Ministry of Land, Infrastructure, Transport and Tourism

Ministry of the Environment
Government of Japan

Doc.00

The Third General Meeting of the Asia Wastewater Management Partnership (AWaP)

1st August 2023

Sapporo, Japan

Contents

Ministry of Land, Infrastructure, Transport and Tourism

Ministry of the Environment
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Doc.01

The Third General Meeting of Asia Wastewater Management Partnership (AWaP)

Concept Note

1. Background and Objectives

In September 2015, the United Nations Sustainable Development Summit adopted the Sustainable Development Goals (SDGs). SDGs established target 6.3, which aims to halve the proportion of untreated wastewater by 2030, as a target for wastewater management. Six Asian countries launched the Asia Wastewater Management Partnership (AWaP) at the AWaP First General Meeting held on 25th July 2018 in Kitakyushu, Japan, to contribute to achieving this target and the SDGs at large. The first General Meeting agreed that the AWaP would locate its secretariat in Tokyo, Japan, which the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan, and the Ministry of the Environment (MOE), Japan, would jointly operate.

The partner countries have discussed the implementation guidelines and the work plan of AWaP. Based on these guidelines, the partnership has comprised government officials from partner countries engaged in policy-making for wastewater management and other related fields.

The AWaP has organized regular meetings to share information and discuss solutions for wastewater management. AWaP targets the mainstreaming of wastewater management in each partner country and satisfies all the stakeholders involved in wastewater management. In addition to sharing the information needed for the improvement of wastewater management, AWaP targets the creation of models that can solve the existing challenges to promote each country's efforts towards achieving the SDGs wastewater-related targets by 2030.

2. Contents of the meeting

The 3rd General Meeting will focus on information sharing and discussion topics.

- Review the Work Plan 2018-22
- Formulate the new Work Plan from 2023-30 (The target year of SDGs)

After the General Meeting, you will enjoy the leading-edge Japanese wastewater treatment and stormwater management technologies at the seminar and Sewage Works Exhibition 2023.

Doc.02

The Third Asia Wastewater Management Partnership (AWaP)
General Meeting 2023

Agenda

Tuesday, August 1, 2023
Venue: Conference Room 85, Sapporo Dome
Chair: Dr. Taku FUJIWARA
Facilitator: Dr. Pierre FLAMAND

09:30	**Opening Remarks**	Mr. Masaki NUMATA Director, Office for Promotion of Johkasou, Waste Management Division, Environmental Regeneration and Material Cycles Bureau, Ministry of the Environment (MOE)
09:32	**Participants Introduction**	Dr. Pierre FLAMAND Manager, International Affairs, Japan Sanitation Consortium (JSC)
09:37	**Purpose of the Meeting**	Dr. Taku FUJIWARA Professor, Department of Global Ecology, Graduate School of Global Environmental Studies, Kyoto University
09:42	**Concept and Purpose**	Mr. Makoto KUDO Director for Overseas Projects of Sewerage, Sewerage Planning Division, Sewerage and Wastewater Management Department, Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
09:47	**Session1: Progress Report**	
	1. Cambodia	Mr. CHAO Sopheak Phibal Deputy Director General, General Directorate of Sewerage and Wastewater Management (GDSWM), Ministry of Public Works and Transport (MPWT)
	2. Indonesia	Ms. Marsaulina Farida Masniari Pasaribu, S.T., M.E. Sub-Director, Sanitation Technic planning Division, Ministry of Public works and housing
	3. Philippines	Mr. Michael T. ALPASAN: Project Manager 1, UPMO-Flood Control Management Cluster, Department of Public Works and Highways (DPWH)
	4. Vietnam	Mr. LUONG NGOC KHANH Head of Drainage & Sewerage and Wastewater Treatment Management Division, Administration of Technical Infrastructure, Ministry of Construction
	5. Japan	Mr. Yasuhiro OTSUKA: Chief for International Development and Promotion, Sewerage Planning Division, Sewerage and Wastewater

		Management Department, Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
10:16	**Discussion**	
	Session2: Work Plan for 2030	
10:31	**Report from WEPA**	Ms. Yukako INAMURA Research Manager Adaptation and Water Area, Institute for Global Environmental Strategies (IGES)
		Mr. Fumiaki HASEGAWA Deputy Director, Environmental Management Division, Environmental Management Bureau, Ministry of the Environment (MOE)
10:38	**On-going and New Work Plan**	Mr. Shu NISHI Director, Sewerage International Affairs and Engineering Office, Sewerage and Wastewater Management Department, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
10:53	**Discussion**	
11:13	**Future Schedule**	Mr. OTSUKA
11:15	**Chair's Summary**	Dr. FUJIWARA
11:23	**Closing Remarks**	Mr. Makoto MATSUBARA Director General, Sewerage and Wastewater Management Department, Water and Disaster Management Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)
11:25	**Group Photo**	
11:30	**Close of the Meeting**	

List of Participants on **AWaP 3rd General Meeting** Doc.03

Chairman

Dr. FUJIWARA Taku	Professor of Kyoto University	

Cambodia

Dr. ROS Vanna	Ministry of Public Works and Transport	Secretary of State
SOURN Phearith	Ministry of Public Works and Transport	Director General for General Directorate of Sewerage and Wastewater Management
CHAO Sopheak Phibal	Ministry of Public Works and Transport	Deputy Director General for General Directorate of Sewerage and Wastewater Management
PETH Sarath	Kandal Provincial Department of Public Works and Transport	Deputy Director

Indonesia

Marsaulina Farida Masniari Pasaribu	Ministry of Public Works and Housing	Head of Sanitation Technical Planning Sub-directorate, Directorate of Sanitation, Directorate General of Human Settlements
Evry Biaktama Meliala	Ministry of Public Works and Housing	Head of Regional Settlement Infrastructure Implementation Work Unit, Settlement Infrastructure Agency for Jambi Region, Directorate General of Human Settlements
Indah Alfira Chairunnisa	Ministry of Public Works and Housing	Specific Functional Position in Sanitation Engineering, Directorate of Sanitation, Directorate General of Human Settlements

Phillipine

Michael T. Alpasan	Department of Public Works and Highways	Project Manager I of UPMO-Flood Control Management Cluster
Alexander-Generoso P. Castro	Department of Public Works and Highways	Engineer III of Environmental and Social Safeguards Division – Planning Service
Vicente Homer B. Revil	Local Water Utilities Administration	Administrator

Vietnam

Ta Quang Vinh	Ministry of Construction	Director General for Administration of Technical Infrastructure
Luong Ngoc Khanh	Ministry of Construction	Head of Sewerage and Drainage Division, Administration of Technical Infrastructure
Nguyen Minh Duc	Ministry of Construction	Head of Water Supply Management Division, Administration of Technical Infrastructure
Truong Thi Thanh Huong	Ministry of Construction	Foreign Affairs Official for International Cooperation, ATI Office, Administration of Technical Infrastructure
Nguyen Thanh Tung	Ministry of Construction	Official for International Cooperation Department
Phuong Lan	Government Office	Deputy Director General for Legislation Department
Do Quy Phuong	Ministry of Planning and Investment (MPI)	Official for Department of Infrastructure and Urban Center

Nguyen Quang Huy	Hanam Department of Construction	Director
TAMOTO Norihide	JICA Expert in MOC (Sewerage Policy Advisor)	
Nguyen Thi Dao	Assistant of the JICA Expert	

Japan(Secretariat / Supporting Organization)

MATSUBARA Makoto	Ministry of Land, Infrastructure, Transport and Tourism	Director General for Sewerage and Wastewater Management Department
NISHI Shu	Ministry of Land, Infrastructure, Transport and Tourism	Director for Sewerage International Affairs and Engineering Office
KUDO Makoto	Ministry of Land, Infrastructure, Transport and Tourism	Director for Overseas Projects of Sewerage
BEPPU Atsuto	Ministry of Land, Infrastructure, Transport and Tourism	Chief Official for Project Cooperation
OTSUKA Yasuhiro	Ministry of Land, Infrastructure, Transport and Tourism	Chief Official for International Development and Promotion
NUMATA Masaki	Ministry of the Environment	Director for Office for Promotion of Johkasou
SATO Ryoma	Ministry of the Environment	Section Chief for Office for Promotion of Johkasou
HOANG THI MAI	Ministry of the Environment	Senior Environment Expert for Office for Promotion of Johkasou
HASEGAWA Fumiaki	Ministry of the Environment	Deputy Director for Environmental Management Division, Environmental Management Bureau
TANAKA Matsuo	Japan International Cooperation Agency	Senior Advisor for Grobal Environment Division
KANAZAWA Sui	Institute for Global Environmental Strategies	Policy Researcher Adaptation and Water Area
INAMURA Yukako	Institute for Global Environmental Strategies	Research Manager Adaptation and Water Area
WAKABAYASHI Junji	Japan Sewage Works Agency	Director General
MATSUDA Ryo	Japan Sewage Works Agency	Assistant Manager
UCHIDA Kazuhiro	Japan Sewage Works Agency	senior advisor
ABE Kazuko	Japan Sewage Works Agency	staff
Dr. FLAMAND Pierre	Japan Sanitation Consortium	
MITSUHORI Jun	MRI Reserarch Associates, Inc.	
UENO Mizuho	MRI Reserarch Associates, Inc.	
FUJITA Risa	MRI Reserarch Associates, Inc.	

The Concept and Purpose of the Asia Wastewater Management Partnership (AWaP)

1st August 2023

Secretariat of the Asia Wastewater Management Partnership (AWaP)
Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan
and Ministry of the Environment (MOE), Japan

Concept of the Asia Wastewater Management Partnership (AWaP)

SUSTAINABLE DEVELOPMENT GOALS

6 CLEAN WATER AND SANITATION

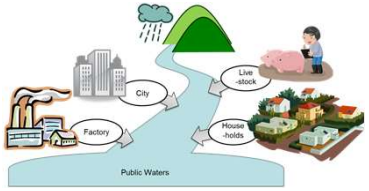
17 inclusive targets by 2030

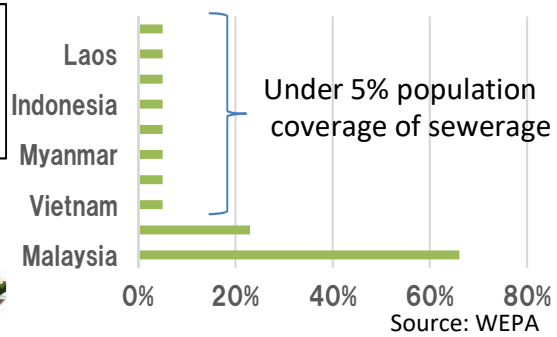
Target6.3

"Halving the proportion of untreated wastewater"

GAP

Current Status





Gap

Low priority of wastewater management

Lack of knowledge and information

Lack of budget and appropriate technology

Objectives

1 **Raising Awareness on Wastewater Management**

2 **Monitoring of Wastewater Management**

3 **Resolving Common Challenges**

Activities

1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences

1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials in partner countries

2.1 Submitting of annual report from partner countries

2.2 Publishing AWaP synthesis report

3.1 Sharing and discussing common challenges

3.2 Conducting co-projects

Example of project

-Pilot project on new technologies

-Model projects for the introduction of new ideas and technologies

- Project to establish technical/policy guidelines

Structure of AWaP

Secretariat
(financed by MLIT/MOE Japan)

Partner Network

WEPA
(Water Environment Partnership in Asia)

Supporting Organization

International Organizations
Donor Agencies

JICA (Japan International Cooperation Agency)
UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific)
WHO (World Health Organization)

Expert Organizations

JS (Japan Sewage Works Agency)
JSC (Japan Sanitation Consortium)

Implementation Guidelines

- **Partner countries** are the key members of this partnership and the main constituents. Roles and responsibilities are:
  - A) Registering focal points
  - B) Regularly reporting and sharing information
  - C) Participating in activities
  - D) Participating in meetings
- **Supporting organizations** are to support AWaP's efforts by offering and sharing each organization's resources.
  - A) International organizations, development assistance organizations
  - B) Public sector entities
  - C) Research institutions and universities

Partner Countries

Supporting Organization

International Organizations
Donor Agencies

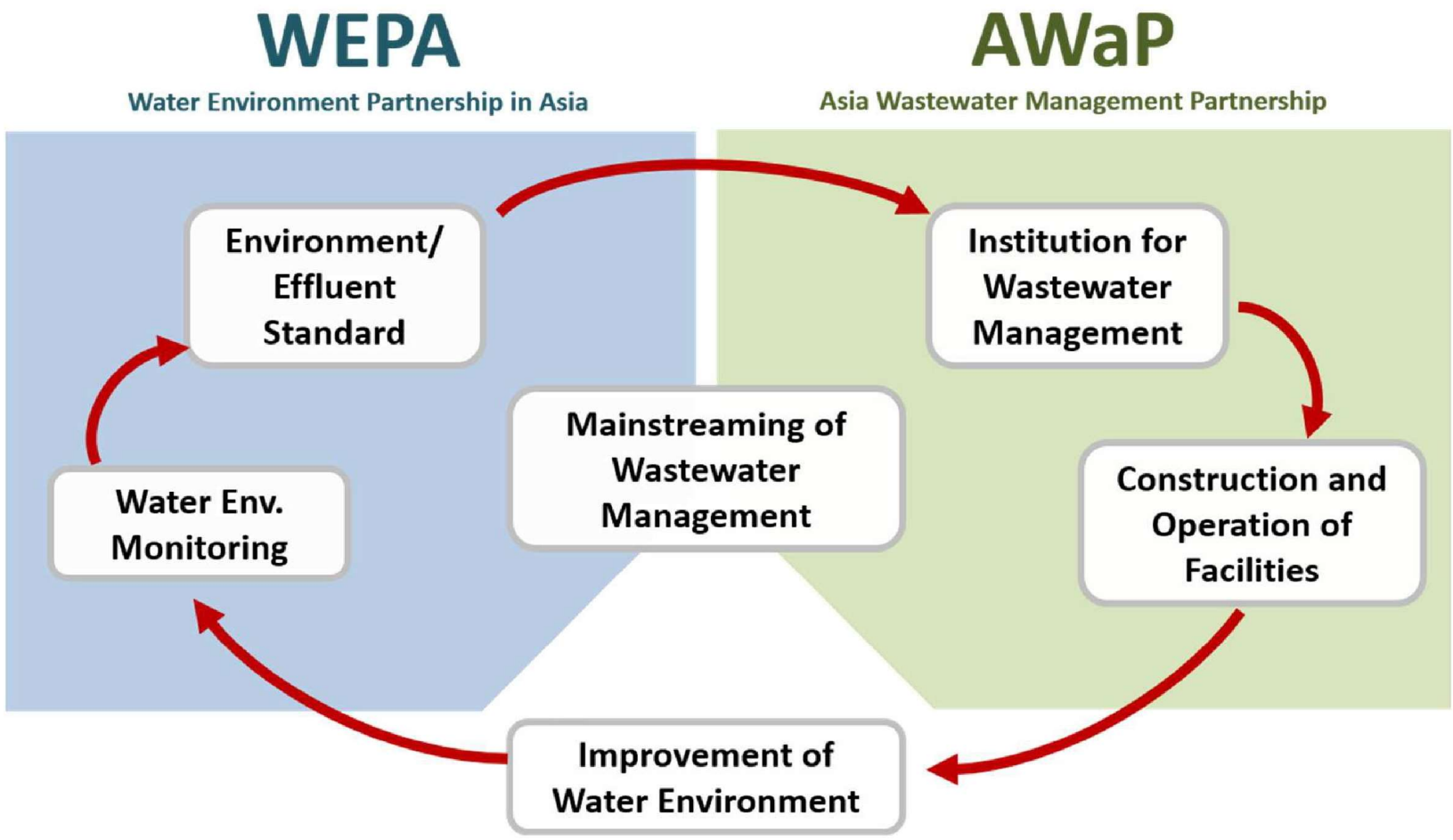
JICA (Japan International Cooperation Agency)
UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific)
WHO (World Health Organization)

Expert Organizations

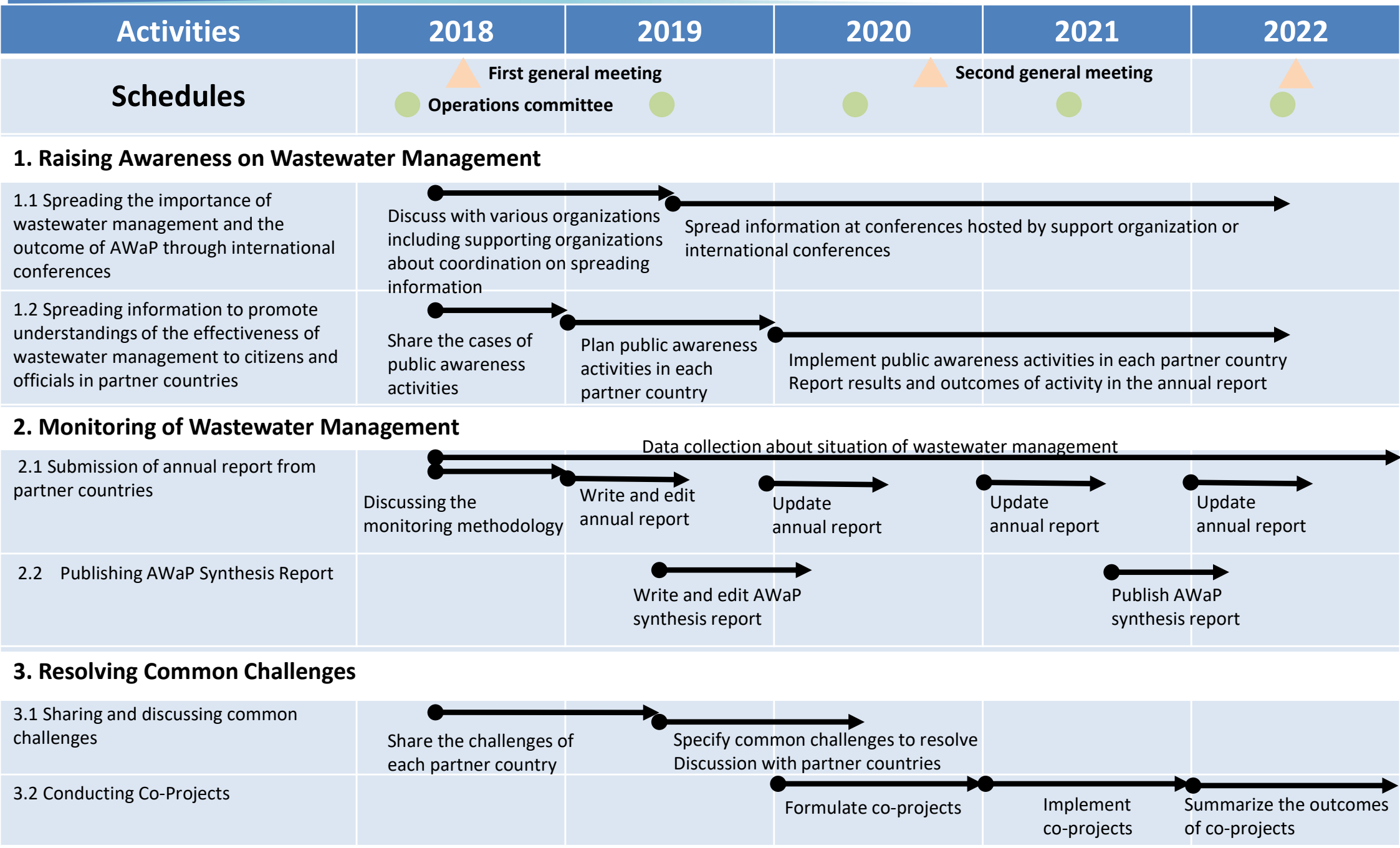
JS (Japan Sewage Works Agency)
JSC (Japan Sanitation Consortium)

Close cooperation with WEPA

- The Water Environment Partnership in Asia (WEPA) aims to contribute to improving the water environment by offering information and knowledge necessary for the enhancement of water environment governance.
- Toward mainstreaming “Wastewater management”, AWaP will implement activities through close cooperation with the WEPA.



AWaP Activities plan (as of 2018, 1st AWaP General Meeting)



Solution of common challenges (2nd AWaP General Meeting)

- The 2nd General Meeting was held online on August 18,2021.The participants included members from five countries (Cambodia, Indonesia, Philippines, Vietnam and Japan).
- Three solutions of common challenges were agreed by Partner countries.
- Partner countries shared their activities and challenges.

Solutions of common challenges

① Improving the sewer system by combining Centralized and Decentralized wastewater treatment systems

② Sewer Pipe laying by Trenchless sewer pipe constructing (by non-cutting)

③ Development of sewerage technology adapted to local conditions

Partner countries comments

- Capacity building and training programs are required.
- The localization or transfer of technologies is required to enhance the domestic business capabilities.
- Replacing septic tanks with Johkasou will improve the situation.
- The decentralized wastewater treatment system is crucial to control wastewater from hospitals and promote wastewater reuse.

Doc.05

Third General Meeting" of Asia Wastewater Management Partnership 3

Ministry of Public Works and Transport Main Office Building
Address: Street 598 (H.E. Chea Sophara Street Phnom Penh Sangkat Chrang Chamres 2 Khan Russey Keo, CAMBODIA

PARTICIPANTs:

• H.E.Dr. ROS Vanna	Secretary of State, MPWT
• H.E. SOURN Phearith	Director General of GDSWM/MPWT
• Mr. CHAO Sopheak Phibal	Deputy DG of GDSWM/MPWT
• Mr. PETH Sarath	Deputy Director of Kandal Provincial DPWT

Focused AWaP Activities for 2018 - 2022

Objective	Action Plan	Activities
Raising Awareness on Wastewater Management	1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	• Set up human capacity building program on the **wastewater & sewerage** sector both local and international • Organized the 4th SubTWG on Urban Wastewater and Sanitation on 06 Feb 2023 (Govt and DPs platform) • Conducting the Pre-FS for sewerage development plan in selected Svay Rieng town and Siem Reap City • **Worked and Seeking Assistance and Cooperation from DPs** ➢ Japan through JICA (TCP and Experts) – Guideline for Planning and Design of Sewerage Works ➢ WB/ADB/AFD/EDCF/Australia/China/GGGI etc ✓ *Sewer connection program* ✓ *Wastewater strategies* ✓ *Awareness raising and communication* ✓ *City wise inclusive sanitation in Phnom Penh* ✓ *A high-level framework for cost recovery and financing* • Completed Training Workshop on "**Wastewater and Sludge Management to MPWT and DPWTs Officials**", Joint Organized by MPWT and BORDA Cambodia, 04-05/10/2022 • Completed Workshop on "**Cambodia-Australia Wastewater Knowledge Exchange**", 06-07/12/2022 • Joined webinar on "Asian Region Collaborative Framework to Operationalize Utility-Based Wastewater Monitoring and Management in Support of Increased Investment to Attain the SDGs' for Southeast and South Asia Region",
	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	• Completed the Japan-Cambodia Kizuna Festival 2017-2019 • Posted relevant GDSWM's activities on wastewater on social media such as Facebook/Website • Completed the Clean City Campaign in Siem Reap City • Completed the awareness's raising activities at elementary schools conducted by Phnom Penh DPWT and Kitakyushu City under KUSANONE project. • Visited to WWTP and FSTP sites. • Continue to raise awareness to local people at the project areas about the household connection and participation.

Focused AWaP Activities for 2018 - 2022

Objective	Proposal for Resolving Common Challenges of AWaP Countries	Activities
Resolving Common Challenges	Centralized and Decentralized wastewater treatment systems	• *Conduct the Pre-F/S for Sewerage Development Plan in Svay Rieng Town and Siem Reap City, 2020 (centralize and decentralized STP)* • *Completed WOW TO JAPAN Seminar, FY2022 (decentralized POD)*
	Trenchless sewer pipe constructing	• *Completed CWIS Phase II Training: Introduction to micro-tunneling / pipe jacking principle, needs, and challenges by BESSAC, 23 May 2023* • *Completed Cambodia-Japan Technical Seminar on "**Sewerage Sector**" on 25 Oct 2022* ✓ *Pipe Jacking introduced Japan Global Center for Urban Sanitation, Southeast Asia Committee*
	Development of sewerage technology adapted to local conditions	• *Installation septic tanks, locally supplied* • *Discussion and work with our DPs, i.e POD/DEWATS suppliers* • *Discussion and work with our DPs, i.e Jokhasou / Reedbed / Wetland introduction and suppliers* • *Continuing working with our local suppliers and DPs (Japan, Borda, Others)*

BACKGROUND AND RELATED ACTIVITIES PHOTOS

- 09/06/2023 Workshop on "**Technical Guideline for Planning and Design of Sewerage System in Cambodia**"
- 06/06/2023 Draft Law on "**Sewerage System**"
- 30/03/2023 Draft Law on "**Sewerage System**" led by H.E. Senior Minister **SUN Chanthol**, Minister of MPWT
- 17-18/05/2023 High-Level Meeting on "**Social Accountability Framework**"
- 24-25/05/2023 National Workshop on "**Universal Access to Sustainable and Safety Managed Sanitation**"
- 23-24/05/2023 Training on "**General Technical Specification and National Guideline on FSM Using Planted Drying Bed, PDB**"
- 30/04/2023 Samdech Techo **HUN SEN**, Prime Minister of the Kingdom of Cambodia Visited the 3rd WWTP in Sihnanoukville province
- 04-05/10/2022 Training Workshop on "**Wastewater and Sludge Management to MPWT and DPWTs Officials**", Joint Organized by MPWT and BORDA Cambodia
- 06-07/12/2022 Workshop on "**Cambodia-Australia Wastewater Knowledge Exchange**"
- 25/10/2022 Joint Cambodia-Japan Technical Seminar on "**Drainage and Sewerage Sector**"
- 16/05/2022 Draft Law on "**Sewerage System Handover**" MPWT-JICA Japan
- …

30/04/2023
Samdech Techo **HUN SEN**, Prime Minister of the Kingdom of Cambodia Visited the 3rd WWTP in Sihnanoukville

H.E.Senior Minister SUN Chanthol

16/05/2022
Draft Law on Sewerage System Handover

06-07/12/2022
Cambodia-Australia Wastewater Knowledge Exchange Workshop

24-25/05/2023
National Workshop on Universal Access to Sustainable and Safety Managed Sanitation

25/10/2022

Joint Cambodia-Japan Technical Seminar on
Drainage and Sewerage Sector

ក្រសួងសាធារណការ និងដឹកជញ្ជូន
Ministry of Public Works and Transport

អគ្គនាយកដ្ឋានប្រព័ន្ធចម្រោះទឹកកខ្វក់
GDSWM/MPWT

ក្រសួងសាធារណការ និងដឹកជញ្ជូន Ministry of Public Works and Transport - MPWT

Favorites · 5h ·

សិក្ខាសាលាផ្សព្វផ្សាយ គោលការណ៍ណែនាំបច្ចេកទេសស្តីពី ការធ្វើផែនការ និងការសិក្សាគម្រោងប្រព័ន្ធទឹកកខ្វក់ក្នុងព្រះរាជាណាចក្រកម្ពុជា

សៀមរាប៖ ថ្ងៃព្រហស្បតិ៍-សុក្រ ៥-៦រោច ខែដេស្ត ឆ្នាំថោះ បញ្ចស័ក ព.ស ២៥៦៧ ត្រូវនឹងថ្ងៃទី០៨-០៩ ខែមិថុនា ឆ្នាំ២០២៣ ឯកឧត្តម សួន ការិទ្ធ អគ្គនាយក នៃអគ្គនាយកដ្ឋានប្រព័ន្ធចម្រោះទឹកកខ្វក់ បានអញ្ជើញជាអធិបតីក្នុងពិធីបើក-បិទសិក្ខាសាលាផ្សព្វផ្សាយ គោលការណ៍ណែនាំបច្ចេកទេសស្តីពី ការធ្វើផែនការ និងការសិក្សាគម្រោងប្រព័ន្ធទឹកកខ្វក់ក្នុងព្រះរាជាណាចក្រកម្ពុជា ដោយមានកា...

See more

09/06/2023

Workshop on Technical Guideline for Planning and Design of Sewerage System in Cambodia

23-24/05/2023

Training on “General Technical Specification and National Guideline on FSM Using Planted Drying Bed, PDB”

17-18/05/2023
Social Accountability High-Level Meeting No.9

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

គណៈកម្មាធិការជាតិសម្រាប់ការអភិវឌ្ឍតាមបែប
ប្រជាធិបតេយ្យនៅថ្នាក់ក្រោមជាតិ (គ.ជ.អ.ប)

លេខ.....០១៣.សសរ/គ.ជ.អ.ប

Circular/Decision

សេចក្តីសម្រេច

ស្តីពី

ការកែសម្រួល ការរៀបចំ និងការប្រព្រឹត្តទៅរបស់គណៈកម្មាធិការគ្រប់គ្រងការអនុវត្ត
ផែនការយុទ្ធសាស្ត្រគណនេយ្យភាពសង្គមនៅថ្នាក់ក្រោមជាតិ (គ.គ.អ.ស)

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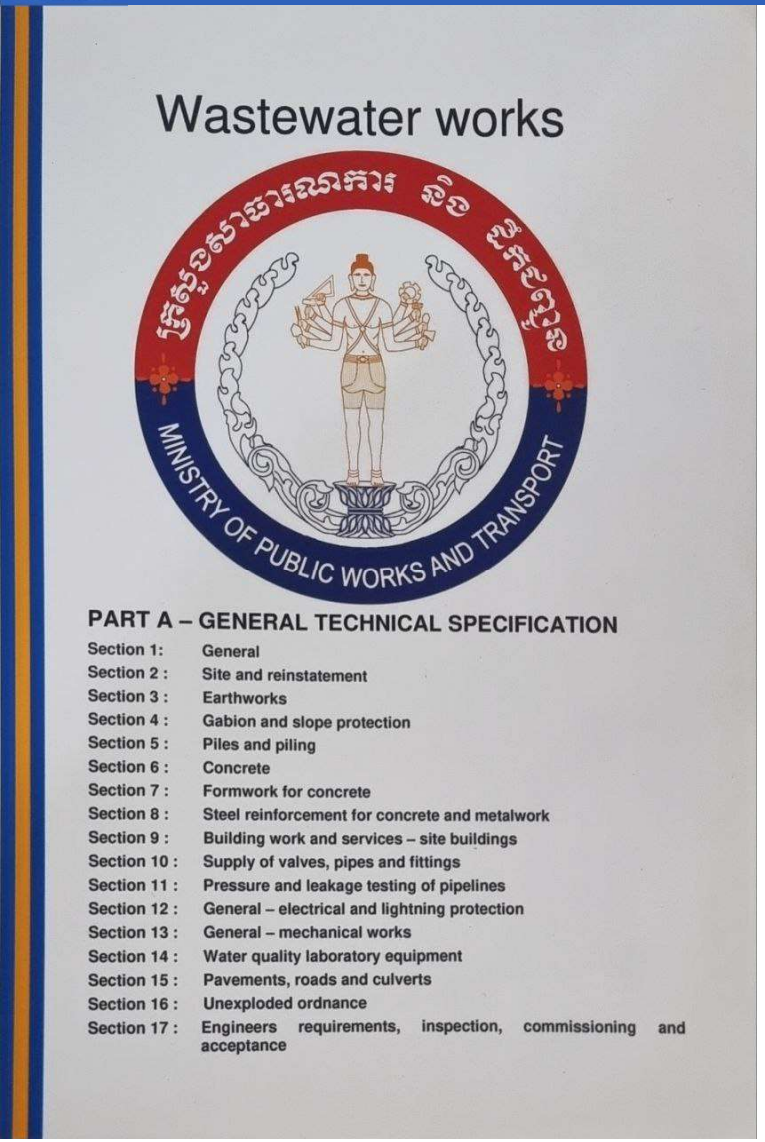
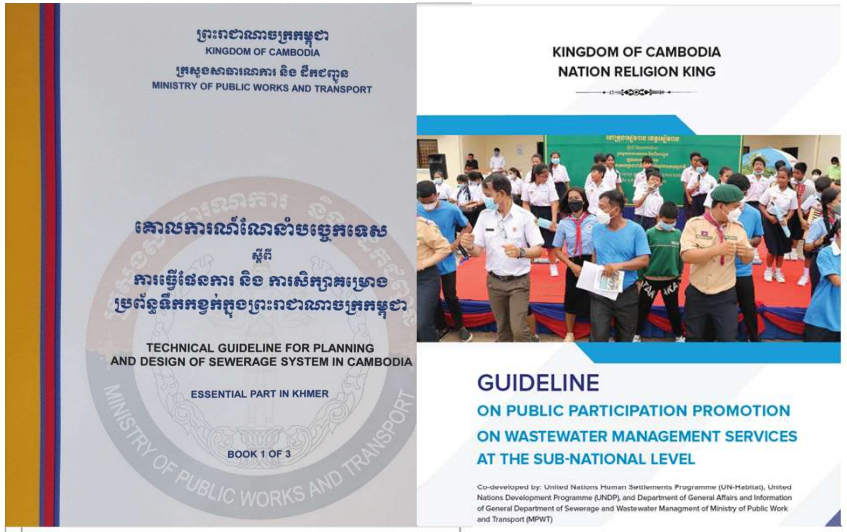
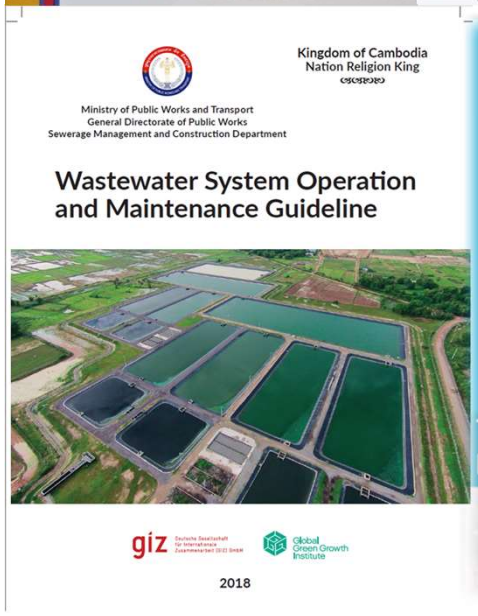
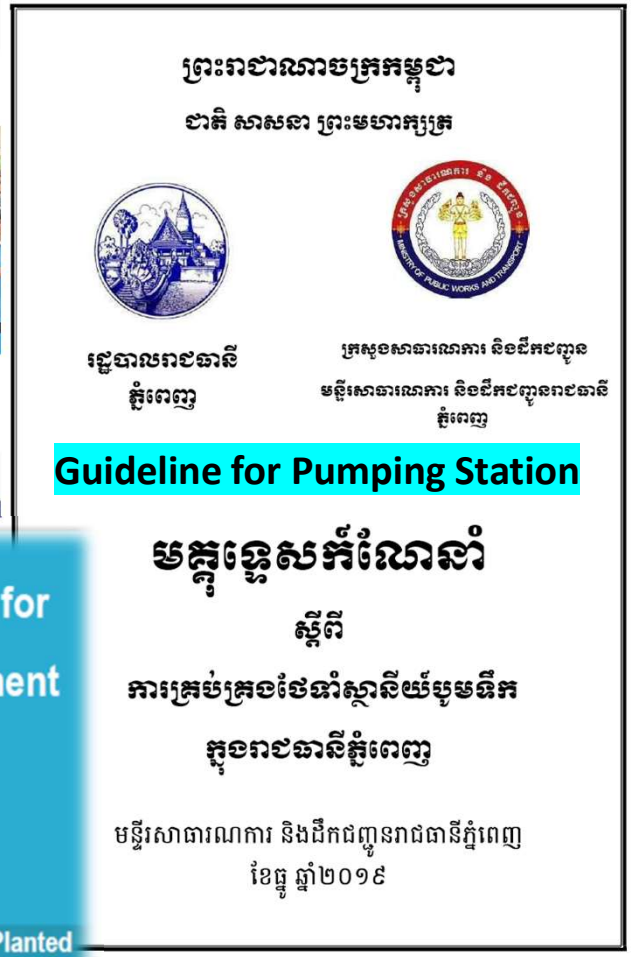








Guideline for Pumping Station Maintenance and Management

THANK YOU SO MUCH!

About **13,000** HH Connection being connected free for citizens, commercial building in Siem Reap City.

Ministry of Public Works and Housing
Directorate General of Human Settlements
Directorate of Sanitation

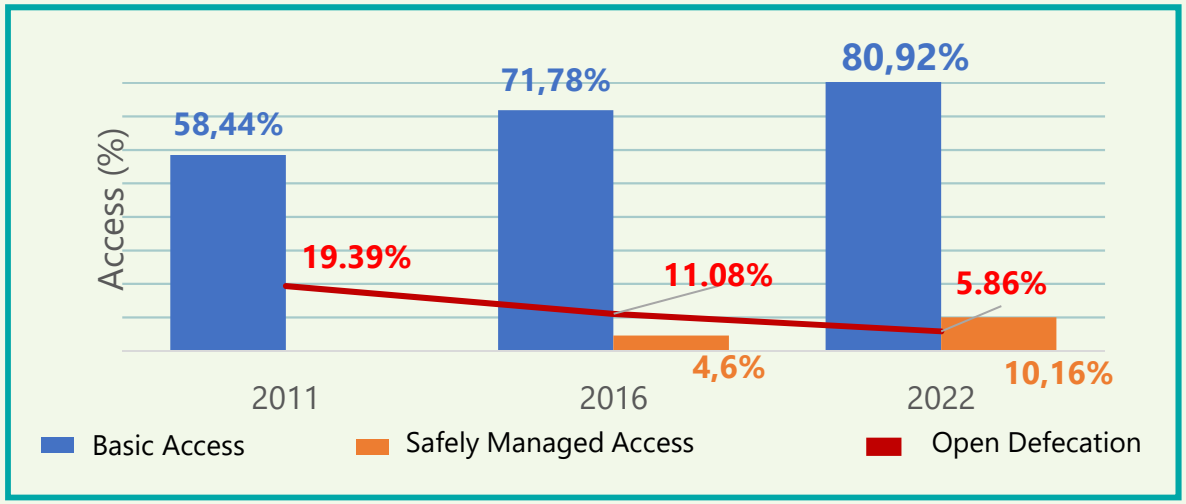
Doc.06

3rd GENERAL MEETING OF ASIA WASTEWATER MANAGEMENT PARTNERSHIP (AWAP)

Marsaulina FM Pasaribu
Directorate of Sanitation
August, 01 2023

TARGET AND ACHIEVEMENTS

Indonesia



Growth rate on access to access sanitation 2011-2022:
±2% per year → mostly from the on-site system & Community Based Sanitation (SANIMAS)

Reduction rate of Open Defecation (OD) 2011-2022:
±1,2% per year

GOALS

SDG's 2030 - Target 6.2

Moving from Open Defecation Free (ODF) toward Safely Managed Sanitation

SDG's 2030 - Target 6.3

Improve water quality by halving the proportion of untreated wastewater

National Medium-Term Development Plan (2020-2024)

Presidential Decree No 18 Year 2020

90% basic access (including **15% safely managed access**)

Minimum Service Standard

Government Regulation No 2 Year 2018

"Every citizen has the right to sanitation access"

ISSUS AND STRATEGIES

Indonesia

Technical	**Issues:** **Limitation for land availability** in highly developed urban areas **& constraints in advanced technology application in a prone area**	**Strategies:** ▪ **Improving the quality** of planning documents ▪ **Developing Centralized Wastewater Treatment** Plants ▪ **Optimizing** existing Infrastructure ▪ **Developing innovative** technologies
Funding	**Issues:** **Limitation to provide sufficient funding** for sanitation infrastructure **& alternative financing mechanisms** to fill the funding gap**.**	**Strategies** ▪ **Exploring the potential for alternative** funding resources, e.g.: APBN, APBD, micro-credit, transfer fund, grants, etc. ▪ Optimizing the utilization **of grants (output-based grant)**
Regulation	**Issues:** **Insufficient Local Government** regulation on Sanitation & **poor law enforcement** to utilize the existing sanitation services.	**Strategies:** **Developing Local Government Regulations** & **Guidelines** for Sanitation Management
Institution	**Issues:** **Inefficient regulatory system & limited capacity of human resources** to sustain sanitation services	**Strategies** ▪ **Separating** Operator & Regulator Functions ▪ **Facilitating Local Government for the operation** of New Infrastructure
Community Participation	**Issues:** **Poor community awareness** in the sanitation sector **& insufficient supply & demand** of sanitation services	**Strategies:** **Creating demand** at the community level & supporting supply from goods/services providers

ACTIVITIES BASED ON THE AWAP POLICY (2018 – 2022)

Indonesia

Objectives	Main AWaP activities	Specific activities in my country	Specific achievements in my country
Raising Awareness on Wastewater Management	1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	**2018** 1. City Wide Inclusive Sanitation Workshop (Brasilia, Brazil), by The World Bank 2. Informed Choice in Urban Sanitation, Lusaka Zambia 3. Knowledge Exchange on Integrated Urban Water Management in Brazil	Indonesian Action Plan on achieving 100% basic access
		2019 Integrated Approach for Dissemination of Decentralized Domestic Wastewater Treatment System in Southeast Asia in Japan	Indonesia's development of a Decentralized Domestic Wastewater Treatment System
		2020 1. 1st Policy dialogue and network building of multi-stakeholders on integrated decentralized domestic wastewater management in ASEAN Countries (PoDIWM) January 20th – 21st, 2020 in Indonesia - Atlet Century Hotel 2. 2nd Policy dialogue and network building of multi-stakeholders on integrated decentralized domestic wastewater management in ASEAN Countries (PoDIWM) 21, 22 and 27 October 2020 via Video Conference	Indonesia policies and achievement of domestic wastewater management
		2021 1. ADB Sanitation Dialogue 2021 (Online Forum), by Asian Development Bank - 2021: Indonesia Mixed Approach on Accelerating Sanitation Development 2. The Sixth International Faecal Sludge Management Conference - 2021: Strategy implementation of on-site system in Indonesia	1. Indonesia Mixed Approach on Accelerating Sanitation Development 2. Indonesian Action Plan on achieving safely managed access through on-site system
		2022 1. Sector Ministers Meeting (SMM) 2022 in Indonesia – 18 and 19 May 2022 2. World Water Week, 22 August 2022	National commitment to accelerate drinking water and sanitation access

ACTIVITIES BASED ON THE AWAP POLICY (2018 – 2022)

Indonesia

Objectives	Main AWaP activities	Specific activities in my country	Specific achievements in my country
Raising Awareness on Wastewater Management	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	1. Socialization about wastewater management through SANIMAS SPALD-T (Community Based Sanitation) (2018-2022). 2. Socialization about wastewater management through SANIMAS SPALD-S (Sanitation in Rural Area) (2018-2023) 3. Socialization about fecal sludge management through Septage Treatment Plant (STP) construction (2018-2023) 4. Assisting Local Government in managing fecal sludge (2018-2023) 5. Assisting Local Government in drafting local regulations on domestic wastewater management (2018-2023) 6. Assisting Local Government in separating regulator and operator functions through operator formation (2018-2023)	1. Guidelines for domestic wastewater management: a. Technical Guidelines for Implementation of SANIMAS SPALD-S (Sanitation in Rural Area) Project (2018-2023) b. Technical Guidelines for Implementation of SANIMAS SPALD-T (Community Based Sanitation) Project (2018-2022) c. Guidelines for Standard Operating Procedures (SOP) Domestic Wastewater Operator - (2018) d. Guidelines for Drafting Local Head of government regulation on regular desludging - (2018) e. Technical Guidelines for Assessing The Performance of The Domestic Wastewater Operator (Technical Implementation Unit) f. Guidelines for Detailed Engineering Design for Wastewater Management with Off-site System (2018)

ACTIVITIES BASED ON THE AWAP POLICY (2018 – 2022)

Indonesia

Objectives	Main AWaP activities	Specific activities in my country	Specific achievements in my country
Raising Awareness on Wastewater Management	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	7. Training Local Government on domestic wastewater, including planning, implementation of construction and operation and maintenance at the Sanitation Technology Technical Implementation Unit (2018-2023) 8. Socialization about wastewater management through Sanitation in Religious Education Project (2020-2023) 9. National Workshop for Domestic Wastewater Operator: Dissemination of domestic wastewater management policies & guidelines and sharing information/transfer knowledge about wastewater services (2019) 10. National sanitation and water conference: Safe, Innovative and Sustainable Sanitation and Drinking Water Services For All with focus on funding sanitation and drinking water development (2019) 11. City Sanitation Summit (CSS) XIX by Regencies/City Alliance of Sanitation/Aliansi Kabupaten Kota Peduli Sanitasi (AKKOPSI) (2019) 12. City Sanitation Summit (CSS) XX by Regencies/City Alliance of Sanitation/Aliansi Kabupaten Kota Peduli Sanitasi (AKKOPSI) (2022) 13. National sanitation and water conference (2022) 14. City Sanitation Summit (CSS) XXI by Regencies/City Alliance of Sanitation/Aliansi Kabupaten Kota Peduli Sanitasi (AKKOPSI) (2023)	g. Guidelines for Detailed Engineering Design of Septage Treatment Plant - (2018) h. Guidelines for Drafting Local Regulations on Domestic Wastewater Management - (2018) i. Guidelines for Domestic Wastewater Management Tariff/Retribution Calculation (2018) j. Guidelines for Assessing The Performance of The Domestic Wastewater Operator (Regionally-owned enterprises) (2018) k. Assessment Guidelines for Readiness of PDAM in Domestic Wastewater Management (2018) l. Guidelines for Preparation of Integrated Domestic Wastewater and Drinking Water Management (2020) m. Technical Guidelines for Implementation of Sanitation in Religious Education Project (2021) 2. Establishment of operator domestic wastewater management in **22 of 50 locations** from 2018-2022 3. Promulgation of local regulations on domestic wastewater management in **15 of 73 locations** from 2018-2022

Notes: *Raising awareness on wastewater management is actually the responsibility of the Ministry of Health*

ACTIVITIES BASED ON THE AWAP POLICY (2018 – 2022)

Indonesia

Example of Raising Awareness on Wastewater Management

SMM 2022

The Sanitation and Water for All (SWA) Sector Ministers' Meeting (SMM) was hosted by the Government of Indonesia and co-convened by UNICEF on 18-19 May 2022 under the theme 'Building Forward Better for Recovery and Resilience'. It provided a space for leaders around the world to meet and find innovative ways to work together to increase the political prioritization of water, sanitation, and hygiene and ensure the integration of these services in national climate, health, and economic policies and strategies.

National Sanitation and Water Conference (KSAN) is the largest communication and advocacy event in the sanitation and drinking water sector designed to increase stakeholder commitment to achieve the target of 100% access to safely managed and sustainable drinking water and sanitation. KSAN 2022's focus is on strengthening the profile of the water and sanitation sector and strengthening the commitment and collaboration of all stakeholders to achieve safely managed and sustainable access to drinking water and sanitation.

KSAN 2022

CSS XXI 2023

CSS XXI 2023 is a meeting held by AKKOPSI to share experience and knowledge about successes, obstacles, and challenges faced in providing safely managed sanitation access.

ACTIVITIES BASED ON THE AWAP POLICY (2018 – 2022)

Indonesia

Objectives	Proposal for resolving common challenges of AWaP countries	Specific activities in my country
Resolving Common Challenges	Centralized and Decentralized Wastewater Treatment Systems	a. Development of city-scale centralized domestic wastewater systems in Indonesia, WWTP Banda Aceh City; Pekanbaru City; Jambi City; Palembang City; Provinsi DKI Jakarta (Zone 1, Zone 6 and WWTP in Kemayoran); WWTP in The New Capital of Indonesia; KIT Batang; and Makassar City. b. Development of Sludge Treatment Plant (STP). There are 56 units STP had been built from 2018-2022.
	Trenchless sewer pipe constructing	a. Trenchless sewer pipe used in the development of city-scale centralized domestic wastewater systems in Indonesia: **Jacking and Horizontal Directional Drilling** (HDD). HDD was used in the construction of Palembang City; b. Initiation for demonstrating micro-tunneling in Province of DKI Jakarta by JICA Grant.
	Development of sewerage technology adapted to local conditions	a. Development of on-site and off-site systems of a community-based domestic wastewater system in 5.124 locations; b. Initiation for preparing guidelines for a prone area by UNICEF Grant.

CITY-SCALE SEWERAGE IN INDONESIA

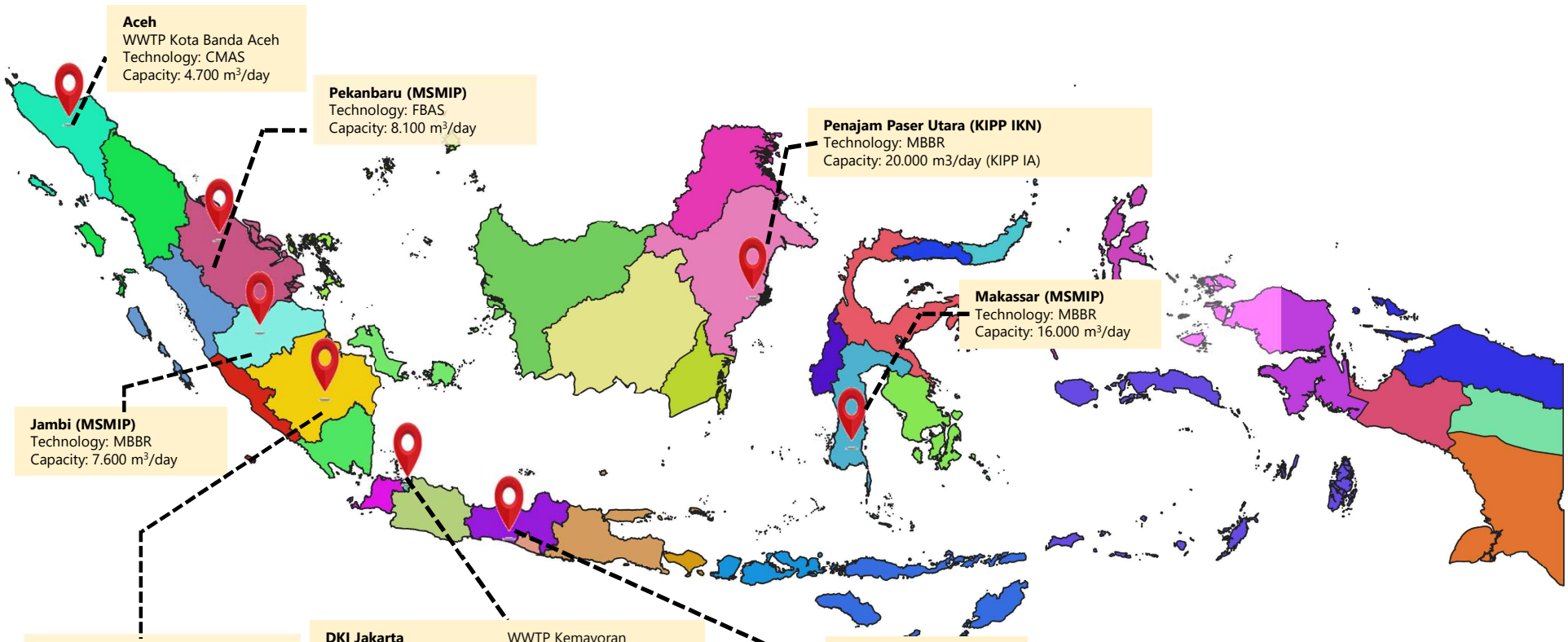
City	Unit	Technology	Capcacity (m3/day)	Installed House Connection	Institution
Medan	1	UASB	10.000	20.480	Perumda Tirtanadi
Parapat	1	Aerated Ponds	2.000	307	Perumda Tirtanadi
Batam	1	Oxidation Ditch	2.852	300	BP Batam
Jakarta Zone 0	1	Aerated Ponds/ MBBR	38.880	2.602	Perumda Paljaya
Tangerang	1	Aerated Ponds	2.800	2.758	Dinas Perumahan
Bandung	1	Lagoons	80.835	116.000	Perumda Tirtawening
Cirebon	4	Lagoons	20.500	8.136	Dinas PUPR
Surakarta	3	Biofilter & Lagoons	14.000	15.549	Perumda Toyawening
DI Yogyakarta	1	SBR	15.500	23.189	Balai PIALAM
Denpasar & Badung	1	Aerated Ponds	51.000	14.546	BLUD
Balikpapan	1	Aerated Ponds	800	2.076	Perumda Tirta Manuntung
Banjarmasin	7	RBC	18.000	6.978	Perumda PALD Banjarmasin
Manado	1	RBC	2.000	100	Dinas PUPR

RBC
WWTP BANJARMASIN

AERATED LAGOON
WWTP SUWUNG DENPASAR

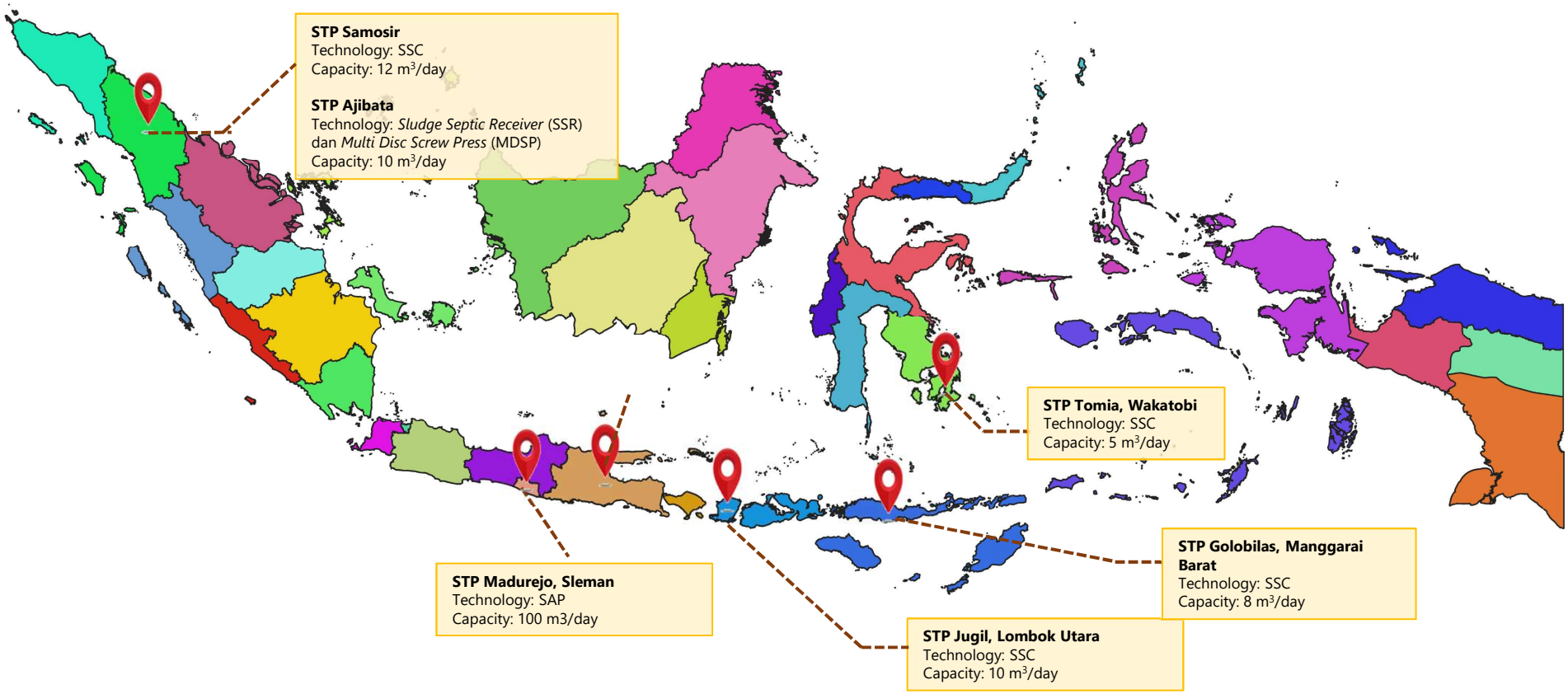
CITY-SCALE CENTRALIZED DOMESTIC WASTEWATER SYSTEMS PROJECTS IN INDONESIA (ON-GOING PROJECTS)

Indonesia



SLUDGE TREATMENT PLANTS IN INDONESIA (ON-GOING PROJECTS)

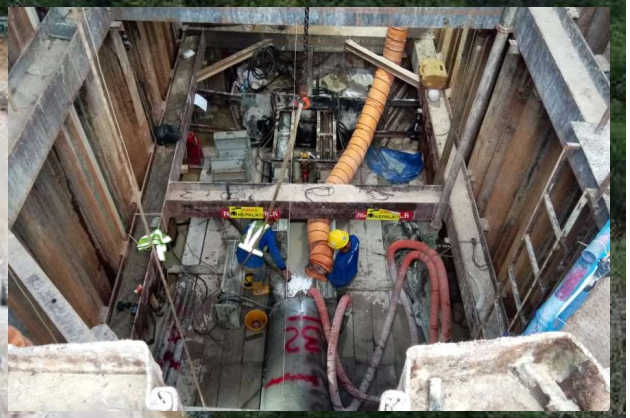
Indonesia



THANK YOU

METROPOLITAN SANITATION MANAGEMENT PROJECT (MSMIP) - MAKASSAR

METROPOLITAN SANITATION MANAGEMENT PROJECT (MSMIP) - PEKANBARU



Jacking Method

Technology	Capacity
Fixed-Bed Biofilm Activated Sludge (FBAS)	**8.100 m^3/day**

Aerated Grit Chamber

FCR Tank

R. Dewatering

Co-treatment of sludge treatment with capacity: 100 m^3/day

METROPOLITAN SANITATION MANAGEMENT PROJECT (MSMIP) - JAMBI

Technology

Moving Bed Biofilm Reactor **(MBBR)**

Capacity

7.600 m3/day

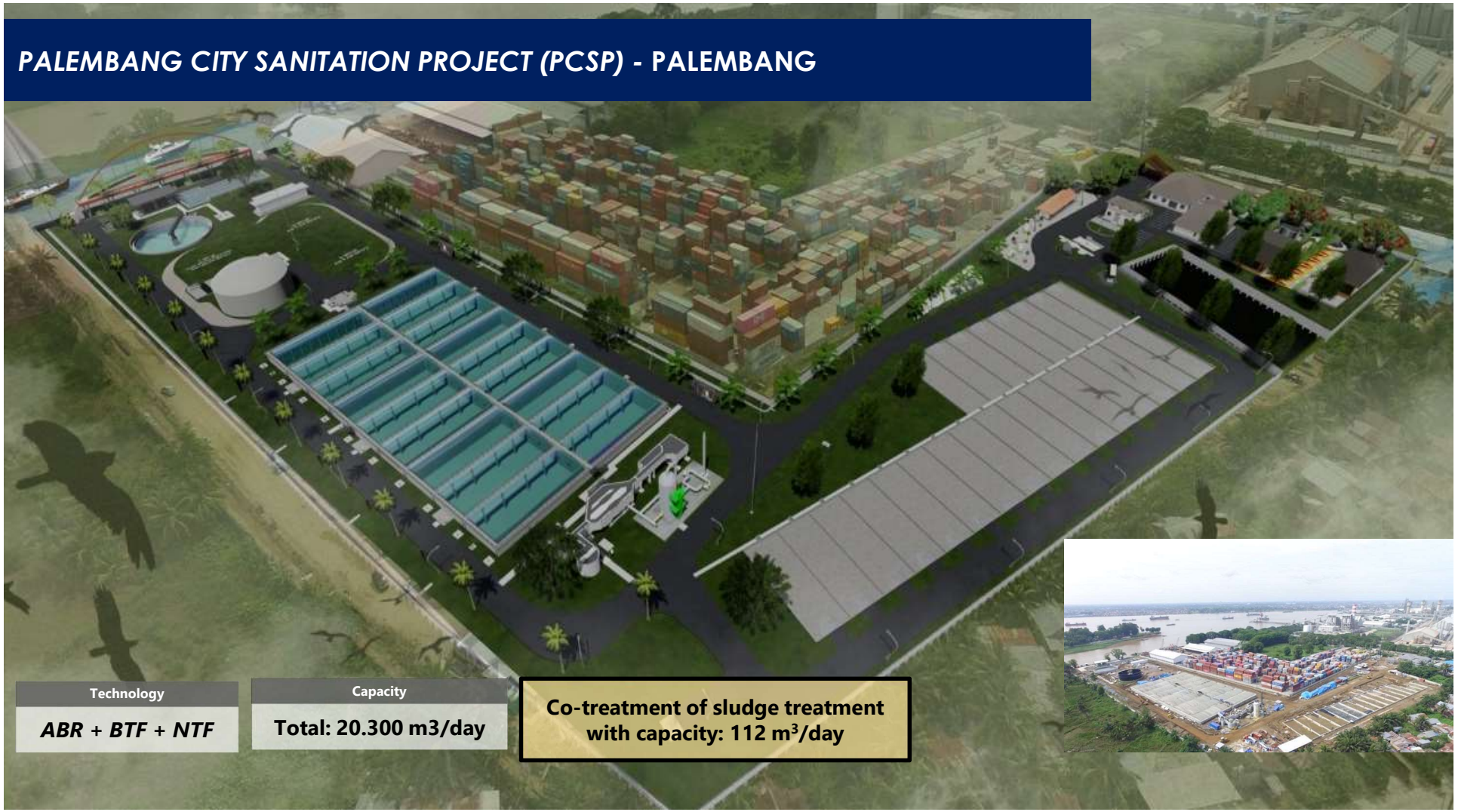
Dokumentasi Konstruksi

Gedung Administrasi

Clarifier

Co-treatment of sludge treatment with capacity: 100 m^3/day

PALEMBANG CITY SANITATION PROJECT (PCSP) - PALEMBANG



Technology	Capacity
ABR + BTF + NTF	**Total: 20.300 m3/day**

Co-treatment of sludge treatment with capacity: 112 m^3/day

WWTP (KIT) BATANG

Technology	Capacity
Moving Bed Biofilm Reactor **(MBBR)**	**18.000 m^3/day**

Integration of domestic wastewater and industrial wastewater

WWTP in New Capital

Capacity

IPAL 1
Tahap 1: 5.000 m^3/day
Total: 20.000 m^3/day

IPAL 2
Tahap 1: 10.000 m^3/day
Total: 20.000 m^3/day

IPAL 3:
Total: 5.000 m^3/day

Technology

Moving Bed Biofilm Reactor
(MBBR)

Co-treatment of sludge treatment & integration of solid-waste treatment in TPST

JAKARTA SEWERAGE DEVELOPMENT PROJECT (JSDP) (ZONE 1)

Technology	Capacity
Membrane Bio Reactor (MBR)	**240.000 m^3/day**

Introduction of interceptor concept

ON-SITE SYSTEMS OF A COMMUNITY-BASED DOMESTIC WASTEWATER SYSTEM

2018-2022
Location
4.099 locations
Beneficiaries
151.579 households
Manpower
116.470

OFF-SITE SYSTEMS OF A COMMUNITY-BASED DOMESTIC WASTEWATER SYSTEM

2018-2022

Location

994 locations

Beneficiaries

64.626 households

Manpower

18.252

Doc.07

PHILIPPINES

PROGRESS REPORT

August 1, 2023

DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS

Michael T. Alpasan, Project Manager I

Alexander-Generoso P. Castro, Engineer III

LOCAL WATER UTILITIES ADMINISTRATION

Vicente Homer B. Revil, Administrator

Philippines 

AWaP Activities for 2018 - 2022

Objective	Action plan	Activities
Raising Awareness on Wastewater Management	1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	
	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	The Department of Public Works and Highways (DPWH) conducted Information, Education and Communication Campaigns (IECs) for Local Government Units (LGUs), Water Districts (WDs) and DPWH Regional and District Engineering Offices (ROs & DEOs) nationwide.
		The Local Water Utilities Administration (LWUA), in collaboration with USAID - Safe Water, conducted online training on the Basics of Wastewater Treatment Facilities to WD beneficiaries

Philippines 

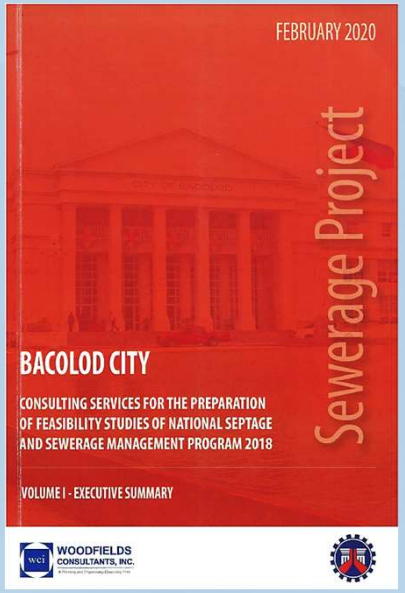
AWaP Activities for 2018 - 2022

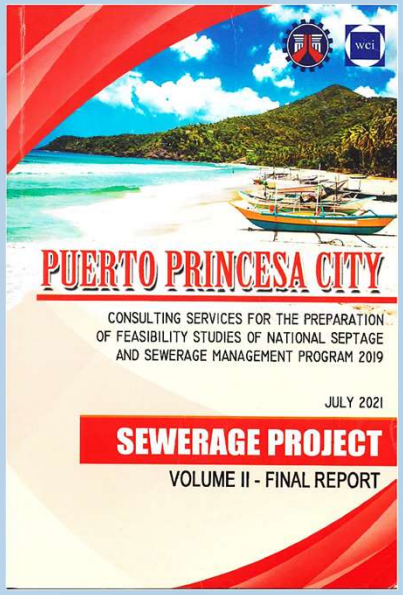
<table>
<tr><th>Objective</th><th>Proposal for resolving common challenges of AWaP countries</th><th>Activities</th></tr>
<tr><td rowspan="4">Resolving Common Challenges</td><td>Centralized and Decentralized wastewater treatment systems</td><td rowspan="3">Recommended SpTP & STP Technology Based on Completed FS<table><tr><td>STP - Sequential Batch Reactor</td><td>Puerto Princesa, Butuan, Cagayan de Oro, General Santos, Iligan, Olongapo</td></tr><tr><td>STP - Modified Activated Sludge thru UCT System</td><td>Iloilo, Bacolod</td></tr><tr><td>SpTP - Non-mechanized System</td><td>Bagac, Maragondon, Butuan</td></tr><tr><td>SpTP - Fully Mechanized System</td><td>15 Cities and Municipalities</td></tr></table></td></tr>
<tr><td>Trenchless sewer pipe constructing</td></tr>
<tr><td>Development of sewerage technology adapted to local conditions</td></tr>
<tr><td>Sanitation (Septage and Sewerage) Feasibility Study</td><td>LWUA completed the feasibility studies for the identification of conceptual design for sanitation projects in 82 cities and municipalities along and outside of Manila Bay area.</td></tr>
</table>

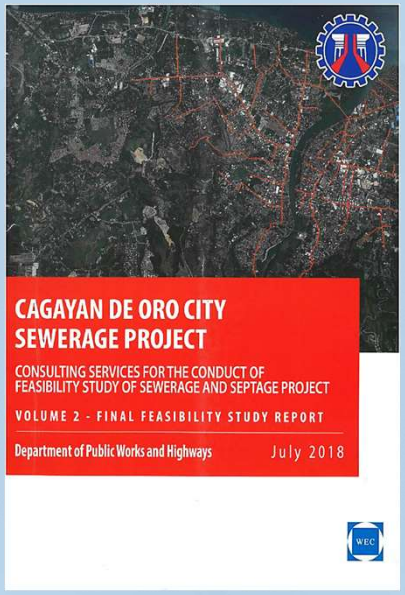
SpTP – Septage Treatment Plant; **STP – Sewage Treatment Plant; **FS** – Feasibility Study*

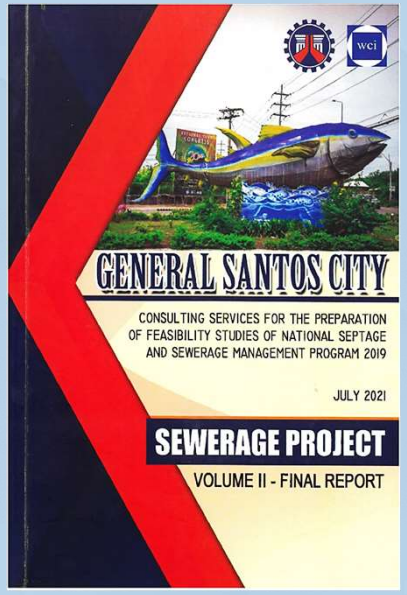
Philippines

FEASIBILITY STUDIES ON SEWERAGE AND SEPTAGE MANAGEMENT PROJECTS









Philippines

SANITATION MANAGEMENT PROGRAMS
FOR CITIES AND MUNICIPALITIES ALONG MANILA BAY

Philippines

CARMONA SEPTAGE TREATMENT FACILITIES

Doc.08

Slide3

Your focused AWaP Activities for 2018 - 22

Vietnam

Objective	Action plan	Your own activities
Raising Awareness on Wastewater Management	1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	• Insist on the necessity of sewerage works through international seminars or conference • Organized workshops on the new law on water supply and sewerage and sustainable drainage in Mekong Delta Region
	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	• Conducted training courses for staff in central and local governments and related organizations through such as JICA training course. • Conducted environmental education in collaboration with local government in Japan through JICA grassroots technical cooperation.

Other information/comments:

- 24/63 Provinces and cities have promulgated drainage service fees based on the Decree No. 80 (2014) to secure revenue for covering costs of drainage system O&M.
- About 750,000 subsidence measurement points in Mekong Delta Region (areas affected by Climate Change) have been determined, also the elevation is recorded by satellite for each point every 8 days for 4 years (till 2020). 3 pilot models of Sustainable Urban Drainage (SUD) in the region have been built.

Workshop on the new water & sewerage law (2023.4)

Training course (Left: JICA training in Kitakyushu Right: VSC Project)

Slide4

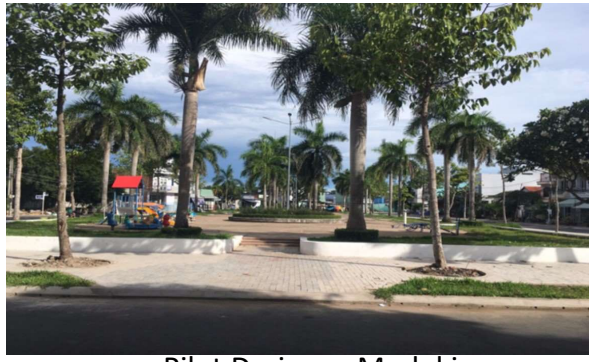
Vietnam

Your focused AWaP Activities for 2018 - 22

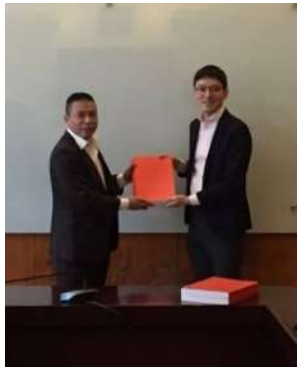
Objective	Proposal for resolving common challenges of AWaP countries	Your own activities
Resolving Common Challenges	Centralized and Decentralized wastewater treatment systems	
	Trenchless sewer pipe constructing	• MOC and MLIT jointly published the 6th edition of "Standards of Microtunneling Technology for Vietnam" (Red Book) in 2022
	Development of sewerage technology adapted to local conditions	• Conduct pilot projects of SUDs in the Mekong Delta Region for climate resilience
	Promoting house connection and separate system	• Issuing Circular 15 (15/2021/TT-BXD) that provides guidance on technical infrastructure works for wastewater collection and drainage in urban and concentrated residential areas

Other information/comments:

- Revising, and supplementing guidance on the methodology of sewerage service pricing



Pilot Drainage Model in Long Xuyen City



Handover of the 6th edition of the Red Book (2022)

Pipe Jacking Construction Site, Hanoi (June 2021)

Doc.09

Progress Report of Japan

The AWaP Secretariat

August 1, 2023

Our AWaP Activities 2018 - 22

Japan

Objective	Action plan	Our activities
Raising Awareness on Wastewater Management	1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	• Kumamoto Water Initiative" Announced at the 4th APWS (2022) • Stated the improvement of the water environment by promoting the development of high-quality infrastructure dealing with climate change
	1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials	• PR of sewerage systems through videos and posters, including Sewerage Day on September 10 • Field trips to wastewater treatment plants and on-site classes at schools for social studies • Bring creative manhole covers with regional designs of over 8,000 kinds and publish 10.5 million copies of manhole cards. • Workshops, ex. "Gesui-dojo," for sewerage staff

Raising Awareness for Wastewater Management

4th APWS Kumamoto Japan 2022

PR Poster for “Sewerage Day”

Public relations through social media

A field trip to WWTP
(From https//toyama-swg.or.jp)

Manhole Card
(Kosai-city, Shizuoka)

"Gesui-dojo," for sewerage staff

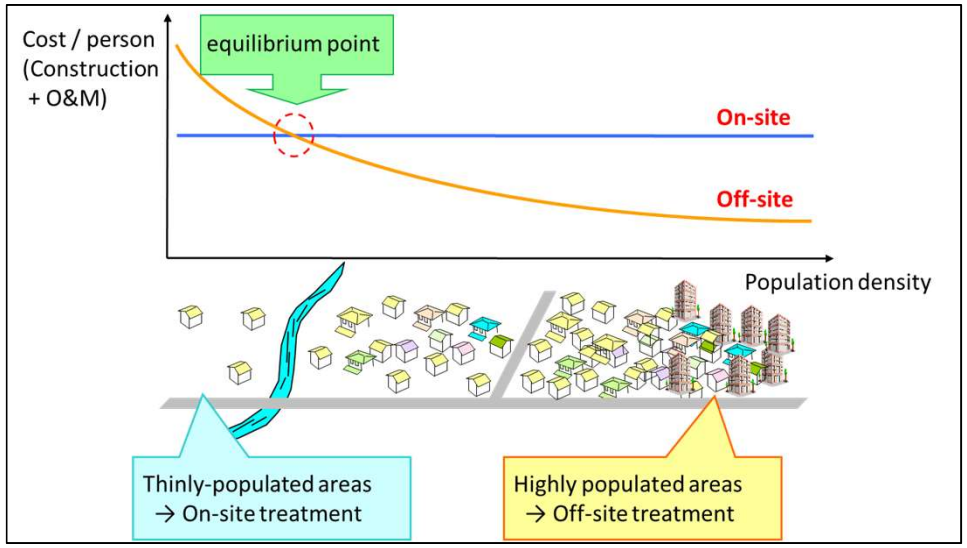
Our AWaP Activities 2018 - 22

Japan

Objective	Proposal for resolving common challenges of AWaP countries	Our activities
Resolving Common Challenges	Centralized and decentralized wastewater treatment systems	• Periodic reviewing the equilibrium point of centralized (off-site) and decentralized (on-site) wastewater treatment systems such as “Johkasou”* to deal with population decline • Promoting easy construction and low-cost system for small-scale facilities or un-populated areas (ex. Quick Project)
	Trenchless sewer pipe constructing	• The 10th revision of the standards for the project cost estimation was issued in 2021 • Information enhancement of challenging steep and long-distance for trenchless technology
	Development of sewerage technology adapted to local conditions	• Rapid increasing of chemical fertilizer price →Turning sewage sludge into a fertilizer: Phosphorus recovery from digested sludge, composting • Global Movement to Reduce CO_2 Emissions →Decarbonization: Energy generation from digestion gas, solid fuel conversion, etc.

*Johkasou is a prefabricated wastewater treatment system which can treat both night soil and domestic wastewater.

Resolving Common Challenges



On-site and off-site optimization

Developing guidelines for Trenchless sewer pipe constructing

Small size household Johkasou

“Quick Project,” which achieves easy construction and low cost by a prefabricated system, is suitable for small-scale WWTPs (Abira-town, Hokkaido)

Pipe Jacking Machine

Resolving Common Challenges


Phosphorus recovery from digested sludge
(Higashi-Nada STP in Kobe City)


Sewage sludge composting facilities
(STP in Saga City)


Digestion gas generation facilities
(STP in Saga City)


Solid fuel conversion from sewage sludge
(Rakusai STP in Kyoto Prefecture)

Doc.10

環境省
Ministry of the Environment

WEPA
Water Environment Partnership in Asia
アジア水環境パートナーシップ

Brief Introduction of Water Environment Partnership in Asia (WEPA)

WEPA Secretariat

IGES
Institute for Global Environmental Strategies

What is WEPA?

WEPA is an initiative **proposed by the Ministry of the Environment, Japan (MOEJ) in 2003** at the Third World Water Forum

- The first phase started in 2004, following **a five-year cycle**;
- This year is the end of **the fourth phase**;
- The objective is to **improve water environmental governance** in Asia with full support of MOEJ;
- WEPA currently consists of the following **13 countries in Asia**.

1. Cambodia
2. China
3. Indonesia
4. Japan
5. Lao PDR
6. Malaysia
7. Myanmar
8. Nepal
9. Philippines
10. Republic of Korea
11. Sri Lanka
12. Thailand
13. Viet Nam

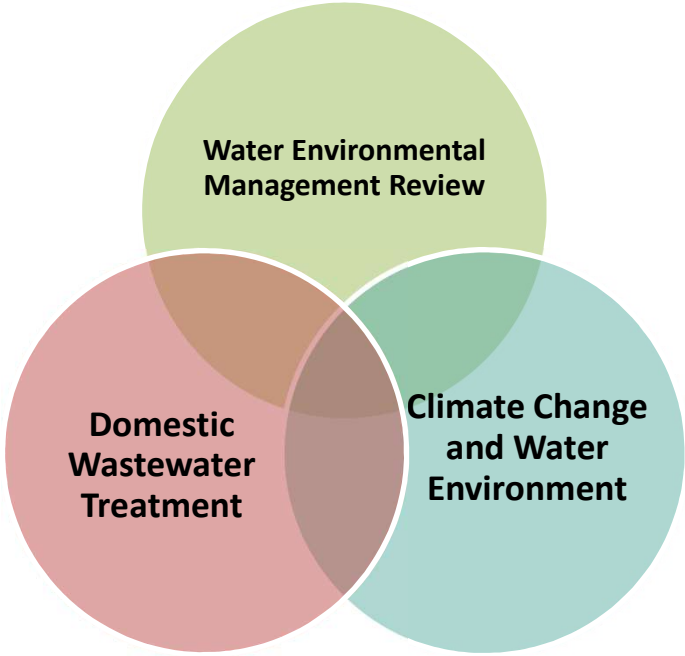
Priorities in the 1st and 2nd phases

1st Phase (2004-2009)
Development of an Information Platform of Water Environmental Management

WEPA database www.wepa-db.net

Renewed in March

2nd Phase (2009-2014)
Knowledge Sharing for Solution Finding



Issues Identified

WEPA Homepage and Database

https://wepa-db.net/

Priorities and Activities in the 3rd & 4th Phases (3: 2014-2019 and 4: 2019-2024)

Actions for the Solutions

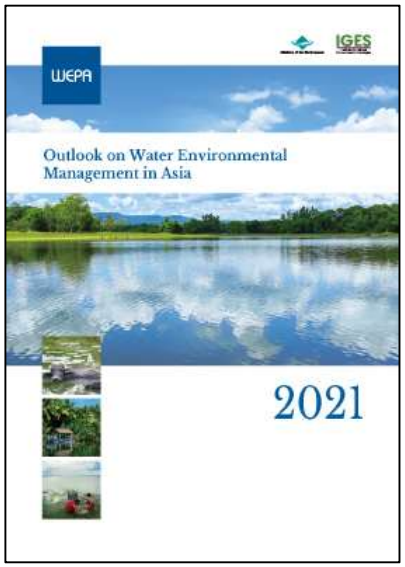
Overview of WEPA Action Programs in the 3rd Phase

Country (Term)	Title of Action Program	Objectives	Outcomes
Viet Nam (2014-2017)	Waste and Wastewater Management of Pig Farms	To determine pollution load units in pig wastewater in Viet Nam	Establishment of Effluent Standard for Livestock Industry
Sri Lanka (2015-2019)	Improving Industrial Waste and Wastewater Management in Gampaha District	To develop/improve policy/guidelines related to industrial siting and waste/ wastewater disposal to prevent groundwater pollution	Provision to legalize the industrial siting procedure as amendment to National Environmental Act (planned)
Indonesia (2018-2020)	Application of Total Maximum Daily Loads (TMDLs) for Effluent Discharge Permit and Capacity Building for Local Officials to Implement the TMDLs	To improve the water quality of Citarum River	Establishment of new regulation for TMDLs in Indonesia (planned)

Overview of WEPA Action Programs in the 4th Phase

Country (Term)	Title of Action Program	Objectives	Outcomes
Myanmar (2020-2022)	Establishing surface water quality standards including rivers, lakes and marine water	To finalize ambient water quality standards and to enhance capacity in water quality monitoring and assessment	Enhancement of capacity to monitor the achievement of targeted water environment
Cambodia (2020-2022)	Capacity building of the officers at Sub-national level on identifying major pollution sources and estimate pollution in Tonle Sap Lake	To develop methodology on measuring pollution loads from major sources for facilitating formulation of draft strategies of Tonle Sap water environment conservation	Providing scientific basis to develop the CWQMP of the Tonle Sap Lake under the umbrella of National Strategies on water quality management
Lao PDR (2022-)	Development of an appropriate domestic wastewater management system in Lao PDR	To provide scientific basis to develop the standard for septic tanks and decentralized wastewater management systems	Enhancement of technical capacity for a better domestic wastewater management

WEPA Publications

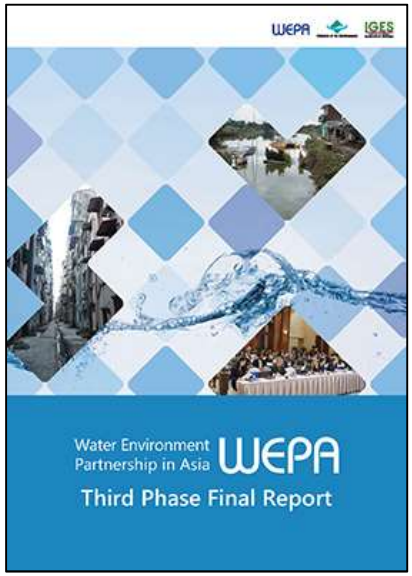


WEPA Outlook on Water Environmental Management in Asia 2021

This report is the fourth edition of the series, aiming to provide the most up-to-date and useful information on the water environment and its management in Asia, with a target audience of policymakers, experts and others in the water sector of the region.

WEPA Policy Briefs

Based on the knowledge gained through the WEPA activities, we published policy briefs regarding specific issues on the water environment.



WEPA Third Phase Final Report (March, 2019)

This report aims to introduce the detailed activities and outcomes obtained in the third phase of WEPA (FY2014-2018).

WEPA Meetings

- The 18th WEPA annual meeting and international workshop in Siem Reap, Cambodia (hybrid) in February 2023

- The 17th WEPA annual meeting in Kumamoto, Japan (hybrid) in April 2022

WEPA in coming years

1st phase (Apr 2004-Mar 2009)	**Building a Platform of Water Environmental Management**
	WEPA established an information sharing platform on water environment management to share knowledge and experience of member countries; the platform included a database on water environment conservation goals (water quality (WQ) environmental standards) and WQ status, and network of government officials.
2nd phase (Apr 2009-Mar 2014)	**Knowledge sharing to explore solutions**
	Considering domestic wastewater treatment as a priority issue in the Asian region where significant urbanization trends were seen, WEPA shared information on the status of pollution load, status of domestic wastewater treatment, problems, and policies in each country, and best practices.
3rd phase (Apr 2014-Mar 2019)	**Actions to resolve issues**
	Focusing on industrial wastewater treatment in addition to domestic wastewater treatment, WEPA shared information on the status of pollution load and measures against pollution source, built capacity to address problems, and supported the formulation of action programs in a member country to solve problems.
4th phase (Apr 2019-Mar 2024)	**"Legal compliance" to achieve WQ environmental standards**
	WEPA aims to improve the capacity of government officials enforcing "legal compliance," in order to establish autonomous water and environmental governance through PDCA cycle.

5th phase: under consideration

Thank you very much for your attention!

Water Environment Partnership in Asia

WEPA

Cambodia • China • Indonesia
Japan • Lao PDR • Malaysia
Myanmar • Nepal • Philippines
Republic of Korea • Sri Lanka
Thailand • Viet Nam

WEPA Secretariat

wepa_secretariat@iges.or.jp

Proposal of the 2nd Work Plan

1st August 2023

Secretariat of the Asia Wastewater Management Partnership (AWaP)
Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan
and
Ministry of the Environment (MOE), Japan

Raising Awareness on Wastewater Management

1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences

Spread information through international conferences

Cambodia) *Joined webinar on "Asian Region Collaborative Framework to Operationalize Utility-Based Wastewater Monitoring and Management in Support of Increased Investment to Attain the SDGs' for Southeast and South Asia Region"*
Indonesia) *2020, 1st Policy dialogue and network building of multi-stakeholders on integrated decentralized domestic wastewater management in ASEAN Countries (PoDIWM) January 20th – 21st, 2020 in Indonesia*
Japan) *Presentation on sewerage management at APWS 2022 in Kumamoto*
Vietnam) *Insist on the necessity of sewerage works seminars or conferences; Organized workshops on the new law on water supply and sewerage and sustainable drainage in Mekong Delta Region*

Good

1.2 Spreading information to promote understandings of the effectiveness of wastewater management to citizens and officials

Events, education, and PR for residents and officials

Cambodia) *Completed the Japan-Cambodia Kizuna Festival 2017-2019, Completed the Clean City Campaign in Siem Reap City*
Indonesia) *City Sanitation Summit (CSS) XXI by Regencies/ City Alliance of Sanitation /Aliansi Kabupaten Kota Peduli Sanitasi (AKKOPSI) (2023)*
Japan) *On-site classes at schools for social studies, "Designed Manhole" & "Manhole Card" creation, and "Sewerage Day" activities*
Philippines) *DPWS conducted information, Education and Communication Campaigns (IECs) for Local Government Units (LGUs), Water Districts and DPWH Regional and District Engineering Offices (ROs & DEOs) nationwide*
Vietnam) *Conducted training courses for staff in central and local governments and organizations through such as JICA training course.*

Good

Monitoring of Wastewater Management

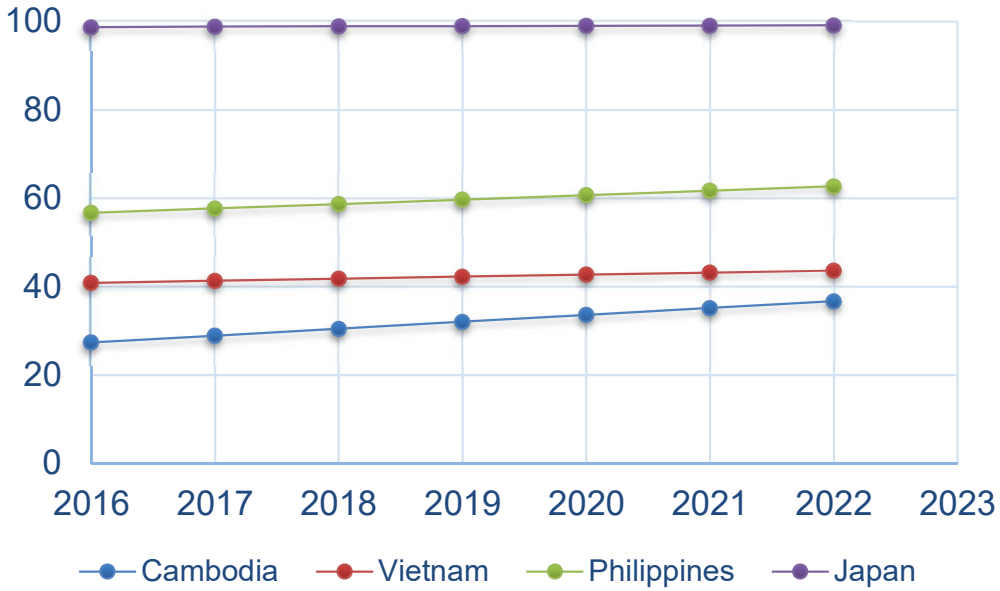
2.1 Submission of annual report from partner countries
2.2 Publishing AWaP Synthesis Report

Publishing annual reports sharing activities among partner countries Good

[Indicators of SDGs Target 6.3]

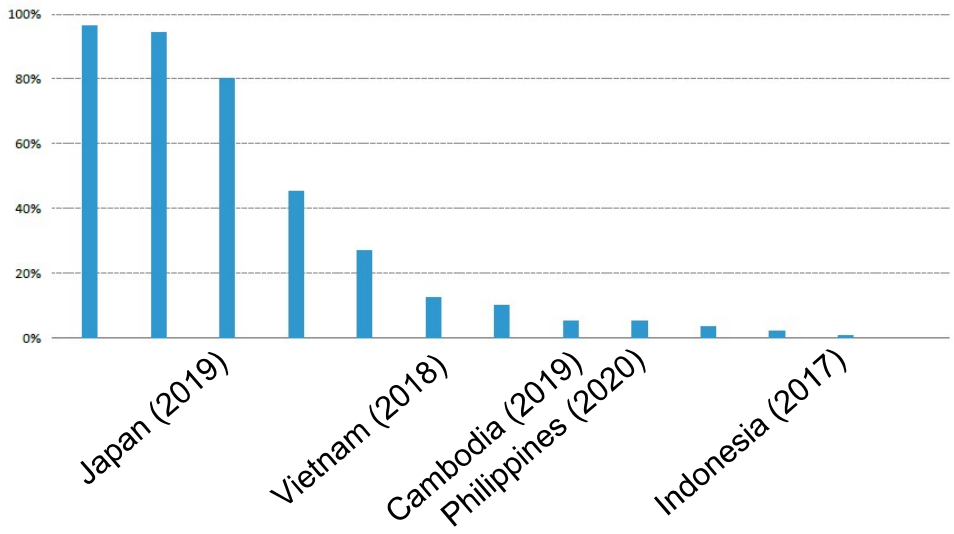
SDG target 6.3 is "By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally"

Population using safely managed sanitation services (%)



Reference: World Health Organization
Population using safely managed sanitation services (%) (who.int)

Connection rate of public sewage treatment service (%)



Reference:
WEPA Outlook on Water Environmental Management in Asia 2021
Publications | WEPA [Water Environment Partnership in Asia] (wepa-db.net)

Resolving Common Challenges

3.1 Centralized and Decentralized wastewater treatment systems

Investigation and study for optimal developing wastewater treatment facilities

Cambodia) *Conduct the Pre F/S for Sewerage Development Plan in Svay Rieng Town and Siem Reap City, 2020 (Centralize and decentralized STP)*
Indonesia) *Development of city-scale centralized domestic wastewater systems in Indonesia*
Japan) *Periodic reviewing the equilibrium point of centralized and decentralized sewerage systems*
"Quick Sewerage Projects": low-cost, easy maintenance, exposed piping, etc.
Philippines) *Recommended SpTP and STP Technology based on Completed FS in Butuan, Iloilo, and so on*
Vietnam) *Sustainable development, economic development associated with the environmental protection, especially in large urban cities and river basins to mitigate and overcome environmental pollution in river basins.*

3.2 Trenchless sewer pipe constructing

Education and standards development for the pipe-jacking method

Cambodia) *Pipe Jacking introduced Japan Global Center for Urban Sanitation, Southeast Asia Committee*
Indonesia) *Initiation for demonstrating micro-tunneling in Provinsi DKI Jakarta by JICA Grant.*
Japan) *The 10th Revision of the cost estimation standard in 2021*
Vietnam) *MOC and MLIT jointly published the 6th edition of "Standards of Micro tunneling Technology for Vietnam" (Red book)*

Resolving Common Challenges

3.3 Development of sewerage technology adapted to local conditions

Dealing with regional issues by partner countries

Cambodia) *Installation septic tanks, locally supplied*
Indonesia) *Initiation for preparing guidelines for a prone area by UNICEF Grant.*
Japan) *Decarbonization: Energy generation from digestion gas, solid fuel conversion, etc.*
Turning sewage sludge into a fertilizer: Phosphorus recovery from digested sludge, composting
Vietnam) *Conduct pilot projects of SUDs in the Mekong Delta Region for climate resilience*

Good

- Outstanding efforts against issues AWaP states
- Each partner's "Work Plan Proposal" includes impressive issues and colorful visions.
- The forthcoming slide presents a **"New Work Plan for 2030"** derived from your aforementioned "Work Plan Proposal"
- The AWaP needs your invaluable technology and profound expertise to efficaciously resolve multifaceted challenges.

The 2nd Work Plan for 2030

Activities	2023	2024	2025	2026	2027	2028	2029	2030
Schedules	▲ General Meeting	● Operations committee	▲	●	▲	●	●	▲

1. Raising Awareness on Wastewater Management

1.1 Spreading the importance of wastewater management and the outcome of AWaP through international conferences	Public relations at APWF 2024 ● / Public relations at APWS ● / Public relations at APWF 2027 ● / Public relations at APWF 2030 ● Spread information at conferences hosted by support organization or international conferences (ex. WEPA) →
1.2 Spreading information to promote understanding of the effectiveness of wastewater management to citizens and officials in partner countries	-Implement public awareness activities in each partner country (ex. Expansion of KIZUNA Festival (Cambodia), IECs (Philippines), Training Courses (Vietnam) to other AWaP country) -Report results and outcomes of activity in the annual report → Implement challenges raised in APWS 2022 → / Implement challenges raised in APWS 2025 → / Implement challenges raised in APWS 2027 →

2. Monitoring of Wastewater Management

2.1 Submission of annual report from partner countries	Updating annual report → Submission of annual report from partner countries / Following-up SDGs target 6.3 achievement →
2.2 Publishing AWaP Synthesis Report	Publishing AWaP synthesis report → Publishing synthesis report on website (considering collaboration with WEPA) →

The 2nd Work Plan for 2030

Activities	2023	2024	2025	2026	2027	2028	2029	2030
Schedules	▲ General Meeting	● Operations committee	▲	●	▲	●	●	▲

3. Resolving Common Challenges

3.1 Sharing and discussing common Challenges	(Discussing issues as they arise)
3.2 Conducting Co-Projects	implement co-projects → summarize the outcomes of co-projects
3.2.1 Promoting Centralized and Decentralized wastewater treatment systems	Setting AWaP policy for the optimum wastewater treatment system → Consensus building for the centralized and decentralized wastewater treatment systems Survey and share early solutions (Quick Project) for wastewater systems improvement in undeveloped areas → Enhance early solutions (Quick Project) for wastewater systems improvement in undeveloped areas
3.2.2 Trenchless sewer pipe constructing	Formulating the draft guideline In the Philippines → Continuous development of national technical standards for the pipe-jacking method by country HRD through technical seminars or on-site training
3.2.3 Development of sewerage technology adapted to local conditions	Organizing regional issues, especially finance of sewerage projects → Setting and sharing AWaP policy regarding operation → Consensus formation for AWaP policy → Follow-up the activities implemented in each partner country Collection of technology and example by country

REFERENCES:

Work plans submitted by each partner country

Work Plan Proposal for 2030

Work Plan	Outlines	Expected Achievements
To strengthen institutional capacity and human capital through trainings/workshop/seminar to manage wastewater, sewerage, fecal sludge sector and provide better services and move our services closer to citizens.	• *Institution and human resource are the steppingstones and living resource needed to be cared and updated knowledge, skills etc*	• *Appro. 500 officials by 2030 both for National and Sub-national level*
To develop the cost recovery and tariff setting for sustainability of sanitation service.	• *The government approved on the combined bill (i.e wastewater fee in the water bill)*	• *By 2024*
To finalize the draft law on sewerage system and further developing other supporting rules and regulations, policies, guidelines and standards etc.	• *17 chapters* • *123 articles*	• *By 2024*
To increase the number of household connection in cities, where the collection sewer and STP/WWTP existed.	• *Household connection is the key to function the sewerage system, WWTP and to ensure the environmental sound and good human health*	• *At least 50,000 connection by 2030*
To support and expand the social accountability framework of users and service provider of the sewerage system and treatment associated facilities.	• *To engage citizen with the service providers and express their reflection on the services*	• *Highly satisfactory from citizen as users*
To implement the pertinent regulation and review the status of related national policies, standard, guidelines and specification etc	• *To implement the pertinent regulation and review the status of related national policies, standard, guidelines and specification etc*	• *To get the most best practices for the next action/projects*
To build more sewerage collection network and system, pumping station and WWTP based on the sewerage system development studies in selected priority towns and cities.	• *To construct new sewer networks and associated facilities of wastewater works*	• *At least 15,000m of sewer lines and 05 WWTPs*
To introduce and customize the decentralized WWTP fit to Cambodian context.	• *Centralized and decentralized WWTP complemented one another. The DEWATs should be considered.*	• *At least 05 built*
To enable coordination and communication system more effectively and efficiently and to improve the mid-level management and leadership roles.	• *To improve mid-level management and leadership roles as well as the effectiveness of communication.*	• *Mid-level management and leadership, more effectively*

NEW WORK PLAN PROPOSAL FOR 2030

Indonesia

Work Plan	Outlines	Expected Achievement
Development of city-scale centralized domestic wastewater systems in Indonesia	a. Development of new WWTP Pontianak City, WWTP Mataram City, WWTP Semarang City, and WWTP Bogor City b. Optimalization of WWTP Manado City	Accelerating safely managed access (30% safely managed access in 2030) and strengthening governance of domestic wastewater management
Development of Sludge Treatment Plant (STP)	STP Surakarta City, STP Balikpapan City, and STP Gresik	
Development of a community-based domestic wastewater system	On-site and off-site systems of a community-based domestic wastewater system	

Philippines 

Work Plan Proposal for 2030

Your work plan	Outlines	Expected achievements
Enhance Awareness	Conduct of IECs on National Sewerage and Septage Management Program (NSSMP)	Rolled out IECs for all Regions in coordination with DPWH ROs/DEOs
Conduct Feasibility Studies (FS)	Procurement of Consulting Services for the preparation of FS for priority areas	Conducted FS for 1-2 cities/1st class municipalities annually
Update NSSMP Program Operations Manual (POM)	Updating of the POM to comply with current policies and incorporate new standards (Requested Technical Assistance from Japan International Cooperation Agency (JICA))	Endorsement of the updated POM to DPWH ROs/DEOs and LGUs thru a Department Order

Philippines 

Work Plan Proposal for 2030

Your work plan	Outlines	Expected achievements
Improve Institutional Arrangement	The Water Resources Management Office (WRMO) under the Department of Environment and Natural Resources (DENR) has been established thru the President's Executive Order (EO 22, s. 2023) pending creation of the Department of Water Resources (DWR).	DPWH continues the NSSMP until the issuance of guidelines of EO 22 or the creation of DWR.
Enable Access to Funding and Financing	The Unified Resource Allocation Framework (URAF) principles shall be considered during the updating of the POM.	Adopted the URAF principles in the NSSMP; Funding provided for qualified cities/municipalities
Implement Septage Management Programs	Prioritize Septage Treatment Plants (SpTP) for implementation and development of desludging programs	SpTPs constructed for priority areas and desludging programs developed for areas with completed FS

New work plan proposal for 2030

Vietnam

Work plan	Outlines	Expected achievements
Proposing and formulating the policies for the new Law on Water Supply and Sewerage	• Conduct study and evaluation on the legal enforcement in the field of drainage and wastewater treatment and propose policies to be included in the Proposal Application for formulation of the Water Supply and Sewerage Law as well as related decrees and local regulations	• Issuing the new Law on Water Supply and Sewerage by 2025
Development of the national standards on the new technologies such as pipe jacking	• Developing the national technical standards (TCVNs) regarding pipe jacking and other new technologies in the sewerage sector, to promote them in Vietnam	• TCVNs or relevant standards/regulations (Revision of QCVN07:2016/BXD)
Development of the database system	• Conduct survey for the necessary statistical data collection and develop through the upcoming JICA technical cooperation project.	• National database system in the sewerage sector
Development of the guidelines for local regulations	• To promote investment and development of sewerage facilities in local cities, new guidelines for localities is needed based on the new laws and decrees.	• The guidelines for local regulations
Sharing the best practices among AWaP countries	• As there might be some common issues in Southeast Asian countries such as house connection, sludge disposal, flood control, and so on, it is meaningful to share the best practices among the AWaP member countries.	• Capability in the government official will be enhanced.

Ministry of Land, Infrastructure, Transport and Tourism

Ministry of the Environment
Government of Japan

Doc.12

Future Schedule

1st August 2023

Secretariat of the Asia Wastewater Management Partnership (AWaP)

Ministry of Land, Infrastructure, Transport and Tourism (MLIT), Japan

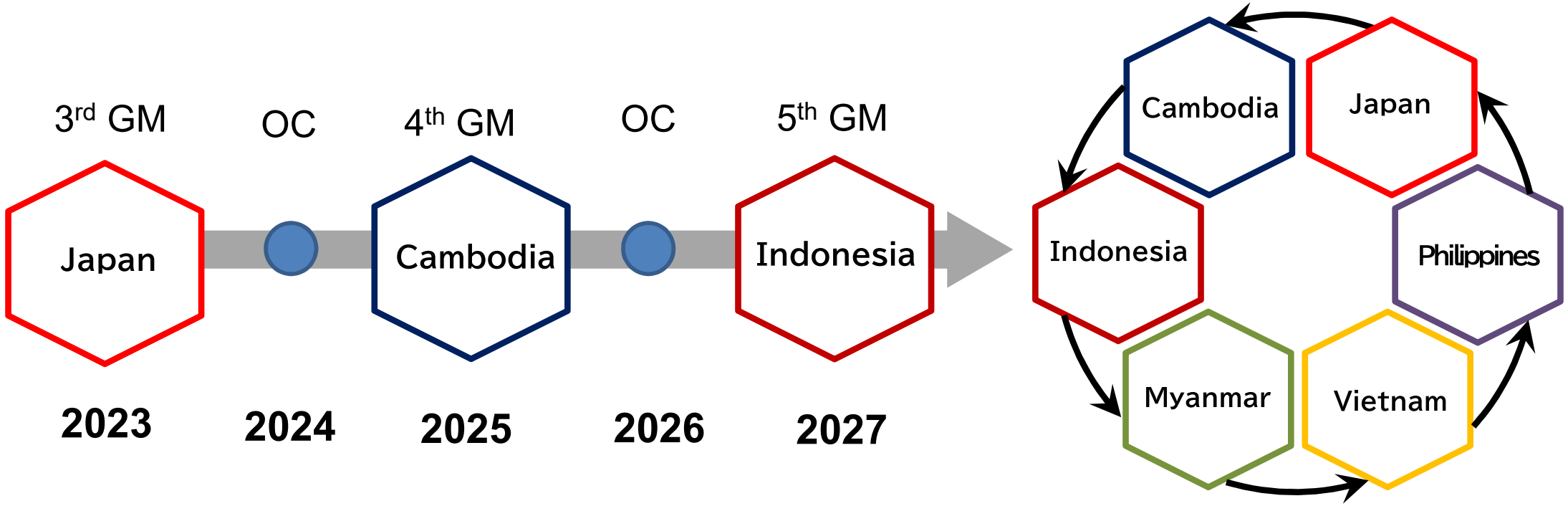
and Ministry of the Environment (MOE), Japan

Future General Meetings and Operations Committees

Draft

- The AWaP Implementation Guideline states that AWaP should hold the General Meeting once every two years. The AWaP member country may host the General Meetings on a rotating basis.
- The AWaP secretariat is considering to hold the Operations Committee in August 2024 and the 4th General Meeting between July and September 2025.
- The AWaP member country may hold the General Meeting in turn following the proposal of the 2nd General Meeting in 2021.

Image of the meeting host



GM: General Meeting
OC: Operation Committee

About Operations Committee

What will we do?

The operating committee reviews, oversees, and guide the AWaP operations. It develops insight into the activities and suggests strategic directions for the AWaP and its policy implementation.

Who will join?

Three representatives, including your working-level wastewater management

- *Chief Engineer*
- *Deputy Director*
- *Manager, etc.*