



BANGKOK PLASTICS WEEK

9–12 October 2023 • Bangkok, Thailand

KEY TAKEAWAYS REPORT



Introduction

This report presents an overview of key takeaways from [Bangkok Plastics Week](#), a series of capacity building events organized by the Asian Development Bank (ADB) and the Coordinating Body on the Seas of East Asia (COBSEA) from 9 -12 October in Bangkok, Thailand. Country participants can use these key takeaways to inform their activities and decision-making on data monitoring to reduce plastic pollution. Partners can use this report to inform discussions with countries on further areas of support around policy, financing, projects, and investments.

Program Objectives

Bangkok Plastics Week focused on data monitoring approaches and regional cooperation to address marine plastic pollution and government officials from Cambodia, Indonesia, Malaysia, the People’s Republic of China, the Philippines, the Republic of Korea, Singapore, Thailand, and Viet Nam attended. The events shared best practices, tools, and approaches for data collection, analysis, and management of plastic pollution and marine litter to meet local and national needs, achieve regional priorities, and track progress against global goals, with additional discussions on the upcoming Global Plastics Treaty. The program also included complimentary access for participants to the Global Plastics Summit, organized by Economist Impact, from 11-12 October.

9 OCTOBER TRAINING WORKSHOP

Advancing Data Analysis and Data Comparability in the East Asian Seas

ABOUT THIS EVENT

Monitoring and assessment are indispensable in identifying marine litter status, trends, and its most critical impacts, and to support development, tracking, and evaluation of policies and management interventions. The [Regional Action Plan on Marine Litter \(RAP MALI\) of COBSEA](#) recognizes the importance of robust and harmonized monitoring of plastic pollution in the environment in the East Asian Seas. The aim is to improve evidence for effective decision making at a national level and greater data comparability at a regional level to address the transboundary issue of marine litter. Effective data collection and management is also needed to track progress toward the upcoming Global Plastics Treaty.

To strengthen and harmonize marine litter monitoring efforts in the region, COBSEA countries adopted Regional Guidance on Harmonized National Marine Litter Monitoring Programmes. In partnership with the Commonwealth Scientific and Industrial Research Organisation (CSIRO), national baseline surveys were conducted in Cambodia, Malaysia, the Philippines, Thailand, and Viet Nam in 2022. Training on marine litter monitoring methods was provided at regional and national levels, and national focal agencies and technical partners identified additional capacity building needs on data analysis and strengthening data comparability to track effectiveness of interventions over time.

As a follow up, this workshop was organized by COBSEA and the United Nations Environment Programme (UNEP), in partnership with CSIRO, with support from the SEA circular¹ and MA-RE-DESIGN projects.²

OBJECTIVES

1. Enhance the understanding of the importance of robust and harmonized marine litter monitoring for addressing plastic pollution in the East Asian Seas region.
2. Provide participants with the knowledge and tools necessary to strengthen data collection, analysis, and management of marine litter, supporting regional priorities and the upcoming Global Plastics Treaty (GPT).

SPEAKERS

1. **Britta Denise Hardesty**, Senior Principal Research Scientist, Environment, CSIRO
2. **Kathy Willis**, Postdoctoral Research Scientist, CSIRO Marine Debris Research Team
3. **Natalie Harms**, Lead, Plastic Pollution and Marine Litter, Secretariat of the Coordinating Body on the Seas of East Asia (COBSEA), United Nations Environment Programme, Thailand.

9th October event materials can be found [here](#).

¹ The SEA circular project ('Reducing marine litter by addressing the management of the plastic value chain in South-East Asia') is implemented by UNEP and COBSEA, with support from the Government of Sweden. SEA circular aims to reduce and prevent plastic pollution and its impacts by working with governments, businesses, civil society, academia, and international partners. The initiative promotes market-based solutions and enabling policies to transform plastic value-chain management, strengthens the science base for informed decision making, creates outreach and awareness.

² The MA-RE-DESIGN project ('Marine litter prevention through reduction, sustainable design and recycling of plastic packaging') is implemented by GIZ, WWF, and COBSEA, with support from the Government of Germany. It aims at preventing plastic waste leakage through better waste management and strategies to reduce single-use plastic packaging and promote extended producer responsibility in Thailand, and to foster knowledge exchange, capacity building, and harmonization across COBSEA countries.



KEY TAKEAWAYS

1. **Robust survey design and harmonized methods for data collection are needed for effective and evidence-based management of plastic pollution and marine litter.** Structured surveys and collection of meta-data can strengthen data collection from cleanup activities, that harness citizen science. Ongoing monitoring efforts in the East Asian Seas region and COBSEA support for training and harmonized data collection were also discussed
2. **The Before – After – Control – Impact (BACI) design was recommended as an approach for analyzing data and monitoring the success of policies.** Strong data analysis is crucial to evaluate the effectiveness of policies and interventions. The BACI design is useful for examining changes in litter or marine debris patterns before and after policy implementation, or in response to local changes such as the introduction of waste bins, drink refill stations, or plastic bag bans.
3. **COBSEA encouraged countries to publish summaries of national surveys conducted with support from CSIRO,** to convey accurate on-the-ground information on marine litter status and trends to inform action.
4. **The workshop presented the next steps for a COBSEA regional assessment** building on national baseline data, to be completed in 2024 for consideration by the 26th Intergovernmental Meeting of COBSEA.
5. **Countries identified in-person training on data analysis, sharing of good practices, and tools and resources to enhance national data collection and management as capacity building needs** for informed decision making toward national targets, regional frameworks, and the upcoming GPT.
6. **Regional cooperation and harmonized approaches are key for effective monitoring approaches, consistency, and reliable regional data comparability.** Data sharing was discussed as the driving forces for cooperation, evidence-based representation of priority areas for action, and effective decision making. Collaborative efforts among stakeholders are essential to establish standardized definitions and guidelines, clear data collection, and reporting and assessment methodologies. The implementation of a data system, including an accessible dashboard, promotes transparency and engagement for all stakeholders.
7. **Transparency in data reporting and stakeholder accountability are critical.** Priorities encompass improving data traceability, securing funding, and developing in-country capacity for data analytics. This is fundamental for effective monitoring, progress reporting, and decision making. Countries are encouraged to review, share, and promote collaboration and transparency, including by sharing communication material developed by COBSEA and CSIRO.
8. **Capacity building support is also needed to manage diverse data sources, with and across countries, and will be addressed through COBSEA toward achieving the RAP MALI.** Countries can leverage existing regional mechanisms for efficient implementation of an anticipated international instrument on plastic pollution and addressing regional priorities.
9. **Establishing a formal agreement among participating parties would demonstrate a shared commitment to data sharing and harmonization.** An independent or trusted regional body should serve as a central hub to facilitate data sharing efforts.
10. **The COBSEA Secretariat will explore the opportunity of establishing a secure regional monitoring data platform** through the East Asian Seas Regional Node for safe and comparable data sharing among countries, as proposed by participants.

10 OCTOBER WORKSHOP

Strategies for Plastic Waste Data Collection and Management: Foundations for National and City Action Plans

Co-led by ADB and COBSEA this capacity development event shared best practices, tools, and approaches for monitoring plastic pollution and marine litter for country-specific evidence-based actions tailored to specific country contexts.

ABOUT THE EVENT

Robust monitoring of marine litter in the environment over time, assessments of waste leakage, and identifying sources of plastic pollution are key for evidence-based mitigation efforts and for tracking effectiveness of interventions to reduce plastic pollution and marine litter over time. However, while national monitoring efforts and programs exist in countries in Southeast Asia, data collection efforts are often fragmented and conducted on an ad hoc basis linked to one-off initiatives or development cooperation projects. It is currently almost impossible to compare plastic pollution project data within or across countries, as there is no coherence of methods and indicators used and findings are not collected and managed in a systematic way at national level. As plastic pollution is a transboundary issue, data comparability is important to address sources and track effective action at local, national, regional, and global level.

WORKSHOP OBJECTIVES

Recognizing these challenges, ADB, in collaboration with the Coordinating Body on the Seas of East Asia (COBSEA), hosted a regional capacity building workshop: *Strategies for Plastic Waste Data Collection and Management: Foundations for National and City Action Plans*. This one-day workshop is part of the knowledge program of ADB's Technical Assistance: [Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific](#). The workshop had three objectives.

1. Provide an overview by experts of the tools and approaches available for monitoring and assessment of plastic pollution and marine litter for evidence-based action for countries to apply to their specific contexts.
2. Share examples by experts of how methods, tools, and approaches have been applied in specific country contexts for participants to learn about best practices and challenges.
3. Share the perspectives of stakeholders at different levels, from governments to communities, to understand successes and capacity needs for data management, monitoring and evaluation of initiatives, and evidence-based policy making, as well as understand how development partners can support countries further.

Establishing national baselines and frameworks for regular monitoring and data management are a precursor to evaluation of policy effectiveness. Any intervention, whether a single-use plastic ban, extended producer responsibility scheme, or other initiative, should be underpinned by baseline data to prioritize effective action and inform continuous improvement.

10th October event materials can be found on ADB Knowledge Events [here](#).



SESSION 1 | Overview of Approaches: Collection Data Along the Plastic Value Chain

SPEAKERS

1. **Natalie Harms, Lead**, Plastic Pollution and Marine Litter, Secretariat of the Coordinating Body on the Seas of East Asia (COBSEA), United Nations Environment Programme, Thailand
2. **Marie Gouttebroze**, Project Manager, Waste and Energy Recovery Department, SEURECA-Veolia

Session 1 stressed that any intervention, such as single-use plastic bans or extended producer responsibility (EPR) schemes, or other initiatives, should be grounded in baseline data. This data serves as the foundation for prioritizing actions and guiding ongoing improvements. Participants recognized the challenges of national data collection and reached a consensus on the need for a regional or global approach to address plastic pollution and its associated data management, monitoring, and reporting requirements.

KEY TAKEAWAYS

1. The workshop on **9th October outcomes were recapped, emphasizing the importance of monitoring plastic flows from production to environmental impact**, both upstream and downstream.
2. **To address transboundary issues like plastic pollution, there is a critical need for harmonizing and strengthening data collection efforts**, enabling data to interconnect effectively and inform solutions.
3. **To gain a holistic understanding of a country's waste management, data collection must consider geographical disparities**, including urban and rural areas, and focus on solutions such as improved waste management infrastructure in remote regions. Acknowledging distinct waste compositions in different countries due to variations in waste management systems is crucial towards implementing tailored solutions and strategies that address specific and unique challenges.
4. **A comprehensive assessment of the plastic value chain should delve into the quantity of plastic generated, collected, recycled, and released into the environment**. This data aids in identifying challenges and implementing solutions such as enhancing recycling infrastructure and reducing plastic waste leakage.
5. **Monitoring the plastics value chain should focus on plastics production, waste management, and recycling**, emphasizing not only quantity and quality but also traceability and technological advancements as potential solutions.
6. **The accurate identification of plastic types, such as PE, PP, and PS, is essential for informed decision-making and implementing specific solutions**, such as targeted recycling programs.



SESSION 2 | Formal and Informal Waste Management: Working on the Ground and Overcoming Challenges

SPEAKERS

1. **Visvanathan Chettiyappan**, Professor, Mahidol University, Thailand
2. **Charlyn Hibaya-Pendang**, City Coordinator, Healthy Oceans and Clean Cities Initiative (HOCCI), UN-Habitat Philippines
3. **Kavinda Gunasekara**, Manager and Chief Operating Officer, Global Water and Sanitization Center, Asian Institute of Technology, Thailand

Session 2 examined current practices in plastic waste data collection and strategies to overcome associated challenges. Insights ranged from the Philippines' municipal data collection experiences to Thailand's progress with municipal solid waste data, feeding into national-level statistics. A particular challenge highlighted was the need for transparency in the collection of upstream data from producers.

KEY TAKEAWAYS

1. **Plastic waste data collection involves various stakeholders**, including governments, NGOs, academia, research institutes, the private sector, and citizen science, and requires material flow analysis.
2. **To enhance plastic data collection, it's crucial to harmonize methodologies, build data collection capabilities, focus on microplastics research, and consider local socio-economic contexts.** Informal sector data often excludes single-use plastics.
3. **In the Philippines, the Healthy Oceans and Clean Cities Initiative (HOCCI) partners with six cities to reduce plastic pollution and bolster institutional capacity, aligning with the National Plan of Action on Marine Litter.** It highlights regional collaboration, aligning local efforts with national strategies, and adapting solutions to diverse city contexts. Emphasizing circular economy principles and the reduce, recycle, reuse (3Rs) approach underscores sustainability. HOCCI also stresses the critical role of community engagement and innovation, providing a blueprint for addressing similar challenges worldwide.
4. **Extended producer responsibility readiness involves objectives like improving data management, promoting recycling activities, and exploring digitization.** Challenges include communication between national and local levels.
5. **The [CounterMEASURE](#) project was highlighted as the featured solution for SDG 14 (Life Below Water) at the United Nations' SDG Digital Day.** It developed an innovative methodology for assessing plastic leakage and pollution reduction, creating a precise plastic litter hotspot map for Ubon Ratchathani province in the Lower Mekong River Basin. This approach combines diverse geospatial data sources, including satellite imagery and population density statistics, and is validated through a mobile app. The project's use of GIS for geographical representation makes it accessible to non-technical users, highlighting its unique contribution to addressing SDG Goal 14.
6. **As part of CounterMEASURE, citizen science was integrated with machine learning to combat plastic pollution, engaging over 500 students from universities, primarily in computer science and environmental science.** The project also introduced the [pLitter](#) tool which uses deep learning, a subset of machine learning and geospatial technologies to identify and monitor plastic litter along streets.

SESSION 3 | National Plastic Data Management: Approaches to Action Plans

SPEAKERS

1. **Heidi Savelli-Soderberg**, Chief, a.i., Source to Sea Pollution Unit, Ecosystems Division UNEP
2. **Siddarth Hande**, Founder and CEO, Kabadiwalla Connect, India
3. **Nguyen Thi Thu Trang**, Co-Founder and Deputy Director, Centre for Supporting Green Development (GreenHub), Hanoi, Viet Nam

During **Session 3**, speakers demonstrated how better data and strategic planning could lead to the expansion of plastic waste collection efforts. The importance of global harmonization in waste data collection and integrating diverse data sources was emphasized. The Global Digital Platform of the UNEP Global Partnership on Plastic Pollution and Marine Litter (GPML) offered a collaborative data management solution that engaged key stakeholders from the formal and informal sectors.

1. **Waste data collection involves diverse methods, making global data alignment and integration a significant challenge.**
2. **The GPML has developed a Global Digital Platform to harmonize datasets** from various sources for more efficient data management and utilization. This platform allows customization and collaboration among stakeholders.
3. **Kabadiwalla Connect is mapping and integrating the informal waste sector into the formal system using data science and collaboration with various organizations**, operating primarily in Chennai, India while expanding to Indonesia and Ivory Coast.
4. **The informal waste sector, crucial in the Global South, significantly contributes to recycling.** In India, around 1.5 million waste pickers handle about 20% of total waste, potentially constituting a substantial business. Integrating this sector can offer cost-effective waste management solutions, but it must prioritize the livelihood and social protection of informal workers.
5. **GreenHub Viet Nam has created a waste management integration platform, [Plastic and Health](#), to address the lack of nationwide data on plastic waste issues.** The platform monitors marine litter in 30 areas across Viet Nam.
6. **The platform consists of seven thematic sections, offering practical information at local levels and enabling networking among users.** It has attracted over 100,000 users and contributors from more than 2,000 citizens.



SESSION 4 | Moving Forward: Addressing Needs, Building Opportunities, and Working with Partners

SPEAKERS

1. **Roger (Rocky) Guzman**, International Governance, Policy, and Legal Consultant, TA on Promoting Action on Plastic Pollution from Source to Sea in Asia and the Pacific, ADB

Session 4 shed light on the support requirements and gaps facing countries as they prepare for future monitoring and reporting of plastic pollution-related data. Key takeaways underscored the importance of conducting baseline assessments to establish a solid foundation. Critical gaps in national plastic waste data management were shared, including technical capacity and connectivity challenges. Participants expressed concerns about data enforcement and explored the potential of the Thailand model for private-sector reporting. The role of data in accountability and compliance was central to the discussion.

1. **ADB is exploring various forms of support for the Global Plastics Treaty (GPT) implementation, including the development of enabling frameworks, technical assistance, capacity-building, innovation, and the application of high-level technology capacity building and innovation.** Potential projects and investments include the development of extended producer responsibility (EPR) frameworks, innovative finance mechanisms, such as plastic credits, and support for digital and high-level technology solutions. These projects aim to provide holistic solutions and facilitate a just transition.
2. **ADB can leverage its existing financing facilities to support GPT implementation and compliance.** ADB's Blue Southeast Asia Finance Hub, Blue Pacific Finance Hub, ASEAN Catalytic Green Finance Facility, and SME BlueImpact Asia, could support project preparation and provide necessary funding. Additionally, ADB can leverage the GPT to attract more private sector investments, a crucial aspect of scaling up efforts.
3. **Ensuring accountability, compliance, and effective data management are vital components of GPT implementation.** This will potentially involve the development of national action plans, national reporting, compliance mechanisms, and assessment, monitoring, and evaluation. ADB can utilize learnings from other relevant multilateral environmental agreements, such as the Paris Agreement, Convention on Biological Diversity, Biodiversity Strategic Action Plan, and National Monitoring and Assessment Plan, to help countries address gaps and ensure compliance with the GPT.
4. **Challenges to effective national plastic waste data management include issues related to connectivity and technical capacity at sub-city/town levels, potential difficulties with data enforcement, missing data from informal stakeholders, and the need to understand the composition of plastics within municipal solid waste.** Additionally, the lack of standardized systems for plastics waste management poses problems in consolidating data across different regions within a country and reviewing data across South-East Asia. Ensuring data availability to governments, addressing budget constraints, and maintaining up-to-date inventory and waste composition data are recurring challenges.



11 OCTOBER WORKING GROUP

Localizing a Global Mandate: The Essential Role of Regional Bodies and Stakeholders

As part of Day 1 of the [Global Plastics Summit](#), organized by Economist Impact, a working group session was co-facilitated by COBSEA and ADB, as supporting organizations, on the role of regional bodies and stakeholders in implementing the Global Plastics Treaty at a local level. The discussions comprised two break-out sessions covering harmonizing monitoring and assessment for plastic pollution and marine litter, inclusive plans and policies, and information exchange for science-based action.

KEY TAKEAWAYS

1. **Regional bodies play an important role in supporting inclusive plans, policies, and interventions aligned with the upcoming GPT.**
2. **Regional support is essential for ensuring data harmonization, transparency, data traceability, capacity-building, data sharing, collaboration, setting realistic standards for monitoring and assessment, and aligning data requirements across organizations.** Stakeholders must reach a consensus on standardized definitions, reporting metrics, and data collection methodologies to ensure reliable data comparability and transparency. Collaborative data sharing and addressing confidentiality concerns are vital. Regional bodies, such as ADB and COBSEA, play a pivotal role in addressing shared challenges and expediting the implementation of global goals at the national level.
3. **There is a need for regional platforms and networks to streamline collaboration among stakeholders, including governmental agencies and multilateral funding bodies.** The group underscored the significance of private-public sector dialogues, stakeholder awareness, funding accessibility, and knowledge-sharing to advance sustainable, regionally aligned initiatives.
4. **Regional support was requested to support plastic credit schemes.**

5. **Regional mechanisms and knowledge platforms can facilitate the exchange of information and promote science- and evidence-based action.** Key discussion points included the importance of gathering and sharing resources and data through regional knowledge management platforms, emphasizing open access to data and information. Existing platforms, such as the Global Digital Platform of the GPML, Regional Nodes of the GPML, were highlighted, as was the need for transparent data collection and sharing, particularly in tracking plastic and waste production and trade.
6. **The group advocated sharing life cycle assessments and recommendations customized for national and regional contexts and leveraging the existing regional mechanisms to support the implementation of global instruments.** The participants stressed the creation of a science-policy interface to bridge knowledge and data gaps, connecting scientific expertise with policy priorities, and fostering a space for regional dialogue and multi-stakeholder exchange, including civil society, the private sector, and academia.
7. **All stakeholders must be given a voice to ensure the practical utility of platforms, and meaningfully engaging informal and disadvantaged groups must be meaningfully engaged.**
8. **There is a need for trustworthy regional scientific advisory boards, coordination across platforms, and a one-stop shop for all stakeholders, encompassing regional and national data layers.** Identifying target audiences and their needs was seen as paramount, as was understanding the challenges and gaps to inform decision-making.
9. **An impartial organizing body for dispute mediation and research vetting was suggested.** Establishing common engagement meetings with clear rules and identifying common goals were considered critical for success.
10. **Practical actions, such as banning plastic waste exports and incentivizing alternatives, were recommended.**

Conclusion

Robust monitoring of marine litter, especially plastic pollution, is essential for evidence-based policy decisions and assessing the effectiveness of interventions. However, in the East Asian Seas region, there's a need for harmonization and strengthening of data collection efforts to address fragmented methodologies and establish reliable baselines.

COUNTRY NEEDS:

1. Countries seek harmonized monitoring systems to track marine litter and plastic pollution, emphasizing the need for baseline data to inform national decisions.
2. Building capacity in data analysis and data comparability is vital to assess the effectiveness of interventions over time.
3. Countries must assess the entire plastic value chain, including production, waste management, and recycling, to tackle unique regional challenges.
4. Identifying the composition of plastics within municipal solid waste is essential for informed decision-making.
5. Effective data integration and national frameworks are required to collect nationwide data on plastic waste.
6. Technical capacity challenges, data connectivity at sub-city levels, and enforcement of data collection require support.

CHALLENGES:

1. Fragmented and ad hoc data collection methodologies hinder comparisons of plastic pollution data within and across countries.
2. Challenges include data connectivity, technical capacity, and the exclusion of informal sector data.
3. Ensuring data availability, addressing budget constraints, and maintaining up-to-date waste data are recurring issues.
4. Transparent data collection challenges exist, including communication between national and local levels and upstream data collection.
5. The absence of standardized systems for plastic waste management complicates data consolidation within countries.



AREAS FOR PARTNER SUPPORT:

1. Partner support is vital in harmonizing and strengthening data collection, enabling data interconnection for informed solutions.
2. Assistance is needed to develop EPR frameworks and innovative finance mechanisms such as plastic credits.
3. Addressing data connectivity and technical capacity challenges at the sub-city level is crucial.
4. Establishing a regional monitoring data platform for safe and comparable data sharing among countries is a promising solution.
5. Partners play a critical role in promoting regional engagement and collaboration to support the implementation of the upcoming GPT.
6. Ensuring transparency, accountability, and effective data management is key to supporting GPT implementation.
7. Collaborative efforts among stakeholders, standardized guidelines, and data collection protocols are essential for data consistency and comparability.
8. Partners can facilitate the establishment of an impartial organizing body for dispute mediation and research vetting to promote collaboration.
9. Broad consultation involving diverse stakeholders, capacity-building, and global and regional collaboration are vital for effective action on plastic pollution and marine litter.

In conclusion, **addressing plastic pollution and marine litter requires harmonization, transparency, and consistency in data collection.** Partner support is pivotal in facilitating these efforts to achieve effective action on plastic pollution in the East Asian Seas region. To address the gaps in national plastic waste data management, standardized methodologies, roles, responsibilities, and incentives for stakeholders must be agreed upon and formalized. This is essential to achieve harmonized regional plastic waste data and advance the goals of the global mandate.



