



PEMSEA

2025

ANNUAL REPORT

Midway Forward
Sustaining Momentum,
Navigating New Horizons

PEMSEA Annual Report 2025: Midway Forward Sustaining Momentum, Navigating New Horizons

May 2026

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About Us

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is a regional coordinating mechanism for the sustainable coastal and marine development in the East Asian Seas Region.

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List of Acronyms

ACB	ASEAN Centre for Biodiversity
ALDFG	Abandoned, Lost, and Discarded Fishing Gear
AMS	ASEAN Member States
ASEAN	Association of Southeast Asian Nations
ATS	Arafura and Timor Seas
ATSEA	Arafura and Timor Seas Ecosystem Action
ATSEA-2	Arafura and Timor Seas Ecosystem Action Phase II
AWGCM	ASEAN Working Group on Coastal and Marine Environment
AWGWRM	ASEAN Working Group on Water Resources Management
BAMS	Biodiversity Assessment and Monitoring System
BBNJ	Biodiversity Beyond National Jurisdiction
BCESMM	Blue Carbon Ecosystem Services Management Mechanism
BCQP	Blue Carbon Quantification Protocol
CBILLS	Capability Building on Innovative Leadership for Legislative Staff
CCMRS-IPB	Center for Coastal and Marine Resources Studies – IPB University
CI	Conservation International
CKM	Communications and Knowledge Management
COM	Council of Ministers
COMI	Coastal and Ocean Management Institute (Xiamen University)
CTC	Coral Triangle Center
CTI-CFF	Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security
DA-BFAR	Department of Agriculture – Bureau of Fisheries and Aquatic Resources
DENR	Department of Environment and Natural Resources
DENR-BMB	Department of Environment and Natural Resources – Biodiversity Management Bureau
EAFM	Ecosystem Approach to Fisheries Management
EAS	East Asian Seas
EC	Executive Committee
EMB	Environmental Management Bureau
ENIPAS	Expanded National Integrated Protected Area System
ENMAPS	Effectively Managing Networks of Marine Protected Areas in Large Marine Ecosystems in the ASEAN Region
EPR	Extended Producer Responsibility
ETP	Endangered, Threatened, and Protected
FASPS	Foreign-Assisted and Special Projects Service
FISO	Fujian Institute for Sustainable Oceans
FMA	Fisheries Management Area
GEF	Global Environment Facility
GESI	Gender Equality and Social Inclusion
GISEA	Global Initiative for Southeast Asia
ICM	Integrated Coastal Management
IKI	International Climate Initiative
IMO	International Maritime Organization

List of Acronyms

IRBM	Integrated River Basin Management
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported, and Unregulated
IWC	International Waters Conference
KAP	Knowledge, Attitude, and Practice
KIOST	Korea Institute of Ocean Science and Technology
KMGBF	Kunming-Montreal Global Biodiversity Framework
KMI	Korea Maritime Institute
KOEM	Korea Marine Environment Management Corporation
LEP	Learning Exchange Program
LMEs	Large Marine Ecosystems
LSC	Leadership Steering Committee
MAE	Ministry of Agriculture and Environment
MENRO	Municipal Environment and Natural Resources Officer
MEP	Marine Environment Protector
MoA	Memorandum of Agreement
MoU	Memorandum of Understanding
MPA	Marine Protected Area
MRV	Monitoring, Reporting, and Verification
MSP	Marine Spatial Planning
MTR	Mid-Term Review
NAPs	National Adaptation Plans
NBCAP	National Blue Carbon Action Partnership
NBSAPs	National Biodiversity Strategies and Action Plans
NDCs	Nationally Determined Contributions
NMHMS	National Marine Hazard Mitigation Service
NPB	National Project Board
NPOA-ML	National Plan of Action on Marine Litter
OCA	Organizational Capacity Assessment
ODA	Official Development Assistance
OFPs	Operational Focal Points
OPRI-SPF	Ocean Policy Research Institute – Sasakawa Peace Foundation
OSEAN	Our Sea of East Asia Network
OSRL	Oil Spill Response Limited
PACS	Plastic Analysis and Characterization Studies
PC	Partnership Council
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PGENRO	Provincial Government Environment and Natural Resources Office
PML	Plymouth Marine Laboratory
PNG	Papua New Guinea
PNLC	PEMSEA Network of Learning Centers

List of Acronyms

PNLG	PEMSEA Network of Local Governments
PRF	PEMSEA Resource Facility
PRICELESS	Philippine Rise Integrated Conservation for Enduring Legacies through Ecosystem Support Services
PRMRR	Philippine Rise Marine Resource Reserve
RAN-API	National Action Plan for Climate Change Adaptation
RBCAP	Regional Blue Carbon Accounting Protocol
RCC	Regional Coordination Committee
REWEFe	Rapid Evaluation of the Water-Energy-Food-ecosystem
RGM	Regional Governance Mechanism
ROCA	Roadmap to Oceans and Climate Action
ROK	Republic of Korea
RPMU	Regional Project Management Unit
RSC	Regional Steering Committee
S2S	Source-to-Sea
SAP	Strategic Action Programme
SDGs	Sustainable Development Goals
SDS-SEA	Sustainable Development Strategy for the Seas of East Asia
SEAKB	Seas of East Asia Knowledge Bank
SGP	Small Grant Programme
SORB	State of the River Basin
TPC	Triple Planetary Crises
TPLMS	Total Pollutant Loading Management System
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNOC3	Third UN Ocean Conference
VEA	Viet Nam Environment Agency
WEFE	Water-Energy-Food-Ecosystems

About us

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) is a regional coordinating mechanism for the sustainable development of coastal and marine areas in the East Asian Seas Region. It was established with the mission to foster and sustain healthy and resilient coasts and ocean, communities, and economies across the seas of East Asia through integrated management solutions and strategic partnerships.

For more than three decades, PEMSEA has worked with country and non-country partners to implement synergistic actions and solutions for the effective management of coasts and oceans in the region. As the regional coordinating mechanism for the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), PEMSEA collaborates with national and local governments, coastal communities, learning centers, research and science institutions, international development agencies, regional programs, the private sector, investors, and donors to advance shared regional priorities and support the implementation of the SDS-SEA.

PEMSEA, with secretariat and technical support from the PEMSEA Resource Facility (PRF), aims to proactively build effective intergovernmental and intersectoral partnerships and strengthen the capacities of national and local governments and coastal communities. This is pursued through the application of innovative, cross-cutting policies, tools, and services for integrated coastal, river basin, and ocean management, with Integrated Coastal Management (ICM) serving as a primary approach to generate and sustain healthy ocean, people, and economies.



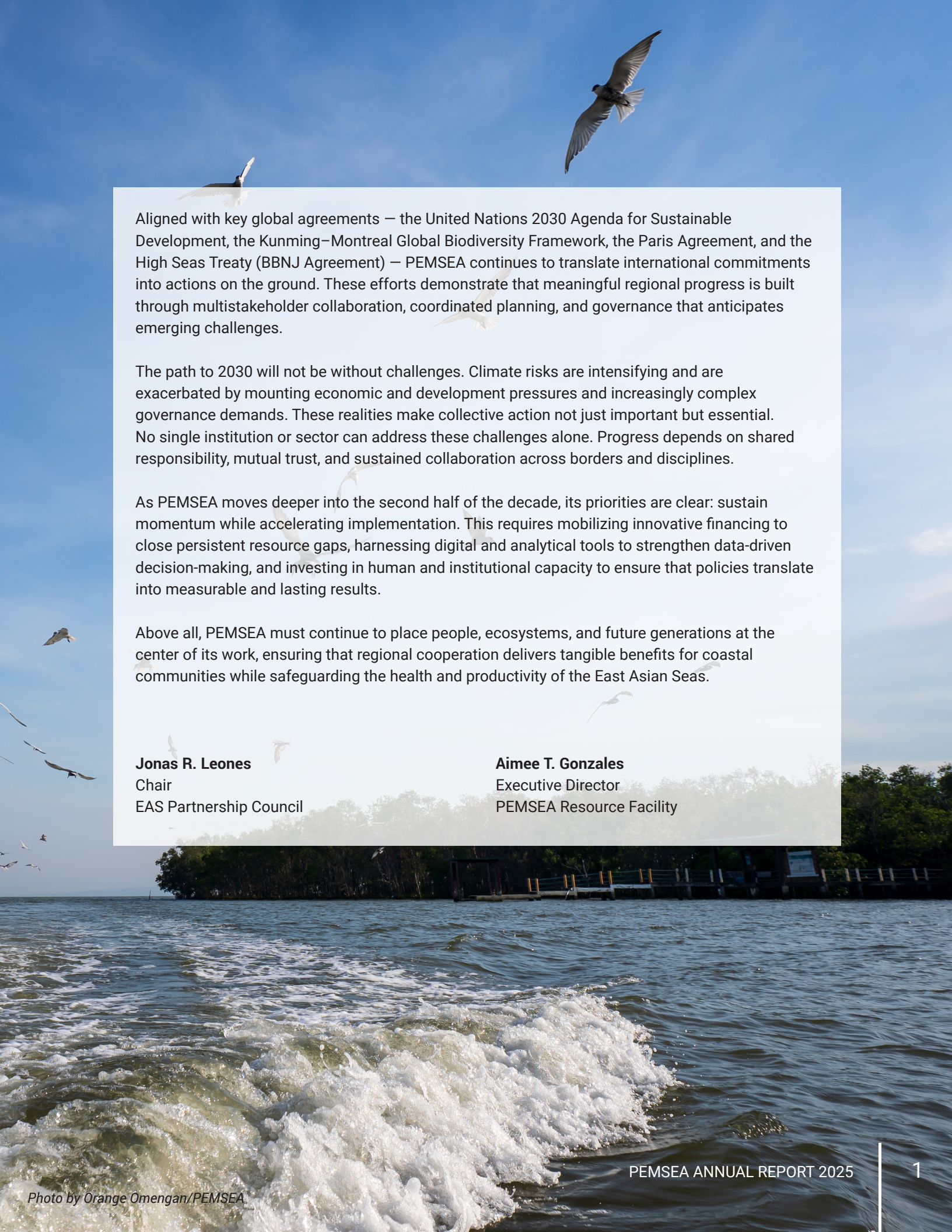
Joint Message

At the midpoint of the decade, the East Asian Seas continue to face complex and interconnected challenges. Climate change, biodiversity loss, and pollution – the “Triple Planetary Crises” – continue to threaten the health of coastal and marine ecosystems and the livelihoods of millions who depend on them. Yet 2025 was also a year of momentum: a time to move decisively from planning to action and prepare the region for the next phase of sustainable coastal and ocean governance. In 2025, PEMSEA clearly demonstrated its role as both navigator and catalyst, leveraging the SDS-SEA’s extension to 2030 as a regional compass for aligning strategies, strengthening capacities, scaling partnerships, and guiding collective action.

Under the theme Midway Forward, PEMSEA’s Annual Report marks the midpoint of the journey toward 2030 – a timely opportunity to assess progress, celebrate achievements, and set a calibrated and strategic course ahead. It conveys both reflection and motion: midway through the decade, yet firmly forward-bound. This midpoint is not a pause. It is a call to sustain momentum, accelerate implementation, and deepen partnerships for the next phase of regional ocean governance.

In 2025, building on the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) Implementation Plan 2023–2027, PEMSEA initiated a series of strategic assessments to ensure continued relevance, effectiveness, and long-term sustainability. These assessments focus on three interrelated priorities: refining strategic programming toward 2030, strengthening institutional capacity, and advancing financial sustainability through diversified and innovative resource mobilization.

The approval of this process at the 17th EAS Partnership Council in July 2025 reaffirmed our collective commitment to inclusiveness, transparency, and shared ownership. Together, we draw on our established strengths, particularly the expanding application of Integrated Coastal Management across the region to steer the course for a more agile, responsive, and resilient Partnership in the next five years and beyond.



Aligned with key global agreements – the United Nations 2030 Agenda for Sustainable Development, the Kunming–Montreal Global Biodiversity Framework, the Paris Agreement, and the High Seas Treaty (BBNJ Agreement) – PEMSEA continues to translate international commitments into actions on the ground. These efforts demonstrate that meaningful regional progress is built through multistakeholder collaboration, coordinated planning, and governance that anticipates emerging challenges.

The path to 2030 will not be without challenges. Climate risks are intensifying and are exacerbated by mounting economic and development pressures and increasingly complex governance demands. These realities make collective action not just important but essential. No single institution or sector can address these challenges alone. Progress depends on shared responsibility, mutual trust, and sustained collaboration across borders and disciplines.

As PEMSEA moves deeper into the second half of the decade, its priorities are clear: sustain momentum while accelerating implementation. This requires mobilizing innovative financing to close persistent resource gaps, harnessing digital and analytical tools to strengthen data-driven decision-making, and investing in human and institutional capacity to ensure that policies translate into measurable and lasting results.

Above all, PEMSEA must continue to place people, ecosystems, and future generations at the center of its work, ensuring that regional cooperation delivers tangible benefits for coastal communities while safeguarding the health and productivity of the East Asian Seas.

Jonas R. Leones
Chair
EAS Partnership Council

Aimee T. Gonzales
Executive Director
PEMSEA Resource Facility

CHAPTER 1

Rising Pressures, Calibrated Responses: The Changing Seas of East Asia

As the world charts its course toward 2030, it does so amid mounting challenges—an ocean at a tipping point, ecosystems under increasing threat, and planetary crises that are converging with alarming speed and increasingly outpacing the commitments meant to address them.

The decade opened in crisis. The COVID-19 pandemic tested resilience and leadership in ways few had anticipated. Now, at the midpoint on the road to 2030, the stakes are higher, the risks more complex, and the need for strategic direction firmly anchored in preparedness and foresight more urgent than ever. In response, PEMSEA published the **Status, Trends, and Transitions in Coastal and Ocean Governance and Ecosystems Amidst the Triple Planetary Crisis and Emerging Polycrisis**, a strategic assessment geared toward anticipating and preparing for these complex and interconnected challenges.

As PEMSEA moves toward 2030, understanding the current status and emerging trends in coastal and ocean systems and governance has become critical. The report provides an integrated analysis of environmental, institutional, and socio-economic dynamics shaping the region's development pathways. It examines key changes, developments, risks, and opportunities in the context of the triple planetary crisis and the evolving polycrises, while exploring both traditional and emerging blue economy sectors as drivers of resilience and sustainability. Drawing on evidence from global, regional, and national levels,



the report serves as a compass for forward-looking, adaptive, and results-oriented planning toward the end of the decade.

Climate change, biodiversity loss, and marine pollution – the Triple Planetary Crises (TPC) – are defining challenges of our time. Formally recognized by the United Nations Environment Programme in 2022, the TPC represents not merely a set of concurrent challenges, but a deeply interconnected system of threats that mutually amplify one another, eroding the ecological foundations upon which human well-being and economic stability depend.

The East Asian Seas (EAS) region, home to some of the world’s most ecologically rich and economically vital coastlines, stands at the epicenter of both the crisis and the response. Climate change is driving stronger typhoons, sea-level rise, ocean warming, and acidification, leading to coral bleaching events and threatening

the safety and livelihoods of coastal communities. Biodiversity loss is accelerating as critical habitats such as mangrove forests and seagrass beds degrade, undermining their role as carbon sinks and natural coastal defenses. At the same time, marine pollution, particularly from land-based sources and plastics, compounds these threats, choking marine life and entering the food chain. Millions of people who depend on healthy oceans for their food and livelihoods are already feeling the consequences.

These crises do not operate in isolation. They intersect and reinforce one another, forming a broader polycrises marked by economic instability, food insecurity, and geopolitical tensions. As identified by the World Economic Forum, this convergence reflects four multi-decade structural forces reshaping the global risk landscape: technological acceleration, geostrategic shifts, demographic bifurcation, and climate change.



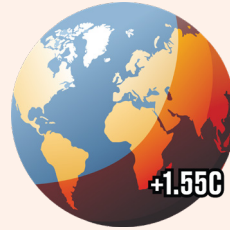
Climate Change

Climate change is accelerating. 2024 was the warmest year on record at +1.55°C above pre-industrial levels, while greenhouse gas concentrations, sea levels, and ocean heat have reached historic highs. The ocean absorbs nearly 25% of human CO² emissions, buffering warming but driving acidification and increasing ecosystem stress.

Climate change amplifies biodiversity loss and pollution, creating cascading socio-economic risks that cannot be addressed in isolation. Systematic monitoring of emissions, ocean health, vulnerability exposure, and economic impacts provides the evidence base for targeted adaptation, risk-informed investment, and policy reform.

The projections are stark. By 2070, up to 160 million people in Asia-Pacific could face annual flooding, while climate impacts could erase up to 16.9% of regional GDP. Sea-level rise in Southeast Asia could reach 0.70 meters by 2100, placing coastal communities, infrastructure, and ecosystems at heightened risk.

Accelerating mitigation and adaptation toward 2030 will be critical to reducing climate vulnerability and safeguarding regional development gains.



2024
WARMEST
YEAR RECORDED
+1.55°C ABOVE
PRE-INDUSTRIAL LEVELS



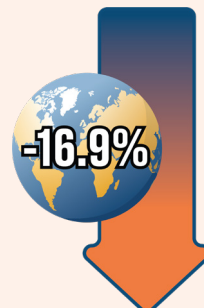
OCEAN
ACIDIFICATION
HAS EXCEEDED
SAFE PLANETARY
BOUNDARIES



SEA LEVELS IN PARTS
OF ASIA RISING TWICE
THE GLOBAL AVERAGE



PEOPLE IN ASIA-PACIFIC COULD FACE
ANNUAL FLOODING BY 2070



CLIMATE IMPACTS
COULD ERASE 16.9%
OF REGIONAL GDP

Marine Pollution

Up to
199 million
metric tons of plastic
already pollute the ocean

85%
of marine waste is plastic,
and volumes continue to rise

Plastic leakage could reach
12 billion
metric tons by 2050

**Harmful
algal blooms**
are increasing across Asia

Marine pollution intersects directly with climate change and biodiversity loss, amplifying ecosystem degradation and socio-economic vulnerability. Plastics weaken coral resilience; eutrophication accelerates acidification and deoxygenation; oil spills and invasive species undermine fisheries and coastal livelihoods.

Marine Habitat and Biodiversity Loss

Marine habitats such as mangroves, coral reefs, seagrasses, salt marshes, and tidal flats form the living infrastructure of the ocean. They stabilize coastlines, store carbon, sustain fisheries, and underpin food security and economic livelihoods. The ocean is estimated to hold more than 2 million species, yet only about 200,000 are currently known (Wu and Chen, 2023). Despite their ecological and economic value, marine habitats and biodiversity across the East

Asian Seas and globally are declining at alarming rates due to the converging impacts of climate change, overfishing, pollution, and coastal development.

More than 30% of marine species are threatened with extinction (IUCN), while global wildlife populations have declined by 69% since 1970 (WWF, 2022). In Southeast Asia, 59% of assessed sharks and rays face extinction, and reef-building coral species listed as threatened increased to 44% in 2024, up from 33% in 2008 (IUCN, 2024). Climate change—through warming, acidification, and sea-level rise—is emerging as a primary driver of habitat loss and species turnover, placing 2030 biodiversity targets at heightened risk.

Coastal blue carbon ecosystems are also under mounting pressure. Globally, mangroves covered 14.7 million hectares in 2020, with nearly 46% located in South and Southeast Asia, and Indonesia alone accounting for 20% of the global total. Yet Southeast Asia lost 245,700 hectares

(4.85%) of mangroves between 1996 and 2020, with projected annual ecosystem service losses reaching US\$2.2 billion by 2050 under business-as-usual scenarios.

Seagrasses have fared no better. Nearly one-third of global seagrass area has been lost since 1879, with current decline rates reaching 7% per year globally, and losses in Southeast Asia reaching up to 11% annually in some areas.

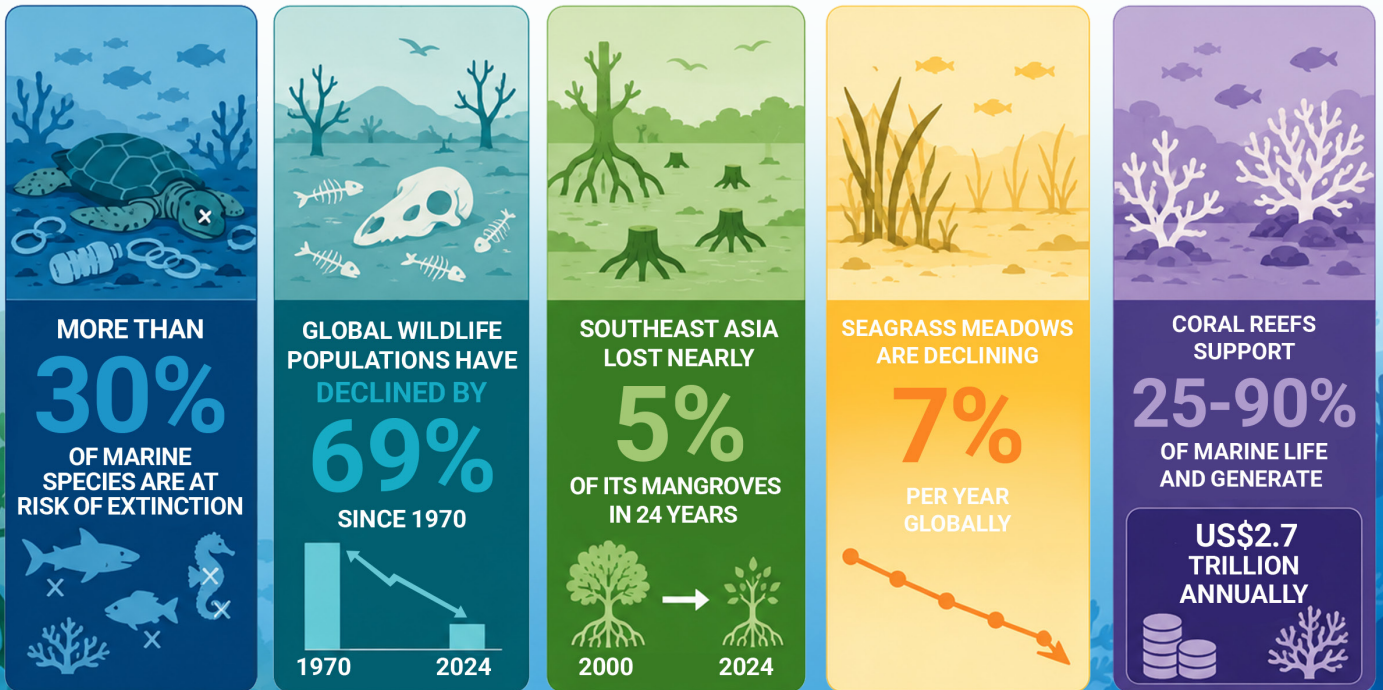
Coral reefs and salt marshes further illustrate the scale of risk. Coral reefs, covering less than 0.2% of the seafloor, support 25–30% of marine species and generate an estimated US\$2.7 trillion annually in ecosystem services. Yet global coral cover declined by 13.5% between 2009 and 2018, and recent global bleaching events (2023–2025)

have intensified stress across Southeast Asia. Meanwhile, 1,452.84 km² of salt marshes were lost globally between 2000 and 2019, at an annual loss rate of 0.28%, with limited regional monitoring data in East Asia.

Without accelerated climate mitigation and habitat protection, biodiversity losses are projected to intensify toward 2050 and beyond.

Marine habitat and biodiversity loss is inseparable from climate change and pollution—the three pillars of the Triple Planetary Crisis. Degraded reefs reduce coastal protection; mangrove loss weakens carbon storage; seagrass decline diminishes fisheries productivity; and overfishing erodes ecosystem resilience.

Marine Habitat and Biodiversity Loss



Gearing for 2030: Strategic Actions for a Sustainable Ocean Future

In response to these converging challenges, PEMSEA's strategic programming toward 2030 is increasingly anchored in addressing the systemic drivers and impacts of the Triple Planetary Crisis. Through the SDS-SEA Implementation Plan and aligned regional initiatives, PEMSEA as a Partnership supports climate adaptation, ecosystem restoration, pollution reduction, and sustainable blue economy transitions at the national and local levels. PEMSEA's work contributes directly to global targets, including biodiversity conservation under the Kunming–Montreal Global Biodiversity Framework, climate action under the Paris Agreement, and ocean protection through the 30x30 agenda and the UN Sustainable Development Goals.

PEMSEA country partners are addressing the Triple Planetary Crisis through various means, including data monitoring and research; technology innovation and equitable access; and innovative financing, which will be captured in the form of stories in the report. However, this section of the report focuses on how policy, governance, and regulatory alignment has gone a long way post-pandemic, as indicated in programs to:

- Strengthen the alignment of national plans (e.g., Nationally Determined Contributions

(NDCs), National Biodiversity Strategies and Action Plans (NBSAPs), National Adaptation Plans (NAPs) with international frameworks and commitments.

- Enhance the enforcement of environmental laws and regulations.
- Simplify and clarify regulatory pathways to encourage sustainable investments.
- Foster adaptive, ecosystem-based management approaches that bridge land–sea and cross-sectoral divides.

Tracking progress is equally critical. Long-term monitoring of ecosystem health, pollution loads, financing flows, and governance performance enables early identification of emerging risks, strengthens accountability in delivering regional and international commitments, and guides adaptive management through timely policy and investment adjustments. Sustained assessment of Triple Planetary Crisis progress keeps the region on course toward resilient, inclusive, and sustainable development by 2030.






Our Response: How PEMSEA Country Partners are Combating the TPC

Across the region, PEMSEA's country partners are translating global commitments into national actions. Ten country partners have ratified the BBNJ High Seas Treaty and submitted updated National Biodiversity Strategies and Action Plans under the Kunming-Montreal Framework.

Each country has active climate adaptation plans aligned with their Nationally Determined Contributions, and plastic reduction targets – many with legislated EPR frameworks – are in place across the region. Together, these commitments signal growing political will. The work now is accelerating implementation.

Note: This table highlights selected national commitments and actions categorized across the three dimensions of the Triple Planetary Crisis (TPC) and does not represent the exhaustive scope of each country's efforts, policies, or contributions to coastal and ocean governance.

Country	Climate Change	Marine Pollution	Marine Habitat & Biodiversity Loss
Cambodia 	Updated national climate plan (41.7% emission reduction by 2030); Climate Change Strategic Plan (CCCSP) 2024-2033	Circular economy and plastic reduction focus.	NBSAP: 2023-2030 (Submitted May 2024) BBNJ: Ratified
China 	National Climate Change Adaptation Strategy to 2035	Phased ban on single-use plastics; 30% reduction in bags by 2025; EPR and plastic recycling targets.	NBSAP: 2023-2030 (Submitted May 2024) BBNJ: Ratified
DPR Korea 	Updated Nationally Determined Contribution (2019); National Environment Protection Strategy . 2019-2030; National Disaster Risk Reduction Strategy 2019-2030	N/A ¹	NBSAP: 2015-2020²

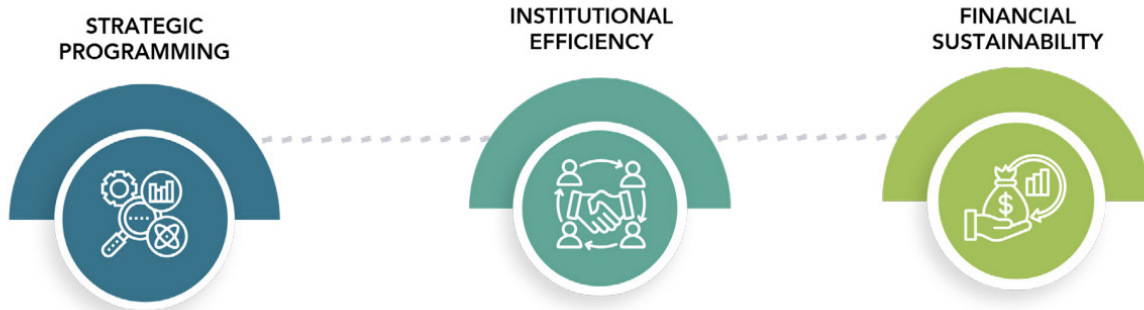
¹ Information not available

² Based on most recent available documents

Country	Climate Change	Marine Pollution	Marine Habitat & Biodiversity Loss
Indonesia 	National Action Plan for Climate Change Adaptation (RAN-API)	National Action Plan on Marine Plastic Debris (70% reduction by 2025); EPR pilot schemes.	NBSAP: IBSAP 2025-2045 (Launched 2024) BBNJ: Ratified
Japan 	National Plan for Global Warming Prevention (Revised 2025)	25% reduction in plastic waste by 2030; Mandatory recycling laws; EPR schemes for packaging.	NBSAP: 2023-2030 (Adopted March 2023) BBNJ: Ratified
Lao PDR 	National Strategy on Climate Change; Vision 2050; Strategy and Programs of Actions to 2030	National Plastic Action Plan (NPAP) 2024–2030; Exploring voluntary EPR frameworks.	NBSAP: 2026-2030 (Review ongoing) BBNJ: Ratified
Philippines 	National Adaptation Plan (NAP) 2023-2050; NDC Implementation Plan 2023-2030	EPR Act (RA 11898) 2022; 50% reduction in plastic waste leakage by 2025; Single-use plastic bans.	NBSAP: PBSAP 2024-2040 (DAO 2025-23, effective July 2025) BBNJ: Ratified
RO Korea 	Third National Action Plan (2021–2025); 2035 NDC	40% reduction in plastic waste by 2030; Single-use plastic bans; EPR expansion.	NBSAP: 2024-2028 (Approved Dec 2023) BBNJ: Ratified
Singapore 	National Climate Change Strategy (2012); Climate Action Plan (2030 pledge); Long-term LEADS	Resource Sustainability Act (RSA); Beverage container return scheme (2026); "Say YES to Waste Less" campaign.	NBSAP: 2009 (Updated 2019) BBNJ: Ratified
Timor-Leste 	First National Adaptation Plan (NAP); National Mitigation Plan (Ongoing)	Zero plastic policy ambition; Commitment to eliminate plastics from the natural environment.	NBSAP: 2011-2020 BBNJ: Ratified
Viet Nam 	National Adaptation Plan (NAP) 2021-2030 (Vision to 2050)	Decree on Packaging, Recycling, and Waste Treatment Obligations (2022); Mandated EPR; 50% leakage reduction by 2025.	NBSAP: 2021-2030 BBNJ: Ratified

CHAPTER 2

Forward in Motion: Our Groundwork for 2030



As 2030 approaches, ensuring the continued relevance, effectiveness, and long-term sustainability of PEMSEA and the SDS-SEA has become a strategic priority. As such, the PEMSEA Resource Facility proposed updated background assessments to inform the refinement and extension of the SDS-SEA Implementation Plan (IP) to 2030.

The proposal was endorsed at the 33rd Meeting of the PEMSEA Executive Committee held on 28 April 2025, with guidance to ensure an inclusive and participatory process and to build on PEMSEA’s established strengths, including the expanded implementation of Integrated Coastal Management (ICM) across the region.

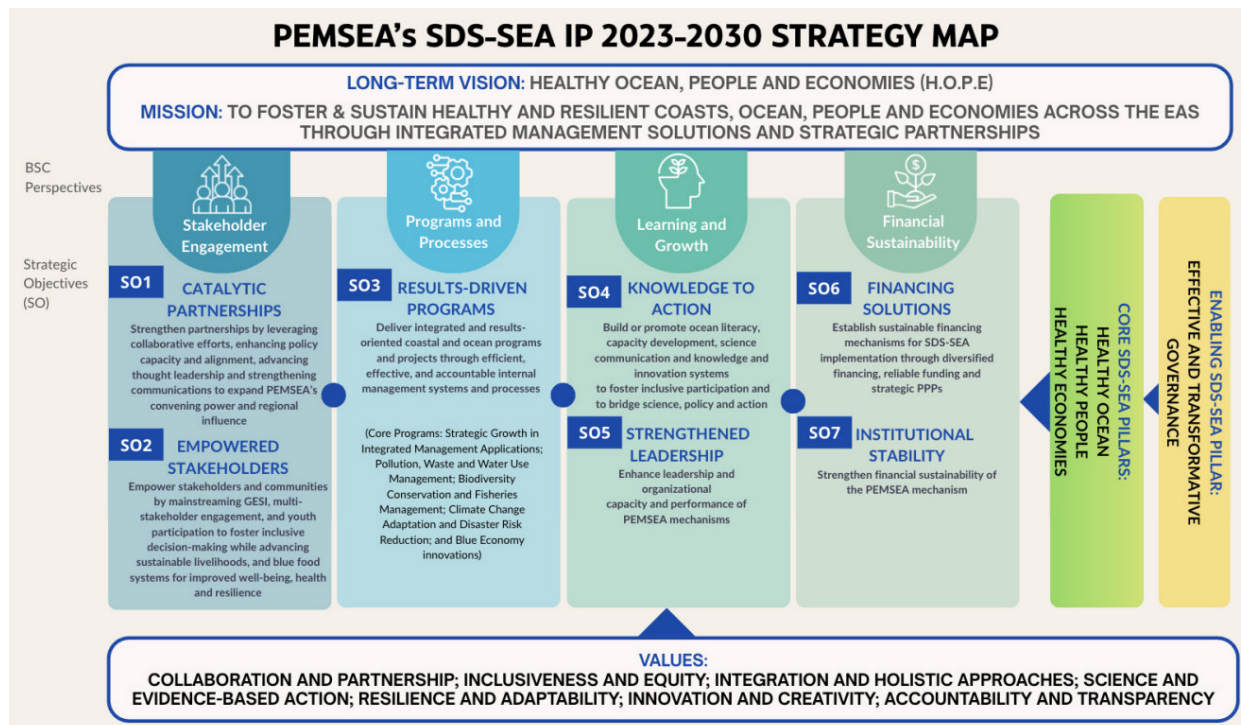
The assessments cover three interrelated areas. First, the Strategic Programming of the SDS-SEA IP to 2030 involves reviewing progress under the SDS-SEA IP 2023–2027, assessing challenges, and identifying emerging trends and opportunities. The review aimed to refine and extend the Implementation Plan to 2030, ensuring alignment with recent regional and global developments, including the Xiamen Declaration’s 10 action points and recommendations from the East Asian Seas Congress 2024. As mandated by the 16th EAS PC, the SDS-SEA Monitoring and Evaluation Framework and Plan were also refined to strengthen tracking and reporting of results and impacts.

Second, the Institutional Strengthening assessment evaluated PEMSEA’s organizational effectiveness to ensure that it remains fit for purpose in delivering its mandate. This included the development of a PEMSEA-specific organizational capacity development framework, supported by a self-assessment tool and process, to inform a structured capacity-building plan aligned with 2030 objectives.

Third, a Financial Sustainability assessment was initiated to identify viable funding mechanisms and business models to promote, diverse, and predictable financial support for SDS-SEA implementation.

The findings and recommendations from these assessments informed the development of the Strategy Map and Balanced Scorecard, which guided the extension of the SDS-SEA IP targets and timeframe to 2030.

From Reflection to Reinforcement: Extending the SDS-SEA Plan to 2030



The Sustainable Development Strategy for the Seas of East Asia (SDS-SEA), adopted in 2003 and updated in 2015, continues to serve as the overarching regional framework for coastal and ocean governance in the East Asian Seas (EAS) region. Guided by the East Asian Seas Partnership Council and Ministerial Declarations issued during the triennial EAS Ministerial Fora, the Strategy has evolved in response to emerging regional and global developments.

The extension and refinement of the SDS-SEA Implementation Plan (IP) 2023–2027 to 2030 were undertaken through a structured review process incorporating stakeholder consultations with the Executive Committee, Partnership Council, and the PEMSEA Resource Facility (PRF), as well as findings from the mid-term review, coastal and ocean governance research, and the Organizational Capacity Assessment (OCA). The

updated SDS-SEA IP 2023–2030 integrates the ten synergistic actions of the Xiamen Ministerial Declaration (2024) and reflects recommendations from the 17th EAS Partnership Council workshop held in July 2025 and a PRF workshop conducted in September 2025.

The SDS-SEA IP 2023–2030 provides a structured framework to guide implementation through four pillars—Governance, Healthy Oceans, Healthy People, and Healthy Economies—supported by defined strategic objectives, indicators, and targets.

To strengthen results-based management, the updated IP introduced a high-level Strategy Map and Balanced Scorecard (BSC) organized around four perspectives: Stakeholder Engagement, Programs and Processes, Learning and Growth, and Financial Sustainability. This framework is

complemented by a detailed Strategic Results Framework (SRF), which consolidates indicators and targets across strategic domains and guides operational planning, monitoring, and performance tracking. The Strategy Map and BSC serve as leadership tools for strategic oversight, while the SRF supports implementation and evidence-based reporting.

The updated IP retains the core priorities and targets of the 2023–2027 cycle while refining their structure and categorization, merging or realigning selected targets, and incorporating new indicators informed by the mid-term review, governance status assessments, the OCA, and regional consultations. The changes are presented through graphics.

Pillar 1 has been strengthened from “Effective Governance” to “Effective and Transformative Governance,” positioning it as an enabling and cross-cutting pillar. Enhancements include integration of organizational performance assessment, strengthened science-policy interface, expanded gender equality and social

inclusion measures, dedicated youth engagement targets, and reinforced communication and knowledge systems.

Pillars 2, 3, and 4 retained their core mandates while incorporating new priorities, including blue carbon initiatives, regional networks of marine protected areas, blue food systems, linking them with regional blue economy programs and financing frameworks.

The SDS-SEA IP 2023–2030 is aligned with regional and global commitments, including the 2030 UN Agenda for Sustainable Development and the Xiamen Ministerial Declaration (2024). It reinforces PEMSEA’s niche and value-added role in integrated coastal management and regional ocean governance while addressing institutional effectiveness and financial sustainability. The updated framework provides strategic continuity to 2030 and establishes a foundation for advancing the SDS-SEA plan beyond the current planning horizon through strengthened accountability, monitoring, and cross-sector collaboration.



17th EAS Partnership Council Convenes in Manila, Advances Regional Priorities for 2030



PEMSEA Country and Non-Country Partners convened for the 17th East Asian Seas (EAS) Partnership Council (PC) Meeting in Manila, Philippines, on 22–23 July 2025, addressing critical policy matters on sustainable ocean governance, blue economy initiatives including blue carbon, and institutional strengthening.

Hosted by the Department of Environment and Natural Resources (DENR) of the Philippines, the meeting reviewed progress on the Sustainable Development Strategy for the Seas of East Asia Implementation Plan (SDS-SEA IP) 2023–2027, the advancement of the PEMSEA Blue Carbon Program, and strategic planning for organizational sustainability.

In her welcome remarks, DENR Undersecretary and PEMSEA National Focal Point for the Philippines, Analiza Rebuelta-Teh highlighted the meeting’s timeliness, as countries across the region update their Nationally Determined Contributions (NDCs) under the Paris Agreement.

“This year’s Council Meeting arrives at a particularly pivotal moment for all our nations. As many of our countries prepare to update and enhance their NDCs under the Paris Agreement, we recognize the importance of regional collaboration in aligning our efforts,” she said.

The Council Session approved the election of new EAS PC Officers and Co-Chairs for the 2025–2028 term and initiated the recruitment process for the PRF Executive Director for the 2027–2029 term.

Parallel to these governance initiatives, the Technical Session conducted an extensive review of mid-term progress under the SDS-SEA IP in relation to UN SDG 2030 targets. Partners acknowledged regional progress while emphasizing the need to extend implementation planning toward 2030 and address evolving regional priorities.

Country and Non-Country Partners underscored the importance of aligning actions with global frameworks, integrating Integrated Coastal Management (ICM) with tools such as Marine Spatial Planning (MSP), strengthening reporting and institutional mechanisms, and mobilizing financing and partnerships for priority coastal and marine initiatives.

The Technical Session also welcomed progress under the PEMSEA Blue Carbon Program, particularly the development of the Blue Carbon Ecosystem Services Management Mechanism (BCESMM), an overarching framework for quantifying and managing blue carbon ecosystem services across the region. The mechanism aims to support conservation and sustainable development through innovative market mechanisms beyond traditional carbon credits.

Partners also discussed progress on the regional blue carbon accounting protocol, which aims to provide a harmonized methodology for estimating carbon stocks in coastal ecosystems.

Building on the momentum of institutional strengthening, the Intergovernmental Session discussed updates on the PEMSEA Sustainability Plan, focusing on strengthening institutional capacity and diversifying funding sources beyond grants through services and blended financing mechanisms.

In her closing remarks, Director General Chen Danhong, Chair of the East Asian Seas Partnership Council Intergovernmental Session, reflected on the Council's progress and reaffirmed the region's commitment to ocean governance through national and regional cooperation.

“We reaffirmed that the implementation of the SDS-SEA up to 2030 requires stronger national ownership, closer alignment with government programs, and the scaling up of financial and institutional support,”
Ms. Chen Danhong

DG Chen described the occasion as especially meaningful as she concluded her term as Chair, expressing pride in the partnerships formed and milestones achieved under her leadership, and optimism about the region's shared path forward.

The 17th EAS PC Meeting was attended by Country Partners including Cambodia, China, Indonesia, Japan, Lao PDR, Philippines, Republic of Korea, Singapore, Timor-Leste, and Vietnam, alongside Non-Country Partners representing institutional expertise in marine environmental management, blue economy, and sustainable ocean governance. Participating organizations included the ASEAN Centre for Biodiversity (ACB), Conservation International Philippines (CI), Ipieca GISEA, Korea Marine Environmental Management Corporation (KOEM), Korea Institute of Ocean Science and Technology (KIOST), Korea Maritime Institute (KMI), Oil Spill Response Ltd. (OSRL), China's National Marine Hazard Mitigation Services (NMHMS), and Plymouth Marine Laboratory (PML), among others.



PEMSEA Holds 34th Expanded Executive Committee Meeting

PEMSEA convened the 34th Expanded Executive Committee (EC) Meeting on 21 October 2025, strengthening regional cooperation on sustainable ocean governance and advancing the implementation pathway toward 2030 global targets.

The virtual meeting gathered the PEMSEA Executive Committee, Country and Non-Country Partners, and Observers to review and deliberate strategic documents guiding the next phase of PEMSEA initiatives, including the refined Implementation Plan of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) and its Balanced Scorecard.

A key outcome of the meeting was the approval of the Regional Blue Carbon Accounting Protocol (RBCAP) Main Manual, which aims to standardize accounting for greenhouse gas emissions and removals in blue carbon ecosystems across EAS countries. The protocol supports regional comparability and credibility and serves as a basis for integration into Nationally Determined Contributions (NDCs), national greenhouse gas inventories, and voluntary carbon markets.

The Executive Committee also endorsed preparatory activities for the 18th East Asian Seas Partnership Council Meeting in July 2026, which will review regional progress and guide the next phase of SDS-SEA implementation.





Photo by Ram Miranda/PG-ENRO Pampanga

CHAPTER 3

Momentum in Action: Sustaining Progress and Advancing Innovation for a Healthy Ocean

The Blueprint for the Future: PEMSEA Blue Carbon Program Propels Forward

2025 marked the year the PEMSEA Blue Carbon Program moved its vision into action. Building on years of foundational research dating back to 2017 with the publication *Understanding Strategic Coastal Blue Carbon Opportunities in the East Asian Seas Region*, the program advanced from exploration and planning to concrete implementation.

A major milestone was the formal establishment of the Blue Carbon Technical Working Group (BC TWG) in February 2025. Bringing together regional experts and institutions, the group has rapidly moved from concept discussions toward developing practical regional frameworks and tools.

Across a series of meetings throughout the year, the TWG advanced key program deliverables,

including a draft Blue Carbon Ecosystem Services Management Mechanism (BCESMM) and the Regional Blue Carbon Accounting Protocol (RBCAP). These initiatives aim to provide the region with a harmonized framework for measuring, managing, and scaling blue carbon initiatives while supporting biodiversity conservation, disaster risk reduction, and community well-being.



Setting the Course



First Technical Working Group Meeting



25 February 2025



Virtual Meeting



The inaugural BC TWG meeting marked the formal launch of the technical working group under the leadership of Dr. Keita Furukawa, Chair of the East Asian Seas Partnership Council Technical Session. Nineteen regional stakeholders participated in the meeting to discuss the foundational vision and roadmap for the Blue Carbon Program.



The discussion emphasized that the initiative aims to go beyond carbon crediting by developing a comprehensive sustainability framework tailored to the ecological and social context of the East Asian Seas region.



1



Formalization of the BC TWG.

The working group was established to guide the development of a regional blue carbon certification system building on previous research and consultations.



2



A broader sustainability vision.

The initiative seeks to integrate biodiversity conservation, ecosystem protection, and community resilience into blue carbon strategies.



3



Recognition of regional context.

Participants emphasized the need for solutions adapted to the EAS region's biodiversity, population pressures, and complex coastal landscapes.



4



Roadmap endorsement.

Initial consensus was reached on the need for a strategic roadmap to guide the program's development and implementation.



Building the Framework

Second Technical Working Group Meeting

5–6 June 2025

Haikou, Hainan Province, China

Hosted by PEMSEA and China's National Marine Hazard Mitigation Service, the second BC TWG meeting brought together nearly 60 experts from 11 countries. Coinciding with World Environment Day, the meeting addressed key gaps in blue carbon monitoring and governance and focused on refining a regional certification framework and harmonized accounting methodology.



Key outcomes included:

1



Draft Regional Blue Carbon Accounting Protocol

The RBCAP was introduced as a flexible, tiered framework (Tiers 1–3) to accommodate varying national technical capacities while maintaining scientific credibility.

2



Regional monitoring network proposal

Participants discussed establishing an East Asian Seas Blue Carbon Monitoring Network to harmonize methodologies, facilitate data exchange, and build technical capacity.

3



Capacity-building framework

The RBCAP was introduced as a flexible, tiered framework (Tiers 1–3) to accommodate varying national technical capacities while maintaining scientific credibility.

4



2025–2026 work plan

The TWG agreed on priority actions including pilot projects, finalization of the accounting protocol, and development of the certification mechanism for presentation to the Partnership Council.



Refining the Tools

Third Technical Working Group Meeting 12 September 2025 | Virtual Meeting

Under the chairmanship of Dr. Suk-Jae Kwon, the third TWG meeting focused on translating the frameworks discussed in Haikou into concrete technical guidance.

01



Approval of the RBCAP main manual.

The TWG approved the core manual of the Regional Blue Carbon Accounting Protocol, outlining guidance on project boundaries, baselines, and verification procedures.

02



Integration of Partnership Council guidance.

The TWG incorporated recommendations from the 17th East Asian Seas Partnership Council Meeting, including linking blue carbon initiatives with blue economy strategies and adopting IPCC-aligned methodologies.

03



Ecosystem-specific technical groups

Dedicated groups for mangroves, seagrasses, and salt marshes were formed to refine technical annexes of the protocol.

04



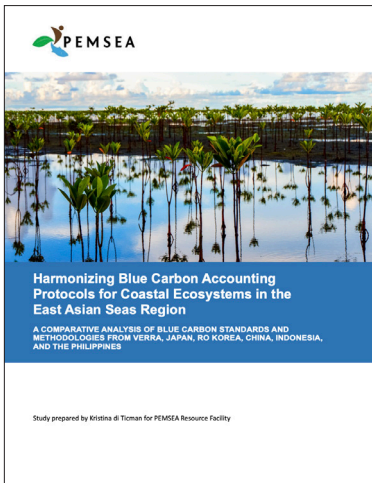
Detailed 2026 work plan.

Plans were established for a regional blue carbon seminar and completion of the remaining technical annexes.



Why Harmonizing Blue Carbon Accounting is Key to Climate Action

Blue carbon ecosystems—including mangroves, seagrasses, and salt marshes—play an increasingly important role in global climate mitigation efforts. However, blue carbon accounting methodologies differ widely across countries, creating challenges for data comparability and integration into climate policies.



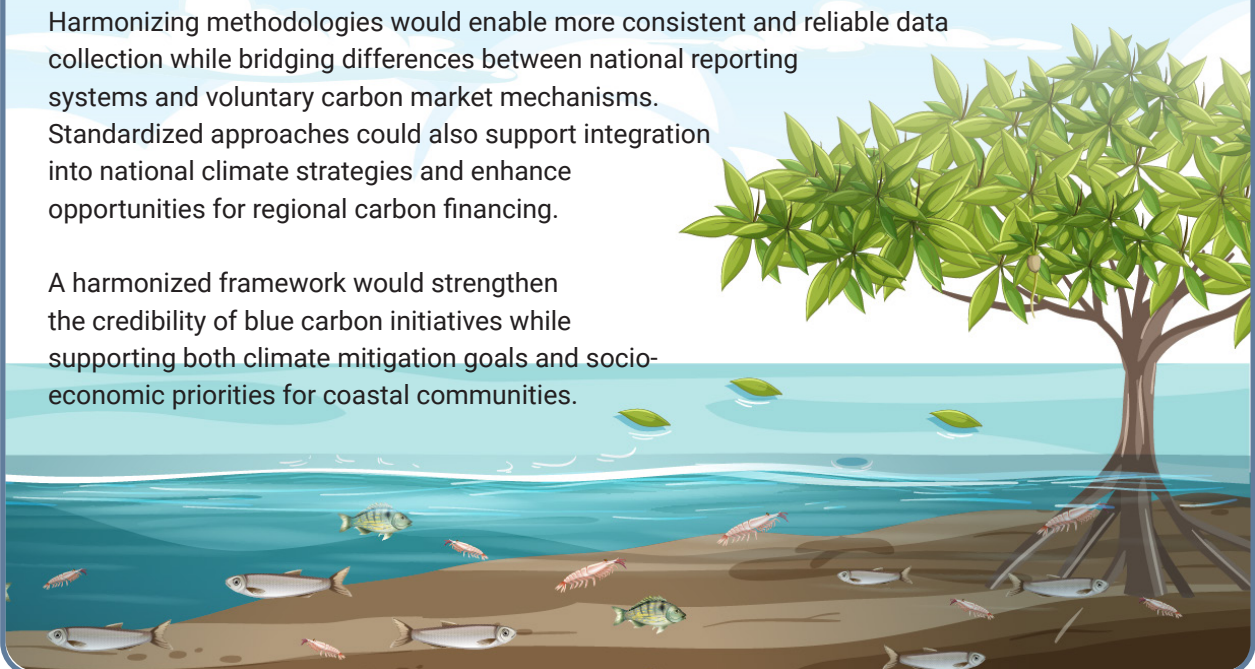
PEMSEA's 2025 study, *Harmonizing Blue Carbon Accounting Protocols for Coastal Ecosystems in the East Asian Seas Region*, examined accounting approaches used in Japan, the Republic of Korea, China, Indonesia, and the Philippines, alongside voluntary market guidelines such as Verra.

The study found significant variations in objectives and methodologies. Some systems prioritize carbon crediting for voluntary markets, while others focus on national greenhouse gas inventories, conservation objectives, or monitoring programs. In countries such as the Philippines and Indonesia, citizen scientists and local communities play important roles in data collection and stewardship.

Despite these advances, gaps remain. Some carbon pools—such as dead wood and litter—are often excluded from measurements, and emerging technologies such as remote sensing are not yet fully utilized.

Harmonizing methodologies would enable more consistent and reliable data collection while bridging differences between national reporting systems and voluntary carbon market mechanisms. Standardized approaches could also support integration into national climate strategies and enhance opportunities for regional carbon financing.

A harmonized framework would strengthen the credibility of blue carbon initiatives while supporting both climate mitigation goals and socio-economic priorities for coastal communities.



The Regional Blue Carbon Accounting Protocol and Its Tiered Framework

The Regional Blue Carbon Accounting Protocol (RBCAP) is being developed as a technical foundation for the PEMSEA Blue Carbon Program under the Blue Carbon Ecosystem Services Management Mechanism (BCESMM).

Initiated in 2024, the protocol aims to establish harmonized methodologies for measuring, reporting, and verifying greenhouse gas emissions and removals from blue carbon ecosystems across the East Asian Seas region.

Differences in accounting methods, carbon pool inclusion, and monitoring systems have historically limited comparability between national programs and hindered integration into national greenhouse gas inventories and voluntary carbon markets. The RBCAP addresses these challenges by providing a common methodological framework adaptable to different national contexts.

A central feature of the protocol is its tiered methodological framework:

Tier 1: Uses standardized coefficients and ecosystem area data, providing an accessible entry point for countries with limited technical capacity.

Tier 2: Incorporates locally derived parameters and species-specific growth data for more refined assessments.

Tier 3: Employs site-specific measurements and advanced techniques such as sediment coring, remote sensing, and full greenhouse gas accounting.

The protocol aligns with international standards, including IPCC Guidelines and established methodologies used in national systems and voluntary carbon markets.

By providing a harmonized regional framework, the RBCAP aims to support the integration of blue carbon into Nationally Determined Contributions (NDCs), national greenhouse gas inventories, and emerging climate finance mechanisms.





Country Feature: Philippines NBCAP Institutionalizing Blue Carbon: Philippines Advances National Climate Commitments

Photo by Ram Miranda/PG-ENRO Pampanga

Across the Philippines' coastline lies one of the country's most powerful yet often overlooked climate solutions: blue carbon ecosystems. Mangroves, seagrasses, and tidal flats store vast amounts of carbon, protect coastal communities from ocean hazards, and sustain marine biodiversity. As climate threats intensify, these ecosystems are increasingly recognized as critical to the nation's resilience and sustainable development.

To harness these benefits, the Philippine government partnered with the World Economic Forum to establish the National Blue Carbon Action Partnership (NBCAP), formalized through a Memorandum of Understanding at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP28) in Dubai in 2023. The DENR leads the initiative and serves as the chair of its Leadership Steering Committee (LSC) with the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) as co-chair.

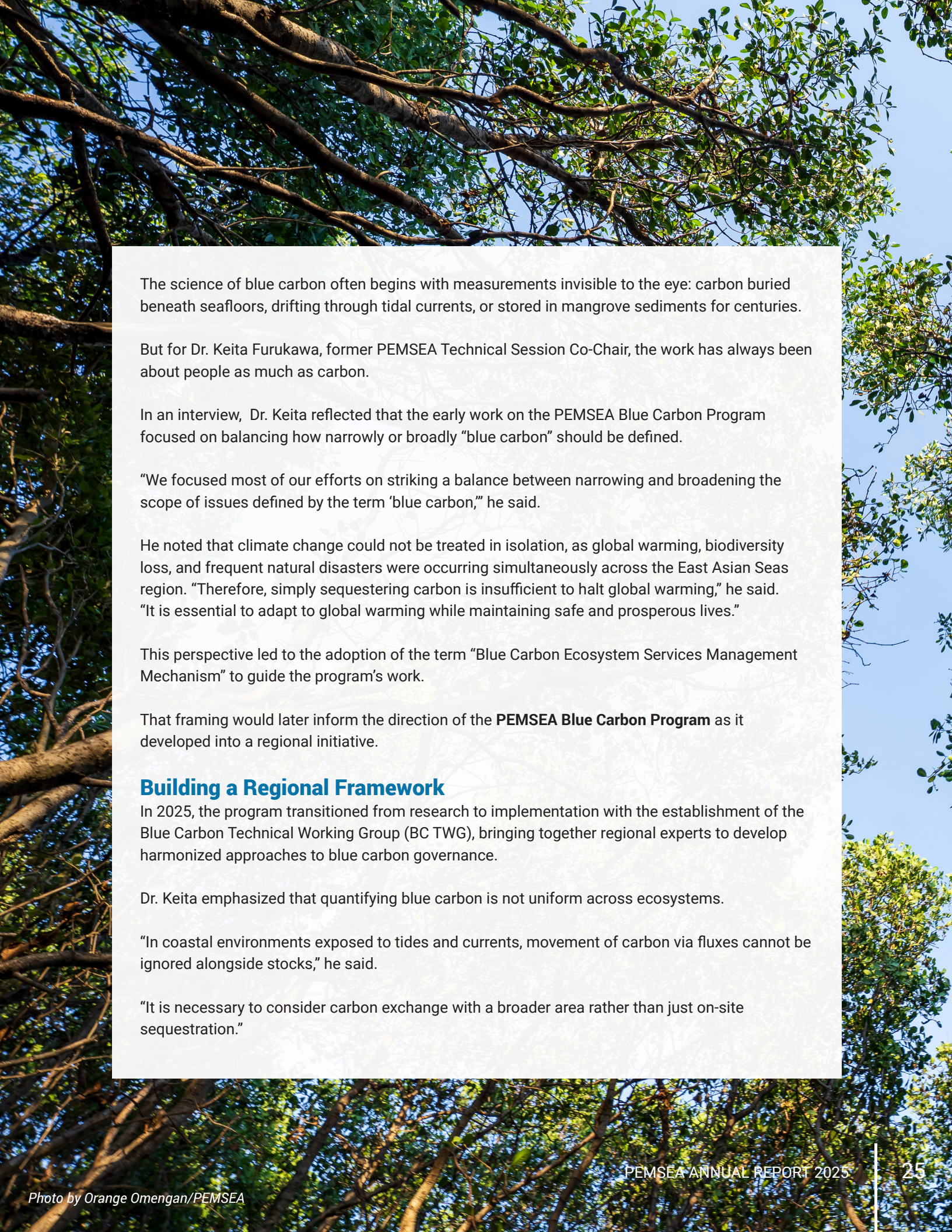
The LSC also has members, including the Department of the Interior and Local Government, Department of Public Works and Highways, Department of Transportation, Department of Tourism, Global Mangrove Alliance Philippines, members of the academe, and an advisory board composed of international development partners.

Supported by the United Kingdom's Blue Planet Fund and aligned with the World Economic Forum's Ocean Action Agenda, NBCAP aims to unlock financing, strengthen science-based approaches, and empower local communities through coordinated national action. Since its inception, the partnership has achieved key milestones, including the development of the Blue Carbon Roadmap, unveiling of the Philippine Mangrove Map 2023, workshops on the country's Blue Carbon Quantification Protocol (BCQP), rollout of science-based mangrove rehabilitation methods, Mangrove Private Sector Learning Visit, Investment Pathways for Blue Carbon Priorities workshop, and engagement at UNFCCC COP29. The partnership's official launch in February 2025 further underscored the country's growing leadership in nature-based climate solutions.

Looking ahead, NBCAP is focused on institutionalizing its governance structures, advancing the Blue Carbon Roadmap, integrating BCQP into DENR's Biodiversity Assessment and Monitoring System (BAMS), and aligning blue carbon market initiatives with national carbon policies. Through these efforts, the Philippines is investing in nature-based solutions that strengthen coastal protection, support livelihoods, and help secure a climate-resilient future.



The Future Is Blue: Dr. Keita Furukawa on the Blue Carbon Program in the East Asian Seas



The science of blue carbon often begins with measurements invisible to the eye: carbon buried beneath seafloors, drifting through tidal currents, or stored in mangrove sediments for centuries.

But for Dr. Keita Furukawa, former PEMSEA Technical Session Co-Chair, the work has always been about people as much as carbon.

In an interview, Dr. Keita reflected that the early work on the PEMSEA Blue Carbon Program focused on balancing how narrowly or broadly “blue carbon” should be defined.

“We focused most of our efforts on striking a balance between narrowing and broadening the scope of issues defined by the term ‘blue carbon,’” he said.

He noted that climate change could not be treated in isolation, as global warming, biodiversity loss, and frequent natural disasters were occurring simultaneously across the East Asian Seas region. “Therefore, simply sequestering carbon is insufficient to halt global warming,” he said. “It is essential to adapt to global warming while maintaining safe and prosperous lives.”

This perspective led to the adoption of the term “Blue Carbon Ecosystem Services Management Mechanism” to guide the program’s work.

That framing would later inform the direction of the **PEMSEA Blue Carbon Program** as it developed into a regional initiative.

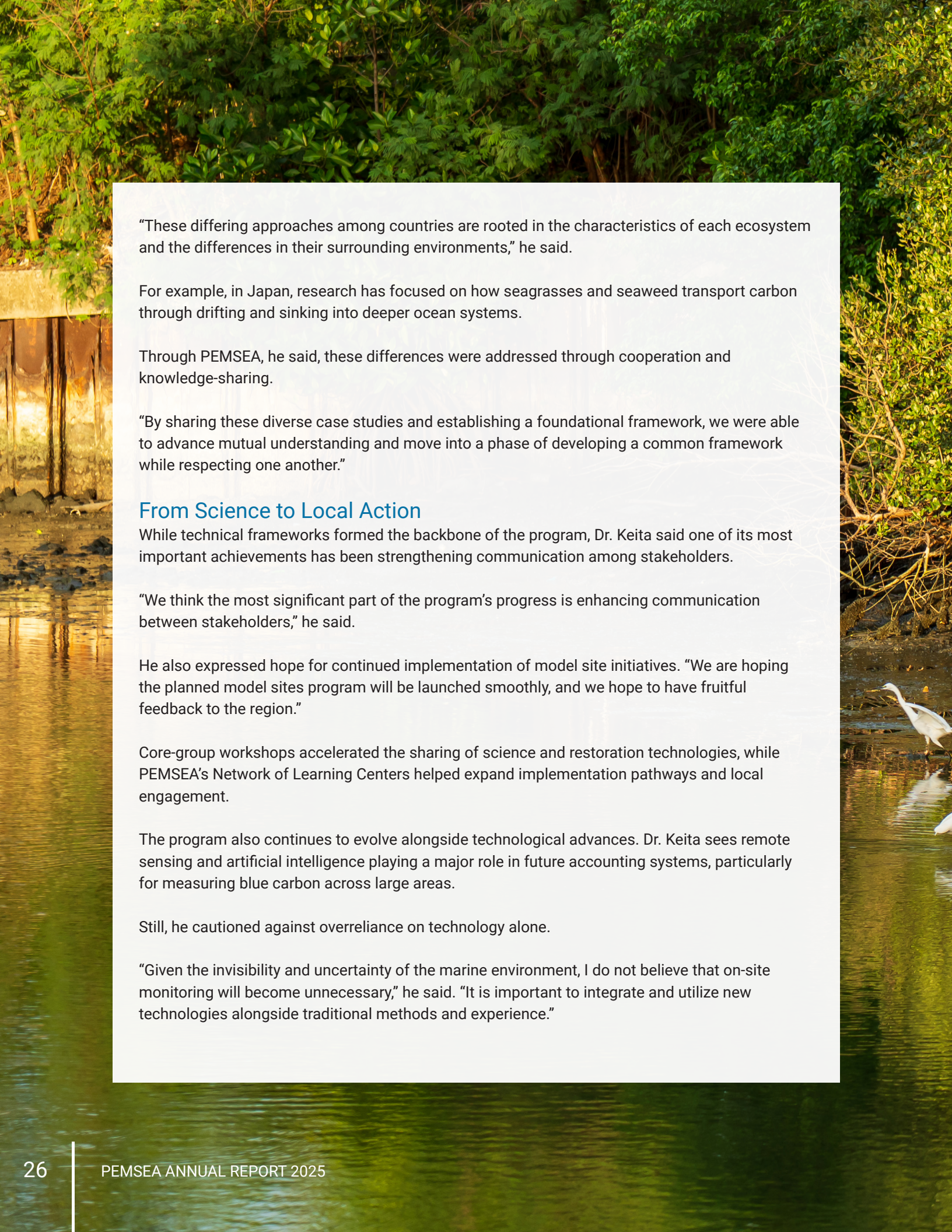
Building a Regional Framework

In 2025, the program transitioned from research to implementation with the establishment of the Blue Carbon Technical Working Group (BC TWG), bringing together regional experts to develop harmonized approaches to blue carbon governance.

Dr. Keita emphasized that quantifying blue carbon is not uniform across ecosystems.

“In coastal environments exposed to tides and currents, movement of carbon via fluxes cannot be ignored alongside stocks,” he said.

“It is necessary to consider carbon exchange with a broader area rather than just on-site sequestration.”



“These differing approaches among countries are rooted in the characteristics of each ecosystem and the differences in their surrounding environments,” he said.

For example, in Japan, research has focused on how seagrasses and seaweed transport carbon through drifting and sinking into deeper ocean systems.

Through PEMSEA, he said, these differences were addressed through cooperation and knowledge-sharing.

“By sharing these diverse case studies and establishing a foundational framework, we were able to advance mutual understanding and move into a phase of developing a common framework while respecting one another.”

From Science to Local Action

While technical frameworks formed the backbone of the program, Dr. Keita said one of its most important achievements has been strengthening communication among stakeholders.

“We think the most significant part of the program’s progress is enhancing communication between stakeholders,” he said.

He also expressed hope for continued implementation of model site initiatives. “We are hoping the planned model sites program will be launched smoothly, and we hope to have fruitful feedback to the region.”

Core-group workshops accelerated the sharing of science and restoration technologies, while PEMSEA’s Network of Learning Centers helped expand implementation pathways and local engagement.

The program also continues to evolve alongside technological advances. Dr. Keita sees remote sensing and artificial intelligence playing a major role in future accounting systems, particularly for measuring blue carbon across large areas.

Still, he cautioned against overreliance on technology alone.

“Given the invisibility and uncertainty of the marine environment, I do not believe that on-site monitoring will become unnecessary,” he said. “It is important to integrate and utilize new technologies alongside traditional methods and experience.”

A Regional Vision

He envisions the PEMSEA Blue Carbon Program expanding beyond the East Asian Seas region in the future, linking blue carbon with biodiversity conservation and disaster risk reduction.

“ I envision a future where the initiative—which began in the East Asian seas and encompasses blue carbon, biodiversity conservation, and disaster risk reduction—gains support from countries and regions around the world, and where citizen-led local actions are being promoted.

A Personal Connection to the Sea

For Dr. Keita, the ocean is not only a field of study but a source of personal grounding. “I love watching the flow of water, the movement and shape of sediment, and the creatures that live there; it brings me great peace of mind,” he said, describing a connection shaped by close, continuous observation of coastal environments.

To young scientists, Dr. Keita emphasized both resilience and humility.

“The environment surrounding blue carbon is invisible and uncertain. You will encounter many difficulties and unexpected challenges,” he said.

“Above all, stay healthy.”

“If you are healthy, you will have room to be considerate of the people and situations around you,” he added. “By being considerate of others and your surroundings, new perspectives and breakthroughs will emerge.”



“ And don’t push yourself too hard—the power of nature surpasses our own. I believe it is important to recognize ourselves as part of that nature and to approach it with humility, yet with sincerity.

Dr. Keita Furukawa

Marine Plastics ODA Project Translate Commitments to Impact

The Reducing Marine Plastics in the East Asian Seas Region project, also known as the Marine Plastics ODA Project, is a six-year initiative implemented by PEMSEA in partnership with the Republic of Korea through its Ministry of Oceans and Fisheries.

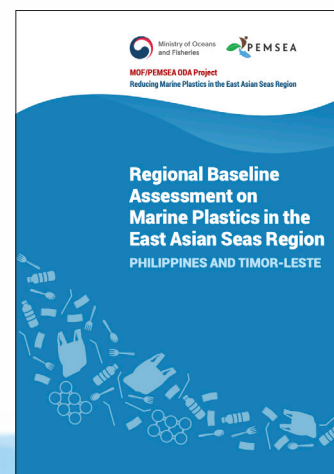
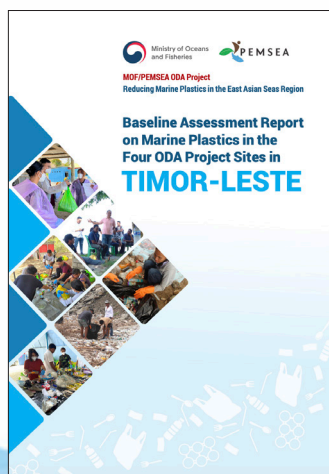
The project focuses on ten priority sites: six in the Philippines and four in Timor-Leste—targeting ocean-bound plastics within 50 kilometers of shorelines, including river inputs and fishing-related debris. Through strengthened governance, demonstration of innovative and scalable solutions, marine litter monitoring, and expanded community capacity and awareness, the project aims to significantly reduce plastic leakage at source.

In 2025, the MOF/PEMSEA ODA Project on Reducing Marine Plastics in the East Asian Seas Region moved from validation and ground truthing to collective action. Following its launch in 2023 and two years of assessments, stakeholder consultations, and detailed planning, the project advanced with final pilot designs, formal partnerships, and a marine plastics data center. Across the Philippines and Timor-Leste, efforts shifted decisively toward tangible, on-the-ground solutions to curb one of the region’s most urgent environmental challenges.

Key Activities and Achievements in 2025

Signed the Memorandum of Understanding (MOU) between PEMSEA and participating LGUs for Project implementation; and Memoranda of Agreement (MOAs) for site-specific pilot project implementation during a Mayors’ Conference.

Completion of baseline assessments across 10 coastal sites in the Philippines and Timor-Leste. Supported by Plastic Analysis and Characterization Studies (PACS) and Knowledge, Attitude, and Practice (KAP) surveys, the assessments provide a robust evidence base to guide targeted interventions, policy refinement, and long-term monitoring.



In the Philippines, six pilot projects were fully developed and approved, advancing concrete solutions to reduce plastic leakage at source. Interventions include the expansion of materials recovery facilities, installation of plastic shredders, deployment of river trash traps, eco-collection vehicles, smart waste management systems, and recycling facilities, laying the groundwork for implementation in 2026.



Community mobilization scaled up significantly under the Marine Environment Protector (MEP) Program. In 2025, 9,036 individuals were engaged, with over 3,400 volunteers participating in coastal cleanups and collecting 2,386 kilograms of waste. Strengthened work planning, baseline behavior surveys, and enhanced storytelling initiatives improved program effectiveness.



In Timor-Leste, four partner organizations were identified to support MEP rollout beginning in 2026.

The **2nd Learning Exchange Program** (LEP) held in Busan, Republic of Korea, timed around the 10th Our Ocean Conference in April. The LEP facilitated knowledge sharing on circular economy approaches, marine plastic management strategies, and practical solutions. It exposed officials and project staff in the Philippines and Timor Leste to the latest global discourse, best practices and innovative solutions, tools and technologies on plastic pollution reduction and circular economy.





Mayors Commit to Reduce Marine Plastics, Sign Key Agreements for Pilot Project Roll Out

Philippine mayors and local leaders from five coastal cities and municipalities have pledged to strengthen local actions and solutions to reduce marine plastic pollution, signing a Mayors' Compact and key project agreements under the MOF/PEMSEA Marine Plastics ODA Project during the Mayors' Conference on Reducing Marine Plastics organized by PEMSEA with support from MOF, Ro Korea and DENR held in Manila on 22 October 2025.

The Mayors' Compact, signed by local leaders from Bulan, Sorsogon; Calbayog City, Samar; Daanbantayan, Cebu; Dipolog City, Zamboanga del Norte; and Tandag City, Surigao del Sur, aims to strengthen the commitment of local governments to innovate and collaborate in improving waste management systems and preventing plastic leakage into the seas.

The Mayors' Conference on Reducing Marine Plastics served as a platform for strengthening local collaboration in addressing marine plastic pollution in the Philippines. City and municipal leaders upheld the importance of innovative solutions and key commitments through the signing of the Mayors' Compact, Memorandum of Understanding, and Letters of Agreement (LOA) between PEMSEA and participating LGUs.



[WATCH NOW](#)

Atty. Jonas Leones, DENR Undersecretary for Policy, Planning and International Affairs and EAS Partnership Council Chair urged local leaders to scale up effective practices, fill existing gaps, and work together to protect the country’s marine ecosystems, “This conference is not only a celebration of achievements but also a call to action. We must scale up what works, address the gaps that remain, and continue to collaborate across all levels of governance,” he said.



“ Every piece of plastic we prevent from entering our seas protects a fisher’s livelihood, safeguards a community’s food supply, and preserves the beauty and bounty of our marine ecosystems for future generations.

Atty. Jonas Leones

Aimee Gonzales, Executive Director of the PEMSEA Resource Facility, emphasized the importance of empowering local leaders. “We strongly believe that real change happens locally. Empowered mayors—backed by resources, information, and networks—can make a lasting impact not only in their communities but throughout the region,” she said.

DENR Undersecretary Analiza Rebueta-Teh noted that the local initiatives demonstrate scalable innovation.

“ From Bulan to Tandag, each pilot site embodies what is possible when leadership, community engagement, and science-based planning come together. These are not just local projects—they are models that demonstrate the Philippines’ resolve to curb plastic pollution at its source.

Atty. Analiza Rebueta-Teh



Timor-Leste and PRF Sign Revised Memorandum of Understanding

The Government of Timor-Leste and PEMSEA Resource Facility reaffirmed their partnership through the signing of the Revised Memorandum of Understanding (MOU) for the MOF/PEMSEA ODA Project on Reducing Marine Plastics in the East Asian Seas Region.

The MOU was signed by Minister Marcos da Cruz of the Ministry of Agriculture, Livestock, Fisheries, and Forestry (MALFF), and Ms. Aimee Gonzales, Executive Director of PEMSEA Resource Facility, in a signing ceremony held in Manila, Philippines on 3 October 2025.

The signing was witnessed by H.E. Marciano Octavio Garcia da Silva, Timor-Leste Ambassador to the Philippines, and officials from the MALFF and the Ministry of Oceans and Fisheries.



From Data to Solutions: How Beach Monitoring in the Philippines and Timor-Leste Helps Shape Policies on Marine Plastics

Marine plastics is one of the biggest threats that hound the East Asian Seas region, but universities and NGOs in the Philippines and Timor-Leste are driven to change that, believing that data-driven solutions through beach monitoring can help push interventions and policies on the growing threat of marine plastics pollution.

Timor-Leste, albeit smaller in scale, faces similar challenges. Limited infrastructure and resources mean that only 20% of the urban population has access to proper waste management services. Most waste is either burned or dumped in open areas, leading to pollution and health risks. Both countries have taken steps to address the issues. In the Philippines, the National Plan of Action for Marine Litter (NPOA-ML) was launched in 2021, while Timor-Leste committed to the “Zero Waste Timor-Leste” program. To drive these policies forward means translating data into actionable solutions, helping governments craft policies to tackle the growing threat of marine plastics.



Adapting RoKorea's tested beach monitoring program

The beach monitoring methodology applied in the Philippines and Timor Leste aligns with international guidelines harmonized by UNEP, GESAMP, and IMO and adapts the method used by Ro Korea to ensure data consistency and comparability.

Local Collaborations and the Role of Communities

Beach monitoring sites are carefully selected based on strict criteria, including accessibility, safety, minimal human interference, and sufficient space for surveys. These sites are marked as designated monitoring areas to prevent artificial damage, littering, and disruption by people, to make sure of the accuracy of the data collected. Local communities are also actively encouraged to participate in protecting these areas.

Universities and non-governmental organizations (NGOs) play a pivotal role in the data collection process. Trained personnel conduct surveys across four transects per site, counting and weighing plastic items to assess pollution levels. Each monitoring area spans approximately 100 meters, with a 10-meter buffer zone between the high tide line and vegetation. This buffer allows plastic debris to accumulate naturally, ensuring more accurate and reliable data.

The data gathered from these efforts are shown through the **East Asian Seas Marine Plastics Data Center**, a platform designed to facilitate data sharing with stakeholders including government entities, academic institutions, and the public and track long-term trends.

Through involving local residents, students, and NGOs, the program not only collects critical data but also educates communities about the impact of marine plastic pollution on their ecosystems and livelihoods.



2025 in Numbers

Between the first and third quarters of 2025, beach monitoring sites in the Philippines and Timor-Leste recorded a total of 16,496 marine debris items, weighing approximately 319,654 grams. The Philippines documented 10,064 items (226,216 grams), while Timor-Leste recorded 6,432 items (93,438 grams). Across both countries, plastics accounted for 86.57 percent (14,280 pieces) of total debris, reaffirming plastics as the dominant pollutant in coastal environments.

Domestic sources comprised 95.07 percent (15,683 pieces) of recorded litter, indicating that national waste management systems remain the primary determinant of marine debris generation. Foreign-sourced debris represented 4.93 percent (813 pieces), transported through ocean currents and extreme weather events.

In the Philippines, Bulan recorded the highest number of debris items during Q1–Q3 2025 (4,017 pieces), followed by Tandag (2,726) and Calbayog (1,527). Lower volumes were observed in Dipolog (832), Daanbantayan (575), and Puerto Princesa (387).

Quarter 1 registered the highest volume of marine litter (5,377 pieces), with declining counts in Q2 (2,458) and Q3 (2,229), reflecting seasonal variation.

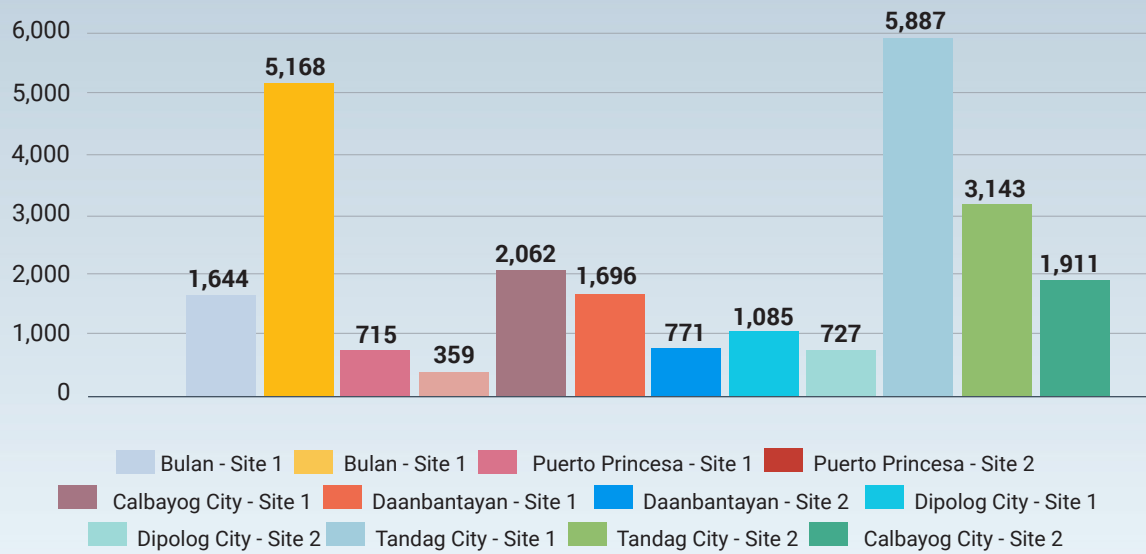
Plastic materials represented 89 percent of total debris. Hard plastics, plastic films such as single-use sachets, and fiber plastics including ropes and nets comprised the largest shares. Domestic-origin litter reached 99.64 percent, underscoring the need for strengthened local waste management interventions.

In Timor-Leste, Atauro recorded the highest debris volume (4,076 pieces), followed by Manatuto (1,851). Dili (198) and Liquica (307) registered lower totals, partly reflecting fewer monitoring sites.

Quarter 2 recorded the highest debris volume (3,063 pieces), while Q1 (1,636) and Q3 (1,733) showed comparable levels. Plastics accounted for 83 percent of total debris, with hard plastics, film plastics, and foamed plastics as the most prevalent categories.

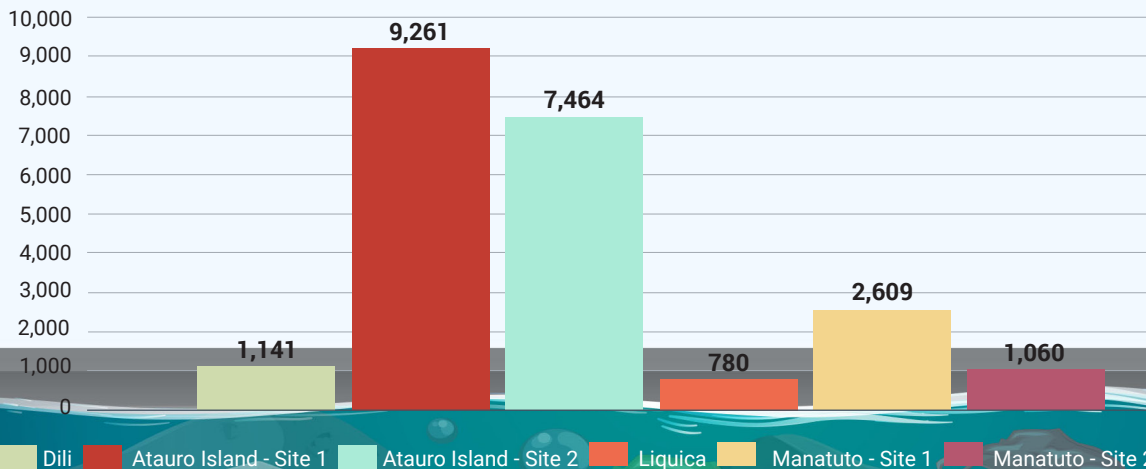


Volume of the Waste Recorded in the Philippines Sites -Q1 2024



Note: Data displayed in the chart is measured in pieces

Volume of the Waste Recorded in Timor-Leste Sites -Q1 2024



Note: Data displayed in the chart is measured in pieces

Dipolog City's Beach Monitoring Initiative

Regular beach monitoring at Olingan and Sicayab, led by DMC College, found that hard plastics and foam make up the largest share of floating ocean-bound debris. In addition, Andres Bonifacio College has been leading plastics reduction literacy and awareness campaigns, engaging local barangays, youth, and students.

The ultimate goal of the beach monitoring program is to provide scientific data that informs and shapes policy and initiatives for the effective management of marine plastics. The beach monitoring program provides evidence-based foundations for evaluating various interventions implemented by public and private sectors, as well as local communities. Such data-driven insights are important for refining strategies and scaling up efforts to combat the growing crisis of marine plastics.



Our Boots on the Ground: Local Actions that Drive Solutions

Communities are the heart of action. Under Component 4 of the MOF/PEMSEA Marine Plastics ODA Project, the road to a plastic-free future begins with empowering local communities to drive change through awareness.



In this series of Marine Environment Protector (MEP) stories, the Project tells the stories of local groups in two of its six sites in the Philippines: Tandag City in Surigao del Sur province and Daanbantayan in Cebu, where fishers, farmers, local women: mothers running households, grandmothers caring for their grandchildren, working women—shopkeepers, vendors, service workers, are engaging their communities to take action against marine plastic pollution.

At the northernmost tip of the Philippines' Cebu province, communities are fighting plastic pollution at its source. In Daanbantayan, farmers and Fisherfolk are teaching the next generation how to turn waste into opportunity, transforming classrooms into workshops and young minds as environmental stewards.



Photo by Klyra Orbien/PEMSEA






MOF/PEMSEA ODA Project
 Reducing Marine Plastics in the East Asian Seas Region

MARINE ENVIRONMENT PROTECTOR PROGRAM

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 Farmers and Fisherfolk Lead the Fight Against Marine Plastic Pollution



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Where MARITES Lead
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The Currents in Motion: IRBM Project Advances Across River Basins

Now on its midpoint in 2025, the GEF/UNDP/ASEAN Integrated River Basin Management (IRBM) Project marked its third year of implementation with the conduct of its Mid-Term Review (MTR), which assessed overall progress as moderately satisfactory. The review confirmed that the Project's Theory of Change remains aligned with its goals with 7 out of 9 indicators in the Projects Results Framework on track, while identifying areas for accelerated improvement. During the year, the Project further strengthened governance arrangements, formalized partnerships through Memorandum of Agreements and project launches, and continued basin-level planning and pilot project development across 6 participating ASEAN Member States.

The Project also carried out basin-level consultations and regional initiatives to support coordination and capacity development, including Water-Energy-Food-Ecosystems (WEFE) Nexus workshops, the convening of the Third Regional Steering Committee Meeting, and the establishment of IRBM Learning Centers under the PEMSEA Network of Learning Centers. Across the 7 priority river basins, common challenges identified- such as wastewater and solid waste management, flooding, sedimentation, and competing water uses - continue to inform implementation and planning.

Key Highlights and Achievements

Strengthening Project Foundations and Partnerships

In 2025, the IRBM Project continued to strengthen its implementation foundations as 3 participating ASEAN Member States advanced the formalization of arrangements at the national and subnational levels.

A key milestone was the signing of Memorandum of Agreements (MOAs) and project launches, which established the basis for coordinated implementation and reinforced commitments among implementing partners.



- In the Philippines, the MOA between the Department of Environmental and Natural Resources (DENR) and PEMSEA Resource Facility (PRF) was signed on 17 July 2025 for the Pasac-Guagua Watershed in Pampanga and the Imus-Ylang-Ylang Rio Grande Rivers in Cavite. Under the agreement, the Environment Management Bureau and the National Water Resources Board of the DENR will be the focal agencies for project implementation at the national level.



- In Indonesia, the MOA signing between the Ministry of Environment of Indonesia and PRF happened alongside the official project launch in Depok City on 10 November 2025 for the Ciliwung River Basin.



- In Viet Nam, the Project was also officially launched on 18 April 2025 in Da Nang City for the Vu Gia-Thu Bon River Basin and its adjacent coastal areas through a partnership between PRF, the Viet Nam Environment Agency under the Ministry of Agriculture and Environment, and the Department of Agriculture and Environment of Da Nang.

Advancing Basin-Level Planning and Pilot Project Development

The Project progressed from planning to implementation through a series of basin-level engagements and targeted missions in 6 participating ASEAN Members States. These activities aimed to identify priority issues and support the development of pilot projects in each of the 7 river basins.



- A project mission conducted in May 2025 advanced the pilot project development in Cambodia, Lao PDR, and the Philippines by assessing local contexts – including priority environmental issues, existing management programs, governance structures, and financing mechanisms – and informing the development of solution templates to guide IRBM pilot project design and implementation.



- In October 2025, consultation meetings and field visits were carried out in Indonesia, Viet Nam, and Malaysia to confirm priority river basin issues and gather perspectives from national, state-level, and local stakeholders on potential solutions for pilot project development and implementation.
- Despite differing ecological and socio-economic context across the 7 river basins, common challenges were identified, including wastewater and solid waste management, flooding, sedimentation, and competing water uses.



Promoting Integrated Approaches through WEFE Nexus Activities

Efforts to advance IRBM were further strengthened through Water-Energy-Food Ecosystems (WEFE) Nexus activities implemented at both regional and basin levels.

- A key milestone was the regional orientation workshop on the Rapid Evaluation of the WEFE (REWEFe) Toolkit, held in Bali, Indonesia, on 3 June 2025. The workshop convened members of the ASEAN Working Group on Water Resources Management – comprising of National Focal Agencies from Cambodia, Indonesia, Lao PDR, Malaysia, Philippines, Thailand and Viet Nam – as well as representatives from the ASEAN Secretariat, UNDP, national implementing partners, local governments, university partners, and national coordinators of the Project. The workshop demonstrated the application of the REWEFe Toolkit in selected river basins and provided an opportunity for the participants to further explore the toolkit’s potential for application in their respective river basins.



- The 6 participating ASEAN Member States convened a series of multi-stakeholder workshops on the WEFE Nexus across the 7 priority river basins from July to September 2025. These consultations brought together representatives from government agencies, academic institutions, civil society, the private sector, and development partners to identify key threats and develop coordinated strategies that balance water, energy, food, and ecosystem needs while reducing disaster risks. The workshops surfaced local perspectives and anecdotal insights on emerging changes and trends – including gender-responsive approaches – as well as explored potential synergies and trade-offs across the

WEFE sectors. Common challenges identified across river basins included deforestation, agricultural expansion, flooding, water scarcity, pollution, and ecosystem degradation. Participants emphasized the need for stronger cross-sectoral coordination, more sustainable resource use, and inclusive governance mechanisms.

Enhancing Regional Coordination and Knowledge Exchange

Regional coordination and knowledge exchange remained central to the Project's implementation, supporting alignment across participating countries and strengthening collective learning.



- The Third Regional Steering Committee (RSC) Meeting held on 4 June 2025, in Bali, Indonesia convened key partners to evaluate project implementation progress, review the Mid-term Review results, and outline the strategic direction moving forward. Convened back-to-back with the 25th Annual Meeting of the ASEAN Working Group on Water Resources Management (AWGWRM), the Third RSC Meeting gathered representatives from the AWGWRM National Focal Agencies (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Viet Nam), national implementing partners of the Project, the ASEAN Secretariat, East Asian Seas Executive Committee, UNDP, including local governments from the 7 priority river basins and university partners.
- Further strengthening regional capacity, the PEMSEA Network of Learning Centers (PNLC) Executive Committee reviewed and endorsed the process of designating IRBM Learning Centers for the Project during its Executive Committee meeting held on 15 September 2025 in Bogor, Indonesia. This initiative aims to designate and engage IRBM Learning Centers in each of the participating countries, linked under the PNLC framework, to enhance capacities on IRBM through experience and skills sharing and technical assistance across the network. Moreover, this initiative is a strategic opportunity for selected PNLC members and other interested university partners in the participating countries to broaden their scope of expertise in relation to IRBM and Integrated Water Resources Management, in addition to Integrated Coastal Management, which can be linked to enhance understanding of the upstream-downstream connectivity across the Source-to-Sea continuum.
- The Project also contributed to regional learning through its participation during the regional project oversight training for GEF Operational Focal Points (OFPs) from Cambodia, Indonesia, Lao PDR, the Philippines, Thailand, and Viet Nam held on 23 September 2025 in Manila, Philippines. The training

aimed to strengthen the capacity of GEF OFPs in overseeing project planning and implementation while reinforcing regional collaboration to achieve global environmental targets. Representing the Project, Ms. Nancy Bermas, Regional Project Manager, shared lessons from three decades of regional partnerships and project implementation in the East Asian Seas region, highlighting practical experiences in project development, monitoring, evaluation, and oversight emphasizing the need for strong governance and innovation.

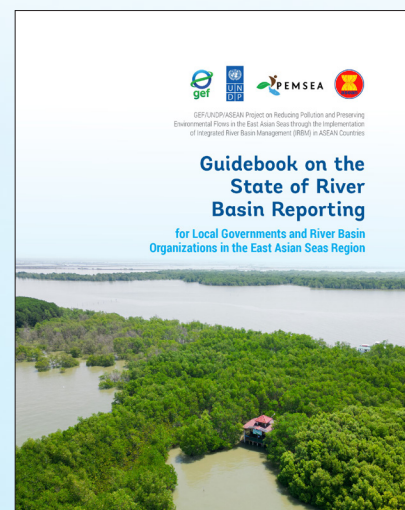


Monitoring Progress and Adaptive Implementation

To assess progress and support adaptive management, the Project conducted its Mid-Term Review (MTR) between February and May 2025.



- Stakeholders from all six participating ASEAN Member States were engaged through field missions to Cambodia, Lao PDR, and the Philippines, as well as virtual consultations with Indonesia, Malaysia, Viet Nam, and regional partners.
- The MTR rated the overall progress of the project as moderately satisfactory with its Theory of Change well-aligned with the project goals. Seven out of nine indicators in the Project Results Framework are on track indicating good progress, with specific areas identified for accelerated improvement.
- The MTR highlighted several key achievements, including the adoption of the Guidebook on the State of River Basin Reporting, which represents an important step in strengthening basin-level assessment and monitoring.
- It also identified progress in the development of generic solution templates and analytical tools designed to assess priority issues and support the formulation of issue-driven interventions across river basins.



IRBM Communications and Knowledge Products

Four Newsletters



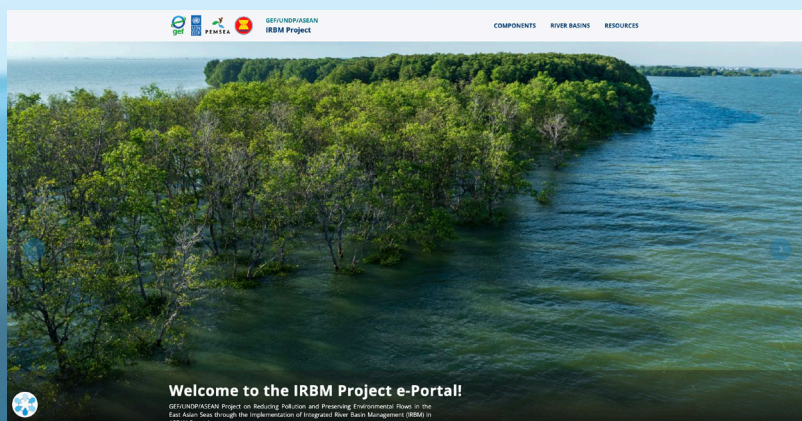
Project Brochure in English – translated and published in Lao and Khmer



GRM and Help Desk Brochure



IRBM Project e-Portal



Project Launch in Viet Nam and Indonesia

The IRBM Project marked key milestones through its official launches in Viet Nam and Indonesia in 2025, advancing efforts to strengthen integrated river basin management and governance, reduce pollution, and enhance climate resilience across priority river basins.

Viet Nam: Strengthening Governance in the Vu Gia–Thu Bon River Basin

On 18 April 2025, the PRF, in partnership with the Viet Nam Environment Agency (VEA) of the Ministry of Agriculture and Environment (MAE), and the Department of Agriculture and Environment of Da Nang, officially launched the IRBM Project to enhance the governance and integrated management of the Vu Gia–Thu Bon River Basin and its adjacent coastal areas.

Running from 2023 to 2027, the initiative in Viet Nam contributes to the broader regional effort to reduce pollution, sustain freshwater environmental flows, and strengthen resilience to climate change vulnerabilities. The basin is critical to domestic water supply and economic activities in Da Nang, underscoring the urgency of integrated management.



At the project launch ceremony, Ms. Nguyen Thi Thien Phuong, Deputy Director General of VEA, stated that the project’s objective is to establish sustainable and effective management mechanisms through interdisciplinary solutions, including efforts to improve water quality, reduce pollution, manage solid waste, and maintain environmental flows.

Local authorities emphasized the strategic importance of the river system and the opportunity presented by the project to strengthen interdisciplinary coordination and long-term planning.

“This project is a good opportunity for stakeholders to assess the current situation, strengthen interdisciplinary governance mechanisms, and gradually develop a more effective integrated river basin management strategy for the Vu Gia–Thu Bon River Basin and the coastal area of Da Nang.

– Mr. Vo Nhu Toan, Deputy Director, Da Nang Department of Agriculture and Environment



The Vu Gia – Thu Bon River Basin faces mounting pressures from hydropower development, rapid urbanization, and growing industrial demand. These trends have altered natural water flows and increased the discharge of untreated wastewater, resulting in degraded water quality and adverse impacts on ecosystems, including saltwater intrusion in coastal areas of Da Nang.

In response, the IRBM Project will support targeted interventions developed in consultation with the local governments and stakeholders.



Indonesia: Advancing Integrated Management in the Ciliwung River Basin

In Indonesia, the IRBM Project was launched on 10 November 2025 in Depok City following the signing of a Memorandum of Agreement (MOA) between the Ministry of Environment (MOE) of Indonesia and PRF in Jakarta City.

The agreement was signed by Mr. Rasio Ridho Sani, Deputy Minister for Environmental Pollution and Degradation Control of MOE, and Ms. Aimee Gonzales, Executive Director of PRF, establishing the arrangements for coordinated implementation of the project in the Ciliwung River Basin.

Following the signing, the Regional Project Management Unit met with Mr. Erik Teguh Primiantoro, Indonesia’s GEF Operational Focal Point, to discuss Indonesia’s involvement in the project’s activities at the regional, national, and river basin levels and next steps for full project implementation. He emphasized that the pilot project should focus on pressing issues confronting local communities such as the proper management of solid waste and wastewater discharges.

At the project launch, Mr. Eduward Hutapea, Head of the Regional Office for the Environmental Protection Agency of West Java Province, highlighted Indonesia’s priority to secure water resources for future generations, mentioning the country’s commitment to sustainable development.



“Water is the source of life; therefore, maintaining its sustainability and quality is a shared responsibility. The President of the Republic of Indonesia, Mr. Prabowo Subianto, has emphasized the importance of food sovereignty, water security, and a sustainable environment as part of national development. This commitment aligns with the Sustainable Development Goals (SDGs), particularly Goal 6: Ensure availability and sustainable management of clean water and sanitation for all.

– Mr. Eduward Hutapea, Head of the Regional Office for the Environmental Protection Agency of West Java Province under MOE



Photo by John Castillo/PEMSEA

Reviving the Vibrance of Ciliwung River

From the hills and mountains of Bogor Regency, the Ciliwung River flows downstream, stretching 118.25 kilometers to the Java Sea. It crosses the region of Bogor Regency, the cities of Bogor, Depok, and Jakarta, and drains into the Java Sea through Jakarta Bay in Indonesia. With a total area of 421.47 square kilometers, the Ciliwung River Basin plays a key role in supporting livelihood, agricultural activities, trade, transportation and local tourism in the three major cities of Bogor, Depok, and Jakarta. The Ciliwung Dam in the upstream Bogor, which was built in 1911, provides irrigation to 333 hectares of rice lands. Known also for its fertile lands for world-class tea plantations, Bogor Regency has greatly benefited from the nutrients and water services of the river basin.

Over the years, the condition of the river deteriorated due to land developments and unsustainable human practices including improper waste disposal both from domestic and industrial sectors. Every day, approximately 7,000 tons of solid waste is being generated in the areas of the Ciliwung River Basin and the

Jakarta Coastal Region. The available waste processing centers in the area have reached their full capacity, and this leaves the solid waste collection and disposal a huge challenge for the government.

According to Dr. Abdul Rahman, Head of the Environment Agency of Depok City, the 19-kilometer stretch of Ciliwung River within the jurisdiction of Depok City provides several ecosystem services to the community including fishing and recreation. However, he also reaffirmed that improper waste disposal is among the major issues in the Ciliwung River.

“There are about 2.1 million people living in Depok City and we generate 100.3 tons of waste per day. We have relevant programs to address the solid waste management problem like installing a biodigester that can make composts out of biodegradable waste. But there are other sources of pollution like the small-scale businesses and the wastes coming from the upstream area,” said Dr. Rahman.



Identified as hotspot locations in the upstream area of the river basin, consultations and field visits were done in Depok and Bogor cities to discuss the state of the river and actions to address the same. Based on existing documents, the implementation of the master plans for solid waste and sewage management in the two cities was limited due to insufficient resources to ensure a more integrated community engagement and to establish a centralized investment facility. A similar issue is also prevalent downstream, i.e., illegal dumping of domestic waste and untreated wastewater from small-scale industries.

As industries and growing populations continue to pressure water usage, land subsidence has also become a significant issue in the Ciliwung River Basin. Further, changes to the landscape along the riverbanks have adversely impacted not only water quality but also biodiversity, as the cover of mangrove forests has decreased over the years. In response to these challenges, a group of community volunteers are passionately driving the efforts to revive the Ciliwung River.



A small tofu factory is located along the Ciliwung River in Depok City, whose construction of a filter pond and wastewater treatment area has yet to be finished. According to the owner, the wastewater coming from its tofu operations is not harmful to the environment since most of the materials used are plant-based.

Across the three major cities including Bogor, Depok, and Jakarta, the Sahabat Sungai Indonesia mobilized river rangers to regularly collect wastes and lead community river clean-ups in 37 communities in Ciliwung River Basin. In Depok

City, a group of river rangers is composed of 15 volunteers, where 30 per cent are women. Their age varies from 15 to 45 years old. Aside from regular cleanups, they conduct community awareness activities to sensitize the importance of preserving the integrity of the river. River rangers do not receive salary or any incentives aside from the transportation allowance when they need to travel and attend meetings.

The river rangers also co-manage the river rafting activity in Ciliwung River, which aims to promote river conservation and local sustainable tourism in Depok City. Tourists can enjoy a 45-minute river adventure in an inflatable raft. Along the route, tourists can enjoy bird watching and some wildlife sightings.

Voices on the ground



A telltale of a river ranger

"I love the river because I was born here. I want to take care of it even in small ways."

These were the words from Bakri, a river ranger volunteer in Depok City. He is 43 years old, married, has three children, and owns a small store along the riverbank. Bakri is a freelance worker—sometimes an online seller of toothpaste, perfume, and other personal effects. Their home is located on the borders of Depok and Bogor cities.

Bakri's recollection had gone as far back as the early 1990s when the river started to become polluted. In 2006, volunteers were mobilized to do clean-ups until in 2017, their group was formally established. He recalled when the dam in Bogor Regency that was part of the Ciliwung River was opened, they were flooded in Depok. But it was not the flood that shocked him. It was the waste that came from upstream. A once clean-up day would recover 150 to 200 kilograms, mostly plastic bags.

He has been doing this volunteer work for over 15 years. When asked if he gets tired,

"Yes but my dream is for Ciliwung (river) to become a tourist destination."



The interagency coordinating mechanism for the development and management of river basins in Indonesia is being led by the Directorate General for Water Resources, Ministry of Public Works. It covers the environmental and resource management issues in the river basin and coastal areas in the region. While there is an existing mechanism in place, the Integrated River Basin Management (IRBM) Project aims to contribute to strengthening the governance capacity and ensure a sustainable, innovative, and more inclusive management of the Ciliwung River Basin. This also includes more engagement from the communities especially women and the minority groups.

The IRBM Project is also conducting a baseline study to assess the different factors that affect the biophysical aspects of the river basin, including climate-induced and anthropogenic threats.

The IRBM project envisions implementing complementary programs that protect water quality through integrated wastewater and solid waste management to arrest the further degradation of water quality and biodiversity loss along the corridors of the Ciliwung River.



Depok City's waste bank

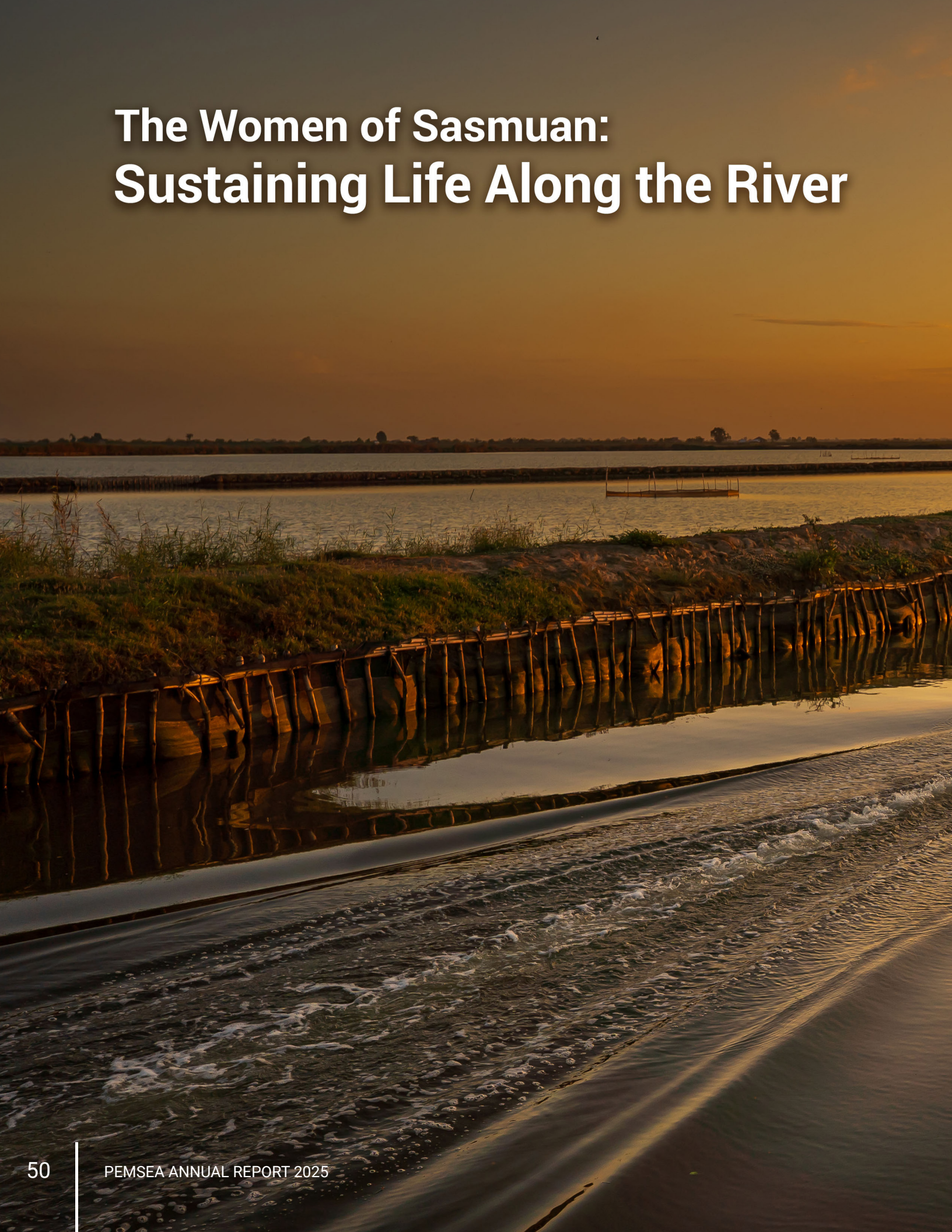
Ruma Harum is a community-managed waste bank that started in 2013 in Depok City. It consolidates recyclables—from plastics to metals to papers—and sells them to its partner recycling companies.

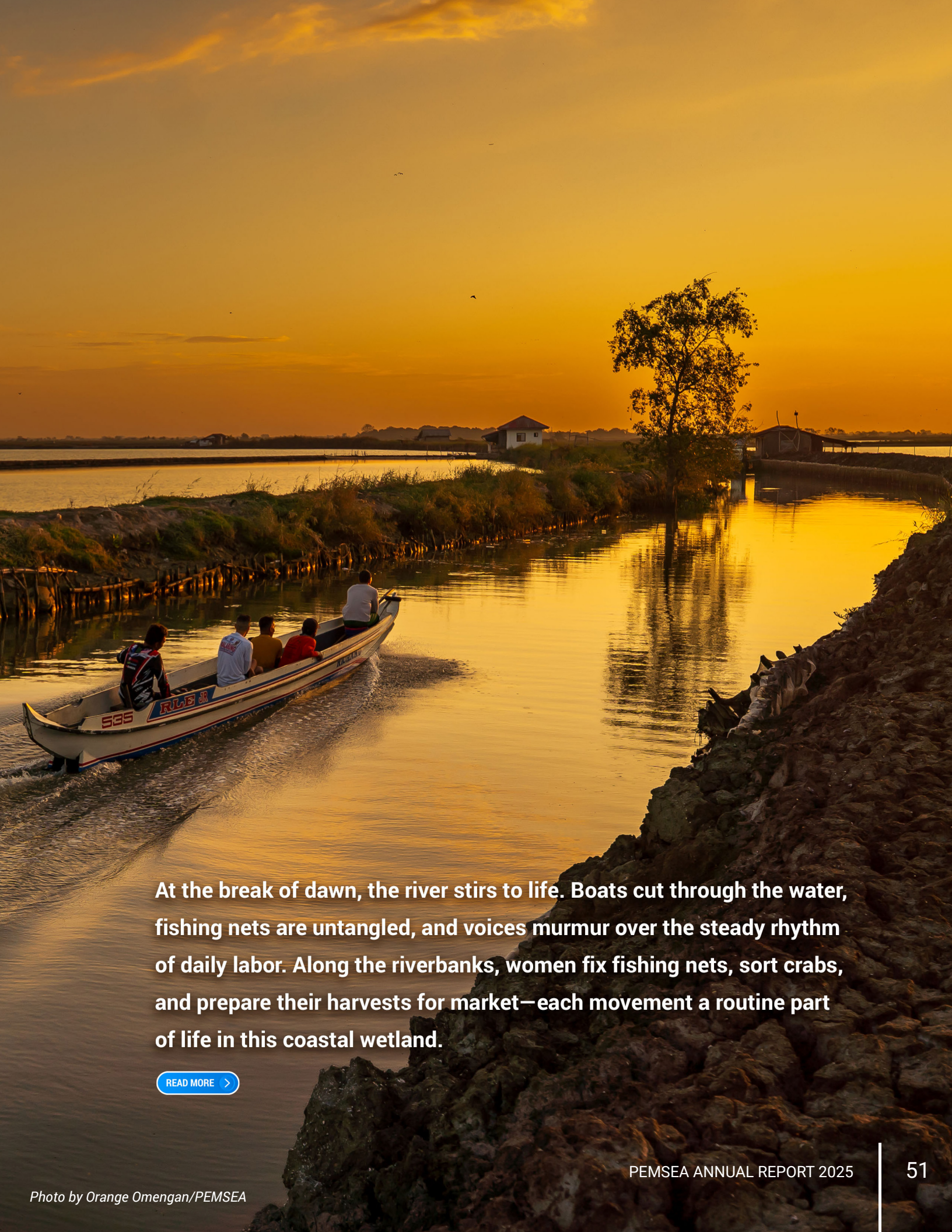
Locals visit the waste bank to deposit their recyclable wastes and receive equivalent money depending on the volume and buying price in the market. They also collect in residential areas to increase their waste recovery. In a week, they can recover an average of three tons of plastic waste.

With the IRBM Project's vision and outstanding community volunteerism in Depok City to revive the health of the river, Bakri's hope of passing on a cleaned Ciliwung River to the next generation is not an impossibility.



The Women of Sasmuan: Sustaining Life Along the River



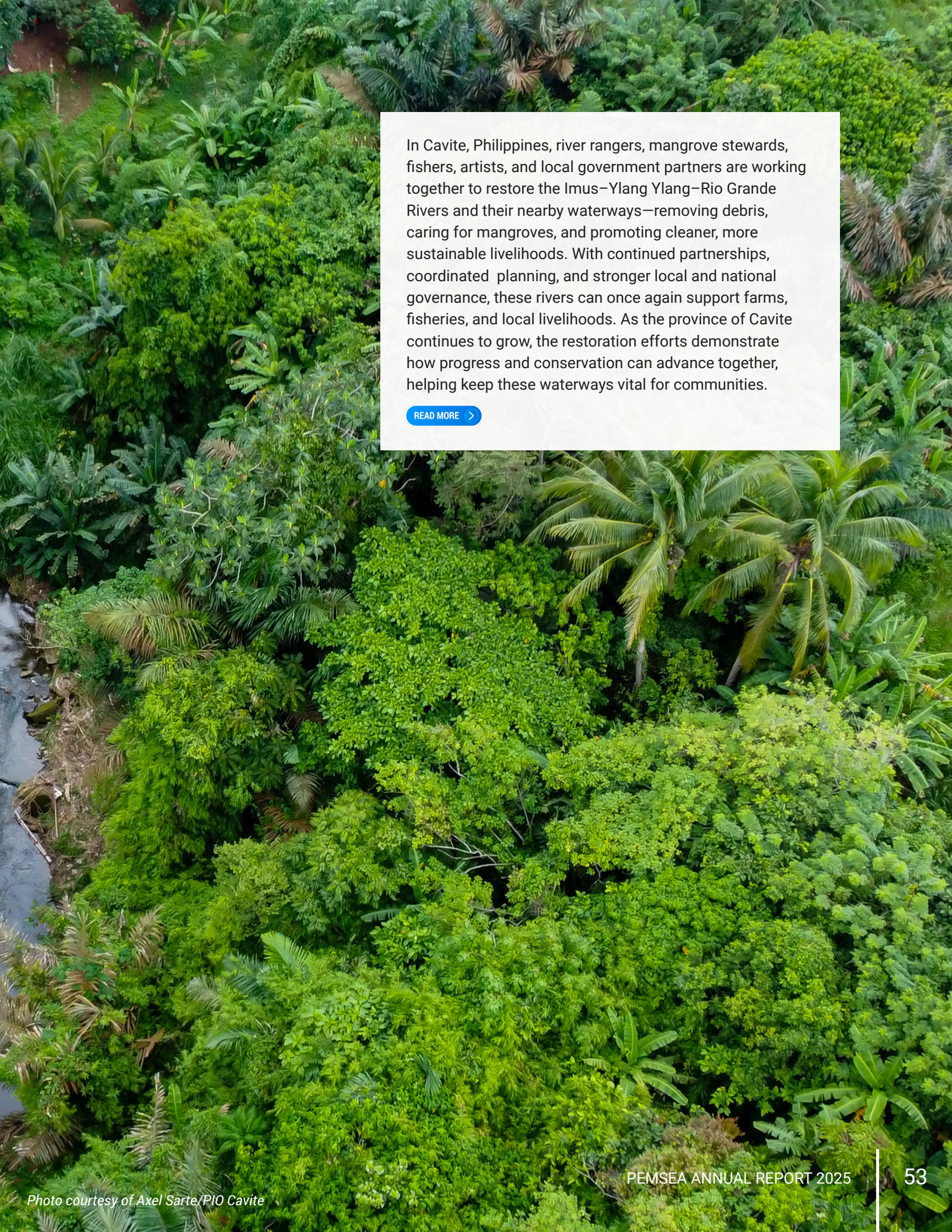


At the break of dawn, the river stirs to life. Boats cut through the water, fishing nets are untangled, and voices murmur over the steady rhythm of daily labor. Along the riverbanks, women fix fishing nets, sort crabs, and prepare their harvests for market—each movement a routine part of life in this coastal wetland.

[READ MORE >](#)



Restoring the Flow: Imus-Ylang Ylang-Rio Grande Rivers

An aerial photograph of a dense tropical forest. The forest is composed of various types of trees and plants, including palm trees and banana plants. A river is visible on the left side of the image, flowing through the forest. The overall scene is vibrant green and lush.

In Cavite, Philippines, river rangers, mangrove stewards, fishers, artists, and local government partners are working together to restore the Imus–Ylang Ylang–Rio Grande Rivers and their nearby waterways—removing debris, caring for mangroves, and promoting cleaner, more sustainable livelihoods. With continued partnerships, coordinated planning, and stronger local and national governance, these rivers can once again support farms, fisheries, and local livelihoods. As the province of Cavite continues to grow, the restoration efforts demonstrate how progress and conservation can advance together, helping keep these waterways vital for communities.

[READ MORE >](#)

Securing the Future of the Arafura and Timor Seas

In 2025, the Arafura and Timor Seas Ecosystem Action (ATSEA) Program entered its first year of transition from a regional project to a regional program. Building on more than a decade of collaboration under the ATSEA 1 and ATSEA-2 projects, the year focused on maintaining momentum while laying the institutional, financial, and coordination foundations needed to implement the Arafura and Timor Seas (ATS) Strategic Action Programme (SAP) 2024–2033.

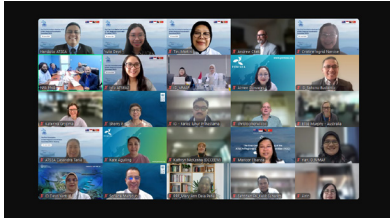
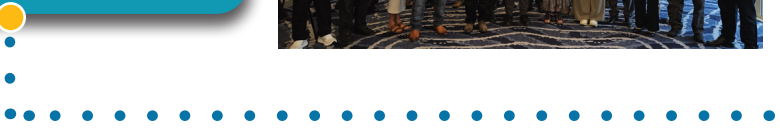
Under the new SAP, ATSEA participating countries continued to work together to strengthen regional coordination, advance priority actions, and sustain cooperation across shared marine ecosystems. Key efforts in 2025 centred on strengthening governance arrangements, developing strategic partners, and the initial rollout of SAP implementation, particularly on addressing abandoned, lost, or otherwise discarded fishing gear (ALDFG).

Key Activities and Achievements in 2025

Setting the foundations

- The ATSEA Regional Coordination Committee (RCC) was established, supported by an Interim Regional Secretariat to coordinate regional activities during the transition period.
- Two Consultative RCC Meetings and the Second Annual RCC Meeting were convened to review progress and guide program implementation and transition priorities.
- Regional consultations on institutionalizing the Regional Governance Mechanism (RGM) were conducted, resulting in agreement to pursue a hybrid institutional arrangement, including a potential strategic association with the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF) from 2027.
- Collaboration with PEMSEA continued with PEMSEA Resource Facility as ATSEA Program's Fund Manager
- PEMSEA, Oil Spill Response Limited (OSRL), and the Coral Triangle Center (CTC) were endorsed as Strategic Development Partners.

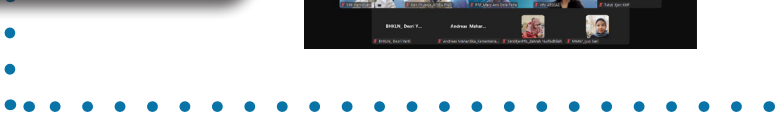
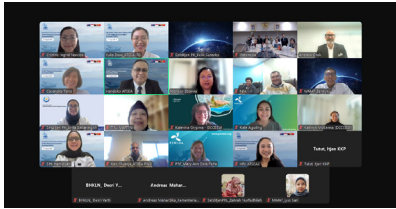
ALDFG Regional Workshop
4-7 February 2025
Cairns, Australia



First Consultative RCC Meeting
25 June 2025



Second Consultative RCC Meeting
21 August 2025



ALDFG Strategic Planning Workshop
30 September - 2 October 2025
Makassar, Indonesia



Second Annual RCC Meeting
3-4 December 2025
Jakarta, Indonesia



Implementing Key Components of the ATS

Strategic Action Programme

- The funding was secured from the Mohamed bin Zayed Species Conservation Fund to support a dugong and seagrass conservation project in Rote Ndao, Indonesia, for implementation in 2026–2027.
- Operationalization of the ATSEA ALDFG Workplan to support the development of the Regional Action Plan (RAP) on ALDFG through the :
 - Development of a regional Situation Analysis was undertaken to assess key threats, current status, opportunities, and recommended actions to address ALDFG in the ATS region and validated through several stakeholder consultations;
 - Conduct of field assessments in Fisheries Management Area (FMA) 718 in Indonesia and across Daru and 14 ForeCoast villages in South Fly District, Papua New Guinea, to validate regional findings and capture on-the-ground realities of gear loss and management practices;
 - Translations of regional priorities and findings into nationally relevant action through an ALDFG Strategic Planning Workshop in Makassar, Indonesia.
- Knowledge sharing and outreach were strengthened through quarterly newsletters, digital platforms, and contributions to regional and global knowledge products, including the Roadmap to Oceans and Climate Action (ROCA) 2024–2025 Report.



A man wearing a blue bucket hat, a bright blue tank top, and white shorts with yellow stars is working on a fishing net. He is holding a white thread and a needle. The background shows a wooden structure and palm trees.

Life Beyond Fishing: Passing On the Craft of Net-Making in Merauke

By Yulia Dewi and Norce Mote (Musamus University)

In Samkai Village, Merauke District, Indonesia, a group of elderly fishers has found a new way to stay productive even though they can no longer go to sea. They gather at Sanggar Nelayan, a communal workshop where retired fishers make and repair fishing nets, an initiative led by Ilyas Aleks Gebze since 2010.



Merauke, located in Indonesia's easternmost region, is known for its strong fishing culture. As time passes, however, many older fishers are no longer physically able to venture offshore, despite still having valuable skills passed down through generations. Recognising this, Ilyas invited them to work together at his home, which gradually evolved into a shared space for daily collaboration, conversation, and mutual support.

Today, Sanggar Nelayan brings together ten elderly fishers who regularly gather to repair damaged nets or make new ones by hand. Most of the nets are used by younger fishers, including their own children, while some are sold to provide additional income for the group.

"We may not be able to go to sea anymore, but we can still help those who do," said Ilyas. "In this way, the skill of making nets continues to live on and remains useful."

He explained that not all fishers know how to make or properly repair nets, and that this knowledge is gradually disappearing. For Ilyas, passing on these skills is as important as fishing itself. He believes the sea is not only about catching fish, but also about caring for the tools that make fishing possible.

Handmade nets, according to Ilyas, are stronger and easier to repair than factory-made ones. When mass-produced nets are damaged, they are often discarded and can end up in the ocean. Handmade nets, by contrast, can be repaired many times, making them more durable and reducing waste.

Concern for the condition of the sea was one of the motivations behind establishing Sanggar Nelayan. A survey conducted by the ATSEA team found that fishers in Merauke frequently

lose nets after they become entangled on coral reefs, rocky seabeds, or shipwrecks. Each fisher can lose between two and sixty nets per year, highlighting how abandoned, lost, or otherwise discarded fishing gear (ALDFG) remains a serious challenge. By producing stronger and repairable nets, initiatives like Sanggar Nelayan help reduce this risk.

Beyond its social and economic benefits, the workshop also shows how local action can contribute to addressing broader marine issues. A few years ago, Sanggar Nelayan received support from the District Fisheries Office in the form of nylon materials for net production.

On 10–11 October 2025, Ilyas shared his skills with community members in Rawa Biru Village, Merauke District. Through hands-on training, he demonstrated net-making and repair techniques while encouraging responsible use of fishing gear. Ilyas hopes that Sanggar Nelayan will continue as a learning space for younger fishers. He believes that caring for the sea is not only done on the water but also on land, through diligent hands and the spirit of sharing knowledge.



CHAPTER 4

Linking ICM with MSP and EAFM tools in Collaboration with ACB

ASEAN ENMAPS Project

In 2025, the PEMSEA Resource Facility continued to mainstream Integrated Coastal Management (ICM) under the UNDP/GEF five-year project entitled “Effective Managing Networks of Marine Protected Areas in Large Marine Ecosystems in the ASEAN Region” or the ASEAN ENMAPS Project. Through a partnership with the ASEAN Centre for Biodiversity (ACB), PRF supports the sustainable management of Marine Protected Areas (MPAs) across Indonesia, the Philippines, and Thailand.

The project applies integrated management approaches—linking Integrated Coastal Management, Marine Spatial Planning, and the Ecosystem Approach to Fisheries Management—to safeguard marine biodiversity, strengthen local livelihoods, and address challenges such as overfishing, habitat loss, and climate impacts.

On the ground, PRF supports the implementation of the ENMAPS project through capacity-building initiatives that equip local stakeholders with the tools and knowledge to plan and manage MPAs effectively.

In Indonesia’s Togean Islands National Park, PRF worked with IPB University and local partners to engage local government officials and community representatives through webinars, dialogues, and on-site training. The consultations identified

gaps in zoning, governance, and coordination while generating practical recommendations for harmonized planning and sustainable livelihoods.

Lessons from this process inform initial site validation in the Philippines and preparations in Thailand, ensuring that training materials and approaches are tailored to local contexts and needs.

Launched in 2024, the ASEAN ENMAPS Project focuses on enhancing MPA management across 11 pilot sites in Indonesia, the Philippines, and Thailand. Supported by the Global Environment Facility and implemented by UNDP, the project promotes the integration of ICM, MSP, and EAFM approaches to create sustainable and replicable models of marine conservation across Southeast Asia.



Navigating Five Years of Collaboration: GloFouling Partnerships Project Concludes

The GEF/UNDP/IMO **GloFouling Partnerships** Project reached a significant milestone at the 3rd Global Project Task Force Meeting and the Women in Maritime Workshop, held in Indonesia on 10–13 March 2025. Over five years, the project brought together governments, research institutes, the private sector, and civil society to address one of maritime transport’s often underrecognized threats: invasive aquatic species spread through biofouling.

Designed to identify gaps in national and regional policies, strengthen capacity for implementing the 2011 IMO Biofouling Guidelines, and engage private sector innovation, the initiative transformed biofouling management from a scattered effort into a coordinated regional strategy.

The PEMSEA Resource Facility played a pivotal role in coordinating preparatory activities, culminating in the approval of the Regional Strategy and Action Plan on Biofouling Management by the 16th East Asian Seas Partnership Council and ASEAN Transport Ministers in November 2024.

Guided by SDG 14 and aligned with global biodiversity and climate targets, the strategy outlines five core objectives: establishing national governance frameworks; promoting research, development, and technology exchange; building awareness and capacity; securing sustainable financing; and enhancing stakeholder cooperation.

Across the region, tangible outcomes demonstrate the project’s impact. Baseline assessments in Indonesia, Malaysia, and the Philippines quantified biofouling’s economic and environmental risks, while national strategies



were developed to address country-specific priorities. Regional workshops strengthened awareness and capacity among policymakers, port authorities, and industry stakeholders, and a dedicated Regional Task Force facilitated dialogue among government agencies, research institutions, private actors, and NGOs.

With the Regional Strategy now endorsed and operational, PEMSEA continues to support implementation, monitor progress, and report to both the East Asian Seas Partnership Council and the ASEAN Working Group on Maritime Transport.

Looking ahead, PEMSEA worked with the International Maritime Organization (IMO) on a full proposal for **GloFouling Phase 2** under the GEF-9 replenishment fund. The proposed phase focuses on strengthening the technical capacity of ASEAN Member States and PEMSEA country partners to support active participation in negotiations toward a global treaty on biofouling management within the IMO framework.

CHAPTER 5

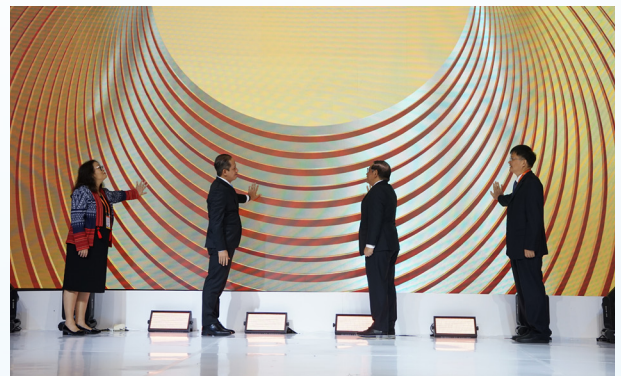
Strengthening Networks

The 2025 PNLG Annual Forum, hosted by the Jakarta Provincial Government on 16–18 September 2025, brought together more than 200 participants from nine countries across East Asia. With the theme “Towards a Sustainable and Inclusive Blue Economy: Linking Climate, Nature and Energy,” the Forum demonstrated how local governments, learning centers, and communities in the East Asian Seas are translating global commitments into concrete coastal action.

The opening set an ambitious tone. In his keynote, Minister of Environment Hanif Faisol Nurofiq called the PNLG a “critical juncture for ocean governance,” championing local governments as “essential frontliners and innovators.” He stressed that a truly sustainable blue economy must center communities, fisherfolks, women, and youth at the heart of policies, and emphasized the vital role of mangroves, blue carbon, and renewable ocean energy. Jakarta launched its State of the Coasts (SOC) Report 2025 - a living planning tool aligning the city’s growth with ecological resilience and offering a replicable model for coastal megacities.

Delegates also witnessed the recognition of students in the C40 Student Reinventing Cities competition, showcasing youth-led designs for transforming Jakarta’s Onrust Archaeological Museum into a model of sustainability.





Joint Learning Forum: Knowledge into Action

The PNLG–PNLC Joint Learning Forum, held on 16 September, was designed to bridge science and policy with local realities, turning research into practical guidance for action. The sessions provided a platform for local governments, learning centers, and CSOs to exchange innovations, grounded in the theme of connecting climate, nature, and energy.

The plenary session on “Source-to-Sea Governance: Science-based Tools and Strategies for Local Action” explored four case studies that revealed a common thread: integrated approaches, grounded in science and community ownership, deliver the most durable results..

Jakarta’s ICM framework showed how a megacity can link land, river, and coastal management – improving its Ocean Health Index from 68.67 to 71.06, restoring mangroves across the Thousand Islands, and producing over 32,000 tonnes of urban agricultural output. IPB University’s co-governance model in Jor Bay in West Nusa Tenggara demonstrated that community-led co-governance, rooted in customary knowledge and multi-stakeholder trust, can reverse ecosystem decline and outlast project funding cycles.

Fangchenggang’s ecological seawall - a five-layer system integrating 33 indigenous species - withstood ten typhoons, boosted mangrove coverage from 5% to 85%, sequestered 18 tons of CO₂, and generated RMB 70 million in tourism revenue, proving that nature-based coastal protection can also drive economic growth. Jakarta’s Ontrust Island initiative illustrated how heritage, ecology, and livelihoods can converge in a sustainable eco-tourism model built on public-private partnerships. Ms. Nancy Bermas of PRF who served as facilitator, stressed that these examples demonstrate how blue economy progress requires cross-sector policy integration;



science-based tools must be accessible to local decision-makers; and a whole-of-society approach – engaging youth, women, indigenous communities, and the private sector – is essential for sustained impact.

The interactive panel sessions in the afternoon further deepened the exchange. The first panel, moderated by Prof. Dr. Luky Adrianto of IPB University, explored how cities and provinces are applying digital tools, community leadership, and adaptive planning to cope with climate impacts. Busan City presented its digital maritime solutions— including satellite ocean monitoring, smart port systems, and AI-enabled debris tracking – as scalable models for regional replication.

The second panel, moderated by Dr. Handoko Adi Susanto, examined practical pathways to scale the blue economy. Dongying, China, introduced its innovative “fishery–photovoltaic” model integrating aquaculture with solar power generation; other presentations emphasized the importance of ecosystem service valuation in policymaking and the success of community-based fisheries management in promoting stewardship and livelihoods.



General Assembly: A Milestone Year

On 17 September, the PNLG General Assembly celebrated PNLG's 20th anniversary. Chaired by PNLG Secretariat's Executive Deputy Secretary-General, Mr. Lin Huaiyuan, the session featured the installation and oath-taking of Dr. Ma. Lucille Nava as PNLG President, induction of Central Java Province as the newest member, the presentation

of a Plaque of Appreciation to Jakarta, host of the 2025 forum, and the handover of the PNLG flag to Busan City, Republic of Korea, host of the 2026 Forum. Delegates also approved the 2026 Work Plan, refined strategies for the Strategic Action Plan, and examined the ecological and economic benefits of PEMSEA's blue carbon program.

Field Visits: Innovation on the Ground

Complementing the discussions, delegates joined field visits to Pulau Seribu (Thousand Islands) and Tanjung Priok. In Pulau Seribu, participants conducted coral transplanting and engaged with local stakeholders on managing coastal conservation tourism, marine pollution, and sustainable livelihoods. At Tanjung Priok, they observed port innovations designed to reduce greenhouse gas emissions, highlighting Jakarta's commitment to aligning economic transformation with climate action.





Governor Lucille Nava of Guimaras Takes Oath as PNLG President 2025-2028

Guimaras Governor Ma. Lucille Ledesma-Nava formally took her oath as President of the PEMSEA Network of Local Governments (PNLG) during its General Assembly on 17 September 2025, hosted by the Provincial Government of Jakarta, in Jakarta, Indonesia.

Governor Nava, who leads the island-province of Guimaras in the Philippines, was chosen to helm the network of local governments, linking 60 members from 10 countries. As PNLG President, she will preside over the General Assembly and Executive Committee, represent the network in regional and international engagements, and serve as its spokesperson on issues concerning sustainable coastal and marine governance.

In her speech, Governor Nava expressed gratitude and cited the urgency of the work ahead. Block quote: “This responsibility comes at a crucial time. Climate change, marine pollution, and biodiversity loss are reshaping the lives of our communities. No city or province can act alone to tackle these persistent crises—our strength lies in solidarity and shared leadership,” she said.

Doctor and Public Servant

A physician by training, Governor Nava earned her medical degree at Iloilo Doctors’ College of Medicine and pursued specialization in infectious diseases at St. Luke’s Medical Center. She later transitioned into public service as Guimaras’ district representative in the Congress before being elected provincial governor.

As legislator, she served as Vice Chairperson of the House Committee on Appropriations, defending budgets for health agencies and state universities, and authored several landmark laws. Among her notable measures are Republic Act 12225, declaring the Taklong and Tandong Islands a protected natural park, and Republic Act 12069, upgrading Guimaras’ provincial hospital to enhance health care services. She also authored the law on the permanent validity of civil registration documents, easing bureaucratic burdens for Filipinos at home and abroad.

A champion of women’s empowerment in Guimaras, she established the Integrated Women’s Alliance of Guimaras, which supports



fisherfolk, farmers, and housewives through skills training and livelihood initiatives. Her leadership has earned her recognition from the National Nutrition Council, the Philippine Red Cross, and a Gawad Pilipino Award for Outstanding Congresswoman in 2025.

Now at the helm of PNLG, Governor Nava takes on the responsibility of steering PNLG’s collective agenda at a time when coastal communities across the region face unprecedented environmental pressures. To be presented as block quote: “Together, let us build healthy seas, resilient communities, and a future where our people’s welfare remains at the heart of coastal governance,” she said.



Sustainability in Action

In 2008, Guimaras province became PNLG’s 24th member following its adoption of Integrated Coastal Management (ICM) with technical support from PEMSEA. Since then, the province has been recognized as an ICM learning site where best practices in addressing priority issues including fisheries management, marine protected areas, pollution control, disaster risk reduction, and community-based livelihood initiatives have been documented and shared with other local governments across the region.

The province has also successfully mainstreamed ICM into its provincial development planning process, creating an enabling framework that balances environmental conservation with socio-economic growth and developed the province’s State of the Coasts’ report.





SAT KAJIA SUMBER DAYA PERIKANAN DAN LAUTAN



Shaping the Next Phase of the PNLC

The PEMSEA Network of Learning Centers Executive Committee (PNLC EC) convened last 15 September 2025 at IPB University in Bogor, Indonesia to review the progress in Calendar Years (CY) 2024 to 2025 and set priorities for CY 2025 to 2026.

They discussed updates on the implementation of projects that engage several learning centers, including the MOF/PEMSEA Marine Plastics ODA Project, the GEF/UNDP/ASEAN Integrated

River Basin Management Project, and the ASEAN ENMAPS Project. They also discussed youth and early-career professional engagement strategies, and reviewed financial sustainability including membership fees and resource mobilization.

The PNLC EC also endorsed preparations for the 5th PNLC General Assembly, reviewed the network's structure, and discussed ways to enhance PNLC's engagement in the Blue Carbon Program.

On Progress and Challenges: Regional Training Aims to Enhance Blue Carbon Knowledge and Inform Strategies in the East Asian Seas

As part of a holistic response to the worsening climate change crisis, the East Asian Seas region is working on nature based solutions from mangroves, seagrasses, tidal marshes, and seagrass beds, or blue carbon ecosystems (BCEs) for measuring and monitoring carbon sequestration and building coastal resilience. The regional workshop in Chonburi, Thailand, organized by the PEMSEA Network of Learning Centers (PNLC), co-sponsored by Burapha University and the University of Hawai'i, brought together experts, trainers, and early to mid-career professionals from nine countries to assess the status of BCE inventories, evaluate carbon stock protocols, and identify capacity-building needs in the region.

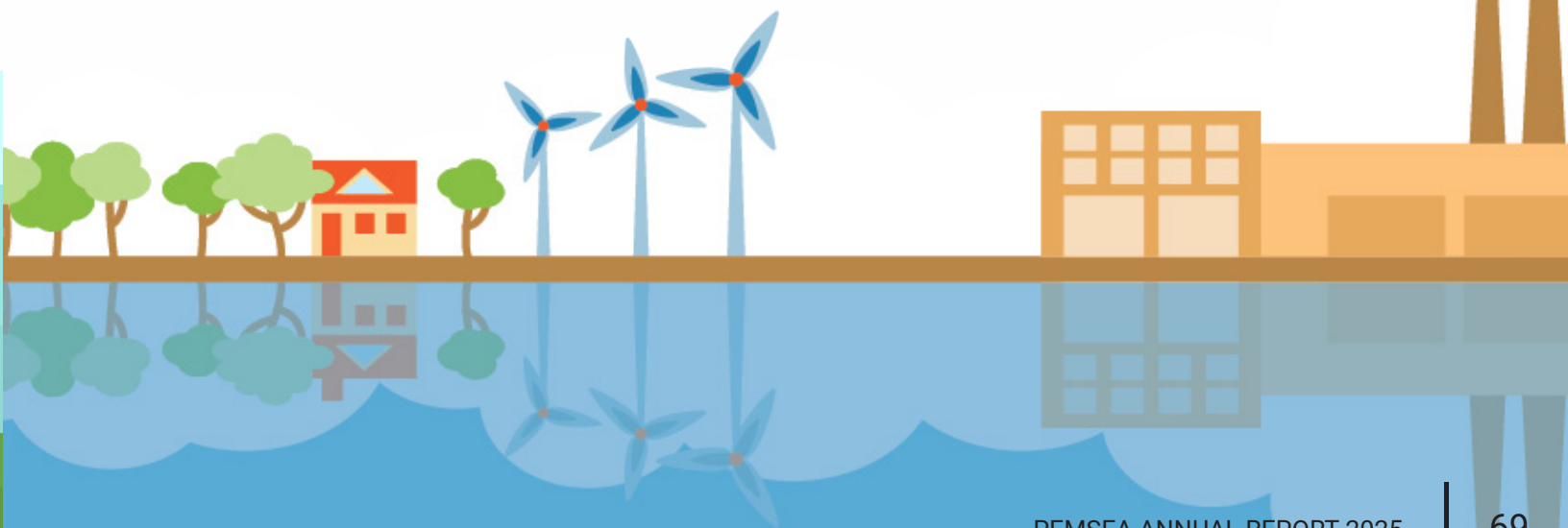
The workshop, "Training on Integrating Blue Carbon into the Integrated Coastal Management (ICM) Framework," highlighted the urgency for standardized methodologies, more comprehensive and accessible funding mechanisms, capacity building and strengthened regional collaboration to safeguard these ecosystems, which store up to five times more carbon per hectare than terrestrial forests.

Climate Crisis at Coastlines

Dr. Brian Szuster from the University of Hawai'i at Manoa warned participants that global sea levels have risen by 23 centimeters since the late 19th century, with oceans absorbing over 90% of excess heat emissions. According to Dr. Szuster, climate change is threatening coastal regions worldwide, with consequences including coral bleaching, ocean acidification, and potentially complete coral reef destruction by the end of the century.



These impacts extend far beyond ecosystem health. Approximately 10% of the global population lives within five kilometers of coastlines, relying on marine resources and ecosystem services for nutrition and food security, livelihoods and economic stability, and natural protection from storms. Southeast Asia, with its numerous coastal megacities, faces particular vulnerability.



Blue carbon ecosystems including mangroves, seagrasses, and tidal marshes sequester carbon at rates up to five times higher than terrestrial forests, yet they continue to disappear at alarming rates globally.

Regional Action Through ICM

In the East Asian Seas region, which houses approximately 31% of the world's mangroves and 33% of coral reefs, implementing effective coastal management frameworks is critical. The workshop highlighted successful examples of Integrated Coastal Management (ICM) implementation from Indonesia, where cities like Bontang and Tangerang have achieved measurable environmental and economic improvements.

The Indonesian case studies demonstrated how localized approaches could successfully balance ecosystem preservation with economic development. In Bontang City, marine protected areas were established with distinct zoning for core protection (12.68%), sustainable fisheries (63.57%), and limited-use tourism (22.75%). Tangerang Regency implemented a comprehensive coastal community development program that significantly expanded mangrove coverage between 2014 to 2023.

"Ensuring political commitment to ICM implementation is imperative to ensure its sustainability. There is a need to constantly coordinate and showcase ICM impacts at the local level to gain confidence from local governments," said Dr. Yonvitner, President of the PNLC.

While BCEs are increasingly recognized for their climate mitigation potential, their documentation remains uneven across the region. Experts noted that countries like Indonesia, Thailand, and the Philippines have made advances in mapping mangroves and seagrasses, but comprehensive inventories for seagrasses, tidal flats and seaweed beds are still lacking.

A key challenge is the absence of standardized protocols for measuring carbon stocks. Participants called for regional harmonization of methodologies to ensure comparability and improve carbon credit verification.



Dr. Keita Furukawa emphasized that blue carbon ecosystems serve as frontline defenses for coastal communities, where community-based management has proven critical. Case studies from across the region demonstrated how locally led restoration of mangroves and seagrasses not only enhanced carbon storage but also reduced erosion and supported fisheries.

He cautioned, however, that poorly planned coastal development could undermine these gains, such as infrastructure projects which alter tidal flows, increase sedimentation and in turn, smother seagrass beds.

With regard to climate adaptation, Dr. Furukawa stressed that BCEs must be integrated into national adaptation strategies to address sea-level rise, changing precipitation patterns, and increased storm disturbances.

Dr. Furukawa's sessions on blue carbon valuation and the JBlue credit system drew particular interest from participants. He presented Japan's approach to monetizing ecosystem services through the "Japan Blue Economy" (JBlue) framework, which aims to channel private investment into coastal conservation efforts. "The economic valuation of blue carbon ecosystems goes far beyond their carbon sequestration value," Dr. Furukawa explained.

"When we account for coastal protection, fisheries support, biodiversity, and tourism benefits, the true value of these ecosystems becomes compelling for both public and private investment," he added.

His presentation detailed how blue carbon credit systems can create marketplace opportunities that connect coastal communities with corporations seeking to invest in nature-based solutions. Dr. Furukawa shared insights from Japan's experience in developing methodologies for blue carbon accounting and creating mechanisms that enable the private sector to support conservation while meeting sustainability goals.

Workshop participants engaged in robust discussions about adapting similar approaches to their respective countries, with particular focus on overcoming regulatory barriers and ensuring equitable benefit-sharing with local communities.

Financing the Blue Future

With the ocean economy projected to reach USD 3 trillion by 2035, innovative financing mechanisms like blue bonds and loans are gaining traction but need substantial scaling up. The World Bank is supporting the government of Thailand to launch a sovereign blue bond to strengthen its blue economy, representing one of several emerging financing solutions in the region.

Despite its economic importance with ocean-related activities in Thailand's coastal provinces contributing nearly 30% of the country's GDP, funding for marine and coastal resource

management continues to decline. Climate projections indicate that by 2050, numerous coastal regions across Southeast Asia will face inundation from sea-level rise, with estimated economic losses in Indonesia alone potentially reaching trillions of rupiah.

"The private sector plays a significant role in the recovery of the blue economy while enabling industries to generate new investments. Momentum is building for innovative blue finance, among investors, financial institutions, and issuers globally," said Ms. Waraporn Hirunwatsiri, Senior Environmental Specialist at the World Bank.

Despite their value, blue carbon initiatives remain severely underfunded. Between 2009 and 2019, philanthropic funding for blue carbon projects constituted just 0.34% of total ocean conservation grants. Current investment represents approximately 1% of what experts estimate is needed to fully restore these vital ecosystems worldwide.

Call to Action

The workshop yielded several outcomes that will shape regional approaches to the management and conservation of blue carbon ecosystems across the region. Group discussions effectively identified the current status, knowledge gaps, and



opportunities within blue carbon science across the region and created the basis for identifying concrete next steps to develop action plans for PNLC members to further support blue carbon initiatives at the local level.

The workshop featured poster presentations of various academically blue carbon initiatives and studies from throughout the region. These covered diverse aspects of blue carbon research including carbon stock accounting, policy development approaches, citizen science programs, and monitoring methodologies for blue carbon ecosystems.

In a discussion led by Mr. Yinfeng Guo, he focused on establishing enabling policy and legal frameworks for blue carbon ecosystems in the region and explored international commitments and frameworks relevant to blue carbon ecosystems. He examined how blue carbon ecosystem initiatives and other ocean-based solutions are integrated within the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA).



The session revealed that while numerous enabling policy and legal frameworks exist at international and regional levels supporting the conservation and restoration of blue carbon ecosystems, integration of blue carbon and nature-based solutions at the national level exists but remains incomplete across many countries.

The workshop concluded with a call on how the PEMSEA Network of Learning Centers can support regional blue carbon programs and emphasized the need for better policy integration, stronger local governance capabilities, and innovative financing mechanisms to protect these vital ecosystems.

As the East and Southeast Asian seas are currently updating their climate commitments ahead of the 2025 UN deadline to report on national climate plans, integrating blue carbon ecosystems in climate strategies has never been more urgent not just for environmental protection but for securing coastal communities' livelihoods and economies against growing climate threats.



PEMSEA Launches Regional Training Initiative on Integrated Coastal Management in Xiamen

Experts and members of the PEMSEA Network of Learning Centers (PNLC) from 11 countries in the region gather in Xiamen, China for a 5-day “Training of Trainers on Marine Spatial Planning (MSP) Application in the Scaling-up of Integrated Coastal Management (ICM)” from 21-25 April 2025.

Organized by the Fujian Institute for Sustainable Oceans (Xiamen University), Sustainable Coastal Development Capacity-Building Research Lab, and PEMSEA, with support from China Oceanic Development Foundation, the program aims to train PNLC members and marine professionals in ICM and MSP frameworks, develop a standardized ICM-MSP course, and establish a regional pool of qualified trainers on integrated coastal and marine management to foster sustainable, inclusive and resilient blue economy.

GEF Training Boosts Project Oversight among the East Asian Seas Regional Operational Focal Points

The Global Environment Facility (GEF) Secretariat, in partnership with the PEMSEA and the Philippines’ Department of Environment and Natural Resources (DENR), convened Operational Focal Points (OFPs) from Cambodia, Indonesia, Lao PDR, the Philippines, Thailand, and Viet Nam for a two-day Regional Project Oversight Training in Taguig City, Philippines.

The workshop strengthened the capacity of OFPs to oversee the planning and implementation of GEF-funded projects, while reinforcing regional collaboration toward shared environmental goals. In Asia and the Pacific alone, GEF has invested USD 6 billion, mobilizing more than USD 44 billion in co-financing to support over 1,190 projects delivered with 11 partner agencies.

GEF leadership underscored that OFPs serve as the Secretariat’s most important strategic partners at the country level and highlighted the need for closer, more direct engagement. Asia Pacific GEF representative and DENR Undersecretary Analiza Rebueta-Teh emphasized accountability, leadership, and collaboration in

project oversight, noting that shared seas and ecosystems call for stronger regional cooperation to address climate change and biodiversity loss.

Drawing from three decades of regional partnerships, Nancy Bermas of the GEF/UNDP/ASEAN Integrated River Basin Management Project emphasized aligning projects with national and global priorities, integrating gender equality and social inclusion, strengthening monitoring systems, and institutionalizing sustainability. She stressed that early and meaningful stakeholder engagement fosters ownership and improves long-term results.

Participants also visited the GEF/UNIDO/DENR Cold Chain Innovation Hub in Taguig, where they examined low-carbon refrigeration technologies designed to reduce greenhouse gas emissions while enhancing food safety and security. OFPs noted that the training reinforced the importance of adaptive management, knowledge-sharing, and strong country ownership to ensure more efficient and sustainable project outcomes.

CHAPTER 6

Steering Conversations in the Global Fora

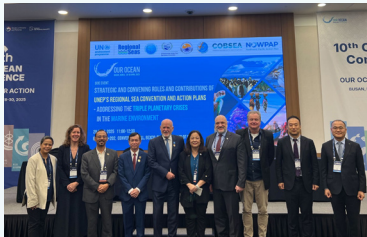
In 2025, PEMSEA strengthened its presence across regional and global platforms, amplifying the voice of the East Asian Seas region and actively shaping international discourse.

Through dialogues and workshops represented by PEMSEA's Executive Director Ms. Aimee Gonzales and its regional project managers, PEMSEA advanced integrated coastal management (ICM), marine plastics reduction, river basin governance and blue carbon solutions in high-level arenas. Through panel interventions, technical presentations and strategic convening, PEMSEA consistently positioned regional experience as practical evidence to inform global commitments on ocean governance, climate resilience and sustainable development.

In its three decades of ICM implementation experience, science-based tools and technical guidance into global discussions, PEMSEA's presence in the global stage ensures that regional realities of the EAS inform international policy frameworks. In doing so, it transforms dialogue into direction, steering global conversations toward solutions grounded in partnerships and impact.

APRIL

10th Our Ocean Conference Busan, Republic of Korea



Ms. Gonzales participated as panelist in the UNEP Regional Seas session on Strategic and convening roles and contributions of UNEP's Regional Sea Convention and Action Plans - Addressing the Triple Planetary Crisis in the Marine Environment.

Collective Action in Implementing the 30x30 GBF targets: Establishing a Regional Collaborative Network of Marine Protected Areas in the East Asian Seas EAS



Co-organized by PEMSEA with COBSEA, ATSEA, ACB, CTI-CFF, IOC-WESTPAC, IUCN Asia-Pacific, NEAMPAN, SCS-SAP Project, and the Global Network of MPA Network, this side event aims establish a Regional Collaborative Network of Marine Protected Areas and help governments secure their 30x30 targets while enhancing protection of the region's valuable marine ecosystems.

**Nikkei Forum Future of Asia Panel on Sustainable Uses of Oceans and Marine Resources Supported by International Cooperation
Tokyo, Japan**

MAY

On 29 May 2025 leaders from across Asia and the Pacific gathered to tackle the growing crisis threatening the world’s oceans. At the Nikkei Forum Future of Asia panel on “Sustainable Uses of Oceans and Marine Resources Supported by International Cooperation”, moderated by Dr. Atsushi Sunami of the Sasakawa Peace Foundation, Ms. Gonzales emphasized the critical importance of science-based management and strategic partnerships in addressing regional marine challenges.



JUNE

**UN Ocean Conference (UNOC3)
Nice, France**



PEMSEA joined eight regional partners in formally launching the Network during the Third United Nations Ocean Conference UNOC3 in Nice, France.

The side event, “Scaling Collective Action for 30x30: The East Asian Seas Regional Collaborative Network of MPAs,” took place in two parts and convened key stakeholders and international partners to accelerate collective efforts toward achieving the 30x30 target and Sustainable Development Goal 14.

In the high-level side event, “Enhancing Blue Carbon Partnerships: A China-EU Collaboration for Climate Action,” Ms. Gonzales, discussed the urgency of localizing blue carbon action across East Asia’s vast and biodiverse coastlines. Representing PEMSEA, she highlighted the partnership’s efforts to integrate science, community involvement, and legal frameworks to unlock the full potential of blue carbon ecosystems such as mangroves, seagrasses, and tidal flats.

JUNE



Seventh Meeting of the Working Group on Marine Litter of the Coordinating Body on the Seas of East Asia (COBSEA) Manila, Philippines

On 19 June 2025, Ms. Jessie Lee, Technical Advisor of the MOF/PEMSEA ODA Project on Reducing Marine Plastics in the East Asian Seas Region participated in the Seventh Meeting of the Working Group on Marine Litter (WGML) of COBSEA where she presented progress under the Marine Plastics ODA Project, including the recent baseline assessment of marine plastics in the Philippines and Timor-Leste, the preparation of pilot interventions, ongoing beach litter monitoring, and Marine Environmental Protector activities.

Second Southeast Asia Environmental Systems Regional Workshop Bangkok, Thailand

On 17-20 June 2025, Ms. Nancy Bermas, Regional Project Manager of the GEF/UNDP/ASEAN Integrated River Basin Management (IRBM) Project, served as panelist for the Session on Water Resources Management of the workshop.

In her intervention, Ms. Bermas emphasized the necessity of utilizing a toolbox of approaches to identify solutions that are responsive to the unique attributes of the region's river basins, including their transboundary nature. She elaborated on the opportunity to operationalize the Source-to-Sea (S2S) approach through the IRBM Project using river basin as the functional and operational unit and looking at S2S linkages focusing on pollution, freshwater flows and climate change.



ASEAN-Korea Investment and Market Mission Manila, Philippines

On 3 July 2025, Dr. Won-Tae Shin, Regional Project Manager MOF/PEMSEA ODA Project on Reducing Marine Plastics in the East Asian Seas Region served as moderator for the “Turning Waste into Wealth: Advancing Circular Economy for a Resilient Tomorrow,” session.

He discussed PEMSEA’s ongoing projects supported by the Korean Ministry of Oceans and Fisheries, including the Marine Plastics ODA Project in the Philippines and Timor-Leste. In addition, he highlighted PEMSEA’s work on Integrated River Basin Management, emphasizing the importance of upstream waste control. He affirmed PEMSEA’s commitment to providing technical guidance and supporting member countries with practical solutions tailored to their needs.

Capability Building on Innovative Leadership for Legislative Staff (CBILLS) Program Manila, Philippines

On 17 July 2025, Ms. Gonzales called on Philippine legislative officers to support fast tracking the passage of Blue Economy Act and Integrated Coastal Management (ICM) bills pending in the Philippine Congress, citing the economic and food security stakes linked to the protection and management of the country’s marine resources.

JULY



AUGUST



Southeast Asia Conference on Nature-based Solutions: Unlocking Financing and Local Action for Climate-Ready and Biodiversity-Positive Cities Singapore

Ms. Gonzales shared insights at the Session 1: Coastal Cities and Urban Resilience – Enhancing Biodiversity in Southeast Asia during the Southeast Asia Conference on Nature-based Solutions: Unlocking Financing and Local Action for Climate-Ready and Biodiversity-Positive Cities, organized by ICLEI – Local Governments for Sustainability held on 19-20 August 2025, in Singapore.

She introduced the PNLG as a platform for advancing coastal and marine resource management. She emphasized the critical role of local governments in protecting, managing, and restoring ecosystems, citing ICM as a foundational planning tool that enables LGUs to transition toward a blue economy while conserving biodiversity.

20th Year Anniversary of Total Pollutant Loading Management System (TPLMS) Implementation Busan, Republic of Korea

On 10 September 2025, the Ministry of Oceans and Fisheries (MOF) and Korea Maritime Institute (KMI) hosted and organized, respectively, a Commemoration Ceremony for the 20th Year Anniversary of TPLMS implementation in Korea at the Busan Port International Exhibition & Convention Center. The event was attended by representatives from MOF and KMI, from Masan Bay, Lake Sihwa, Busan Coast, Ulsan Coast and Gwangyang Bay with ongoing TPLMS programs, academic institutions involved in TPLMS studies and non-government and civil society organizations, including PEMSEA Resource Facility (PRF) and Chuo University, Japan.

SEPTEMBER

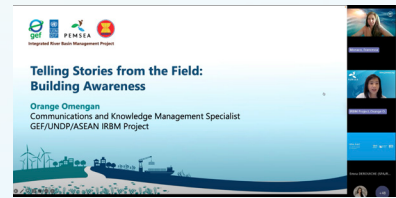


The ceremony included a conference where PRF, represented by Ms. Nancy Bermas, shared how the East Asian Region has benefited from the Regional Twinning Programme and Networking Arrangements that MOF and KMI supported between 2005-2011, which served as platform for knowledge and experience sharing on innovative approaches to ecosystem-based management of selected watersheds, estuaries and coastal and marine areas in the region.

Storytelling 101: Turning Projects and Results into Compelling Narratives Webinar

Orange Omengan, Communications and Knowledge Management Specialist of the GEF/UNDP/ASEAN IRBM Project, delivered a talk in the webinar, Storytelling 101: Turning Projects and Results into Compelling Narratives organized by GEF IW:LEARN on 26 September 2025.

Ms. Omengan shared one of the Project’s stories entitled, “The Women of Sasmuan: Sustaining Life along the River.” She discussed visual storytelling as a tool to feature communities, retell the stories of partners, and bridge science with realities on the ground. She stressed the importance of “amplifying voices” through compelling narratives that reflect community perspectives.



ICM and Maritime Economy Session Beijing, China

Ms. Gonzales spoke on 'Healthy Ocean, Healthy People and Healthy Economies: ICM for a Sustainable Blue Future' at the ICM and Maritime Economy Session on 28 September 2025. She gave the latest evolution of the practice of ICM in the East Asian Seas with stronger emphasis on nature-based solutions to combat climate change and strengthen coastal resilience, gender equity and social inclusion, thus contributing to global and regional targets. The session was participated by various ocean management experts and practitioners who shared their experience on ICM, MSP and how these tools contribute to the implementation of the blue economy in countries like Brunei, Indonesia, Malaysia, Timor Leste, China, Algeria, and Greece.

The session was part of the learning exchange organized by the Fujian Institute for the Sustainable Ocean (FISO) for the 3rd Marine Spatial Planning Cooperation Workshop for the Maritime Silk Road Partner Countries sponsored by China Oceanic Development Foundation held in Beijing, China.



OCTOBER

Blue Wave Conference Shenzhen, China



On 30 October 2025, PEMSEA organized the Rising Tides, Rising Leaders: Youth Science and Action for a Resilient Ocean forum to engage young leaders to engage youth perspectives within regional dialogue, the forum reinforces the role of emerging leaders in shaping inclusive and forward-looking ocean governance.

Insights generated from the session will directly inform the continued strengthening of the PEMSEA Network of Young Leaders, including the development of new pathways for collaboration, structured mentoring opportunities, and targeted capacity-building initiatives to support the next generation of coastal and ocean champions.

**COP30: Launch of the Report on Assessing Progress on Ocean and Climate Action: 2024-2025
Virtual Ocean Pavilion**

Ms. Gonzales joined the Launch of the Report on Assessing Progress on Ocean and Climate Action: 2024-2025 organized by the Global Ocean Forum at COP30’s Virtual Ocean Pavilion on 14 November 2025.

She discussed the region’s growing need for blue carbon solutions and presented insights from PEMSEA’s regional blue carbon program. She emphasized that the East Asian Seas remain one of the world’s most vulnerable regions to climate impacts, despite hosting some of the largest mangrove, seagrass and tidal marsh ecosystems. Ms. Gonzales outlined PEMSEA’s ongoing work to strengthen blue carbon conservation and accounting, including the development of a harmonized regional protocol, baseline assessments and guidance designed to support national climate commitments, voluntary carbon markets and local government access to financing.

The Blue Way for SMEs in Asia and the Pacific Webinar

On 25 November 2025, the Asian Development Bank (ADB) and the UN Environment Programme (UNEP) organized a webinar where Ms. Nancy Bermas, shared insights on how PEMSEA helps build the enabling environment for Smaller and Medium Enterprises (SMEs) engagement in a sustainable blue economy.

She highlighted PEMSEA’s experience in implementing projects and programs over the past three decades creating opportunities for SMEs involvement particularly at the local level. Ms. Bermas cited several projects of PEMSEA with blue economy investment components that can provide the platform for scoping the SMEs that are operating in the project sites and help assess their readiness to transition to the blue economy.

NOVEMBER





Young Ocean Leaders Call for Stronger Support, Funding to Sustain Youth-led Marine Initiatives

Young ocean leaders from across the East Asian Seas (EAS) region called for greater access to funding and long-term institutional support to sustain youth-led marine conservation projects during the Rising Tides, Rising Leaders: Youth Science and Action for a Resilient Ocean forum organized by PEMSEA at the Blue Wave Conference held in Shenzhen, China on 30 October 2025.

The session gathered emerging ocean leaders working in ocean science, policy, and community-based marine programs, many of whom are already leading monitoring initiatives, conservation programs, and science communication efforts despite limited resources.

Aimee Gonzales, Executive Director of the PEMSEA Resource Facility (PRF), emphasized PEMSEA's commitment to collaborative and inclusive ocean governance. "PEMSEA continues to provide platforms where the youth can learn, influence, and lead," she said, citing the EAS Youth Forum and the PEMSEA Network of Young Leaders.

"We would like to learn how you are engaging with your communities, how you are advocating for sustainable practices, how you are applying ocean tools and solutions, and also how you share your results and recommendations to your target beneficiaries, to your governments," she said.

Realities on the Ground

Across the EAS region, youth-led initiatives have grown more visible and impactful. However, nearly everyone in the panel described common barriers: funding constraints, gaps in technical capacity, and limited policy access.

Ahmad Rijayat, Research Fellow at IPB University in Indonesia, and conducts research on shark and ray conservation highlighted how insufficient data, often due to lack of research funding and field equipment creates barriers to policy change.



“It is challenging for scientists to collect, improve, and enhance our data. We need robust data to support our policy input for sustainability in fisheries management,” he said. He also noted limited funding and technical resources needed for capacity building.

Ahmad Rijayat, Indonesia

Keomanivone Phouthakhanty, a Technical Officer at the Department of Water Resources Management in Laos, described capacity gaps in coastal monitoring.

She noted that the absence of a systematic water quality database makes it difficult to consolidate and access information across monitoring networks. Without centralized data, it is challenging for young practitioners to translate findings into concrete actions or implementation.

Leo Castro, Executive Director of Mangrove Matters PH in the Philippines, pointed to the financial instability of youth-led organizations. “A lot of youth organizations can really resonate with this challenge,” he said. “Even in grants, there are many instances where operational or professional fees are not covered. That’s the reality in youth-led initiatives.”

He emphasized that youth-led groups often have to choose between sustaining their own livelihood or continuing their community work, making institutional support and accessible funding essential for meaningful and lasting engagement.

“We always ask first if it’s okay to include our professional fees or compensation. If they say no, then we don’t proceed with the grant. That’s the reality in youth work and youth-led initiatives, especially in rural or coastal areas in the Philippines,” he said.

He added that institutions, NGOs, private organizations, and academia can play key roles in providing resources, mentorship, and capacity building.

“I hope that in a few years from now, the youth will be seen as equal partners and are part of decision making.

Leo Castro, Philippines



Hailing from Singapore, Dr. Clarence Wei Hung Sim of Nanyang Technological University shared a contrasting, but rather positive context in his country where early-career researchers are increasingly being included in policy discussions.

He takes inspiration from students and youth-led volunteer groups across universities in Singapore who are taking a stand for the environment, bold and driven movements that spark inspiration among young people.

“Right now our government is actually very strongly engaged,” he said. “Even a young researcher like me has a voice.” He encouraged youth groups to work together.



“As cliché as it sounds, there is power in numbers. If every group combines efforts, it will definitely capture media attention and therefore government attention.

Dr. Clarence Wei Hung Sim, Singapore

As climate pressures mount, the future of the ocean hangs in the balance, and for these young ocean leaders, bold action through learning exchange and collaboration is the way forward.

They believe that the future of the ocean rests in empowering the youth to remain active and engaged. He emphasized that young leaders themselves form a strong network of support, and through collective passion and collaboration, they can continue to advance their advocacies for coastal and ocean sustainability.

Abigail Cruzada, Secretariat Coordinator at PRF, reiterated that PEMSEA is currently exploring a more structured and collaborative approach to youth engagement. “We want to also see how we can integrate this in our regional mechanism and further strengthen capacity and support to include the youth in decision-making processes at the local national and regional levels”.

“The insights from this conversation and discussions in previous youth fora organized by PEMSEA will help inform options and recommendations to strengthen the PEMSEA Network of Young Leaders as we move toward making it more structured, impactful and sustainable.

Abigail Cruzada, PEMSEA



The Rising Tides, Rising Leaders forum forms part of PEMSEA's ongoing work to provide opportunities for young leaders to share their ideas and solutions on sustainable coastal development in the East Asian Seas region. Insights from the session will inform the strengthening of the PEMSEA Network of Young Leaders, including new pathways for collaboration, mentoring, and capacity development.

The 2025 Blue Wave Conference convenes young ocean scientists, innovators, and practitioners from around the world to support the UN Decade of Ocean Science for Sustainable Development (2021–2030) and outcomes of the Third UN Ocean Conference.



When Women Lead, the Ocean Thrives

Meet the Champions Steering the Change in EAS



Photo by Orange Omengan/PEMSEA

Across the East Asian Seas region, women are transforming their communities by tackling marine pollution, advocating for policy change, and redefining traditional gender roles.

Yet, challenges persist. Women make up the majority of the workforce in fisheries and coastal tourism, yet they often occupy the lowest-paid and least-protected roles. According to UNESCO (2024), at COP28, only 15 out of 133 world leaders were women, and globally, just 1% of climate financing reaches women-led organizations. These disparities point to a pressing need for structural changes in governance, research, and funding to close the gender gap.

Guided by the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) Implementation Plan 2023-2027, PEMSEA and its partners continue to push for policies that recognize and support women's roles in ocean governance. The Gender Equality and Social Inclusion (GESI) framework highlights the need for inclusive decision-making, access to resources, and recognition of women's leadership in marine protection and sustainability.

The road ahead demands action. Women across the East Asian Seas and the world are proving that leadership is not defined by position but by persistence, innovation, and a commitment to change. The call is clear: support efforts, amplify women's voices, and ensure that the future of ocean sustainability and climate action is one where gender equality is not an afterthought, but a driving force.

Kelly Chua Tan **Municipal Environment and Natural Resources Officer (MENRO)**

In the fishing town of Bulan in the Philippines, Kelly Chua Tan, the Municipal Environment and Natural Resources Officer (MENRO) noticed a troubling pattern. "A significant portion of the plastic waste that ends up in our waters comes from the daily provisions packed for [fisherfolk], often in single-use plastics and sachets," she explained.



Tan's observation led to an innovative approach that centers women in waste reduction efforts. "Women play a crucial role in waste management - many are responsible for preparing packed meals for their family members who go out to fish," she said.

"By shifting household practices, we can influence the behavior of the fisherfolk themselves, making women key drivers of change in reducing marine waste."

Her office's initiatives go beyond prevention to creative solutions.

"We empower women and women's groups by teaching them how to repurpose old clothing into reusable materials such as rags and potholders," Tan shared. These efforts have created economic opportunities while addressing environmental challenges.

The results speak for themselves. "Many of our street cleaners and shoreline cleaners are women," she noted. To truly advance sustainability, Tan advocates for the active involvement of women, ensuring they have a voice, a role, and the opportunity to lead in coastal and marine management.



Yayan Hikmayani

Head of the Fisheries Extension Centre at the Agency for Marine and Fisheries Extension and Human Resource Development
Ministry of Marine Affairs and Fisheries and the National Program Director of ATSEA-2

In Indonesia, Yayan Hikmayani is working to bring women's contributions in fisheries out of the shadows. As Head of the Fisheries Extension Centre at the Agency for Marine and Fisheries Extension and Human Resource Development, Ministry of Marine Affairs and Fisheries and the National Program Director of ATSEA-2, she saw firsthand how women's roles are often overlooked.

"Women are an essential part of coastal and marine communities," Hikmayani stated. "Many women are involved in fishing, aquaculture, seafood processing, and trade, yet their roles often go unnoticed."

Her work focuses on changing this dynamic.

"When women are empowered, they create significant change not only for themselves but also for their families and communities," she explained. "Increasing women's participation in productive economic activities can directly contribute to improving family well-being and driving sustainable solutions for coastal and marine communities."

The key, according to Hikmayani, is comprehensive support. "Sustainability is not just about the environment but also about shared prosperity. Support is crucial to enhancing women's participation by providing greater access to training, financial assistance, and decision-making opportunities."

Isaura Baptista Barros

Co-founder and Executive President
Laudato Si' Timor-Leste Movement

Isaura Baptista Barros, co-founder and Executive President of the youth organization Laudato Si' Timor-Leste Movement, represents the new generation of environmental leaders. Her work bridges gender equality and climate action in one of the world's youngest nations.



"To promote gender equality in the coastal and marine sectors, it is critical to ensure that women and girls have equal access to education, training, and leadership opportunities in marine-related industries," Barros emphasized.



Kim Oanh

National Coordinator for the Integrated River Basin Management in Viet Nam

Viet Nam's unique history of matriarchy informs its contemporary approach to environmental protection. "Historically, in Viet Nam, there has been a fairly long period of matriarchy in primitive society with the important and decisive role of women in the family and society," explained Kim Oanh, the National Coordinator for the Integrated River Basin Management in Viet Nam.

This legacy continues today through nationwide networks addressing water pollution.

"Mobilizing women's participation through regular activities of women's associations at all levels is particularly effective," Oanh noted, citing initiatives around waste management, waste separation at source, recycling, reusing (3R, 4R) or practicing the habit of saving water.

The Women's Union recognizes women's dual roles: "Women still play an important role in housework, health care and maintaining a healthy lifestyle for families. Therefore, women understand better than anyone else the changes and impacts of water quality on their family life," she said.

Dr. Sunwook (Sunny) Hong

Founder

OSEAN (Our Sea of East Asia Network)



Dr. Sunwook (Sunny) Hong, founder of OSEAN (Our Sea of East Asia Network) and the Secretary-General for Asia Pacific Civil Forum on Marine Litter, has been a driving force in marine conservation. She collaborated with PEMSEA on the East Asian Seas Initiative on Clean Oceans (EASICO) project, supported by the Ministry of Oceans and Fisheries of the Republic of Korea.

"Gender equality begins by ensuring women have real access to long-term, meaningful work—not just in participation, but in decision-making," Dr. Hong said.

With 15 years of experience tackling marine litter, she's witnessed how women drive change differently.

"Women naturally lead from the ground up—with care, collaboration, and long-term perspective," Dr. Hong observed. "At OSEAN, I've witnessed how women drive innovation in citizen science, shape policy, and build resilient networks across countries."

Gender equality is inseparable with sustainability. The stories of these women—leaders in science, policy, and community-driven action reflect a growing movement to ensure gender equality is embedded in ocean sustainability efforts. Their work underscores a fundamental truth: when women lead, coastal and marine management becomes more inclusive, resilient, and efficient.

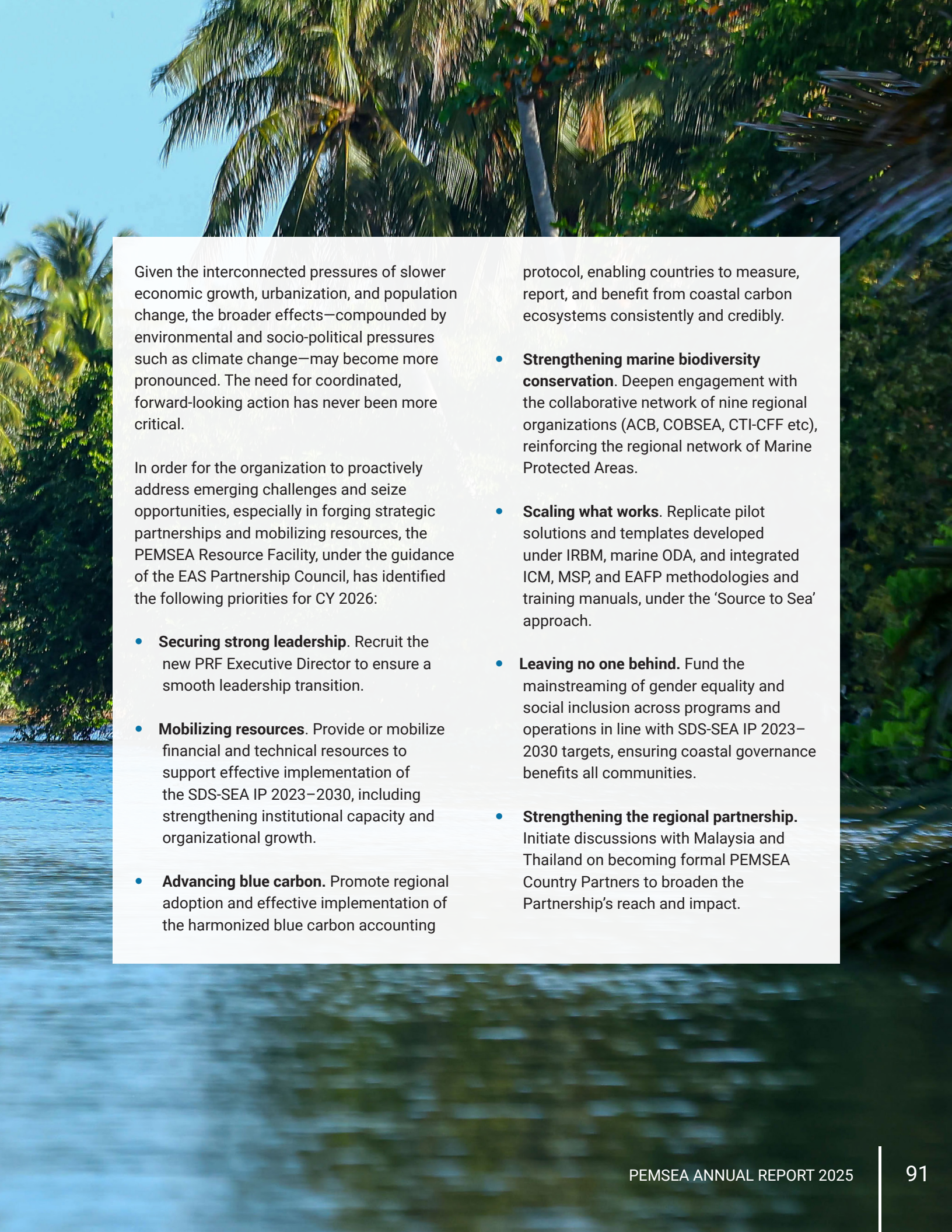
CHAPTER 7

Future Outlook and Challenges

The EAS region has shown resilience in the face of global uncertainty, but not without strong headwinds. Economic growth in several countries has been moderated by ongoing geopolitical tensions. In the environmental and development sector, the withdrawal of certain funding for health and climate programs- has led to the closure or discontinuation of some coastal and marine initiatives in the region.

These shifts make strategic positioning more urgent than ever. PEMSEA country partners are also facing heightened risks from the economic impacts of worsening climate change, as evidenced by more frequent and severe typhoons and flooding, alongside persistent governance challenges and reduced foreign direct investment across the region.

Photo courtesy of LSANK Malaysia



Given the interconnected pressures of slower economic growth, urbanization, and population change, the broader effects—compounded by environmental and socio-political pressures such as climate change—may become more pronounced. The need for coordinated, forward-looking action has never been more critical.

In order for the organization to proactively address emerging challenges and seize opportunities, especially in forging strategic partnerships and mobilizing resources, the PEMSEA Resource Facility, under the guidance of the EAS Partnership Council, has identified the following priorities for CY 2026:

- **Securing strong leadership.** Recruit the new PRF Executive Director to ensure a smooth leadership transition.
- **Mobilizing resources.** Provide or mobilize financial and technical resources to support effective implementation of the SDS-SEA IP 2023–2030, including strengthening institutional capacity and organizational growth.
- **Advancing blue carbon.** Promote regional adoption and effective implementation of the harmonized blue carbon accounting

protocol, enabling countries to measure, report, and benefit from coastal carbon ecosystems consistently and credibly.

- **Strengthening marine biodiversity conservation.** Deepen engagement with the collaborative network of nine regional organizations (ACB, COBSEA, CTI-CFF etc), reinforcing the regional network of Marine Protected Areas.
- **Scaling what works.** Replicate pilot solutions and templates developed under IRBM, marine ODA, and integrated ICM, MSP, and EAFP methodologies and training manuals, under the ‘Source to Sea’ approach.
- **Leaving no one behind.** Fund the mainstreaming of gender equality and social inclusion across programs and operations in line with SDS-SEA IP 2023–2030 targets, ensuring coastal governance benefits all communities.
- **Strengthening the regional partnership.** Initiate discussions with Malaysia and Thailand on becoming formal PEMSEA Country Partners to broaden the Partnership’s reach and impact.

A PRICELESS LEGACY: CI-GEF and DENR-BMB Launch Project to Safeguard the Future of the Philippine Rise

Beneath the surface of the Pacific, off the northeastern coast of the Philippines, lies one of the ocean's most extraordinary – and least known – ecosystems. The Philippine Rise is home to deep-sea coral reefs, critical tuna spawning grounds, and habitats of vulnerable marine species found nowhere else. That is beginning to change.

DENR–Biodiversity Management Bureau (DENR-BMB), in partnership with Conservation International (CI) and with financial support from the Global Environment Facility (GEF), formally launched the Philippine Rise Integrated Conservation for Enduring Legacies through Ecosystem Support Services (PRICELESS) Project during its Inception Workshop, titled “Rising Together: Launching and Inception Event of the PRICELESS Project,” held on 4 February 2026, at the Ninoy Aquino Parks and Wildlife Center, Quezon City, Philippines.

The five-year project seeks to strengthen the conservation and sustainable management of the Philippine Rise Marine Resource Reserve (PRMRR), covering 352,390 hectares, including a 49,684-hectare strict protection zone and a 302,706-hectare multiple-use zone.

The PRICELESS Project will implement efforts to strengthen management across the PRMRR, safeguarding both its ecological and economic value. Securing full designation of the reserve under the Expanded National Integrated Protected Area System (ENIPAS) is a key priority, enabling permanent staffing, sustained financing, and stronger legal enforcement authority. Once fully recognized, the PRMRR will become the country's first deep-sea coral reef area to attain ENIPAS status.

Effective management of the PRMRR is anchored on multi-sectoral and multi-agency coordination. The PRICELESS Project brings together DENR-BMB, the Bureau of Fisheries and Aquatic Resources (BFAR), local governments from Regions II, III, IV-A, and V, including the provinces of Cagayan, Isabela, Aurora, Albay, Quezon, Camarines Norte, Camarines Sur, and Catanduanes, national and regional agencies such as the Philippine Coast Guard, as well as academic institutions,

conservation and developmental organizations, people's organizations, fisherfolks and coastal communities.

Science-based management is the linchpin of the project through working to close data gaps on biodiversity, fisheries, and emerging threats in areas that include mesophotic coral reefs, key tuna spawning grounds, and habitats of vulnerable marine species.

DENR-BMB will provide technical guidance and facilitate coordination among national, regional, and local agencies. It will be supported by PEMSEA Resource Facility as Executing Agency Support Partner.

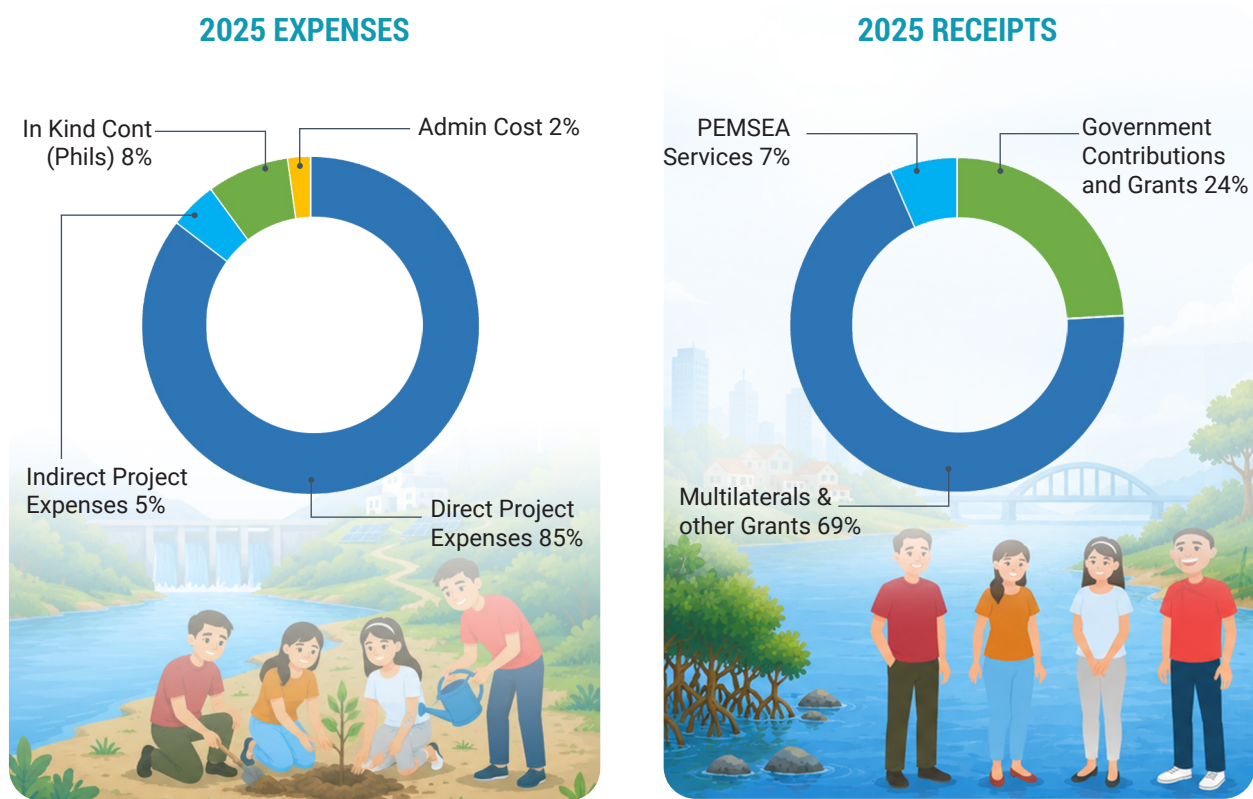
Partner organizations, including the Zoological Society of London and Haribon Inc., will implement specific project activities under sub-grant agreements that will contribute to public awareness campaigns, sustainable livelihood initiatives, and technical assistance.

DENR Secretary Raphael P.M. Lotilla expressed his full support for the project emphasizing the importance of protecting the Philippine Rise and safeguarding its globally significant biodiversity, while supporting sustainable livelihoods for coastal communities.



CHAPTER 8

Financial Highlights for 2025



PEMSEA’s 2025 Financial Statement received an unqualified audit opinion from its external auditor, reflecting the organization’s continued adherence to sound financial management and reporting standards.

Total receipts in 2025 reached US\$4.1 million, an increase from US\$3.6 million in 2024, primarily due to the implementation of additional projects. In accordance with International Financial Reporting Standards (IFRS), receipts are recognized in the year the funds are designated for use.

Multilateral funding accounted for 69% of total receipts, with the largest contributions coming from the UNDP-GEF funded projects. Grants and contributions from PEMSEA’s country partners represented 24% of total receipts, underscoring their continued commitment to regional cooperation and sustainable coastal and marine development.

Total expenses in 2025 amounted to US\$4.1 million, a 16% increase compared to 2024. This increase reflects expanded project implementation activities, including engaging external service providers to support countries in delivering project outputs. Personnel and consultancy costs accounted for 39% of total expenses.

The 2025 expenditure profile comprised:

- Project expenses (direct and indirect): US\$3.7 million, representing 90% of total expenses. Of this amount, US\$3.5 million were direct project implementation costs.
- Administrative expenses: 10% of total expenses, of which 8% consisted of in-kind contributions from the Government of the Philippines, including office space and utilities provided to PEMSEA.

PEMSEA's total assets increased by 46% during the year, driven largely by higher cash balances and an 86% increase in deferred grants, reflecting commitments received for ongoing and future project implementation.

We remain deeply grateful to our country and development partners for their continued trust, collaboration, and support as we work together toward the sustainable development of the shared seas and coasts of East Asia.



Statement of Financial Position (in US\$)

ASSETS	31 December	
	2025	2024
CURRENT ASSETS		
Cash	5,537,464	3,695,516
Receivables	5,550,925	3,809,649
Total Current Assets	5,550,925	3,809,649
NON CURRENT ASSETS		
FA at Fair value	47,262	49,703
Property & Equipment - net	26,518	17,926
Other non-current assets	83,706	42,144
Total non-current assets	157,486	109,773
TOTAL ASSETS	5,708,411	3,919,422
 LIABILITIES AND FUND BALANCE		
CURRENT LIABILITIES		
Accounts Payable and Accrued Expenses	414,032	283,997
Deferred Grant	3,264,514	1,755,827
Total current liabilities	3,678,546	2,039,824
NONCURRENT LIABILITIES		
Defined contribution liability	273,338	173,909
Retirement benefit obligation	90,928	64,239
Total non-current liabilities	364,266	238,148
TOTAL LIABILITIES	4,042,812	2,277,972
EQUITY		
Fund Balance	1,665,037	1,626,419
Employee benefit reserve	23,734	35,762
Fair value reserve	(23,172)	(20,731)
Total equity	1,665,599	1,641,450
TOTAL LIABILITIES AND EQUITY	5,708,411	3,919,422

Statement of Receipts and Expenses (in US\$)

ASSETS	31 December	
	2025	2024
RECEIPTS		
Government Contributions and grants	1,002,834	1,813,874
Multilaterals and other grants	2,884,239	1,566,838
Interest Income from deposits	2,112	1,765
PEMSEA Services	270,942	284,018
TOTAL RECEIPTS	4,160,127	3,666,494
EXPENSES		
DIRECT PROJECT EXPENSES		
Personnel	1,094,565	1,138,677
Consultancy	318,924	368,408
Subcontract	1,234,280	534,697
Travel and meeting	98,256	149,826
Training	698,902	687,863
Other Direct Costs	75,167	119,024
Total Direct Project expenses	3,520,095	2,998,495
INDIRECT PROJECT EXPENSES		
Personnel	132,802	137,363
Travel and meeting	19,372	14,480
Depreciation	-	-
Overhead	34,785	25,421
Total Indirect Project expenses	186,960	177,264
ADMINISTRATIVE COST		
Personnel	64,095	80,043
Consultancy	15,675	19,427
Travel and meeting	-	-
Depreciation	10,133	9,349
Overhead	324,552	270,513
Total Administrative Cost	414,455	379,332
TOTAL EXPENSES	4,121,510	3,555,091
EXCESS (DEFICIENCY) OF RECEIPTS OVER EXPENSES	38,617	111,403
OTHER COMPREHENSIVE LOSS		
Items that will not be reclassified subsequently to receipts or expenses		
Remeasurements gain/loss on retirement benefit obligation	(12,028)	(13,898)
Fair value loss on FA at FVOCI	(2,441)	(4,414)
TOTAL COMPREHENSIVE INCOME	24,148	93,091



INTRODUCING THE PEMSEA FAMILY

PEMSEA's Executive Committee

The East Asian Seas Partnership Council (EAS PC) installed its newly elected Officers and Co-Chairs on 23 July 2025 during the 17th EAS PC Meeting in Manila, Philippines, officially commencing their three-year term from 31 July 2025 to 30 July 2028.



Atty. Jonas Leones

Council Chair

Atty. Jonas Leones has spent more than 30 years in public environmental service, rising through the ranks of the Philippine Department of Environment and Natural Resources to become Undersecretary for Policy, Planning, and International Affairs. He also serves as the Department's Spokesman and Presiding Officer of the Pollution Adjudication Board.

Over the course of his tenure, he has overseen a wide range of portfolios, including policy and planning, ecosystems research, legal affairs, foreign-assisted projects, strategic communications, and forest management.

A familiar figure in international environmental negotiations, Mr. Leones has represented the Philippines in forums such as the UN Framework Convention on Climate Change, the UN Environment Programme's Committee of Permanent Representatives, and key multilateral agreements including the Basel, Rotterdam, Stockholm, and Minamata Conventions, as well as the Montreal Protocol and the APEC Chemical Dialogue. He has chaired several national committees and steering councils focused on sustainable development.

Mr. Leones holds a Master's in Public Management from Harvard University and the National University of Singapore. He earned his law degree from New Era University and holds both a master's in environmental science and a bachelor's in Forestry from the University of the Philippines Los Baños.



Mr. Le Dai Thang

Intergovernmental Session Chair

Mr. Le Dai Thang has two decades of experience in integrated coastal management, environmental impact assessment, marine pollution control, and monitoring and evaluation of Viet Nam’s coastal and marine sectors. He currently serves as Deputy Director of the Bureau of Marine Resources Control and Marine, Island Environment Protection under the Viet Nam Agency of Seas and Islands of the Ministry of Agriculture and Environment (MAE).

He is Viet Nam’s Alternate National Focal Point to the ASEAN Working Group on Coastal and Marine Environment and engages in several national and regional initiatives, including the UN Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP).

He holds both a Master’s and a Bachelor’s degree in Environmental Management from Ha Noi National University, as well as a Bachelor’s degree in English from Ha Noi University of Foreign Studies.



Dr. Xinwei Yu

Intergovernmental Session Co-Chair

Dr. Yu Xinwei currently serves as Director of the Marine Cooperation Division of the International Cooperation Department of China’s Ministry of Natural Resources (State Oceanic Administration). Her career spans more than 18 years in the fields of marine and polar cooperation, regional program management, and international ocean governance.

Dr. Yu’s work has evolved from leading collaborations with the European Union and Small Island Developing States to focusing on bilateral and multilateral partnerships with neighboring countries in East and Southeast Asia. Her expertise covers technical, legal, and policy dimensions of ocean affairs, including the law of the sea, marine policy development, and program coordination.

Dr. Yu holds a Ph.D. from the China Institutes of Contemporary International Relations, a master’s degree in Law from Peking University, and a Bachelor’s degree in Marine Engineering from Tianjin University.



Dr. Suk-Jae Kwon

Technical Session Chair

Dr. Suk-Jae Kwon is an environmental and natural resource economist with expertise in integrated coastal management, ecosystem service valuation, and

damage assessment related to climate change and natural disasters. He serves as a Principal Research Scientist at the Korea Institute of Ocean Science and Technology, a PEMSEA non-country partner, where he has served for more than a decade.

Earlier in his career, he held senior leadership roles at the Marine Biodiversity Institute of Korea and the Korean Society of Marine Environment and Safety. He also played an advisory role to the Republic of Korea's Ministry of Oceans and Fisheries and the UNDP/GEF Yellow Sea Large Marine Ecosystem Project—both affiliated with PEMSEA as non-country partners.

Dr. Kwon earned his Ph.D. in Environmental and Natural Resource Economics from the University of Rhode Island in the United States and holds both M.A. and B.A. degrees in Economics from Sungkyunkwan University in the Republic of Korea.



Dr. Kazumi Wakita
Technical Session Co-Chair

Dr. Kazumi Wakita is a professor at the School of Marine Science and Technology, Tokai University, specializing in integrated coastal management (ICM) and marine spatial planning (MSP).

With over 20 years of experience, she combines academic research with hands-on implementation of ocean and coastal governance in Japan and across East and Southeast Asia.

Dr. Wakita earned her Ph.D. in Agricultural Science from the University of Tokyo and holds master's and bachelor's degrees in civil engineering from Waseda University. She also completed advanced training in integrated coastal zone management at the MEDCOAST Institute in Turkey.

In Appreciation of Dedicated Leadership (2021-2025)

PEMSEA also expresses its deep appreciation to the former EAS PC Chairs, Dr. Vann Monyneath (Partnership Council Chair), Ms. Chen Danhong (Intergovernmental Session Chair), and Dr. Keita Furukawa (Technical Session Chair) for their dedicated service as officers of PEMSEA's key governance body. Since assuming their roles in 2021, their leadership has contributed to advancing regional cooperation and strengthening collective action for sustainable coasts and ocean.



Country Partners

Cambodia



H.E. Thay Chantha

Deputy Secretary General of the National Committee for Cambodian Coastal Management and Development and Concurrent Deputy Director General of the General Directorate of Protected Areas Ministry of Environment (MoE)

China



Ms. Chen Danhong

Director-General, Department of International Cooperation, Ministry of Natural Resources (MNR)

DPR Korea



Mr. Kwang-Jin Jong

Deputy Director-General, General Bureau for Cooperation with International Organizations (GBCIO)

Indonesia



Mr. Rasio Ridho Sani

Deputy for Pollution Control and Environmental Damage Ministry of Environment

Japan



Mr. Toru Ohno

Vice Director-General, Policy Bureau Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

Lao PDR



Ms. Keodokmay Phouipaseuth

Deputy Director, Department of Water Resources Ministry of Natural Resources and Environment

Philippines



Atty. Analiza Rebuelta-Teh

Undersecretary for Finance, Information Systems and Climate Change Department of Environment and Natural Resources (DENR)

RO Korea



Ms. Eun Jeong SEO

Director, Marine Climate and Environment Strategy Team Ministry of Oceans and Fisheries (MOF)

Singapore



Mr Ranjeet Singh

Divisional Director (International Policy) Permanent Representative of the Republic of Singapore to the United Nations Environment Programme, Ministry of Sustainability and the Environment

Timor-Leste



Mr. Akasio Dos Santos

Director General of Fisheries, Aquaculture and Aquatic Resources Management Ministry of Agriculture, Livestock, Forestry and Fisheries (MALFF)

Vietnam



Mr. Nguyen Quoc Toan

Viet Nam Agency of Seas and Islands (VASI) Ministry of Agriculture and Environment (MAE)

Non-Country Partners



ASEAN Centre for Biodiversity (ACB)



Coastal Management Center (CMC)



Conservation International (CI) Philippines



International Environmental Management of Enclosed Coastal Seas Center (EMECS)



International Ocean Institute (IOI)



International Union for Conservation of Nature - Asia Regional Office (IUCN-ARO)



IOC Sub-Commission for the Western Pacific (IOC/WESTPAC)



Ipieca - GISEA



Korea Environment Institute (KEI)



Korea Institute for Ocean Science and Technology (KIOST)



Korea Marine Environment Management Corporation (KOEM)



Korea Maritime Institute (KMI)



Marine Biodiversity Institute of Korea (MABIK)



National Marine Hazard Mitigation Service (NMHMS)



Northwest Pacific Action Plan (NOWPAP)



Norwegian Institute for Water Research (NIVA)



Ocean Policy Research Institute - Sasakawa Peace Foundation (OPRI-SPF)



Oil Spill Response Limited (OSRL)



PEMSEA Network of Local Governments (PNLG)



Plymouth Marine Laboratory (PML)



UNDP/GEF Small Grants Programme (SGP)



PEMSEA Network of Local Governments (PNLG)



CAMBODIA

1. Kampot Province
2. Kep Province
3. Koh Kong Province
4. Preah Sihanouk Province



CHINA

5. Xiamen
6. Dongying
7. Fangchenggang
8. Haikou
9. Quanzhou
10. Laoting
11. Lianyungang
12. Haiyang
13. Qinzhou
14. Beihai
15. Changyi
16. Pingtan
17. Wenzhou
18. Sanya
19. Jinjiang
20. Yancheng



INDONESIA

21. Bali Province

22. Denpasar City
23. Badung Regency
24. Buleleng Regency
25. Gianyar Regency
26. Jembrana Regency
27. Karangasem Regency
28. Klungkung Regency
29. Tabanan Regency
30. Sukabumi Regency
31. Jakarta Province
32. Tangerang Regency
33. Bontang City
34. South Bangka Regency
35. Gorontalo Province
36. Central Java



JAPAN

37. Shima City



MALAYSIA

38. Port Klang
39. Northern Selangor
40. Sepang



PHILIPPINES

41. Bataan Province



RO KOREA

42. Batangas Province
43. Cavite Province
44. Guimaras Province
45. Changwon
46. Ansan
47. Shihwa
48. Busan



THAILAND

49. Chonburi



TIMOR-LESTE

50. Dili City
51. Liquica City
52. Manatuto City

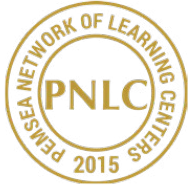


VIETNAM

53. Da Nang City
54. Quang Nam Province
55. Thua Thien Hue Province

Associate Members

1. First Institute of Oceanography (FIO), Ministry of Natural Resources, China
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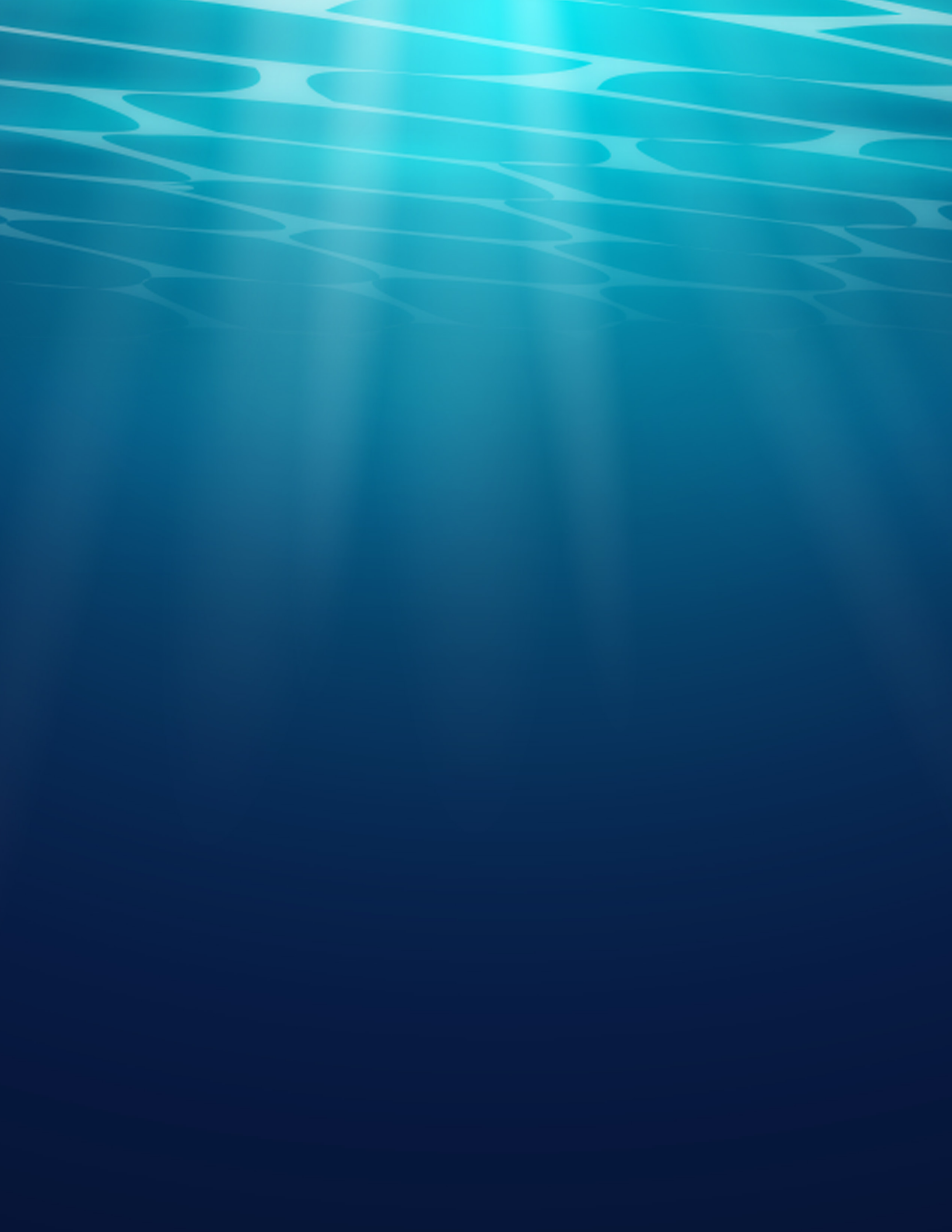
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