.

Part II: In-person Business Meeting (with online option)

Date: 900-1230, October 30 (Wed), 2024, during the PICES-2024 Annual Meeting.

Note: Participants discussed the same Agenda Items through the Part I and Part II meetings.

Agenda Item 1: Welcome and adoption of agenda**Agenda Item 2: News and updates of SmartNet activities**

- 2.a. New ICES Co-Chair and AP-UNDOS new members
- 2.b. Participation in the UN Ocean Decade Conference
- 2.c. “Ocean We Want” survey updates
- 2.d. Publications (*ICES Journal of Marine Science*, *Oceanography*)
- 2.e. PICES-2024 Workshops

Agenda Item 3: Task Teams: member and plans**Agenda Item 4: ICES ASC 2025 and PICES-2025 Session and Workshop Proposals.**

- 4.a. ICES ASC 2025 theme session
- 4.b. PICES-2025 workshop proposals

Agenda Item 5: Status of SmartNet Coordinator**Agenda Item 7: Status of Phase II SmartNet Implementation Plan****Agenda 7: Other issues**

- 7.a. UNDOS National activity survey
- 7.b. SmartNet website reconstruction
- 7.c. The term IPOD