



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development



ECOP
Early Career
Ocean Professionals



Shifting the narrative of meaningful early-career engagement in global science-policy collaborations

Session 1 (S1) – 2025 PICES Annual Meeting

Yokohama, Japan – November 10, 2025

Raphael Roman

Table of Contents

Evolution of ECOPs since 2019

- Global Reach
- Publication Trends
- National/Regional Insights

Practical guidelines for meaningful early career engagement in the science-policy-society interface

Successful examples of meaningful ECOP engagement

Moving forward together by shifting the narratives



Evolution of ECOPs since the acronym first emerged in 2019



GLOBAL DISTRIBUTION MAP

OF NATIONAL ECOP NODES

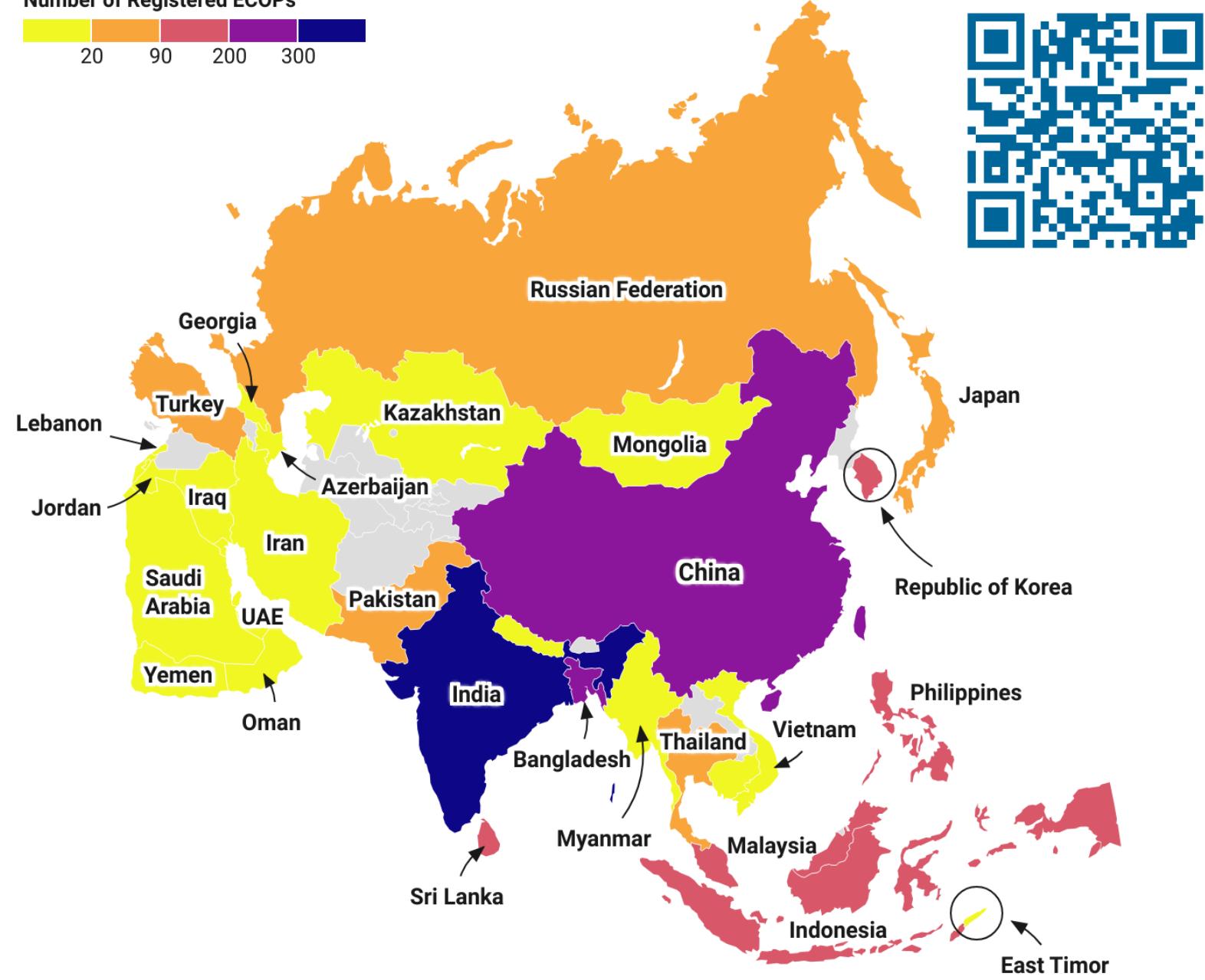
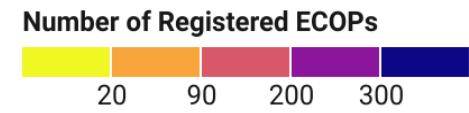
Country code

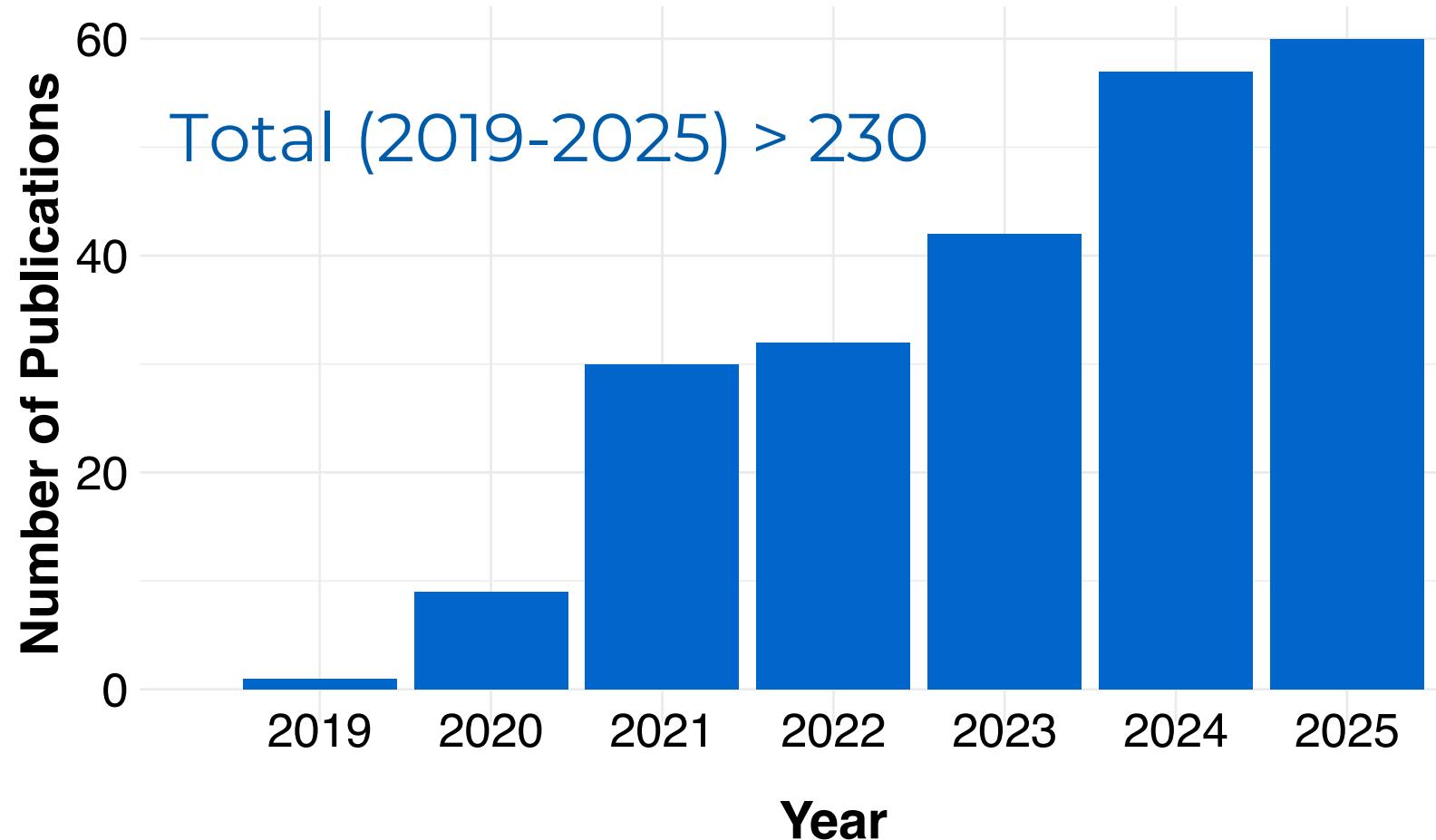
- 1 Belgium
- 2 Netherlands
- 3 Senegal
- 4 Ghana
- 5 Togo
- 6 Benin
- 7 Nigeria
- 8 Cuba
- 9 Puerto Rico
- 10 Antigua & Barbuda
- 11 Barbados
- 12 Guatemala
- 13 El Salvador
- 14 Honduras
- 15 Nicaragua
- 16 Costa Rica



ECOP Asia Membership (October 2025)

- ❖ April 2022: 228,
June 2023: 566,
July 2024: 1,302,
October 2025: 1,986 members
- ❖ **Spans 37 countries from West to Southeast Asia,**
- ❖ **Top 6 countries:** 1. India (631),
2. People's Republic of China (247),
3. Bangladesh (212),
4. Philippines (142),
5. Republic of Korea (126),
6. Indonesia (105).
- ❖ **Two Working Groups** on (1) Ocean Literacy & (2) Blue Carbon/mCDR.



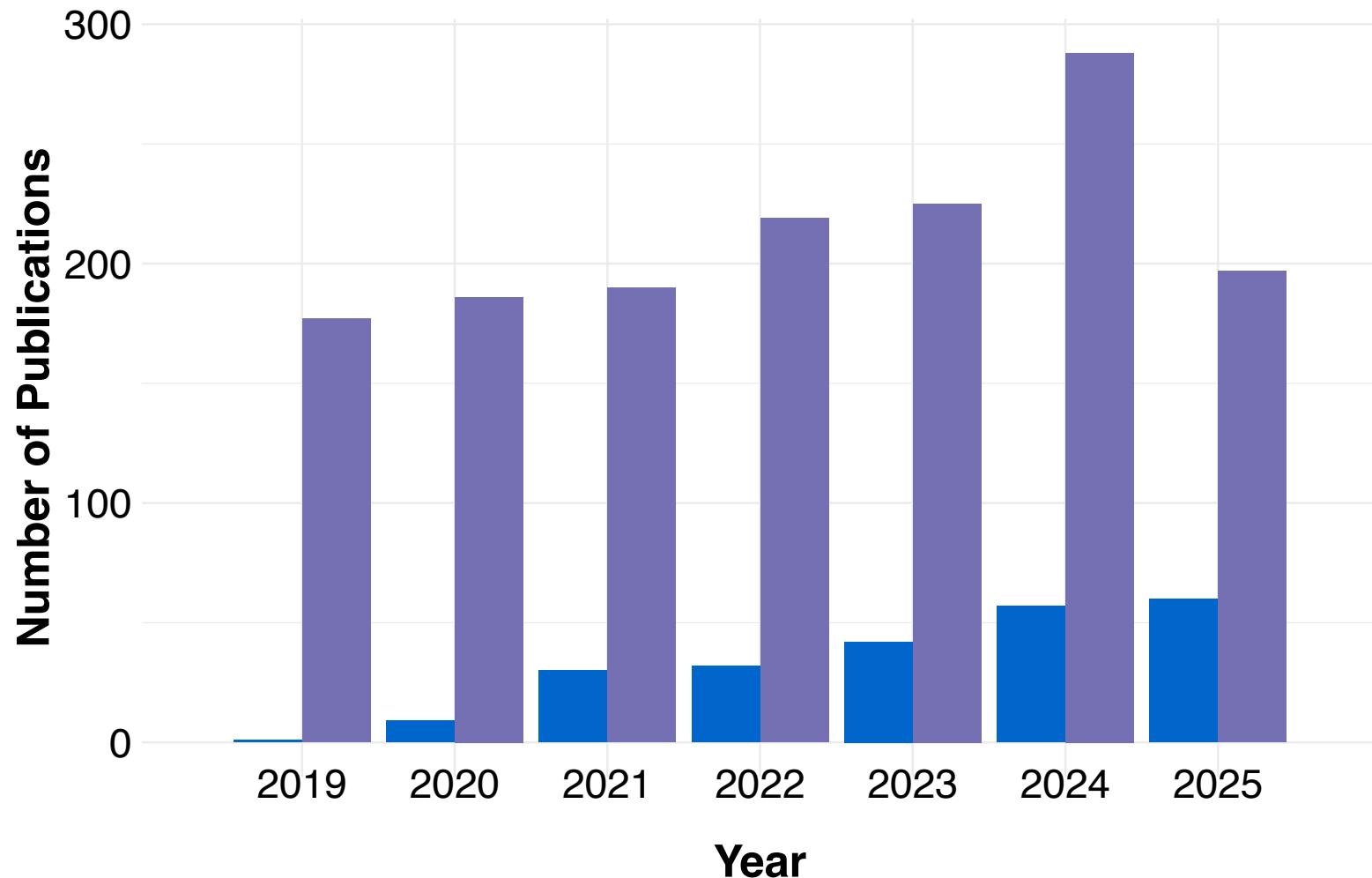


Source: Google Scholar

Mentions of
***"early career ocean
professional(s)"*** in
title and/or abstract



38% (co)-authored
by PICES members



Mentions of
***“early career
researcher(s)”*** in title

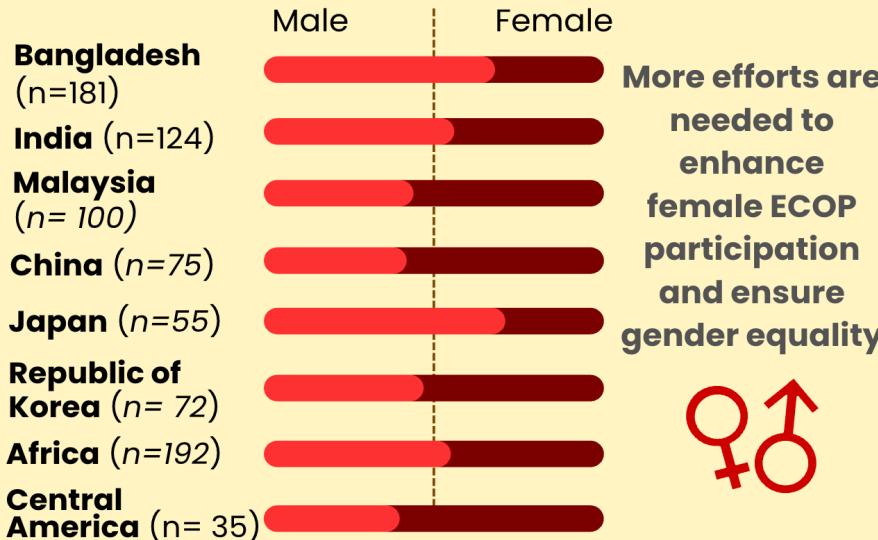
Category
ECOP Title & Abstract
ECR Title

Source: Google Scholar

Cross-Country and Regional ECOP Survey Insights

(Shahadat & Roman, in prep.)

Gender Balance



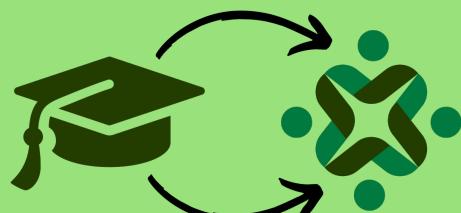
UN Ocean Decade Outcomes



Of the seven outcomes of the UN Ocean Decade, these four are top priorities for ECOPs around the world.



Global Need for Multi-stakeholder Engagement

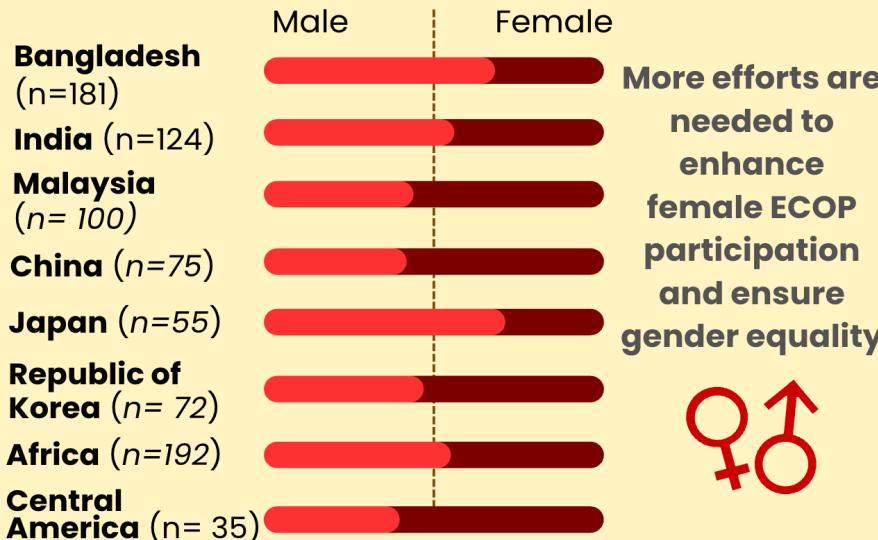


The majority of survey participants have an academic background, indicating a clear need for greater engagement from other key ocean stakeholders, such as government, NGOs, and the private sector.

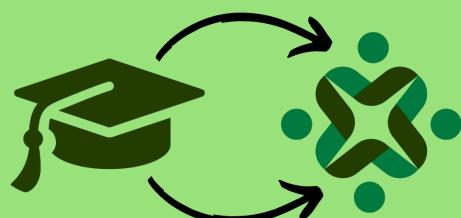
Cross-Country and Regional ECOP Survey Insights

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Global Need for Multi-stakeholder Engagement



The majority of survey participants have an academic background, indicating a clear need for greater engagement from other key ocean stakeholders, such as government, NGOs, and the private sector.

UN Ocean Decade Outcomes



A CLEAN OCEAN



A HEALTHY & RESILIENT OCEAN



AN INSPIRING & ENGAGING OCEAN



AN ACCESSIBLE OCEAN

Of the seven outcomes of the UN Ocean Decade, these four are top priorities for ECOPs around the world.



Major Barriers

Regardless of their country's development status or income classification, ECOPs worldwide face similar career obstacles, including:



LACK OF JOBS

POOR SALARY PROSPECT

LACK OF FUNDING

LIMITED OPPORTUNITIES

Global Needs of ECOPs



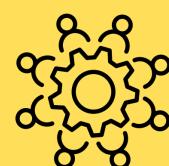
RESEARCH FUNDING



PROFESSIONAL DEVELOPMENT



SCHOLARSHIPS/ TRAVEL GRANTS



RESEARCH COLLABORATION



MENTORSHIP & TRAINING



CAREER OPPORTUNITIES

These are the top shared needs for ECOPs around the world.

Practical guidelines for meaningful early career engagement in the science-policy-society interface (2025)

ICES Journal of Marine Science, 2025, Vol. 82, Issue 8, fsaf143
<https://doi.org/10.1093/icesjms/fsaf143>

Received: 14 March 2025; revised: 29 June 2025; accepted: 2 July 2025
Food for Thought



Guidelines for ensuring meaningful engagement of early career researchers in scientific collaborations: recommendations from and for marine and polar scientists

Laura Kaikkonen ^{1,2,*}, Mia Strand ³, Priyatma Singh ⁴, Rebecca Shellock ⁵, Raphael Roman ⁶, Alycia J. Smith ⁷, Siddhi Joshi ⁸, Chelsey A. Baker ⁹, Katharine T. Bigham ¹⁰, Beatriz S. Dias ¹¹, Bolanle T. Erinoshio ^{12,13}, Joana Filipa Fernandes ^{14,15}, Marta Ferraro ¹⁶, Odei Garcia-Garin ^{17,18}, Ignacio Gianelli ^{19,20}, Xochitl E. Elías Ilosvay ²¹, Evgeniia Kostianaia ²², Inés M. Leyba ²³, Shenghui Li ^{24,25}, Tanya Marshall ²⁶, Raquel R. Oliveira ²⁷, Okko Outinen ²⁸, Marie-Morgane Rouyer ²⁹, Costanza Scopetani ³⁰, Danian Singh ^{31,32}

Towards IPOS

POSITION PAPER:

DELIVERING MEANINGFUL ENGAGEMENT OF EARLY CAREER OCEAN PROFESSIONALS AND YOUTH IN INTERNATIONAL KNOWLEDGE/SCIENCE-POLICY-SOCIETY INTERFACES



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Meaningful Engagement



Shared commitment to reach common goals and objectives that have been **collaboratively agreed upon**.

This process involves the **open exchange** of ideas, information, and resources through **transparent and effective communication**, built on **mutual respect and dedication**.



Generated by ChatGPT

Meaningful Engagement



Shared commitment to reach common goals and objectives that have been **collaboratively agreed upon**.

This process involves the **open exchange** of ideas, information, and resources through **transparent and effective communication**, built on **mutual respect and dedication**.

Trust & Confidence

Power Dynamics

Sense of Ownership

Guidelines (1)

Prior to Engagements



- 1 Plan ECR engagement

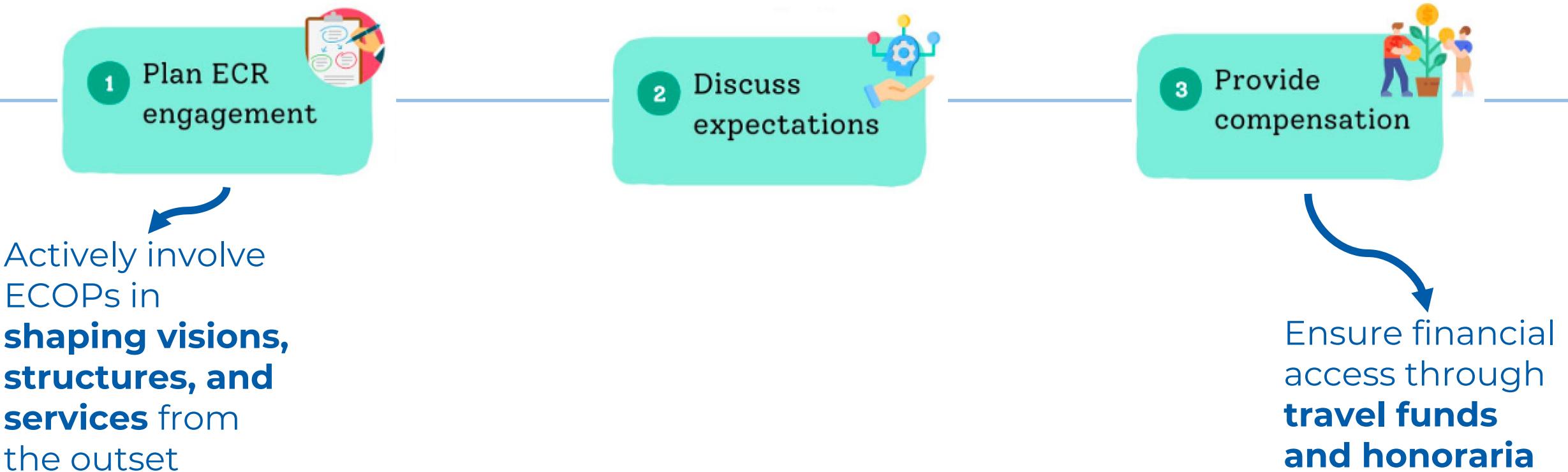


Actively involve ECOPs in **shaping visions, structures, and services** from the outset



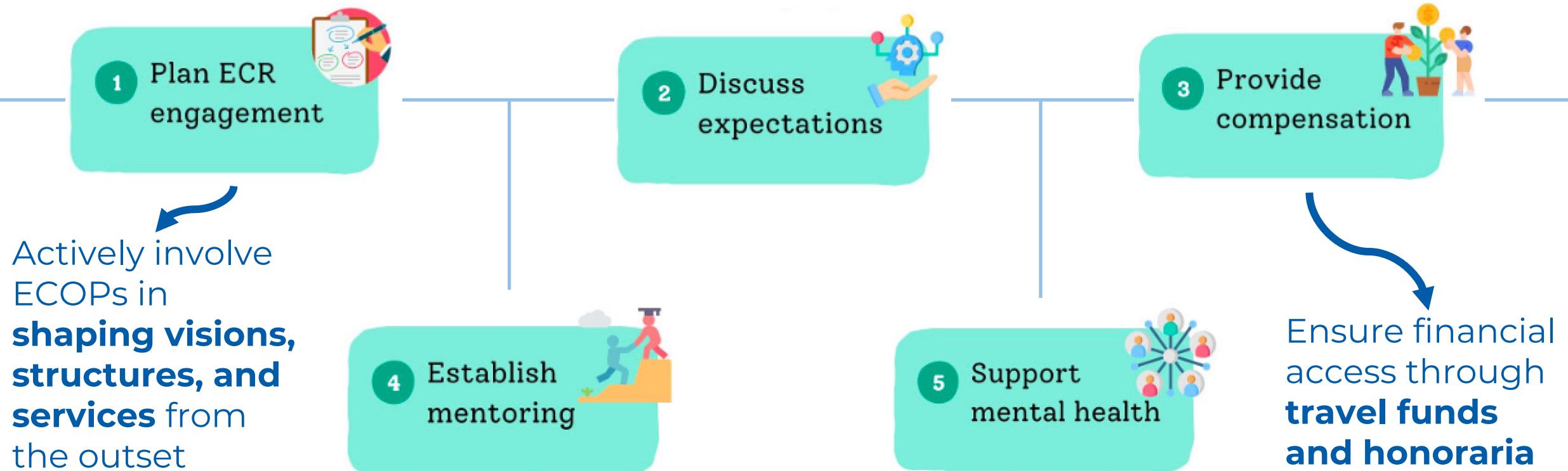
Guidelines (1)

Prior to Engagements



Guidelines (1)

Prior to Engagements



Build Inclusive Governance

Guidelines (2) During Engagements



Co-design **capacity building**, nurture **leadership**, enhance **policy literacy**, and develop **hands-on experiences**.

Guidelines (2) During Engagements

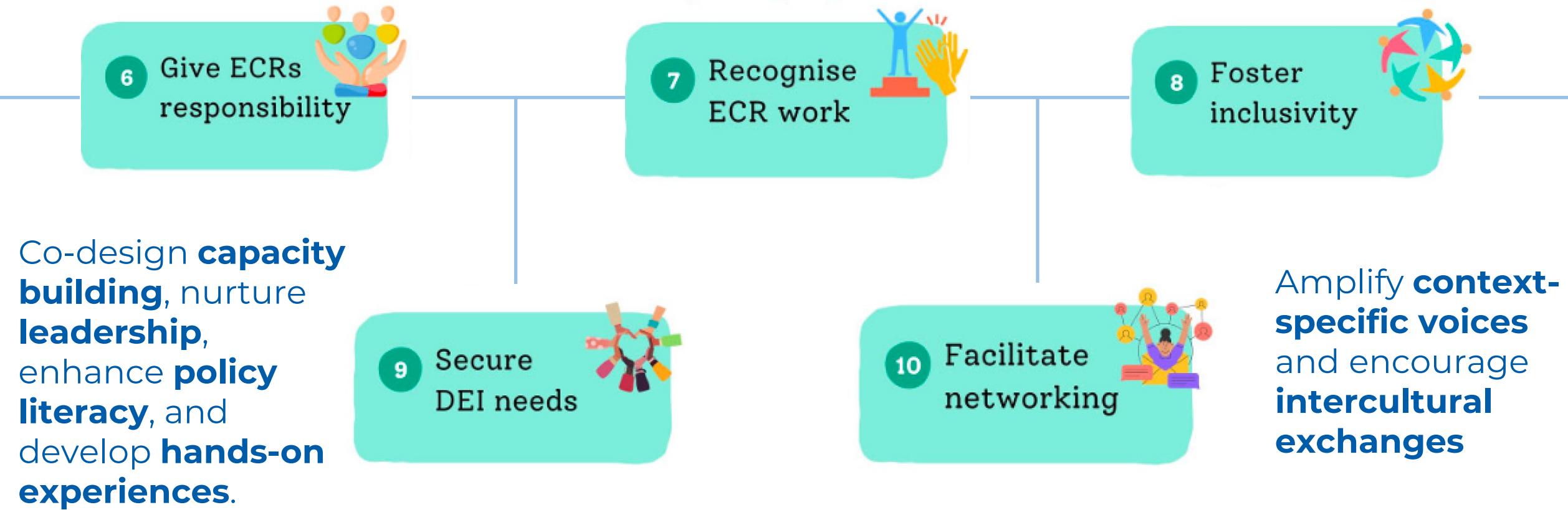


Co-design **capacity building**, nurture **leadership**, enhance **policy literacy**, and develop **hands-on experiences**.



Amplify **context-specific voices** and encourage **intercultural exchanges**

Guidelines (2) During Engagements





Successful Examples of Meaningful ECOP Engagement



APN-ECAP



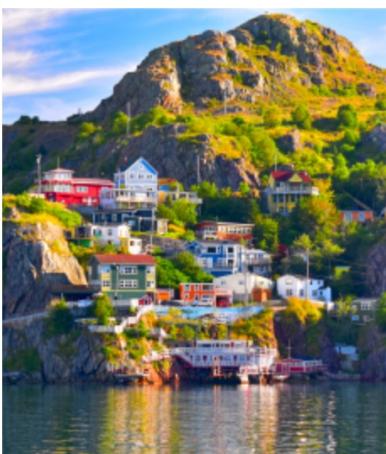
SIIECS



ICES
CIEM



AP-ECOP



Blue Wave Conference: Youth Empowerment for Ocean Science and Action

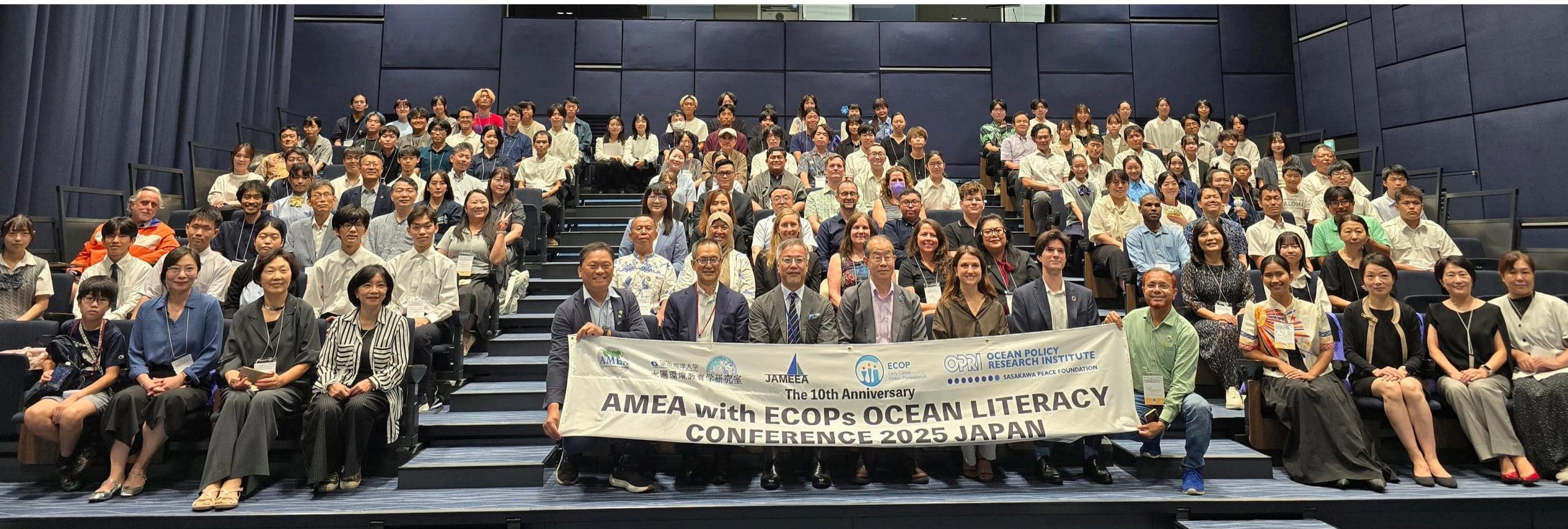
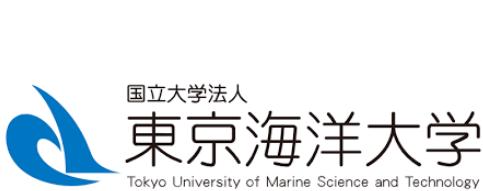


 **Successful Examples
of Meaningful ECOP
Engagement (cont'd)**



Engaging
ECOPs and Youth
is a **team effort**





AMEA with ECOPs Ocean Literacy Conference

Tokyo, Japan, August 5-7, 2025



ECONOMIST IMPACT



WORLD OCEAN
Initiative

“To engage the next generation, we need professionals and experts who can inspire. We’re no longer talking about passive awareness—we’re cultivating agency.”

*University of Tokyo Professor and
Chairperson of UNESCO-IOC
Prof. Yutaka Michida*



Moving forward together by shifting the narratives

- 01.** Involve ECOPs from inception
- 02.** Secure institutional & financial support
- 03.** Foster capacity strengthening and intergenerational support

where ECOPs also have a responsibility to know their own limits in terms of capacity and commitments



Towards meaningful scientific collaborations and engagements

