ASIAN DEVELOPMENT BANK

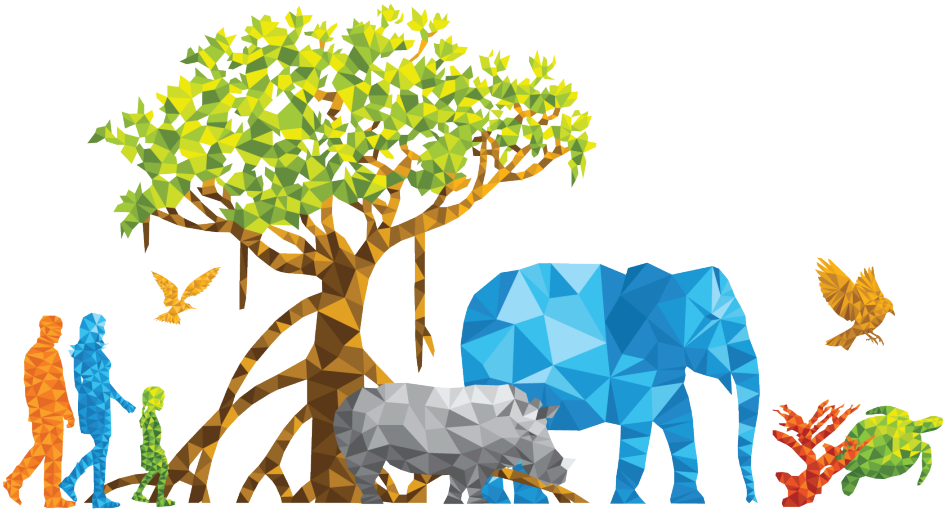
Environment and Nature

LEARNING WEEK 2025

7–10 October 2025 | Multifunction Halls 2–3 | ADB Headquarters

ORGANIZED BY THE **ENVIRONMENT COMMUNITY OF PRACTICE**

Event Proceedings



ENVIRONMENT AND NATURE LEARNING WEEK 2025

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PROCEEDINGS

INTRODUCTION AND RATIONALE

The Environment and Nature Learning Week 2025 was held from 7–10 October at the Asian Development Bank (ADB) Headquarters. The event was organized in response to the urgent need for integrated solutions to address the triple planetary crises of biodiversity loss, pollution, and climate change. As a flagship initiative under the Environment Community of Practice (ENV COP), the event supported the implementation of ADB's Environment Action Plan (EAP) 2024–2030 by promoting its three priority pillars: (i) Biodiversity and ecosystem management; (ii) Pollution control and circular economy; and (ii) Nature-based climate solutions.

The program featured a dynamic mix of presentations, panel discussions, hands-on activities, and team-building exercises, which fostered holistic and innovative approaches to mainstream environmental sustainability across ADB operations. Inclusive and gender-responsive strategies were emphasized throughout the sessions to ensure equitable and representative solutions. By convening staff from headquarters and resident missions, along with sector and thematic groups, the event facilitated peer-to-peer learning, knowledge exchange, and cross-sectoral collaboration, strengthening ADB's institutional capacity and environmental leadership.

ADB staff from headquarters and resident missions attended the hybrid sessions. The event was organized by the Climate Change, Resilience, and Environment Cluster (CCRE), in collaboration with the sector groups through the Environment Community of Practice (ENV COP) and its Working Groups, with support from the Budget, Personnel, and Management Systems Department (BPMSD).

EXPECTED OUTCOMES

- Enriched understanding of the EAP and its priority environmental programs, promoting innovation, including the use of digital solutions for implementation and monitoring.
- Strengthened capacities to enhance ADB institutional frameworks and coordination mechanisms at country and regional levels.
- Enhanced origination, design, implementation, and monitoring of projects with nature-positive and mainstreaming outcomes.

OPENING SESSION

The Environment and Nature Learning Week commenced with a formal welcome from the Climate Change and Sustainable Development Department (CCSD) Director General Yevgeniy Zhukov, emphasizing the critical role of nature as a foundational economic asset in Asia and the Pacific. Approximately 70 percent of the region's GDP is derived from nature-dependent sectors such as agriculture, forestry, fisheries, and tourism. ADB reaffirmed its commitment to addressing the climate-nature nexus by strengthening institutional frameworks and enhancing project design, implementation, and monitoring of projects that deliver practical, positive outcomes for people and nature.

The opening keynote delivered by Terry Townshend addressed concerns on the global biodiversity financing gap, currently estimated at $940 billion annually. The discussion underscored the urgency of reforming harmful subsidies and scaling innovative financing mechanisms, including biodiversity bonds and offsets. ADB's leadership in initiatives such as the Regional Flyway Initiative was also highlighted.

Keynote speaker Glynda Bathan-Baterina of Clean Air Asia presented the severe health and economic impacts of air pollution in Asia, noting its link to one in three deaths in the region. The importance of multi-stakeholder partnerships and regional cooperation was emphasized, along with examples of successful collaborations aimed at improving air quality and policy frameworks.

The panel discussion, moderated by Yoko Watanabe, Director for Environment, brought together senior experts from ADB's sectors to explore how the Environment Action Plan (EAP) 2024–2030 is being mainstreamed into operations. Sector experts shared insights on embedding environmental priorities across domains, with a strong emphasis on cross-sector collaboration and innovation.

Qingfeng Zhang, Senior Director for Agriculture, Food, Nature, and Rural Development, emphasized agriculture's role as both a major driver of biodiversity loss and a key opportunity for transformation. Concepts such as nature-positive food systems, natural capital accounting, and landscape-based approaches were introduced. Efforts to de-risk private investments and scale nature-based solutions through mechanisms like the Natural Capital Fund and digital platforms were also discussed.

Satoshi Ishii, Director for Water and Urban Development, discussed the sector's shift toward embedding nature-based solutions in urban infrastructure. Urban development strategies are increasingly incorporating nature-based solutions, with green spaces and circular economy principles becoming essential components of infrastructure design. Case studies from Viet Nam, Armenia, and Thailand, illustrated the integration of sustainable tourism and regional learning exchanges to foster innovation.

Arghya Sinha Roy, Director for Climate Change, underscored the need to integrate climate and nature goals. The need for common metrics, people-centered strategies, and coordination across ministries was emphasized. Effectiveness in implementation, rather than funding alone, was identified as a key challenge, with a call for improved outcome tracking.

Jennifer Romero-Torres, Principal Sustainable Finance Specialist, highlighted the importance of innovative financing mechanisms such as biodiversity bonds, sustainability-linked loans, and debt-for-nature swaps as tools to internalize nature's value within financial systems. Enabling policies were identified as critical to incentivizing investment.

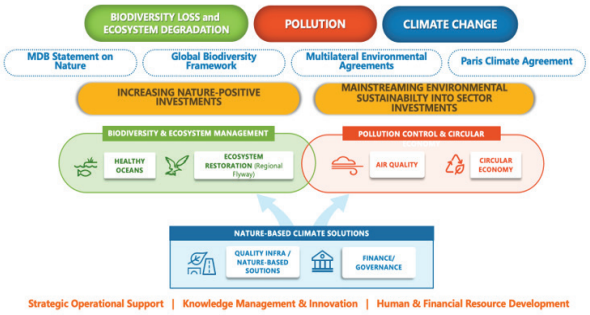
The session concluded with a unified call for collaboration among panelists, urging stakeholders to break silos, engage across disciplines, and co-design solutions that deliver measurable environmental impact. A shared commitment was expressed to advance a resilient, sustainable, and nature-positive future for Asia and the Pacific.

INTRODUCTORY SESSION: STRATEGIC AND OPERATIONAL FRAMEWORK

Maria Victoria Antonio, ADB Senior Financing Partnerships Officer, facilitated the introductory session, which provided an overview of the strategic direction and operational framework of the EAP 2024–2030. Presentations outlined mechanisms for tracking environmental indicators across ADB's portfolio.

Karma Yangzom introduced the EAP which was endorsed in October 2024 as ADB's institutional response to the interconnected crises of biodiversity loss, pollution, and climate change. It is structured around three foundational pillars: (i) biodiversity and ecosystem management, (ii) pollution control and circular economy, and (iii) nature-based climate solutions. These are supported by targeted initiatives including Healthy Oceans, Regional Flyway Initiative, Asia Clean Blue Skies Program, and Nature Solutions Finance Hub.

Two strategic approaches underpin the Plan: scaling up nature-positive investments and mainstreaming environmental considerations across sector operations. The Plan comprises 64 actions categorized into upstream (policy and strategy support), midstream (diagnostics and enabling environments), and downstream (project pipeline development). Currently, 83% of these actions are under implementation, supported by strong cross-departmental collaboration. The action list remains dynamic and will be refined through ongoing consultations with sector groups, regional departments, and private sector partners.



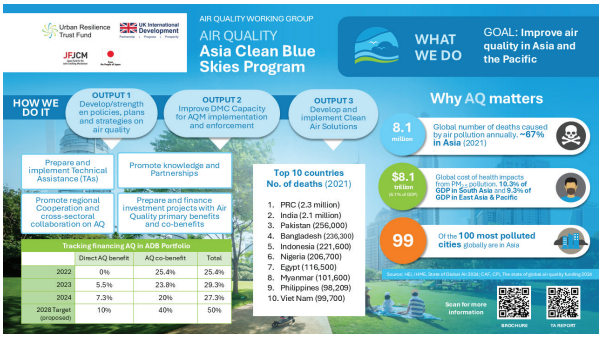
Duncan Lang followed with a presentation on ADB's approach to tracking environmental and nature indicators under the new Corporate Results Framework 2025–2030 was also presented. Indicator 9, which captures terrestrial, aquatic, and atmospheric areas conserved or sustainably managed, was introduced along with a simplified tagging process. Accurate classification was emphasized as essential to reflect ADB's environmental contributions.

A key challenge identified was the historical under-tagging of environmental projects, particularly those related to biodiversity and marine conservation. While tagging rates for climate and gender are high, those for life-on-land and life-below-water remain disproportionately low. To address this, ADB is developing a taxonomy for nature finance—scheduled for launch at COP30—and a methodology for tracking nature-related investments, modeled after the climate finance tagging framework. Enrique Rebolledo from the Controller's Department provided insights on aligning ADB's sustainability reporting with emerging International Sustainability Standards Board (ISSB) standards. Staff were encouraged to participate in a materiality assessment to inform the development of the 2026 Sustainability Report.

The session concluded by reinforcing the importance of strategic planning, robust tracking systems, and institutional collaboration in advancing ADB's environmental agenda. While progress has been made, challenges remain in ensuring visibility and accountability for nature-positive investments. Active engagement in tagging, reporting, and cross-sectoral coordination was encouraged to strengthen ADB's contribution to a sustainable and resilient Asia and the Pacific.

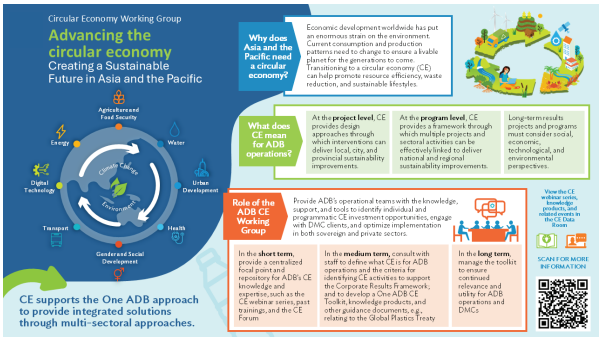
ENVIRONMENT MARKETPLACE

The Environment Marketplace session was a lively and interactive segment of the Environment and Nature Learning Week specifically designed to **foster peer-to-peer knowledge exchange and cross-sector collaboration**. Facilitated by Suzann Roth, Mary Jane F. Carangal-San Jose, and Grace Gayoso Pasion from the Knowledge and Innovation team, the session transformed the room into a dynamic "marketplace" where participants could explore six thematic working groups and engage in meaningful dialogue. Each technical working group pitched its focus area to entice participants to their respective working groups. The feedback session following the Environment Marketplace activity provided a valuable opportunity for participants to reflect on their experiences with the six thematic working groups and share insights, questions, and challenges. Each group station had sparked meaningful conversations, and the plenary served as a space to surface common themes and action-oriented reflections.



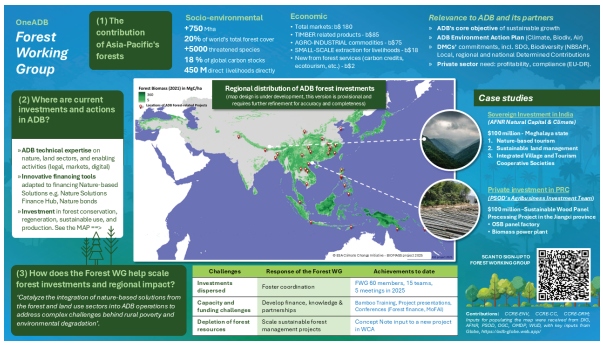
Participants who visited the **Air Quality** station emphasized the importance of involving civil society in air quality improvement programs. There was interest in exploring how poverty and social analysis could be used to mainstream air quality considerations into broader development projects, especially in the Asia and the Pacific regions where pollution levels are critically high.

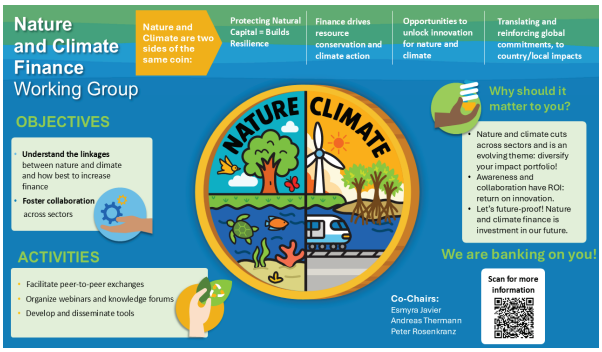
Discussions at the **Biodiversity and Ecosystem Management** station centered on the challenge of encouraging developing member countries (DMCs) to invest in nature. Participants acknowledged the difficulty of shifting government perspectives, particularly in contexts where economic returns from nature-positive investments are not immediately visible. The dialogue emphasized the importance of developing robust valuation tools to demonstrate the long-term benefits of investing in natural capital. A forthcoming report aimed at finance ministers was identified as a potential instrument to catalyze policy change and strengthen the case for nature-based investments.



The **Circular Economy** group received feedback from participants working in the Pacific, who shared concerns about the lack of government support for recyclers and waste entrepreneurs. They called for financial incentives, tax exemptions, and policy reforms to enable grassroots initiatives and improve waste management systems.

Discussions at the **Forest** station focused on the complex trade-offs between conservation and livelihoods. Participants noted the need to differentiate strategies for humid tropics and drylands and emphasized the importance of balancing environmental protection with economic use of resources such as timber, firewood, among others.





At the **Nature Finance** station, participants raised questions about measuring results and engaging the private sector in financing natural capital. The group discussed the role of innovative financial instruments and enabling policies to de-risk investments and incentivize private sector participation.

Finally, the **Nature-Based Solutions** group highlighted a major challenge: the lack of granular, region-specific evidence to support long-term planning. Participants stressed the need for detailed data on species, density, timing, and cost-benefit analysis to inform government decisions. They called for dedicated evaluation budgets and stronger integration of valuation into project design.

Across all groups, a recurring theme was the need to bridge the gap between environmental ambition and economic justification. Participants agreed that more robust evidence, targeted engagement with finance ministries, and inclusive policy frameworks are essential to scale up environmental investments and mainstream sustainability across ADB operations.

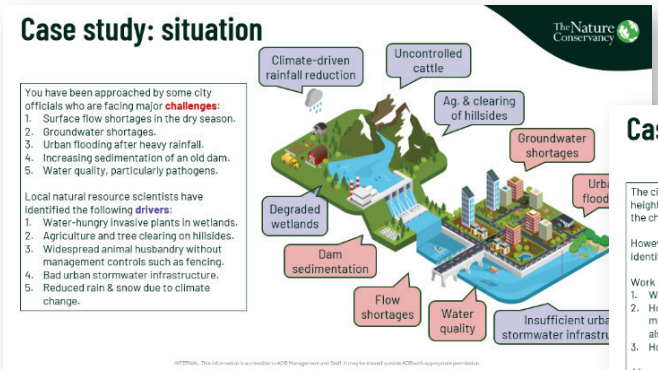
TECHNICAL SESSION 1: Nature-based solutions (NbS) for resilient landscapes by the NbS Working Group

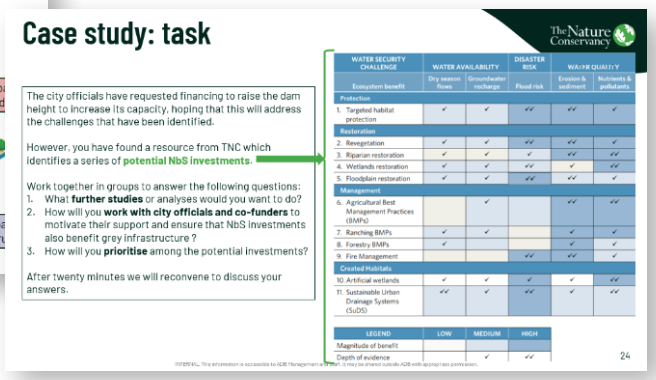
The first technical session kicked off by ADB's Senior Environment Specialist Isao Endo with keynote presentation from Erik Spiro-Larrea, Senior Engagement Manager of The Nature Conservancy, highlighting the transformative potential of nature-based solutions (NbS) for building resilient landscapes and securing water resources. NbS—including wetland restoration, sustainable agriculture, and forest protection—were presented as offering measurable benefits to both ecosystems and communities. These benefits include improved water quality, flood control, and enhanced climate resilience.

Key implementation challenges were identified, such as the need for large-scale physical footprints, complex stakeholder coordination, and long-term maintenance. Effective NbS deployment was shown to require robust governance structures, reliable supply chains (e.g., for tree saplings), and blended financing models.

Real-world examples illustrated how these challenges can be addressed, with positive return-on investments from NbS projects. In New York City, upstream watershed protection and improved agricultural practices eliminated the need for a costly water treatment facility, resulting in annual savings of approximately $300 million. In Cape Town, South Africa the removal of invasive plant species proved ten times more cost-effective than desalination. Norfolk, United Kingdom achieved a 6.7:1 benefit-cost ratio through housing and mitigation markets, while in Washington, USA, NbS significantly reduced potential flood damages.

The presentation concluded with a call for institutions to treat NbS with the same rigor as traditional infrastructure and climate resilience planning. This includes allocating budgets for design, implementation, and maintenance, and engaging beneficiaries early to ensure long-term sustainability. NbS were positioned not only as ecologically sound but also as economically strategic, of which success can be dependent on thoughtful planning and collaboration.





Following the presentation, participants engaged in an **active learning session** with case method focused on applying NbS to a simulated urban water management challenge. Groups analyzed landscapes facing multiple water-related issues—dry season shortages, urban flooding, sedimentation, and water quality degradation—and proposed interventions, prioritization strategies, and stakeholder engagement approaches with reference to actual case studies.

Group 1 emphasized forest-based solutions as foundational to water security. Strategies included riparian restoration, native tree planting, and agroforestry, guided by forest management standards. Forests were positioned as natural infrastructure complementing gray systems and delivering co-benefits such as carbon sequestration and biodiversity enhancement.

Group 2 focused on groundwater shortages, recommending wetland restoration and stormwater management. Sediment removal was preferred over raising dam height due to environmental concerns. The group stressed the need for scalable and cost-effective solutions.

Group 3 addressed community buy-in and economic feasibility. Proposals included converting wetlands into tourist areas and co-financing livestock fencing to reduce resistance. The group also discussed the high cost of retrofitting urban infrastructure and suggested proportionate regulations and water conservation incentives.

Group 4 advocated for systems-level climate and disaster risk assessments to identify hazards and vulnerabilities. Multi-hazard and sector-specific assessments were recommended, followed by cost-benefit analysis to prioritize interventions. Alignment with co-funders' priorities and community engagement were emphasized for sustainability.

Group 5 proposed a comprehensive ecosystem approach, recognizing upstream-downstream linkages. Sediment flow from mountain regions was identified as a key issue, with solutions including good agricultural practices and silt retention. Inter-ministerial coordination and stakeholder sensitization were highlighted as essential.

Group 6 recommended a combination of interventions, including rangeland management and rainwater harvesting. The focus was on improving groundwater levels and water quality, with priority given to economically beneficial and quick-impact solutions.

The session concluded with reflections on the value of landscape approaches, systems analysis, and hybrid green-gray infrastructure. Participants gained deeper insights on the integration of NbS into rural and urban development.

Follow-up Technical Session

On 9 October 2025, a deep-dive technical session on NbS was held at ADB to revisit key insights from previous discussions, reinforce topic relevance, and build a shared understanding of session outcomes for nature-based solutions. The conversation shifted toward future collaboration, with initial ideas presented, including a proposed NbS program for Asia and the Pacific. Participants explored opportunities for partnerships, capacity-building, and integrating NbS into ongoing and upcoming initiatives. The session closed with an exchange of final thoughts, emphasizing continued engagement, identifying champions, and aligning efforts with regional and country programs. A collective commitment was made to maintain coordination through the NbS Working Group and advance NbS integration in ADB-supported projects.

TECHNICAL SESSION 2: Nature finance for biodiversity and resilience by the Nature and Climate Finance Working Group

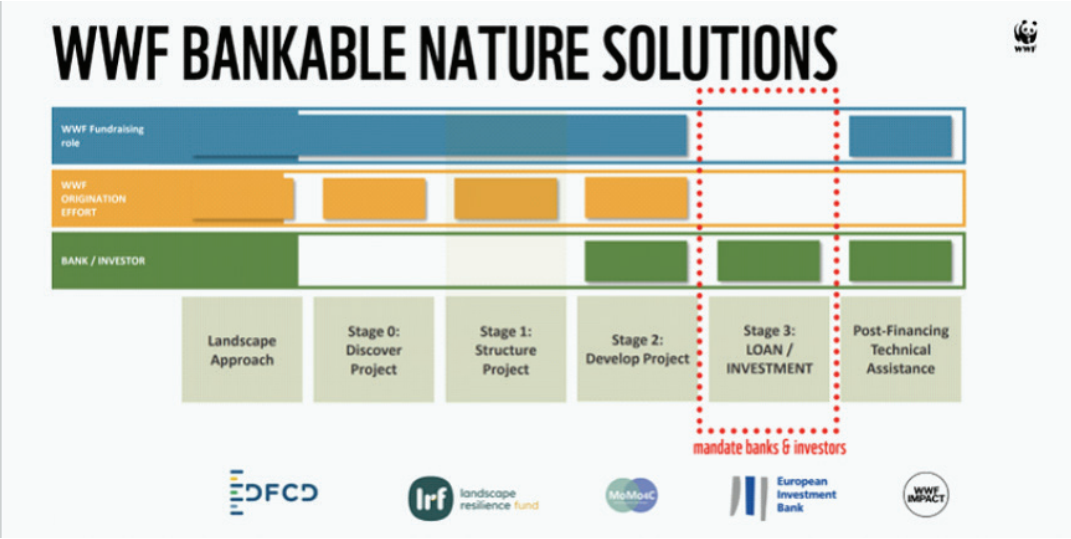
Andreas Thermann, Senior Green Finance Specialist, opened the technical session 2 and emphasized that traditional economic development is no longer viable, emphasizing that future growth must be **nature-positive**.

Aaron Vermeulen, Practice Leader for Finance at WWF, delivered a compelling keynote presentation on **bridging the nature financing gap**. The session addressed the widening nature financing gap and the urgent need to reverse biodiversity declines across Asia by 2030. While public funding for nature-positive investments is estimated at approximately $200 billion annually, over $7 trillion continues to support nature-negative activities.

A strategic framework, WWF's Climate Strategy, was introduced to mobilize and redirect $1 trillion toward climate and nature action. The framework is built on two pillars: financing green, which focuses on mobilizing capital for nature-positive investments, and greening finance, which aims to reform financial systems to reduce harmful investments. These pillars are supported by four approaches: sustainable finance for landscapes, green financial solutions, green financial systems, and green financial institutions.

A case study from Borneo illustrated how deforestation undermines ecosystem services and economic stability. The discussion emphasized the importance of landscape-level investment planning and early-stage project origination to make nature-positive initiatives bankable. Engagement with financial regulators was identified as critical, with examples of water-related risk assessments conducted in collaboration with central banks.

Development banks were encouraged to mainstream nature into lending practices and collaborate with civil society organizations to build viable investment pipelines. While innovative instruments such as biodiversity credits show promise, mainstream loans with integrated nature safeguards were identified as the most scalable to close the $900 billion nature financing gap.



FIRESIDE PANEL DISCUSSION: Scaling Up Finance for Climate and Nature

The **Fireside Panel Discussion**, moderated by Esmyra Javier, Senior Climate Change Specialist (Climate Finance), brought together specialists from various departments to discuss practical strategies for **scaling up finance for climate and nature**. A live survey engaged participants in identifying sectors with the greatest potential for integrated climate-nature solutions. Agriculture, forestry, and water emerged as top priorities. Concessional loans and results-based financing were considered the most effective instruments, while low institutional capacity, weak policy frameworks, and limited private sector engagement were cited as key challenges.

The panel discussion featured sectoral insights and practical recommendations from William Battye, Heejin Lee, Duncan Lang, and Jesus Dominic Dizon. Each panelist shared perspectives grounded in their respective areas of expertise.

Sectoral insights and recommendations were shared across four thematic areas:
Private Sector Engagement. The alignment of financial incentives with nature-positive investments was emphasized. Water utilities were highlighted as key actors in landscape management, with environmental stewardship shown to enhance operational performance and profitability. Philanthropic capital was identified as a strategic tool to de-risk investments and attract private finance, particularly in high-risk components. Challenges in synchronizing multilateral development bank (MDB) processes with philanthropic timelines were also noted.

Sovereign Operations and Regional Strategy. Southeast Asia's approach to integrating nature into infrastructure was presented, with examples such as the Integrated Flood Resilience and Adaptation Project in the Philippines and the issuance of ADB's Blue Bond. These initiatives demonstrate how nature-based solutions (NbS) can be blended with traditional infrastructure. Emphasis was placed on pipeline development and innovative financing tailored to upper-middle-income countries. Local governance was strengthened through land use planning, early warning systems, and community-led evacuation drills.

Green and Blue Bonds. ADB's frameworks for green and blue bonds were discussed, highlighting rigorous selection criteria and their role in signaling market confidence. Transparency and disclosure were identified as essential for maintaining investor trust and ESG ratings. Recommendations included expanding the scope of eligible projects and enhancing stakeholder engagement. The Environmental and Social Framework (ESF) was noted for its requirement of stakeholder consultation and engagement plans, which contribute to trust-building and improved project design.

Capacity Building. Continuous and tailored capacity development was advocated, with a focus on interactive training, real-world case studies, and experiential participatory learning. These approaches aim to ensure that staff and stakeholders can effectively apply knowledge in practice. The session ended with panelists sharing what gives them hope in the face of climate and biodiversity crises. Responses included growing awareness, collective action, and the increasing demand for resilience-building among stakeholders.

TECHNICAL SESSION 3: Investing in Clean Air by the Air Quality Working Group

The session began with Karma Yangzom providing an overview of the significant funding gap in air quality initiatives, noting that only 1% of overseas development assistance is currently allocated to this area. The Asia Clean Blue Skies Program (ACBSP), launched in 2022, was introduced as ADB's flagship initiative to scale up efforts in improving air quality across the region. The program aims to mobilize resources and foster regional collaboration to address air pollution and promote healthier urban environments.

ADB's engagement in air quality spans over two decades, including foundational support for Clean Air Asia and major investments exceeding $2.5 billion in Beijing-Tianjin-Hebei region, People's Republic of China (PRC) and $291 million in Ulaanbaatar, Mongolia. These efforts have targeted urban air pollution and laid out the groundwork for broader regional action. Structured around three core outputs, the ACBSP focuses on: (i) Strengthening air quality policies and strategies in developing member countries (DMCs); (ii) Building institutional capacity through training, equipment, and regulatory support; and (iii) Implementing investment projects that deliver measurable air quality improvements.

The program is being implemented in phases. Phase 1 (2022–2024) concentrated on foundational activities, while Phase 2, launched in January 2025, builds on these efforts. Current funding totals $3.13 million, sourced from the Urban Resilience Trust Fund, Japan Fund for the Joint Crediting Mechanism, and Technical Assistance Special Fund, with an additional $3 million funding request under review. Regional cooperation was emphasized as critical to advancing air quality initiatives. Platforms such as the Environment Community of Practice and the Air Quality Working Group were highlighted for facilitating cross-border collaboration, particularly in shared airsheds. Strategic partnerships with organizations including Clean Air Asia and the World Bank were identified as essential to achieving the goal of increasing the share of ADB projects contributing to air quality—from under 30% to 50% by 2028. Through the ACBSP, ADB continues to reinforce its commitment to cleaner air, healthier communities, and sustainable urban development across Asia. The session concluded with a call to expand the program's reach beyond the current 12 DMCs across Central, South, Southeast, and East Asia, contingent on the availability of additional resources.

Global Air Quality Funding Insights

Key findings from the State of Global Air Quality Funding Report (2019–2023) were presented by Fu Lu of the Clean Air Fund, emphasizing the urgent need for increased investment in clean air. Air pollution was cited as responsible for an estimated $6 trillion in annual global health costs and a 4.7%–6.5% reduction in global GDP. Economic returns from clean air investments were highlighted, with US data showing a $30 return for every $1 spent.

Despite these benefits, only 1% of international development finance is allocated to outdoor air quality—a figure that has remained stagnant and even declined by 20% between 2022 and 2023. While total air quality funding (including co-benefits) has increased to 5%, it remains concentrated in the transport sector and in a few countries, notably the Philippines, Bangladesh, and PRC. Seven recommendations were outlined for development funders:

- Integrate air quality as a co-benefit in climate and development projects;
- Prioritize air quality institutionally;
- Address data and monitoring gaps;

- Strengthen cross-donor collaboration;
- Target super pollutants such as black carbon;
- Catalyze private sector participation;
- Phase out fossil fuel-prolonging investments.

Multilateral development banks were encouraged to support enabling environments, develop investment-ready pipelines, leverage blended finance, and establish consistent standards for tracking air quality investments. Continued collaboration was urged to ensure clean air for all, especially in the context of declining global development funding.

Interactive Segment and Panel Discussion

An interactive Air Quality Quiz engaged participants with multiple-choice questions related to global air pollution, including its health and economic impacts, major pollutants, and exposure levels. This segment reinforced key messages from earlier presentations and raised awareness about air quality challenges.

The subsequent panel discussion featured representatives from two major ADB trust funds—the Urban Resilience Trust Fund (URTF) and the Japan Fund for the Joint Crediting Mechanism (JFJCM)—who explored financing strategies and project support for air quality improvement across Asia and the Pacific.

Joy Bailey of URTF emphasized the strong link between clean air and climate resilience, noting that reducing fossil fuel use contributes to both lower greenhouse gas emissions and improved public health. With a portfolio exceeding $82 million, URTF supports projects that integrate physical, ecological, social, institutional, and financial resilience. Examples include floating solar systems in Tuvalu, transit-oriented development in India, carbon pricing in Jakarta, and solid waste management in India and the Solomon Islands. A new initiative, the Resilient Urban Methane Initiative, aims to reduce methane emissions by retiring open dump sites.

Shohei Okano of JFJCM focuses on deploying advanced low-carbon technologies in ADB-financed projects. Backed by $137 million from the Japanese government, the fund supports projects that generate carbon credits under the Joint Crediting Mechanism. Case studies from the Kyrgyz Republic and Maldives demonstrated benefits such as reduced diesel use, improved air quality, and job creation. Increased applications were encouraged, as only half of the funds have been utilized.

During the **Q&A session**, participants raised critical issues:

Developing bankable projects. Lessons from PRC's Beijing-Tianjin-Hebei highlighted the importance of strong government ownership, regulatory frameworks, and cross-sectoral coordination.

Monitoring challenges. There was concern over the lack of capacity to monitor ultrafine particles, despite their severe health impacts. PM2.5 remains the primary focus due to technological and resource constraints.

Use of WHO interim targets. Panelists agreed that while WHO guideline values are ideal, interim targets are more practical for developing countries. These should then be used to guide project assessments.

Nature-based solutions. The panel acknowledged the growing role of NbS in urban planning and air quality, citing examples like tree buffers near schools and reforestation to mitigate haze and forest fires.

The session concluded with a strong emphasis on the need to intensify efforts, foster strategic partnerships, and embed air quality considerations into broader development planning. Participants were also encouraged to take part in the upcoming Air Quality Toolkit Training sessions and to explore additional resources, including a recently published ADB working paper that captures key lessons from PRC air quality initiatives.

Follow-up Technical Session

On 9-10 October 2025, the **Air Quality** Toolkit Training brought together project officers to explore practical ways of addressing air quality challenges across sectors. The session began by framing air quality as a shared issue that can be tackled through innovative project design. Participants were introduced to tools that help integrate air quality considerations into sector projects, with the goal of maximizing environmental and health benefits. Throughout the training, participants gained a clearer understanding of air pollution—its sources, key pollutants, health and economic impacts, and the global policy landscape. They also learned how to assess the air quality impacts of potential projects and identify opportunities for stakeholder engagement. A major focus of the training was on identifying practical, on-the-ground solutions. Participants discussed and prioritized interventions that could be included in future projects to improve air quality outcomes.

TECHNICAL SESSION 4: Promoting the Circular Economy by Circular Economy Working Group

The session led by Erin Sinogba, Plastics TA Project and Knowledge Management Lead, provided an overview of circular economy (CE) frameworks in line with global standards and agreements, focusing on their operationalization within ADB projects. Experts and practitioners convened to explore CE taxonomy, indicators, tools, and international frameworks that support mainstreaming CE across sectors.

James Baker, Senior Natural Resources and Agriculture Specialist, traced the **evolution of CE at ADB,** noting its roots in ocean plastics and its expansion into a broader sustainability framework. CE was positioned not as a standalone investment, but as a cross-cutting enabler that links sectors and scales development impact. The Circular Economy Working Group has expanded significantly, contributing to knowledge sharing, project development, and the creation of a CE toolkit.

Piya Kerdlap of Seureca and PXP Sustainability presented a **proposed CE taxonomy and indicator framework** that were developed based on global standards. The framework identifies 29 CE actions—categorized as either direct (e.g., reuse, recycling, regeneration) or enabling (e.g., education, digitalization)—and includes 105 indicators organized by level of difficulty and scale. Challenges in aligning the framework with ADB's Corporate Results Framework were acknowledged, highlighting the need for practical tools to bridge this gap.

International Policy Specialist Roger Joseph Guzman discussed **aligning CE with multilateral environmental agreements**, including the forthcoming Global Plastics Treaty, Basel Convention, and the Paris Agreement. ADB's role in supporting DMCs through policy reform, infrastructure investment, and regional cooperation was emphasized as essential to meeting international obligations and intensifying CE initiatives in the bank operations.

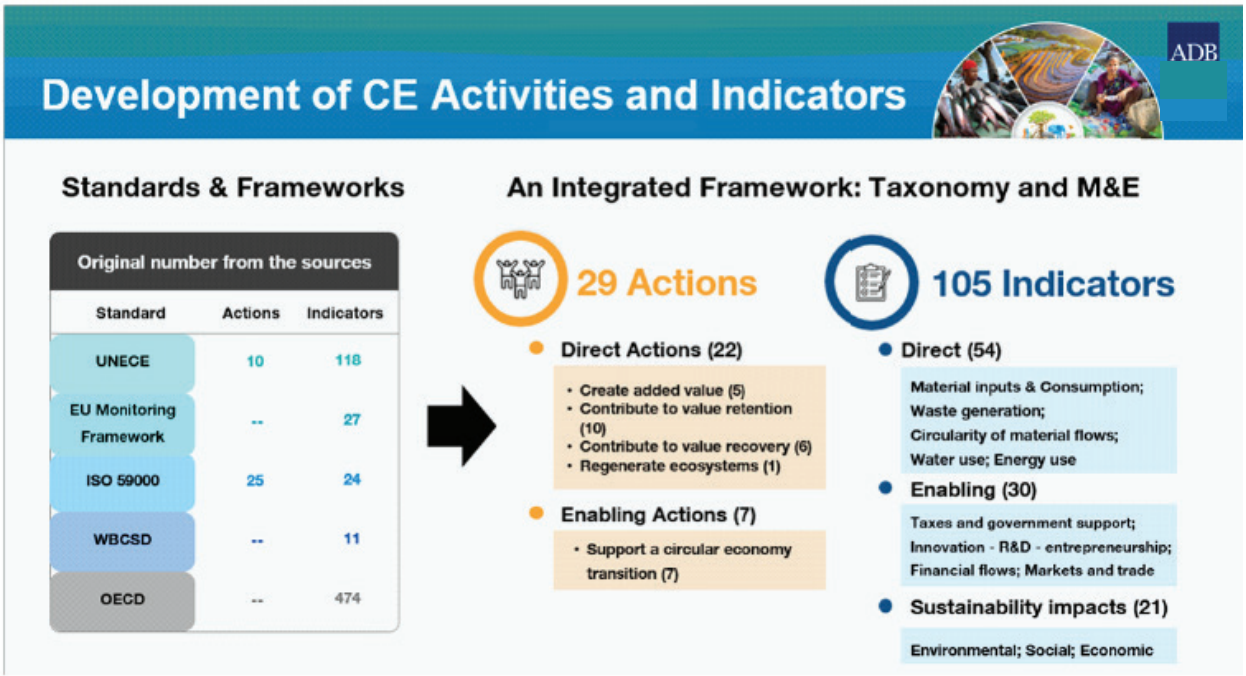
Marios Kostis of Seureca introduced **dynamic systems modeling** as a powerful tool for project planning and decision-making. Its application in Singapore's Zero Waste Master Plan demonstrated how such models can forecast outcomes, guide investment decisions, and incorporate real-time data for adaptive management. The model contributed to achieving a 70% recycling rate, saving over $200 million in avoided infrastructure costs, and extending landfill lifespan by a decade.

Operational experiences were shared by ADB staff members Christine and Terry, including the integration of CE principles into urban redevelopment projects such as the Pasig River Rehabilitation. Ongoing initiatives in Pakistan and the Solomon Islands were highlighted, focusing on methane recovery, informal sector engagement, and capacity building. Holistic approaches were emphasized, even in resource-constrained settings, with value creation from waste identified as a key strategy to attract private sector participation.

Participants were then engaged in a **fishbowl discussion** on mainstreaming CE approaches into ADB's operations. Participants called for expanding the CE approach beyond waste management to include resource and water efficiency in sectors such as agriculture and industry. The importance of education, behavior change, and digital technologies was also highlighted as critical to influencing consumer choices and supporting effective governance. As ADB's CE program grows beyond waste management and addresses issues beyond plastic pollution, the session was able to present a comprehensive framework and approach for applying and measuring CE approaches across different sectors and across the life cycle.

Follow-up Technical Session

The CE Working Group hosted a consultation session on 9 October 2025 at ADB to gather feedback from participants on the proposed taxonomy of CE activities and indicators for measuring outcomes. The draft taxonomy and indicators were circulated for final round of comments.



TECHNICAL SESSION 5: Biodiversity and Ecosystem Management—Ocean and Terrestrial by the Biodiversity and Ecosystem Working Group

This session explored the evolving landscape of biodiversity and ecosystem management, with emphasis on the roles of civil society, nature finance, and ocean finance tracking. Karen Grace Ochavo, Environment Officer, introduced the agenda and highlighted important aspects of partnerships and extensive engagement with civil society organizations.

Civil Society and Ecosystem Stewardship

Executive Director Wilson John Barbon of Conservation International (CI) Philippines shared a reflective presentation on the transformation of civil society organizations (CSOs) in the Philippines, tracing their evolution from political activism in the 1980s to a more collaborative role in conservation and development. Examples of terrestrial and marine ecosystem initiatives included support for protected areas in Palawan and watersheds in Batangas and Mindoro, as well as marine conservation efforts in the Sulu-Sulawesi Seascape and the Philippine Rise. Engagement in nature finance was demonstrated through mechanisms such as carbon markets, biodiversity credits, and conservation trust funds, aimed at creating sustainable financing for biodiversity protection.

Nature Finance Principles and Taxonomy

ADB's growing commitment to nature finance was presented by Duncan Lang in the context of increasing demand from developing member countries, driven by global biodiversity commitments. In alignment with other multilateral development banks (MDBs), ADB has adopted the Joint MDB Common Principles for Nature Finance. These principles define nature finance across four key areas:

- Restoration and conservation of biodiversity and ecosystems;
- Reduction of direct drivers of biodiversity and ecosystem service loss;
- Integration of nature-based solutions across economic sectors;
- Development of enabling policies and tools.

A detailed taxonomy was introduced to classify and track nature finance, including sector-specific guidance for forestry and land use. Only additional, ex-ante investments—excluding compliance-related activities—qualify under this framework. The taxonomy has been integrated into ADB's internal systems to support effective tagging and reporting of nature-related contributions.

Ocean Finance Tracking

Sanya Grover, Ocean Program Manager, CCSD, shared an overview of ADB's ocean finance tracking system which had been in place since 2019. The tracking system supports a $5 billion commitment to the blue economy and helps identify projects eligible for blue bonds. The Ocean Finance Framework guides project classification based on proximity to the coast (typically within 100 km), alignment with ocean-benefiting sectors (e.g., wastewater management), and exclusion of fossil fuel-related or ocean-harming activities. A sanitation project in Micronesia was used to illustrate how only specific components may qualify under ocean finance criteria. Due to the absence of universal indicators for ocean health, ADB applies custom indicators aligned with the framework to measure project outcomes. Project teams are encouraged to consult the Oceans team for guidance on complex cases.

The session emphasized the importance of integrating biodiversity—both terrestrial and marine—into development planning and financing. It underscored the evolving role of CSOs, the need for robust tracking systems, and the institutional commitment to supporting global biodiversity and climate goals through innovative finance and partnerships.

Nature Credits and Market Dynamics

In the final segment of Session 5, Guy Williams, Founder and Director of Ziranjiti and Ernst & Young Philippines, introduced the concept of nature credits, highlighting their growing relevance in nature finance. These credits differ from biodiversity credits by encompassing broader ecosystems, including water and atmosphere. Carbon markets, despite limitations, were acknowledged as foundational to the development of nature-based solutions and as entry points for private sector engagement. A distinction was made between credits (positive contributions) and offsets (compensation for damage), with implications for buyer behavior and market integrity.

Nature credit markets were described as functional and growing, with over $500 million in biodiversity credits traded in Australia alone. Supply-side challenges include ensuring quality, permanence, and additionality, while demand is driven by companies with direct or indirect dependencies on nature seeking to invest in conservation and restoration.

Interactive Learning: Nature Credits Strategy Game

Participants engaged in a card-based simulation to design nature credit projects. The activity explored interventions and buyer motivations across the supply and demand spectrum. Supply-side strategies ranged from ecosystem protection to full restoration, emphasizing principles such as integrity, additionality, and permanence. Demand-side motivations included compliance, value chain dependencies, and voluntary sustainability goals.

Key takeaways included the importance of clear terminology, alignment of project design with local values and ecological priorities, and recognition that nature credits may not always be the most appropriate financing tool. The activity reinforced the value of interactive learning in fostering shared understanding and cross-sector collaboration.

TECHNICAL SESSION 6: Biodiversity and Ecosystem Management – Forest Management by the Forest Working Group

Stephane Claude Pierre Salim, Senior Environment Specialist, introduced the session and highlighted the Forest Working Group's core mission of integrating forest and land-use nature-based solutions into ADB operations by improving coordination and developing strategic resources such as innovative finance and partnerships.

The session was opened by Emiliano P. Bolongaita, Principal Knowledge Specialist of CCSD with a presentation on the bamboo value chain initiative in the Philippines, supported by the ADB. The initiative utilizes blockchain technology to digitize the supply chain, aiming to enhance traceability, empower farming communities, and unlock carbon credit opportunities. Through the Farmer 360 platform, bamboo clumps are geotagged, and transactions are tracked in real time, even in areas with limited internet connectivity. Pilot results indicated strong community engagement—particularly among women-led groups—and demonstrated potential for increased income and environmental benefits. Key challenges include market development, standardization of bamboo carbon credits, and long-term economic sustainability.

Deputy Regional Director Michelle Wong and Program Manager Thesis Budiarto from the Forest Stewardship Council (FSC) emphasized the **role of certification in promoting sustainable forest management** in the succeeding presentation. FSC's standards support ecosystem protection, smallholder livelihoods, and traceable supply chains. New tools were introduced to meet rising demands for measurable environmental outcomes. A case study from Taipei,China highlighted that 1.6 million hectares—70% of the country's forest area—are now FSC-certified. In Indonesia, certification efforts have contributed to peatland conservation, protection of orangutan habitats, and engagement of indigenous communities in forest stewardship.

Yves Barthelemy, Digital Technology Specialist from the European Space Agency (ESA) introduced **Earth observation tools** like the **Sentinel** and **Biomass satellites**. These technologies provide high-resolution, open-access data for monitoring deforestation, forest cover, and biomass. ESA's collaboration with ADB facilitates forest mapping, project design, and monitoring. The new Biomass satellite offers enhanced capabilities to assess carbon stocks beneath forest canopies, supporting climate finance and conservation initiatives.

Leila Hubeaut, Head of Legal Affairs of Adryada presented a large-scale reforestation and carbon credit project in Samar Island, Philippines. The project targets restoration of 45,000 acres within a national park over 50 years, aiming to sequester over 20 million tons of CO_2. Strategies include assisted natural regeneration, community-based nurseries, and agroforestry. The initiative integrates satellite monitoring to prevent deforestation and includes a revenue-sharing mechanism to support local communities and ensure long-term sustainability.

Finally, Jianchu Xu presented the "Mountain Futures" global initiative, which promotes **bioeconomy and nature-based solutions** through indigenous knowledge, circular agriculture, and sustainable fiber innovation. The initiative demonstrates how degraded landscapes can be transformed into productive, climate-resilient ecosystems. Collectively, the presentations underscored the importance of integrating technology, certification, and inclusive finance to scale forest management solutions that are ecologically sound, economically viable, and socially inclusive.

Follow-up Technical Session

On 9 October, as part of the ADB Environment and Nature Learning Week, the University of the Philippines Los Baños–College of Forestry and Natural Resources (UPLB–CFNR) hosted a delegation from ADB to explore opportunities for collaboration in environmental sustainability and nature-based solutions (NbS). The discussions highlighted the importance of academic partnerships in advancing science-based, locally driven initiatives, particularly those promoting bamboo-based NbS, watershed restoration, and forest sector development. The engagement underscored the need for joint efforts among universities, development institutions, and local governments to address environmental and socio-economic challenges in urban areas and watersheds surrounding Laguna Lake.

CLOSING REMARKS

Yoko Watanabe formally concluded the two-day technical sessions of the Environment and Nature Learning Week 2025 by expressing sincere appreciation to all participants, particularly those from the resident missions and headquarters, whose active engagement contributed to the success of the event. The event marked the inaugural Learning Week under the Community of Practice on Environment. It featured six thematic working groups aligned with the key pillars of the Environment Action Plan (EAP), a cross-sectoral initiative developed collaboratively across departments.

The technical sessions were recognized for their dynamic and interactive formats, including an environment marketplace, games, fishbowl discussions, and quizzes. These approaches facilitated knowledge exchange, strengthened partnerships, and enhanced team cohesion. The Learning Week continues with technical training sessions focused on practical tools for implementing the EAP, including air quality toolkits, nature-based solutions, and biodiversity credits.

Strategic priorities outlined for future action include:

- Integration of EAP priorities into country partnership strategies, project pipelines, and institutional frameworks.
- Strengthened coordination among regional departments, resident missions, and sector teams.
- Advancement of innovation and digital technologies, supported by robust governance and leadership.
- Promotion of inclusive approaches, with emphasis on gender integration and engagement of local communities and Indigenous peoples.
- A people-centered and planet-focused approach was reaffirmed, emphasizing the overarching goal of improving livelihoods while safeguarding the environment.

The event concluded with a call for continued collaboration and dialogue, and encouragement for future sessions to incorporate more field-level insights. Appreciation was extended to the organizing team, working group leads, and all contributors for their dedication, with hopes that this marks the beginning of a sustained learning journey.