

# WEPA

Water Environment Partnership in Asia

## WEPA News

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The Water Environment Partnership in Asia (WEPA) is an initiative proposed by the Japanese Ministry of the Environment. It aims to strengthen water environmental governance and capacity building in Asia. For further information, please visit the WEPA website (<https://wepa-db.net>).

### Topics

#### WEPA Topics

1. Update of the WEPA Action Program in Lao PDR
2. Asia Wastewater Management Partnership (AWaP)
3. Water environment in Indonesia
4. The 19th WEPA Annual Meeting and International Workshop in Hayama, Japan
5. 10th World Water Forum

#### Call for your contribution to WEPA News!

#### 1. Update of the WEPA Action Program in Lao PDR

The WEPA Action Program in Lao PDR, funded by the Ministry of the Environment of Japan, has been designed to provide technical support to the Department of Natural Resources and Environmental Inspection (DNREI) of the Lao Ministry of National Resources and Environment (MONRE), specifically aimed to: (i) conduct baseline surveys and performance reporting of existing septic tanks and decentralized wastewater treatment facilities in three major cities/province in Lao PDR, including Vientiane, Luang Prabang and Khammouan province; (ii) preparation of training materials for proper operation and maintenance of septic tanks and decentralized wastewater treatment facilities; and (iii) capacity building of relevant and in-charged governmental staffs at local level for law enforcement purposes. This action program has been scheduled for two years (FY2022-FY2023) and it is expected to be completed by the end of FY2023 (March 2024).

Under this program, WEPA Secretariat members made a field visit to Lao PDR from 7-11 August, 2023 to collect water samples at selected sites in Luang Prabang. Water samples were collected from a septic tank at a temple (with DEWATS facilities), a DEWATS facility at the Luang Prabang Night Market, a high school Joukasou, as well as from nearby public canals. In addition, a kick-off meeting for this year's project was held on 10 August, 2023, to gain a common understanding of the detailed implementation plan for FY2023.



## 2. Asia Wastewater Management Partnership (AWaP)

Asia Wastewater Management Partnership (AWaP) is a partnership to raise awareness on wastewater management, promote monitoring of wastewater management, and provide support to resolve common challenges in partner countries. It was initiated by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in 2018, in cooperation with MOEJ. The partnership aims to particularly achieve SDG 6.1 in Asia. WEPA has been collaborating with AWaP, as the two organizations share similar objectives, in relation to conserving water resources, through governance and wastewater management. The 3rd General Meeting of AWaP was held in Sapporo, Japan, on 1 August, 2023, and partner countries (Cambodia, Indonesia, Japan, the Philippines, and Viet Nam) discussed the upcoming 2nd Work Plan. WEPA Secretariat attended the meeting and introduced the history and activities to the AWaP partner countries. AWaP partner countries are all WEPA partner countries, albeit with different ministries in charge. As such we expect to extend further collaboration to accelerate progress on achieving SDG 6 in the region.



## 3. Water Environment in Indonesia

In Indonesia, rivers and lakes play important roles for human society. Indonesia has more than 70,000 rivers and 1500 lakes which hold 500 km<sup>3</sup> of water or 72% of the total volume of Indonesian surface water. Like in many other countries, these lakes and rivers have numerous purposes related to human life, such as drinking water, and use in agriculture, fisheries, industry, transportation and energy. Lakes and rivers also provide important ecosystem services, they act as flood control, they can mitigate droughts and climate change, and they also are the location for biodiversity habitats. River and lakes also have benefits for ecotourism, education and research. Lake and river ecosystems in Indonesia support agricultural production, freshwater fisheries, hydropower electricity, tourism experiences, freshwater availability, and cultural and religious sites.

Indonesia is facing an exponential rise in water demand and pollution due to its growing population, and the country is seeing expanding industrialization and economic growth, as well as increasing agricultural activities. The decline in environmental quality also remains a serious threat to ecosystem services, particularly in the provision of water, which is critical for ensuring food security.

Back in 2009, the Government of Indonesia identified 109 river basins that are considered polluted. Fifteen river basins have now been prioritized, in Indonesia's Medium-Term Development Plan (RPJMN) 2020-2024. These are Asahan Toba in North Sumatra, Siak in Riau, Musi in South Sumatra, Citarum, Cisadane, Ciliwung in West Java and Jakarta, Sekampung in Lampung, Serayu and Bengawan Solo in Central Java, Brantas in East Java, Kapuas in West and Central Kalimantan, Saddang in West and Central Sulawesi, Jenebarang in South Sulawesi, Moyo in West Nusa Tenggara and Limboto Bone Bolango in North Sulawesi.

The Ministry of Environment and Forestry Indonesia (MoEF) initiated a concept of "creating shared value" by sharing positive value in the community. They encouraged reinforcing the establishment of community-based institutions to manage eco-riparian areas and involving the community on activities such as planning, workshops, community organizations, and program implementation. Most riparian areas in Indonesia used to be widely utilized as temporary dumping sites for domestic and construction waste. Domestic waste water from densely populated areas used to be discharged into waterways without proper management. The most commonly used waste management facilities are septic tanks.

Citarum River is one of fifteen priority river basins in Indonesia. Citarum is the longest and largest river in West Java, Indonesia, stretching in 297 kilometers before reaching the Java Sea. In 2018, waste regulation was introduced with the President Decree RI No 15 Year 2018 on Pollution and Damage Control Acceleration in Citarum River Basin. Citarum experienced environmental pollution and damage due to domestic and industrial activity in riparian areas, i.e. waste from agriculture, farming, fishery and domestic waste (waste water and domestic litter).

One of the areas situated on the banks of the Citarum river is Karawang Regency. This area is the location of the densely populated Bintang Alam Housing Complex, which did not have access to a centralized wastewater treatment system, and contained many unmanaged waste dumping sites. In order to restore water quality, measures must be taken to ensure that rivers are not used to dump pollutants that will damage the river ecosystem. To this end, Bintang Alam Eco-riparian site was established in 2020 in the housing complex and has installed pollution control facilities to deal with existing pollutants, as well as other environmental facilities which do not disturb the existing ecosystem. The site also has become a tourist attraction managed by the public community and has thus improved the economy of the area. The concept of the Eco-riparian site on the riverbank is to utilize open space without reducing its main function as a conservation area. Bintang Alam Eco-riparian site functions as a green open park, a means of environmental education, and a place for social interaction, while also improving the circular economy of the community.

#### **Benefits created by establishing the Eco-riparian site:**

1. Biocord wetland wastewater treatment plant is capable of treating household wastewater for up to 2000 households.
2. Greenhouse gas emissions have been reduced by around 1.8 tons of CO<sub>2</sub> per year.
3. Pollutant loads have been reduced by 34.03 tons of BOD per year

#### **Various measures already carried in the Citarum River are:**

- Water quality monitoring (manual and automatic)
- Community empowerment

### Objective of Eco-riparian development:

1. To rehabilitate riparian functions to safeguard the habitats for wildlife.
2. To provide green infrastructure which enhances eco-riparian functions as water filtration, erosion control, and waste water treatment.
3. To develop capacity for communities to independently manage eco-riparian infrastructure.



**BINTANG ALAM ECORIPARIAN**

Built in 2020, located right on the banks of the Citarum River, situated in the Bintang Alam Housing Complex, Telukjambe Village, Karawang Regency, West Java.

**BENEFITS:**

- Processing Domestic Wastewater for around 8,000 people
- Reducing GHG emissions by around 1.8 tons of CO<sub>2</sub> per year
- Reducing Pollutant Loads by 34.03 tons of BOD per year
- Serving as an Environmental Education Center for the community
- Improving the local economy

Wetland WWTP using Biocord media.

Top View

Aerob Tank

Supporting Facilities

Family Medicinal Plants

Karli's Cafe

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**Pak Witono** (Water Pollution Control, Ministry of Environment and Forestry, Indonesia, 12 October, 2023)

### 4. The 19th WEPA Annual Meeting and International Workshop in Hayama, Japan

The WEPA Secretariat and MOEJ, will organize the 19th WEPA Annual Meeting and International Workshop on 30 January - 1 February 2024 in Hayama, Japan. These events will be held in a hybrid style, in person and online.

The Annual Meeting aims to share WEPA's activities during FY2023 and present the status of the water environment in partner countries. The International Workshop will provide opportunities for representatives from partner countries to learn about how other countries revise their policies to improve the water environment, followed by a workshop to discuss future activities.

The agenda and other details of the meeting will be announced in due course.

## 5. 10th World Water Forum

The 10th World Water Forum (WWF10) will take place in Bali, Indonesia, 18-22 May 2024, under the main theme of Water for Shared Prosperity. The WEPA Secretariat plans to contribute to WWF10 by participating in two thematic sessions, 2A: Water Quality Improvement and 4A: Governance, Cooperation and Hydro-diplomacy. We will provide more details of these sessions at the 19th WEPA Annual Meeting and International Workshop.



➤ More information at <https://worldwaterforum.org/>

### Call for your contribution to WEPA News! (Please send us any updated information)

We are seeking a cooperative agenda with partners. To ensure smooth progress, we welcome information on any new developments on water environmental governance in your country. If you have any related information, please send it to the WEPA Secretariat by email <[WEPA\\_secretariat@iges.or.jp](mailto:WEPA_secretariat@iges.or.jp)>.

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*WEPA NEWS aims to disseminate the updated information on WEPA activities. It also aims to exchange information among those who are interested in WEPA, including the focal persons in partner countries, experts with advice on WEPA activities, and participants of past WEPA-related meetings.*

\* If you would rather not receive future newsletters, please contact us.