



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



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

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Evolution of ECOPs since the acronym first emerged in 2019



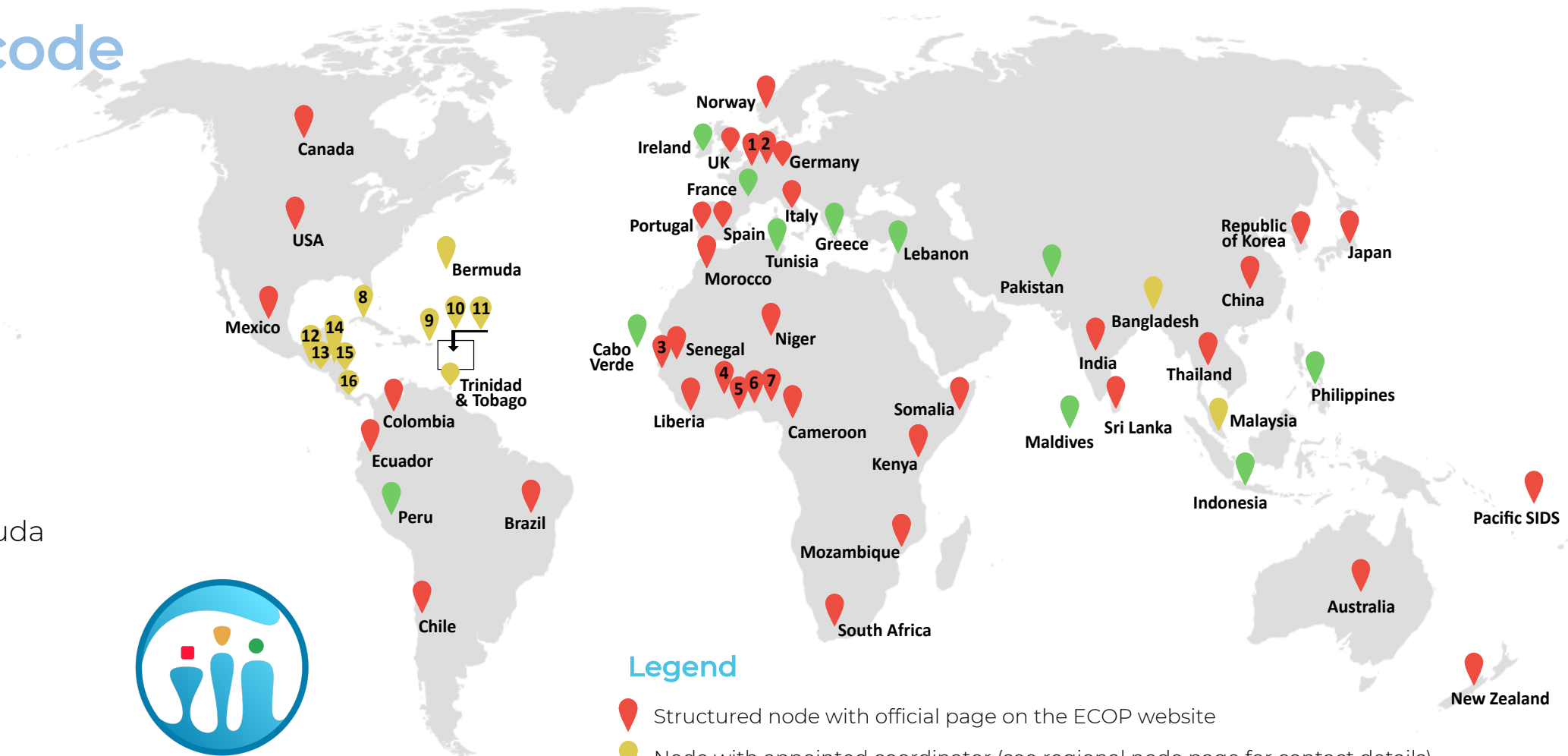
ECOP
Early Career
Ocean Professionals

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



Legend

- Structured node with official page on the ECOP website
- Node with appointed coordinator (see regional node page for contact details)
- In the process of being established (no information on the website yet)

ECOP Asia Membership (October 2025)

❖ April 2022: 228,
June 2023: 566,
July 2024: 1,302,
October 2025: 1,986 members

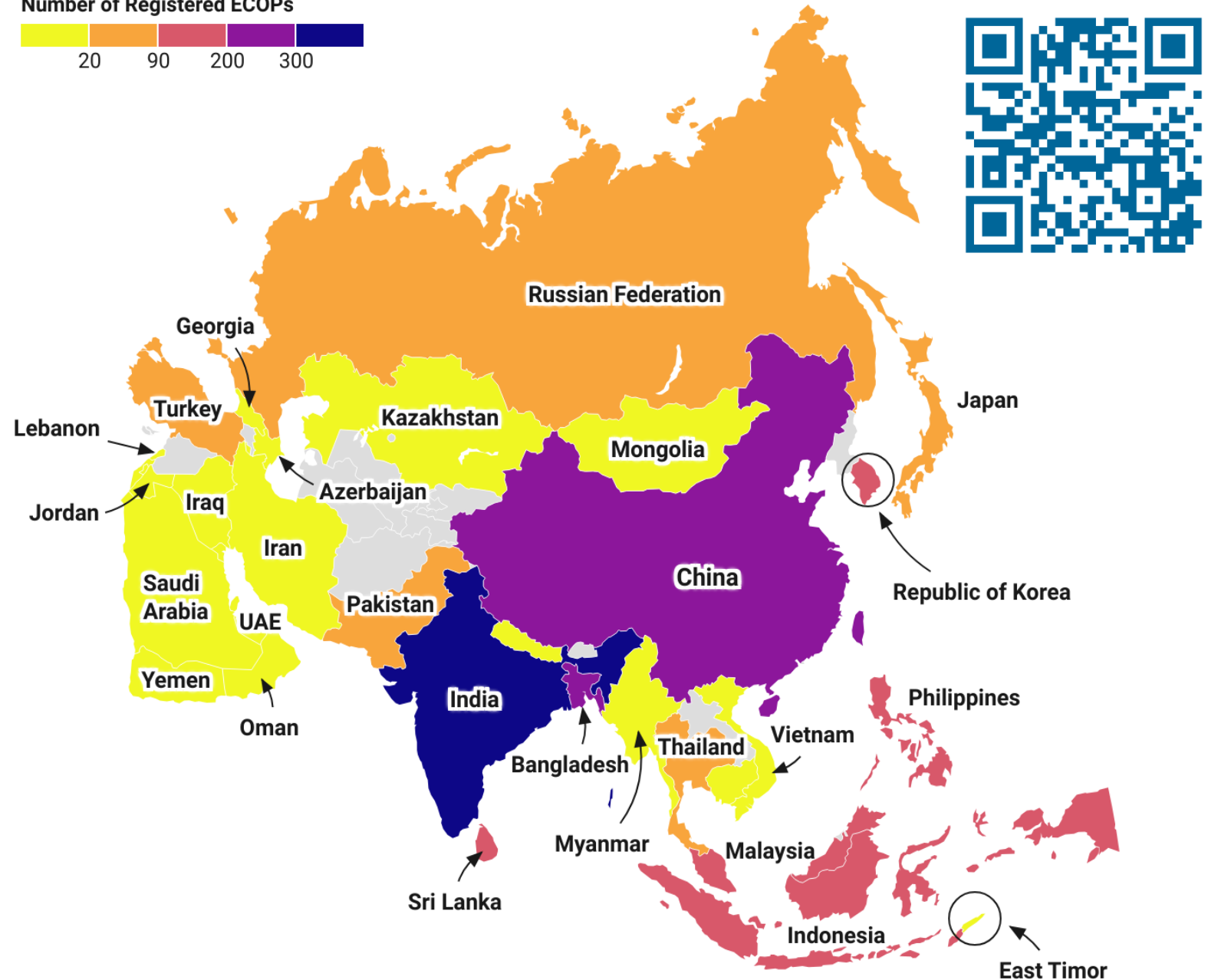


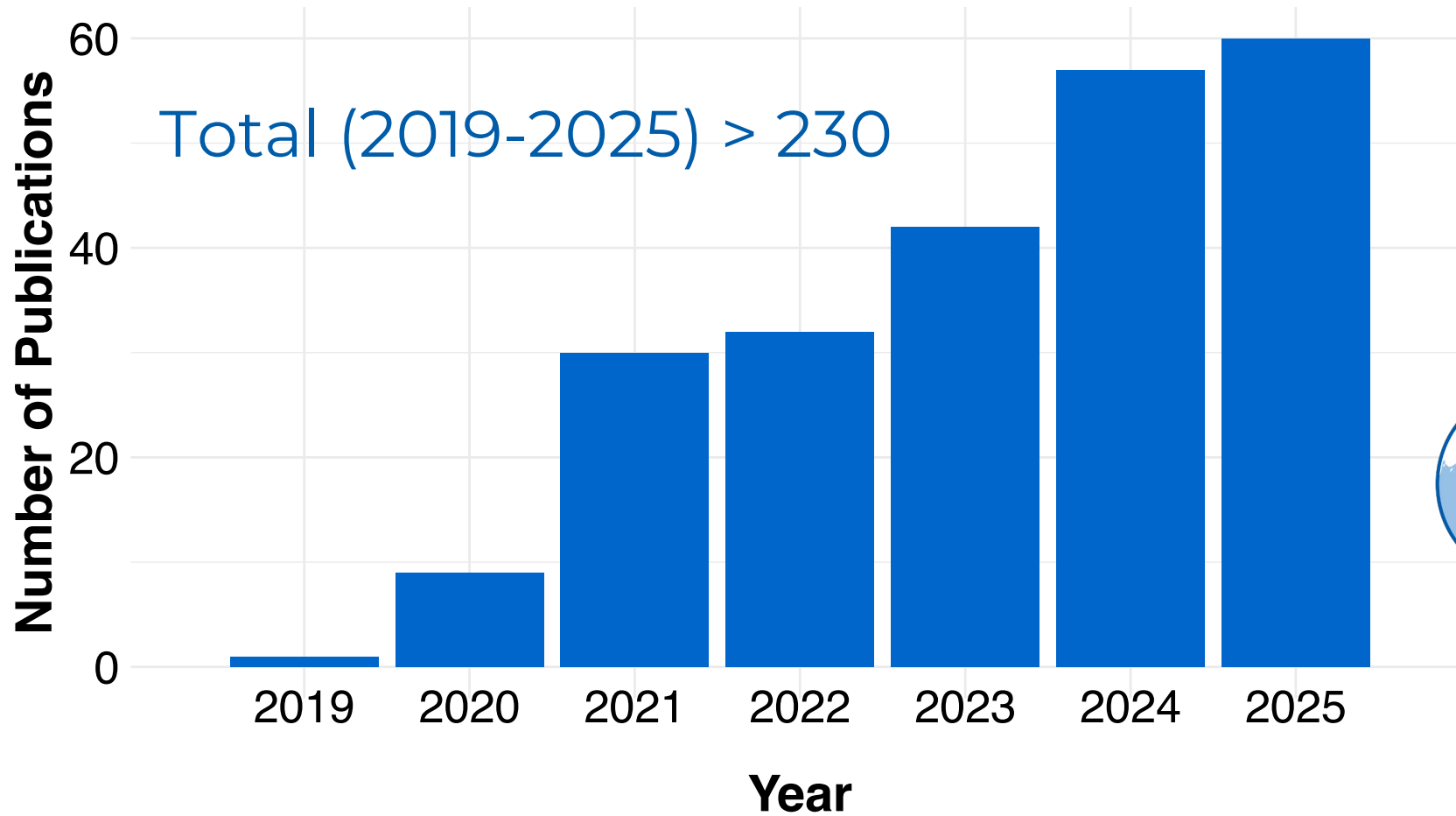
❖ **Spans 37 countries** from West to Southeast Asia,

❖ **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.

Number of Registered ECOPs



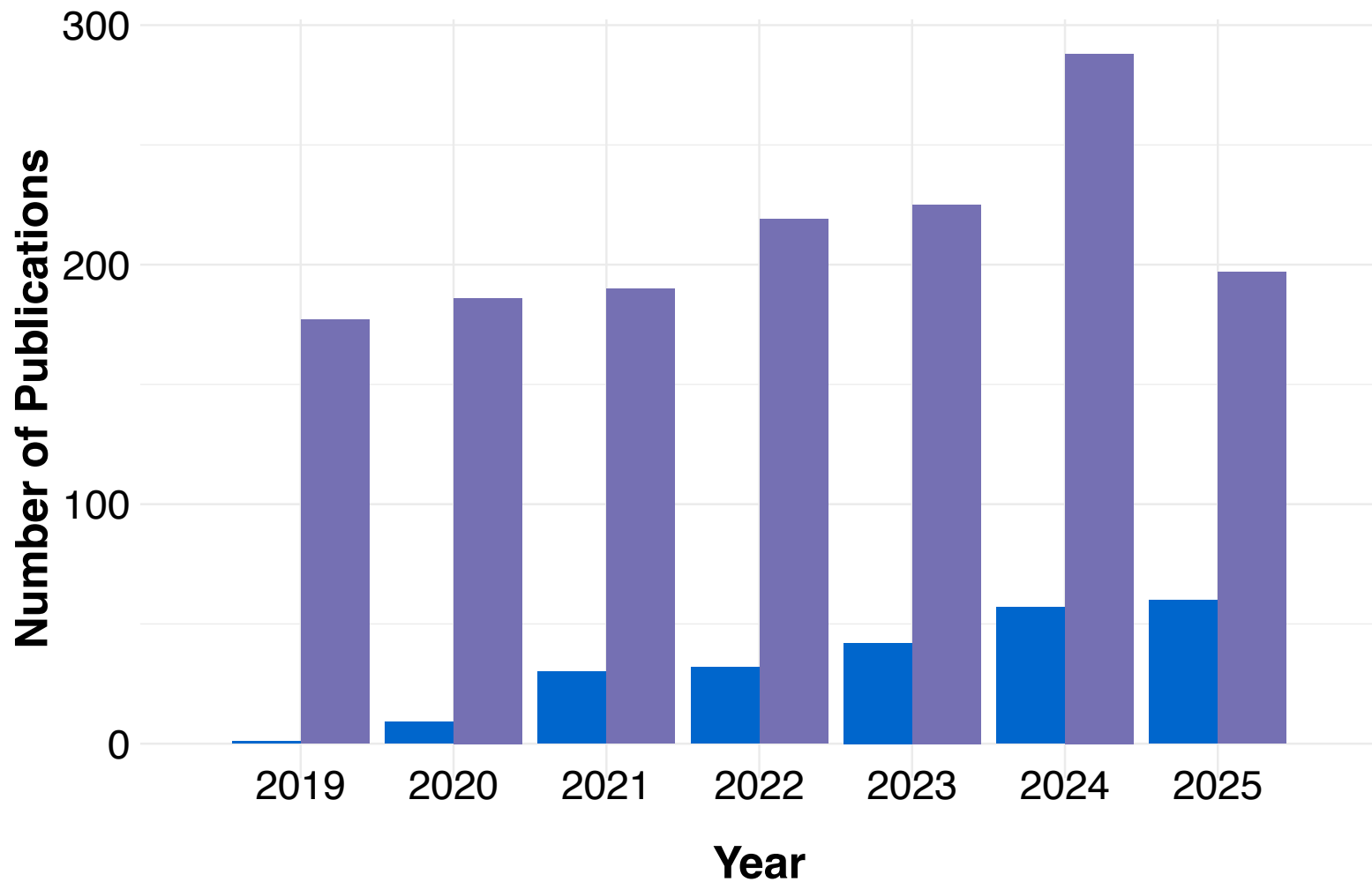


Mentions of
***“early career ocean
professional(s)”*** in
title and/or abstract



38% (co)-authored
by PICES members

Source: Google Scholar



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

Category

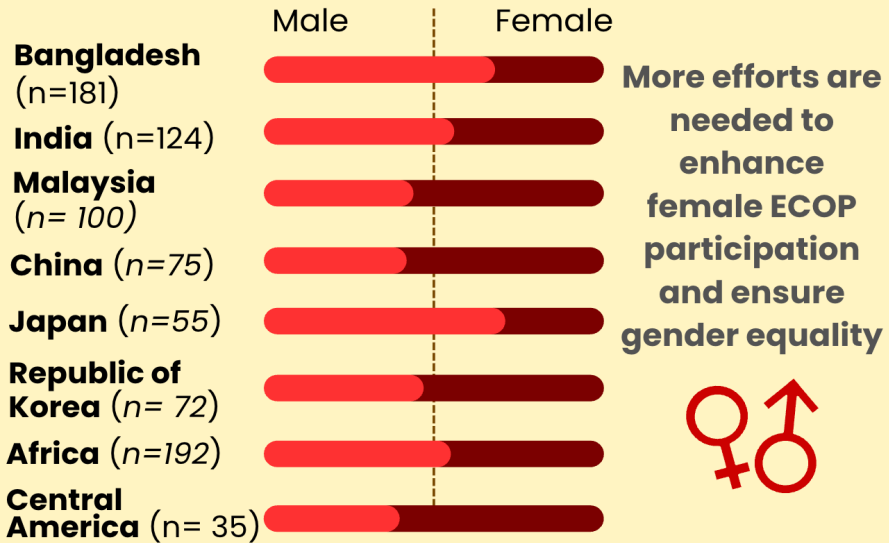
- ECOP Title & Abstract
- ECR Title

Source: Google Scholar

Cross-Country and Regional ECOP Survey Insights

(Shahadat & Roman, in prep.)

Gender Balance



UN Ocean Decade Outcomes



A CLEAN OCEAN



A HEALTHY & RESILIENT OCEAN



AN INSPIRING & ENGAGING OCEAN

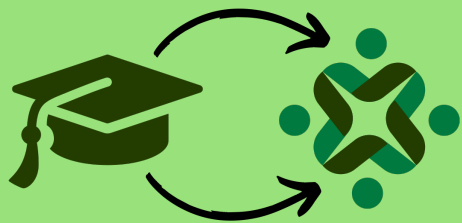


AN ACCESSIBLE OCEAN

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



Global Need for Multi-stakeholder Engagement

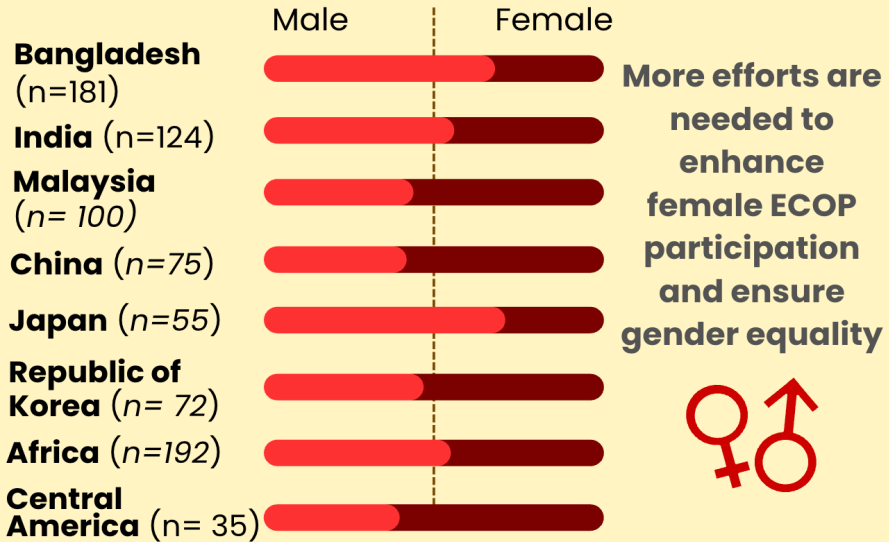


The majority of survey participants have an academic background, indicating a clear need for greater engagement from other key ocean stakeholders, such as government, NGOs, and the private sector.

Cross-Country and Regional ECOP Survey Insights

(Shahadat & Roman, in prep.)

Gender Balance



UN Ocean Decade Outcomes



A CLEAN OCEAN



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AN ACCESSIBLE OCEAN

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



Global Needs of ECOPs



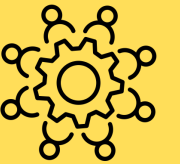
RESEARCH FUNDING



PROFESSIONAL DEVELOPMENT



SCHOLARSHIPS/ TRAVEL GRANTS



RESEARCH COLLABORATION



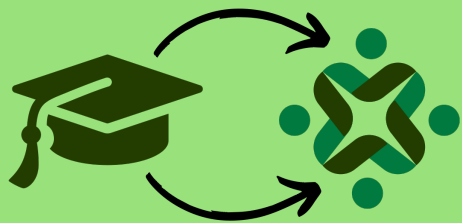
MENTORSHIP & TRAINING



CAREER OPPORTUNITIES

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

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.

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

MENTORSHIP & TRAINING

CAREER OPPORTUNITIES



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



International Council for
the Exploration of the Sea

Conseil International pour
l'Exploration de la Mer

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

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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**.



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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



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

Guidelines (1)

Prior to Engagements



1 Plan ECR engagement



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

2 Discuss expectations



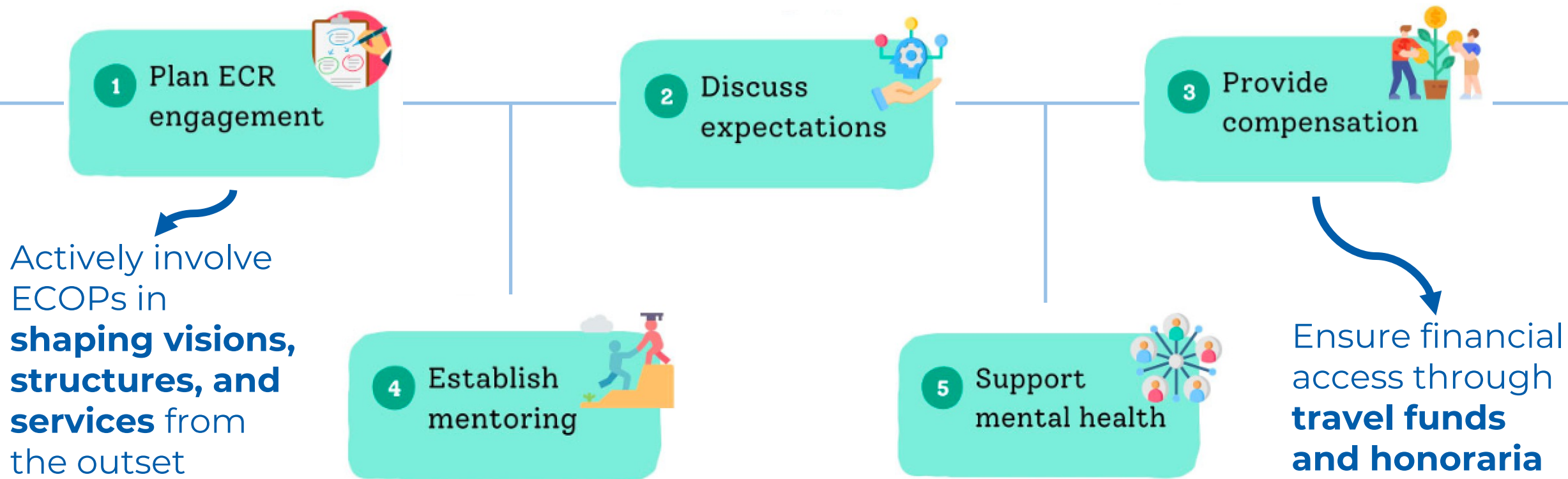
3 Provide compensation



Ensure financial access through **travel funds and honoraria**

Guidelines (1)

Prior to Engagements



Build Inclusive Governance

Guidelines (2)

During Engagements



6

Give ECRs
responsibility



7

Recognise
ECR work



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

Guidelines (2)

During Engagements



6 Give ECRs responsibility



7 Recognise ECR work



8 Foster inclusivity



10 Facilitate networking



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

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

Guidelines (2)

During Engagements



6 Give ECRs responsibility



7 Recognise ECR work



8 Foster inclusivity



9 Secure DEI needs



10 Facilitate networking



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

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



Successful Examples of Meaningful ECOP Engagement



SIIECS



AP-ECOP



APN-ECAP



Blue Wave Conference: Youth Empowerment for Ocean Science and Action

Shenzhen, China



Successful Examples of Meaningful ECOP Engagement (cont'd)



ipos

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

ipos



Acteon

SF
OCEAN SUSTAINABILITY
FOUNDATION
HOSTED BY CHRS FOUNDATION

ECOP
Early Career
Ocean Professionals

ICES
CIEM

HIFMB
OLDENBURG

eklipse

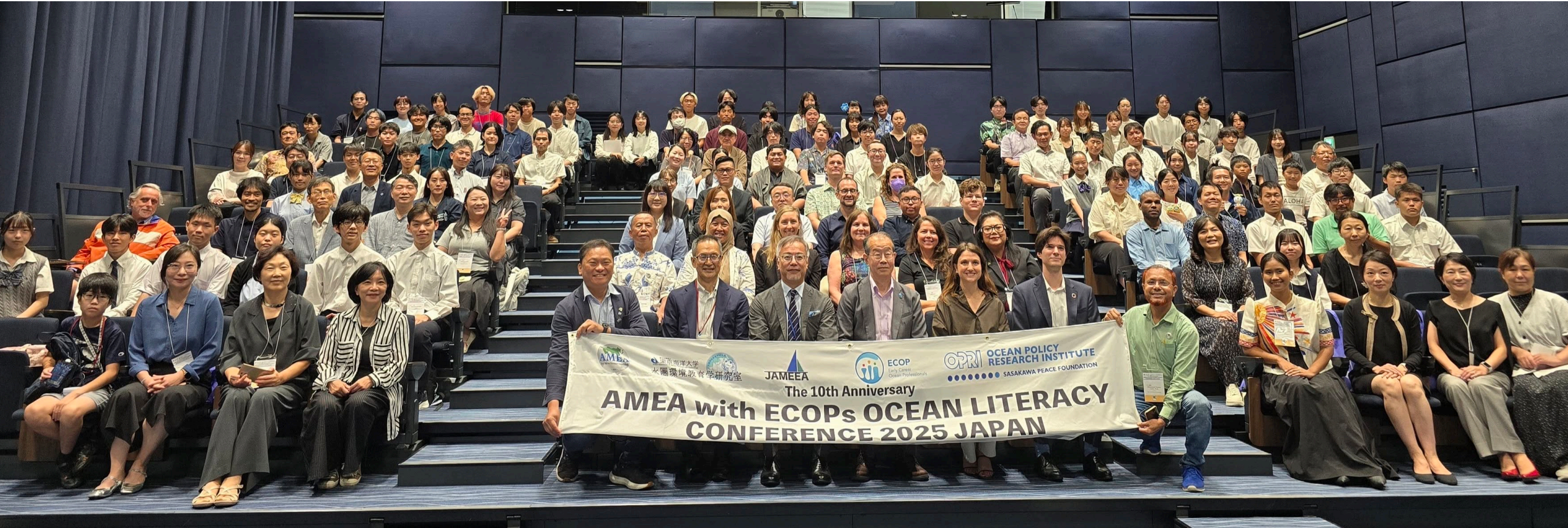
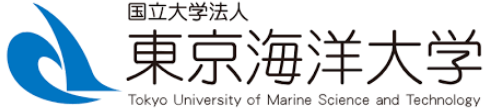
bioagora

Pisces
Foundation

Global Youth
Biodiversity
Network

European
MARINE BOARD
Advancing Sea & Ocean Science

IMECaN
International Marine Education Network



AMEA with ECOPs Ocean Literacy Conference

Tokyo, Japan, August 5-7, 2025



Source: JAMSTEC

**ECONOMIST
IMPACT**



“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

