IRBM PROJECT NEWSLETTER

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GEF/UNDP/ASEAN Project on Reducing Pollution and Preserving Environmental Flows in the East Asian Seas through the Implementation of Integrated River Basin Management (IRBM) in ASEAN Countries

Across the Waters

Connecting Knowledge, People, and Action



Photo by Orange Omengan/PEMSEA



Photo courtesy of Syafiq Shaharuddin/USM

The third quarter of 2026 continued to strengthen regional cooperation, knowledge exchange, capacity development, and basin-level planning under the GEF/UNDP/ASEAN Integrated River Basin Management (IRBM) Project. Activities brought together national and local government agencies, regional institutions, technical experts, and communities across the six participating ASEAN Member States. Highlights included the ASEAN Regional Forum on Innovations in River Basin Governance and Management, the Fourth Regional Steering Committee Meeting, consultations in the Nam Tha River Basin, regional training activities in Indonesia and Malaysia, and Technology Needs Assessment for food and biodegradable waste management in Pasac-Guagua Watershed in the Philippines. Selected follow-up developments through October are also included.

In July, the ASEAN Regional Forum on Innovations in River Basin Governance and Management discussed the key findings and recommendations from the regional assessment on river basin governance and management in the ASEAN region, drawing on basin-level experiences, institutional arrangements, and policy frameworks. Country-specific feedback and technical inputs will inform the refinement of the draft IRBM Guide for Improved Governance and Management and associated assessment templates.

Also in July, the Fourth Regional Steering Committee meeting, hosted by Lao PDR's Department of Water Resources, Ministry of Agriculture and Environment, noted the implementation progress, lessons learned, challenges and next steps at the river basin, country and regional levels, as well as the proposed activities and budget for the remaining period of 2026. The meeting approved in principle the proposed 2027 Annual Work Plan and Budget, urged the Regional Project Management Unit, participating countries and project partners to complete the remaining Mid-Term Review management actions, and noted the request to expand the engagement of the ASEAN Working Group on Water Resources Management National Focal Points from the 11 ASEAN Member States. The meeting also launched the IRBM animated video on "Healthy River Basins Support Healthier Lives" and the State of River Basin Report of Nam Tha River Basin, which provides baseline information on biophysical, socioeconomic, and governance conditions of the basin.

In Lao PDR, the Project conducted site visits and consultations on pilot project development in the Nam Tha River Basin. Discussions identified priority issues such as forest encroachment, slash-and-burn activities, water security, and flooding, while also exploring opportunities to support local livelihoods. Among the pilot projects identified include upstream protection for water supply in Pak Tha District, Bokeo Province; livelihood development in Nam Ngan Village, Luang Namtha Province; and updating the Action Plan for the Agriculture Research and Extension Center in Oudomxay Province.

In the Philippines, consultations on pilot project development continue to move forward. In Imus-Ylang Ylang-Rio Grande Rivers (IYRR) in Cavite, discussions on financing options for a proposed Septage Treatment Facility particularly the eligibility and application requirements for Amadeo Municipality to avail of the subsidy from the Department of Public Works and Highways' National Sewerage and Septage Management Program (NSSMP) were conducted. As part of the application requirements for the NSSMP, the Project will support the updating of the feasibility study on septage management in Amadeo Municipality under the guidance of the IYRR Water Quality Management Area Governing Board and in coordination with the IYRR WQMA Secretariat and Cavite's Office of the Provincial Environment and Natural Resources Officer. In Pasac-Guagua Watershed (PGW), the Project has conducted Technology Needs Assessment (TNA) for food and biodegradable waste following its presentation at the Third Quarter Pampanga Provincial Solid Waste Management Board Meeting where the board were briefed on the scope, objectives, and expected outputs from the TNA of the PGW, and agreed on the schedule for the site visits in the 10 municipalities as part of the assessment. In October, the Project conducted a series of fieldwork in these municipalities to assess waste generation, composition, disposal, and management. Findings will inform technical recommendations for viable technological options for food and biodegradable waste management.

In August, the Project organized the Regional Workshop on Environmental Monitoring and Reporting in Depok City, Indonesia where participants from the six participating ASEAN Member States, examined the monitoring practices and reporting needs across seven priority river basins. Sessions covered indicator selection, monitoring design, data interpretation, and reporting, and introduced the Freshwater Health Index for consideration in the State of River Basin (SoRB) reporting. Findings will inform the refinement of the draft regional Guide on Environmental Monitoring and Reporting to support SoRB reporting and IRBM planning.

From September to October, the Project conducted the Regional Integrated River Basin Management Training of Trainers in Kuala Lumpur, Malaysia, to pilot-test and validate the draft IRBM Training Manual and Facilitator Guide. It brought together national and local government representatives, members of the PEMSEA Network of Learning Centers and PEMSEA Network of Local Governments, and university partners to review the training materials, practice facilitation and training techniques and strengthen their capacity to deliver IRBM training in their respective countries. Participatory sessions and site visits demonstrated practical approaches to basin governance and community engagement.

The regional and basin level activities provided opportunities to identify key elements of IRBM governance and management in consideration of national and basin level priorities and contexts; the requirements for monitoring and reporting of progress, and the training needs and tools to enhance IRBM capacity and learning. Consultations on pilot project development in Lao PDR and the Philippines confirmed the focus and possible partnership arrangements. The Project will build on these developments and implement the agreed actions to deliver on its objectives of establishing functional IRBM mechanisms and managing the identified alterations to the Source-to-Sea flows in the priority river basins.



Photos by Orange Omengan/PEMSEA

IRBM Project Convenes its 4th Regional Steering Committee Meeting



Photo by Orange Omengan/PEMSEA

Vientiane, Lao PDR – Hosted by Lao PDR's Department of Water Resource (DWR), Ministry of Agriculture and Environment (MAE), the IRBM Project convened its 4th Regional Steering Committee (RSC) Meeting on 8 July 2026. The meeting was held in a hybrid format and brought together representatives from the ASEAN Working Group on Water Resources Management (AWGWRM) National Focal Agencies of Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam; the UNDP Bangkok Regional Hub for Asia and the Pacific; the ASEAN Secretariat; the East Asian Seas Executive Committee; National Implementing Partners of the IRBM Project; local governments from seven priority river basins; and the PEMSEA Resource Facility.



"Although only six ASEAN Member States are directly implementing project activities, this is a regional project under the AWGWRM, and its benefits are intended for all ASEAN Member States," said Mr. Oudomsack Philavong, Chairperson of the AWGWRM and Director General of the Department of Water Resources, Ministry of Agriculture and Environment, Lao PDR. He emphasized the importance of active participation, knowledge-sharing and continued collaboration in strengthening regional ownership and supporting the implementation of the ASEAN Strategic Plan of Action on Water Resources Management.

Prior to the meeting proper, the Project launched its IRBM animated video, a regional communication resource to raise awareness and promote a shared understanding of integrated river basin management and the Source-to-Sea approach. The State of River Basin (SoRB) Report of the Nam Tha River Basin, a technical knowledge product providing a baseline assessment of the basin's biophysical, socioeconomic and governance conditions to support planning, monitoring and informed decision-making, was also launched during the RSC meeting.

The RSC noted the implementation progress, lessons learned, challenges and next steps at the river basin, country and regional levels, as well as the proposed activities and budget for the remaining period of 2026 and approved in principle the proposed 2027 Annual Work Plan and Budget. The meeting urged the Regional Project Management Unit, participating countries and project partners to complete the remaining Mid-Term Review management actions and noted the request to expand the engagement of the AWGWRM National Focal Points from the 11 ASEAN Member States.



Mr. Ugyen Dorji, Programme Management and Oversight Specialist, UNDP Bangkok Regional Hub for Asia and the Pacific; Dr. Nam So, Senior Environment Officer, ASEAN Secretariat; Ms. Aimee Gonzales, Executive Director, PEMSEA Resource Facility; and Mr. Oudomsack Philavong, Chairperson of AWGWRM and Director General of DWR, MAE of Lao PDR, during the ceremonial launch of the SoRB Report of the Nam Tha River Basin.

Photos by Orange Omengan/PEMSEA



Mr. Gerd Trogemann during his opening message.



Launching of the IRBM animated video.

"This fourth Regional Steering Committee meeting comes at an important point in time, where many of the plans and assessments made by all participating parties are expected to move towards implementation and to concrete results on the ground," said Mr. Gerd Trogemann, Manager, Regional Programme and Global Policy Network, UNDP Bangkok Regional Hub for Asia and the Pacific. He emphasized the importance of maintaining an implementation-focused approach across participating countries and river basins as the Project moves towards its scheduled conclusion in 2027.

The meeting reaffirmed the shared commitment of ASEAN Member States and partners to regional cooperation and integrated river basin management, working towards healthier river basins, cleaner water and more resilient communities across ASEAN.



Representatives from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam presented updates on project implementation and accomplishments to the RSC.

Photos by Orange Omengan/PEMSEA

IRBM Project Organizes the ASEAN Regional Forum on Innovations in River Basin Governance and Management



Photo by Orange Omengan/PEMSEA

Vientiane, Lao PDR — The IRBM Project, in collaboration with the Department of Water Resources (DWR), Ministry of Agriculture and Environment (MAE) of Lao PDR, organized the ASEAN Regional Forum on Innovations in River Basin Governance and Management on 7 July 2026.

Conducted in a hybrid format, the Forum brought together representatives from the ASEAN Working Group on Water Resources Management (AWGWRM), the ASEAN Secretariat, the East Asian Seas Executive Committee, the UNDP Bangkok Regional Hub for Asia and the Pacific, national and local government agencies from the six participating ASEAN Member States (Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam), academic institutions, and development partners, including the Australian Water Partnership and the Asian Development Bank.

The Forum presented and discussed the findings of a regional assessment of good practices and experiences in river basin governance and management in the ASEAN region, drawing on basin-level experiences, institutional arrangements, and policy frameworks. The findings informed the proposed structure of the IRBM Guide for Improved Governance and Management and associated assessment templates.



Mr. Oudomsack Philavong, Chairperson of the AWGWRM and Director General of DWR, MAE of Lao PDR delivered the opening remarks. *(Photo by Orange Omengan/PEMSEA)*

The regional assessment found that while policy foundations across the six participating ASEAN Member States are strong, implementation remains uneven due to overlapping mandates, fragmented planning, and weak enforcement. It also highlighted challenges in strategic coordination, stakeholder participation, the institutionalization of Gender Equality, Disability, and Social Inclusion (GEDSI), and financing for basin-level operations.

In his opening remarks, Mr. Oudomsack Philavong, Chairperson of the AWGWRM and Director General of DWR, MAE of Lao PDR, emphasized the importance of strengthening river basin governance in response to climate change and fragmented institutional arrangements.

"This Forum is not only a venue to validate the assessment results, but also a platform for dialogue and peer exchange. Your insights, experiences, and lessons learned will ensure that the Guide and templates truly reflect the realities of ASEAN's diverse river basins," said Mr. Philavong.

During the plenary discussions, representatives provided feedback on the assessment findings and recommendations. Their inputs highlighted the need to consider transboundary governance challenges at both national and basin levels, develop site-specific recommendations, and reflect country and local contexts, including recent institutional changes.



Representatives from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam during the forum.

In her closing remarks, Ms. Aimee T. Gonzales, Executive Director of the PEMSEA Resource Facility, encouraged participants to complete their feedback on the regional assessment and draft IRBM Governance Guide and templates to ensure that the resources are practical and responsive to national and basin-level contexts.

"Your contributions are vital to making these tools practical, scalable at both the national and basin levels, so that we ensure true regional ownership," said Ms. Gonzales.

The inputs gathered during the Forum will inform the refinement of the draft Guide and templates, which are intended to support national and local governments, river basin organizations, and partners in identifying opportunities to strengthen more inclusive, resilient, and effective river basin governance and management across the ASEAN region.



Ms. Aimee T. Gonzales, Executive Director of PRF, delivered the closing remarks.

Photos by Orange Omengan/PEMSEA

IRBM Project Conducts Site Visits and Consultations in Bokeo, Luang Namtha, and Oudomxay Provinces to Inform Pilot Project Development in Nam Tha River Basin



Women from Nam Ngan Village wearing handcrafted products made through their community-based weaving enterprise. (*Photo by Orange Omengan/ PEMSEA)*

Bokeo, Luang Namtha, Oudomxay, Lao PDR – The IRBM Regional Project Management Unit, together with representatives from the UNDP Bangkok Regional Hub and the Department of Water Resources (DWR) of the Ministry of Agriculture and Environment (MAE) of Lao PDR, conducted site visits and consultations in Bokeo, Luang Namtha, and Oudomxay Provinces on 11-14 July 2026, to identify key issues and potential solutions to guide the development and implementation of pilot projects in the Nam Tha River Basin.

In Bokeo Province, the team had consultations with representatives of the Paktha District Agriculture and Environment Office and the Water Supply Unit under the Paktha District Public Works and Transportation Office, and conducted a site visit to the District's water supply treatment plant on 11 July 2026. Priority issues identified were encroachment and slash-and-burn activities in the forest protected area, where the headwater is located, and limited capacity of the water treatment plant to supply clean water to surrounding villages in the District.



Consultation with representatives from the Paktha District Agriculture and Environment Office and the Water Supply Unit under the Paktha District Public Works in Bokeo Province, Lao PDR.



Site visit at the Paktha District Water Supply Treatment Plant in Bokeo Province, Lao PDR.



The village of Paktha District in Bokeo Province, Lao PDR.



A part of the Nam Tha River Basin, as seen from Bokeo Province, Lao PDR.

Among the potential solutions identified included the strengthening of forest protection including the demarcation of the forest protected area, community awareness-raising and capacity building to protect the headwater, expansion of the water supply network, along with a need for a long-term afforestation and reforestation program in the upstream areas to improve watershed health and ensure long-term water security.

On 12 July 2026, in Luang Namtha Province, the consultations which engaged Indigenous Peoples (Tai Dam, Lanten, and Sida), helped identify key issues and potential solutions at the community level to guide the development and implementation of pilot projects in Nam Ngan Village and Nam Dee Ecotourism site. The discussions provided community members with an opportunity to share their experiences, identify local challenges, and articulate how the Project can best support their livelihood needs which include community-based weaving enterprises, assistance for livestock raising, and support to greenhouse agriculture.

Photos by Orange Omengan/PEMSEA






(Upper Left) One of the women weavers in Nam Ngan Village. (Upper Right) A handcrafted shoulder bag produced in Nam Ngan Village featuring intricate, multicolored geometric patterns crafted by women in the community. (Lower Left) A woman from Nam Ngan Village wearing a traditional headcloth associated with the Tai Dam (Black Tai) Indigenous Peoples community. (Lower Right) Consultation with members of Tai Dam Indigenous Peoples community and other residents of Nam Ngan Village.

Similar to the findings in Bokeo Province, priority issues identified in Luang Namtha included encroachment and slash-and-burn activities in the upstream areas within the Nam Ha National Protected Area, where critical water sources are located. Following the site visits, a courtesy meeting was held on 13 July 2026 with the Provincial Agriculture and Environment Office of Luang Namtha, with representatives from the districts and forest, irrigation and land use sectors, to further discuss the priority issues and identify next steps.




(Top) Group photo with members of Tai Dam Indigenous Peoples community and other residents of Nam Ngan Village after the consultation. (Bottom) Consultations with Nam Dee Development, the private company managing the Nam Dee Ecotourism Waterfall, and with members from Lanten and Sida Indigenous Peoples community.

Photos by Orange Omengan/PEMSEA

Discussions emphasized the need to strengthen the governance mechanisms to address forest encroachment; enhance communication and information dissemination on watershed protection; reinforce monitoring, evaluation, reporting activities to support the long-term river basin management; develop and implement livelihood initiatives in selected villages; and identify synergies with existing projects and programs with similar objectives to share methodologies and experiences and facilitate replication of relevant approaches in Bokeo and Oudomxay Provinces.

In Oudomxay Province, the team visited the Nam Hin Reservoir and consulted with the Provincial Agriculture Extension Center, the training arm of the Provincial Agriculture and Environment Office, on 14 July 2026. Some of the identified issues include upstream forest encroachment and slash-and-burn agriculture within the watershed and the potential impacts of agricultural runoff containing pesticide residues on water quality, as the Province plans to expand the use of the Nam Hin Reservoir, currently dedicated for irrigation, into a source of domestic water supply in the coming years.



Courtesy visit with representatives from the districts and forest, irrigation and land use sectors of the Provincial Agriculture and Environment Office of Luang Namtha. (*Photo by Orange Omengan/PEMSEA)*



Consultation with representatives from the Provincial Agriculture Extension Center, the training arm of the Provincial Agriculture and Environment Office in Oudomxay Province, Lao PDR.



Site visit at Nam Hin Reservoir in Oudomxay Province, Lao PDR.

The consultation also highlighted the role of the Provincial Agriculture Extension Center in providing agricultural extension services and technical training for communities. Discussions explored opportunities for the Project to support the updating of the Center's existing Action Plan, strengthen its training and capacity development program, and identify potential partnerships and other sources of funding to support the modernization of its facilities and its long-term operations. The discussions also emphasized the Center's role in supporting agriculture extension activities and community training, particularly on rice, fruit tree and other crop production, livestock raising, and fish farming, as alternative livelihood opportunities to help address forest encroachment and slash-and-burn agriculture.

The insights gathered during the series of site visits and consultations will further inform the development and implementation of pilot projects targeting the identified issues and challenges in Nam Tha River Basin.



Nam Hin Reservoir located in Oudomxay Province, one of the provinces encompassing Nam Tha River Basin, in Lao PDR.

Photos by Orange Omengan/PEMSEA

IRBM Project Joins Discussion on the Establishment of Septage Treatment Facility in the Municipality of Amadeo



Photo by Orange Omengan/PEMSEA

Cavite, Philippines — The IRBM Project's Regional Project Management Unit joined the continuing discussion on the establishment of Septage Treatment Facility in the Municipality of Amadeo as part of the Project's pilot project development and implementation in Imus-Ylang Ylang-Rio Grande Rivers (IYRR) on 28 July 2026.

The meeting was attended by representatives from the Office of the Provincial Environment and Natural Resources Officer (OPENRO) Cavite, Department of Environment and Natural Resources–Environmental Management Bureau (DENR-EMB) Region IV-A, Department of Public Works and Highways (DPWH) Region IV-A, Department of the Interior and Local Government (DILG) Cavite, Local Water Utilities Administration (LWUA), and Amadeo's Municipal Environment and Natural Resources Office (MENRO), Municipal Planning and Development Coordinator, and Municipal Engineering Office, and Local Water District.

The discussion revolved on the Municipality of Amadeo's eligibility to secure financing from DPWH's National Sewerage and Septage Management Program (NSSMP). The meeting also explored other potential funding sources and counterpart contributions to support the proposed establishment of Septage Treatment Facility in Amadeo.

As part of the requirements for the DPWH's NSSMP, the Project will support the updating of the Feasibility Study on Septage Management for the Municipality of Amadeo under the guidance of the IYRR Water Quality Management Area (WQMA) Governing Board and in close coordination with the WQMA Secretariat and OPENRO Cavite.

IRBM Project Holds Regional Workshop on Environmental Monitoring and Reporting



Representatives from national and local government agencies and universities from the Project's six participating ASEAN Member States – Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam– and members of the PEMSEA Network of Learning Centers during the regional workshop in Depok City, Indonesia. (*Photo by Orange Omengan/PEMSEA)*

Depok City, Indonesia – The IRBM Project, in partnership with the Ministry of Environment of Indonesia, the Local Government of Depok City and the PEMSEA Network of Learning Centers (PNLC) convened the Regional Workshop on Environmental Monitoring and Reporting in Support of IRBM Program Development and Implementation, from 10–14 August 2026. The five-day workshop aimed to strengthen regional understanding and consensus on environmental monitoring and reporting approaches that can support IRBM implementation and State of River Basin (SoRB) reporting across the Project's seven priority river basins.

Conducted in a hybrid format, the Workshop brought together representatives from the six participating ASEAN Member States—Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam—along with members of PNLC and other academic institutions. Technical experts from EcoFutures under the Alluvium Group facilitated the technical sessions.

In their opening messages, representatives of the Ministry of Environment of Indonesia and the Local Government of Depok City highlighted the importance of integrated river basin management, the use of monitoring information to support policy and adaptive management, and addressing river basin challenges across administrative boundaries.

"Through this initiative, we aim to strengthen integrated management of the Ciliwung River Basin—one of our country's most vital yet challenged river systems—by promoting collaboration, knowledge sharing, and practical solutions for sustainable water and ecosystem management," said Mr. Tulus Laksono, Director of Water Quality Protection and Management, Ministry of Environment of Indonesia.

"Environmental monitoring should therefore not be regarded merely as the collection of samples and data. Monitoring results must be transformed into credible evidence that supports policy, adaptive management, accountability, and State of River Basin reporting," emphasized Mr. Noer Adi Wardojo, Acting Deputy Minister for Environmental Pollution and Degradation Control, Ministry of Environment of Indonesia, in his opening message.

"We all know that rivers do not recognize administrative boundaries. Pollution upstream will become a problem downstream. That is why IRBM is not an option, but a necessity," emphasized Ms. Agung Sugiharti, Expert Staff to the Mayor of Depok City for Economic and Development Affairs, in welcoming participants to Depok City.



Mr. Tulus Laksono, Director of Water Quality Protection and Management, Ministry of Environment of Indonesia, highlighted the importance of integrated management of the Ciliwung River Basin in Indonesia.

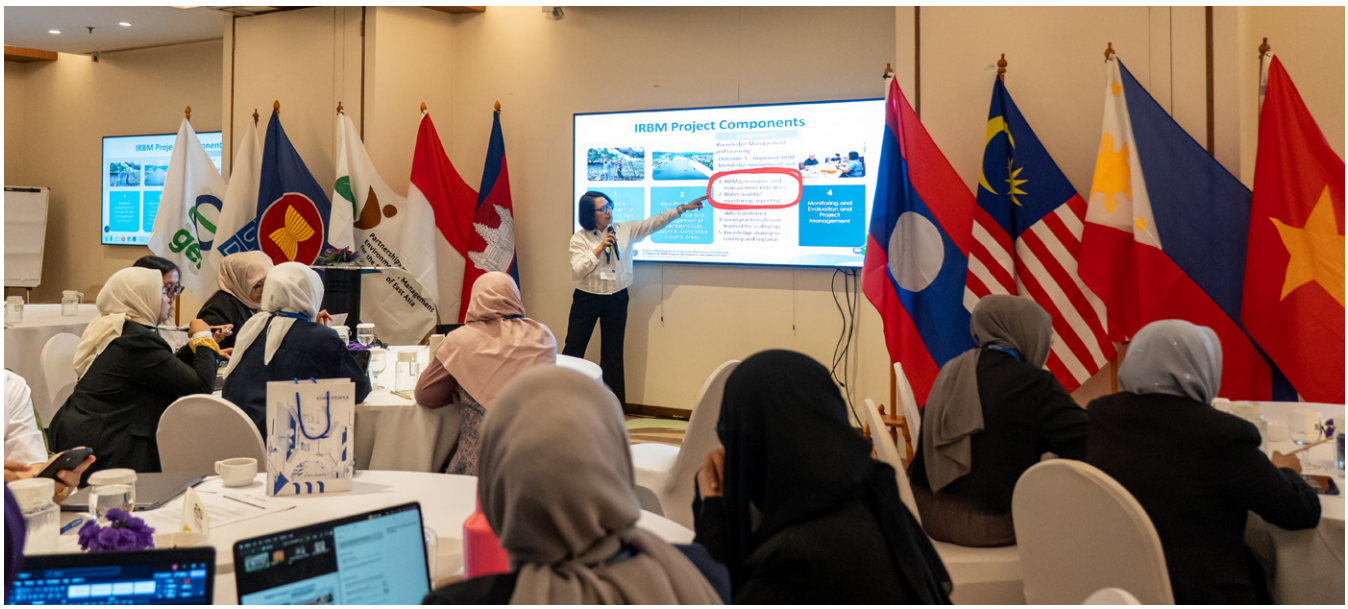


Mr. Noer Adi Wardojo, Acting Deputy Minister for Environmental Pollution and Degradation Control, Ministry of Environment of Indonesia, delivered the opening message virtually.



Ms. Agung Sugiharti, Expert Staff to the Mayor of Depok City for Economic and Development Affairs, welcomed participants to Depok City, Indonesia.

Photos by Orange Omengan/PEMSEA



Ms. Nancy Bermas, Regional Project Manager of the IRBM Project, delivered the background, objectives, and expected outputs of the regional workshop. (*Photo by Orange Omengan/PEMSEA)*

Through technical discussions and regional knowledge exchange, participants reviewed the status of environmental monitoring, including strengths, gaps, and priority needs in the seven river basins; shared good practices and explored practical approaches to selecting indicators; learned how conceptual models can guide monitoring program development; and explored the use of monitoring data for assessment and reporting.

The Workshop also introduced the Freshwater Health Index, which combines ecological indicators with human and social dimensions of water security in assessing freshwater systems and discussed its potential integration in the SoRB reporting. It also featured a presentation by the Ministry of Environment of Indonesia on the Integrated Big Data for Environmental Quality for Pollution and Degradation Control through AI (IBEQ-AI), a national platform for environmental data and monitoring that integrates Indonesia's environmental monitoring and reporting systems, databases, and online sensors using Big Data and AI.

As part of the Workshop's knowledge exchange activities, a day was allocated for site visits which provided participants with practical examples of environmental monitoring and reporting in the Ciliwung River Basin. At PT. Century Textile Industry, participants observed the industrial wastewater treatment process and the Online Realtime Waste Water Quality Monitoring System (SPARING). Participants also joined representatives of the Sahabat Ciliwung Community for an educational rafting activity along the Ciliwung River, where they were shown how to conduct water quality testing and experienced water sampling firsthand, followed by a tree-planting activity. At PDAM Tirta AsastaDepok (Regional Water Utility of Depok City), participants visited Station 63 of the Online Water Quality Monitoring System (ONLIMO), one of 347 monitoring stations in Indonesia, which is an automated and real-time system that collects water quality data to support river monitoring.



Participants from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam during the workshop and site visits.

Final sessions of the Workshop included the practical application of the Drivers–Pressures–State–Impact–Response (DPSIR) framework, using field visit experiences and observations as scenarios. Through group exercises and role-playing, participants identified priority environmental issues, selected indicators, and practiced presenting monitoring information clearly and concisely for decision-makers. Participants also shared environmental monitoring and reporting approaches in their respective countries, including how environmental incidents are managed and reported.

In his closing remarks, Prof. Yonvitner, President of PNLC and Director of the Center for Coastal and Marine Resources Studies, IPB University noted that river basins across the region face similar trends and pressures, highlighting the importance of continued cooperation among countries. He highlighted the role of State of River Basin (SoRB) reporting and relevant indicators in river basin and water resources management, and encouraged continued exchange through the PNLC and IRBM networks.

The Workshop generated a consolidated review of environmental monitoring across the seven river basins of the Project, considerations for monitoring program design and indicator selection, and practical insights on data interpretation and reporting. The discussions also provided technical inputs to the regional Guide on Environmental Monitoring and Reporting and associated templates, supporting the use of monitoring information for IRBM planning, adaptive management, and informed decision-making.



Prof. Yonvitner, President of PNLC and Director of the Center for Coastal and Marine Resources Studies, IPB University highlighted common challenges facing river basins across the region, the importance of SoRB reporting, and continued knowledge exchange through the PNLC and IRBM networks.

Photos by Orange Omengan/PEMSEA

IRBM Project Conducts the Regional Integrated River Basin Management Training of Trainers



Representatives from national and local government agencies of the six participating ASEAN Member States, members of the PEMSEA Network of Learning Centers, and other university partners from across the region attended the Regional IRBM TOT in Kuala Lumpur, Malaysia. *(Photo by Orange Omengan/PEMSEA)*

Kuala Lumpur, Malaysia — The IRBM Project in collaboration with the Department of Irrigation and Drainage, Ministry of Energy Transition and Water Transformation of Malaysia, Kedah State Water Resources Board and Universiti Sains Malaysia conducted the Regional Integrated River Basin Management Training of Trainers (TOT) from 28 September to 2 October 2026. Conducted in a hybrid format, the five-day training brought together representatives from national and local government agencies of the six participating ASEAN Member States (Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam), members of the PEMSEA Network of Learning Centers (PNLC) and PEMSEA Network of Local Governments (PNLG), and university partners from across the region.

In his welcome remarks, Dr. Chang Chun Kiat, Director of the River Engineering and Urban Drainage Research Centre, Universiti Sains Malaysia, highlighted the importance of regional learning and exchange in developing approaches that can be adapted to different river basin contexts.



Dr. Chang Chun Kiat, Director of the River Engineering and Urban Drainage Research Centre, Universiti Sains Malaysia, delivered the welcome remarks during the IRBM Regional TOT.



Mr. Hanizan Deraman, Deputy Director-General of Business Sector, Department of Irrigation and Drainage, Ministry of Energy Transition and Water Transformation of Malaysia delivered the opening message.

"I believe the real value of this training will come not only from the presentations and technical sessions, but also from the exchange of experiences among ASEAN Member States. Each country has its own institutional arrangements, river basin characteristics, challenges and good practices. By sharing these experiences, we can learn from one another and develop approaches that are practical, relevant and adaptable to different river basin contexts," said Dr. Chang Chun Kiat.

Mr. Hanizan Deraman, Deputy Director-General of the Business Sector, Department of Irrigation and Drainage, Ministry of Energy Transition and Water Transformation of Malaysia, underscored the role of trainers in carrying knowledge forward and fostering learning across their organizations and countries.

"A successful trainer is not merely someone who can present information. A successful trainer is someone who can engage people, encourage critical thinking, facilitate meaningful discussion and ultimately empower others to take action," emphasized Mr. Hanizan Deraman.

The Regional IRBM TOT pilot-tested and validated the draft IRBM Training Manual and Facilitator Guide developed under the Project's capacity development component. It also aimed to create a pool of capable trainers and facilitators who can assist in upscaling IRBM implementation and advancing the Source-to-Sea concept and approach in their respective countries by transferring their knowledge to other potential trainers and facilitators.



Ms. Nancy Bermas, Regional Project Manager of the IRBM Project, delivered the background, workshop objectives, and the expected outputs of the regional training.

Photos by Orange Omengan/PEMSEA



Technical experts Simon Tilleard, David Winfield, and Vanh Mixap from the Alluvium Group facilitated the sessions.

Through a practice-oriented and participatory approach, participants worked through IRBM concepts, planning processes, practical tools, regional case studies, and peer-learning activities, while building the skills needed to facilitate IRBM training within their organizations and countries. The training provided opportunities for participants to exchange experiences and explored how IRBM approaches can be applied across different institutional and river basin contexts.

As part of the training, participants undertook site visits to learn from practical examples of integrated river basin management and community-based river stewardship in Malaysia.

At the Lembaga Urus Air Selangor Headquarters in Shah Alam, Selangor, discussions focused on water resource and river basin governance, including institutional coordination and the implementation of IRBM at the state level. LUAS' longstanding partnership with PEMSEA on Integrated Coastal Management, dating back to 2001, provided further context to the visit. Participants were introduced to key initiatives, including the Selangor Off River Storage Scheme, Zero Discharge Policy, Integrated Water Resources Information System, LUAS Intelligent Support System (LiSS), and the Friends of River program, which supports community participation in river conservation.



Participants from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, and Viet Nam during the sessions.

Photos by Orange Omengan/PEMSEA



Participants during the site visits at Sungai Penchala River Information Centre and Pejabat Lembangan Sungai Klang of the Department of Irrigation and Drainage.

At the Sungai Penchala River Information Centre, participants engaged with representatives from the Global Environment Centre on community-based river stewardship initiatives. Activities included discussions and demonstrations on plastic recycling and hands-on water quality monitoring, as well as an exchange with representatives of the Central 19 Community Garden.

Participants also met with representatives from the Klang River Basin Office under the DID Kuala Lumpur to discuss the operation and management of the Klang River. Discussions covered disaster risk management, flood early warning systems, river conservation and rehabilitation, and water quality management.

On the final day, participants reflected on insights from the field visit and discussed how the knowledge and tools introduced during the training could be applied to their respective river basin contexts. Working in groups according to their assigned modules, participants reviewed the draft IRBM Training Manual and Facilitator Guide and provided feedback and recommendations on which elements or sections should be retained, which required adjustment or addition, and which could be removed.

In his closing remarks, Dr. Chang emphasized the importance of translating the lessons from the training into action at the river basin level.

"The real value of this training will be realized when we take these lessons back to our respective organizations and countries, adapt them to our own river basin contexts, and use them to strengthen the capacity of others," said Dr. Chang.

The feedback, practical experiences and recommendations gathered during the training will inform the refinement of the draft IRBM Training Manual and Facilitator Guide, supporting the development of practical capacity-building resources that can be adapted to different country and river basin contexts across the region.

Photos by Orange Omengan/PEMSEA

IRBM Project Undertakes Technology Needs Assessment for Food and Biodegradable Waste Management in Pasac-Guagua Watershed



Engr. Rey Esguerra, RPMU consultant, presented the objectives, scope and expected outputs of the Technology Needs Assessment for food and biodegradable wastes to be undertaken in Pasac-Guagua Watershed during the 3rd Quarter Pampanga Provincial Solid Waste Management Board Meeting. *(Photo by Orange Omengan/PEMSEA)*

Pampanga, Philippines — The IRBM Project, in partnership with the Department of Environment and Natural Resources (DENR) Region III, DENR Provincial Environment and Natural Resources Office (PENRO) of Pampanga, and the Pampanga Provincial Government – Environment and Natural Resources Office (PG-ENRO), conducted a Technology Needs Assessment (TNA) for food and biodegradable waste management in the Pasac-Guagua Watershed (PGW). The scope, objectives and expected outputs from the TNA, as well as the schedule for the site visits in the PGW as part of the assessment, were discussed during the 3rd Quarter Provincial Solid Waste Management Board Meeting on 22 September 2026, attended by 20 member offices representing provincial, city, and municipal local governments and national government agencies.

The PGW, one of the Project's priority river basins in the Philippines, covers the municipalities of Bacolor, Floridablanca, Guagua, Lubao, Macabebe, Masantol, Minalin, Porac, Santa Rita, and Sasmuan. Consultations in the watershed identified solid waste, particularly food and biodegradable wastes, as one of its major issues.

The Pampanga Provincial Solid Waste Management Plan 2022–2031 indicates that biodegradable waste accounts for approximately 49 percent of the province's total waste generation and identifies waste diversion as a primary and strategic approach to reducing residual food and biodegradable waste volumes, minimizing disposal costs, and improving overall waste management efficiency.




Site visit and discussion at the Centralized Materials Recovery Facility in Santa Rita, Pampanga on 6 October 2026.

The TNA forms part of the Project's pilot project implementation and adopts a systematic, data-driven, and stakeholder-inclusive approach.

As part of the ongoing assessment, the Project reviewed the provincial, city, and municipal solid waste management plans and available waste data, and conducted site visits in the PGW municipalities to assess current biodegradable waste generation, composition, disposal methods, waste management practices, and community behaviors.

The TNA also will evaluate available technology options based on the characteristics and scale of the waste stream, anticipated environmental benefits, social and economic acceptability, capital and operational requirements, and alignment with local government priorities and resource capacities. Potential technology providers will also be profiled based on their technical capabilities, estimated capital and operation and maintenance costs, after-sales support, and experience in comparable local government deployments.

Through the TNA, the IRBM Project aims to generate evidence and technical recommendations that can inform locally appropriate approaches to food and biodegradable waste management in the PGW, while contributing to broader efforts to reduce pollution and strengthen integrated river basin management.

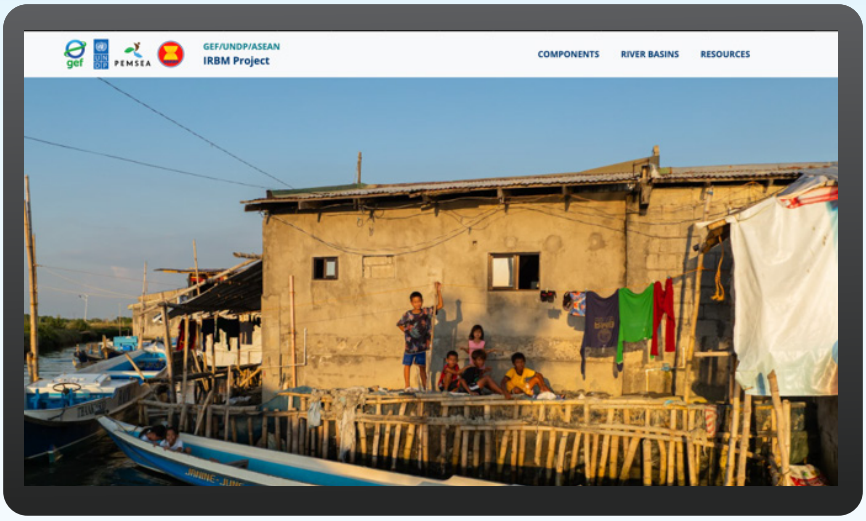



Coconut husks are repurposed into furniture as part of the LGU's initiatives to recycle biodegradable waste in Floridablanca, Pampanga.

Photos by Daisy Padayao/PEMSEA

Get the latest updates from the IRBM Project e-Portal at PEMSEA's SeaKnowledge Bank!

The IRBM e-portal on PEMSEA's SeaKnowledge Bank offers a dedicated space for sharing key resources, updates, and stories from our work across the region's river basins.



Website Features

- About the project
- News updates
- Featured stories
- River basin profiles
- Publications

irbm.seaknowledgebank.net

Upcoming Events

11th GEF International Waters Conference
October 19-22, 2026 | Bali, Indonesia

Asia-Pacific OCEAN Week
October 26-30, 2026 | Bangkok, Thailand

UN Showcase at the 49th ASEAN Summit
November 16-18, 2026 | Manila, Philippines

About the Integrated River Basin Management (IRBM) Project

Supported by the Global Environment Facility, the Integrated River Basin Management (IRBM) Project is working to set-up functional management mechanisms in priority river basins of six ASEAN countries to reduce pollution and sustain freshwater environmental flows as well as adapt to climate change vulnerabilities. The regional Project is being implemented by the United Nations Development Programme Bangkok Regional Hub, and executed by Partnerships in Environmental Management for the Seas of East Asia, in collaboration with ASEAN.

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Learn more about the IRBM Project