ASEAN IWRM Country Strategy Guidelines
- IWRM Monitoring Status Guidelines for ASEAN Countries

1. Background

The ASEAN Working Group on Water Resources Management (AWGWRM) has developed an ASEAN Strategic Plan of Action on Water Resources Management with the support from the Australian Government in 2005. To support the implementation of the Plan, ten project concept proposals were formulated and included in the Appendix of the Strategic Plan Report. One of the ten project concepts: Project Concept 2 is on the development of an "ASEAN IWRM Country Strategy Guidelines". DID Malaysia was requested by the AWGWRM to organize and conduct a workshop to develop the details of the "ASEAN IWRM Country Strategy Guidelines".

The workshop participants agreed that the generic ASEAN/IWRM framework will be structured on the following 6 major water management issues in ASEAN:

- Water Supply
- Irrigation
- Stormwater Management
- Floods Management
- Water Pollution Management
- Sanitation Management

Arising from the workshop the following outputs have been prepared for use by ASEAN countries to assist them in preparing and reporting on their respective countries' IWRM action plans and strategies to address the above 6 thematic issues.

(a) A set of specific IWRM goals for the above 6 key water-related issues in the region.
(b) For each set of thematic goals a set of IWRM objectives to achieve the goals have also been identified, categorized under the 3 categories of GWP IWRM tools, i.e. Enabling environment, Institutional environment and Management tools.
(c) Also indicators for measuring the progress in achieving the objectives associated with each of the thematic goals have been developed. They can be used for measuring regional performance and progress towards meeting the IWRM goals for the 6 key water related issues in the region.

2. The ASEAN IWRM Monitoring Status Guidelines

The Workshop participants in Malaysia have agreed to develop monitoring guidelines for six key water management issues that are considered important in ASEAN countries. They are as follows:

(a) Water Supply Management
(b) Irrigation Management
(c) Stormwater Management
(d) Flood Management
(e) Water Pollution Management
(f) Sanitation Management

The following are the monitoring guidelines for the above 6 key water management issues.

IWRM Issue 6 – Sanitation Management (18 indicators)			
Indicator Types	**Indicators**	**Progress**	**Description**
Outcome Indicators	1. Percentage of rural population with access to *basic sanitation services*	73.7 % 84.0%	**2017 baseline** **as of 2022** Source: https://psa.gov.ph/system/files/phdsd/Goal%206_as%20of%2028%20Feb%202025.pdf
	2. Percentage of urban population having access to improved sanitation system and served by sewer network	%	
	3. Percentage of treated wastewater reused for non-potable purpose (i.e. further treatment after wastewater treatment process) [e.g. for washing, cleaning, irrigation]	%	
EE Indicators	1. Any “Policy” on urban/ rural sanitation and sewerage systems	Yes	- RA 9275 or the Philippine Clean Water Act of 2004 (DENR) - RA 9003 or the Ecological Solid Waste Management Act of 2000 -PD 856 or the Sanitation Code of the Philippines -National Sewerage and Septage Management Program (DPWH) - Philippine Water Supply and Sanitation Master Plan (PWSSMP) (NEDA) -AO No. 2010-0021 Sustainable Sanitation as a National Policy and a National Priority program of (DOH) - Administrative Order No. 2019-0047 National Standard on the Design, Construction, Operation, and Maintenance of Septic Tank Systems in the Philippines (DOH)

			- Administrative Order No. 2019-0054 Guidelines on the Implementation of the Philippine Approach to Sustainable Sanitation (PhATSS) (DOH) -PD 198 - Provincial Water Utilities Act of 1973 -Republic Act No. 6234 “An Act Creating the Metropolitan Waterworks and Sewerage System and Dissolving the National Waterworks and Sewerage Authority; and for other Purposes” -Local Government Code of 199 -Memorandum Circular No. 2019-62 entitled Policy and Guidelines on Sewage Treatment and Sewage Management System -BR 03-0324 or Policy Statement in Relation to the Regulation of Sanitation Services of Waterworks Systems - EO Order No. 774 (2008) - National policy on climate change and environmental management emphasizing IWRM and sanitation in the context of climate resilience. - AO No. 2010-0036 - sets guidelines for health-related aspects of wastewater and septage management systems - Housing and Land Use Regulatory Board (HLURB) Guidelines - requires sanitation infrastructure (e.g., communal toilets, sewerage) in subdivision and housing developments
	2. Any “Legislation/Regulations” on urban/ rural sanitation and sewerage systems	Yes	- RA 9275 or the Philippine Clean Water Act of 2004 (DENR) - RA 9003 or the Ecological Solid Waste Management Act of 2000 -PD 856 or the Sanitation Code of the Philippines -National Sewerage and Septage Management Program (DPWH) - Philippine Water Supply and Sanitation Master Plan (PWSSMP) (NEDA) -AO No. 2010-0021 Sustainable Sanitation as a National Policy and a National Priority program of

			(DOH) - Administrative Order No. 2019-0047 National Standard on the Design, Construction, Operation, and Maintenance of Septic Tank Systems in the Philippines (DOH) - Administrative Order No. 2019-0054 Guidelines on the Implementation of the Philippine Approach to Sustainable Sanitation (PhATSS) (DOH) -PD 198 - Provincial Water Utilities Act of 1973 -Republic Act No. 6234 “An Act Creating the Metropolitan Waterworks and Sewerage System and Dissolving the National Waterworks and Sewerage Authority; and for other Purposes” -Local Government Code of 199 -Memorandum Circular No. 2019-62 entitled Policy and Guidelines on Sewage Treatment and Sewage Management System -BR 03-0324 or Policy Statement in Relation to the Regulation of Sanitation Services of Waterworks Systems - EO Order No. 774 (2008) - National policy on climate change and environmental management emphasizing IWRM and sanitation in the context of climate resilience. - AO No. 2010-0036 - sets guidelines for health-related aspects of wastewater and septage management systems - Housing and Land Use Regulatory Board (HLURB) Guidelines - requires sanitation infrastructure (e.g., communal toilets, sewerage) in subdivision and housing developments
	3. Any “Financial framework and Financial plans” for urban/ rural sanitation and sewerage systems	yes	The **Philippine Water Supply and Sanitation Master Plan (PWSSMP)**, finalized in 2019 and led by the National Economic and Development Authority (NEDA), provides a long-term strategy (2019–2030) for achieving universal access to safe, adequate, and sustainable water supply and sanitation in the Philippines. It includes specific financing provisions to support urban and rural sanitation and sewerage systems. Financing strategies highlighted include:

			• Public Investment: Allocates national and local government funds for infrastructure development. • Private Sector Participation: Encourages public-private partnerships to leverage additional resources. • Development Assistance: Utilizes loans and grants from international financial institutions. **Executive Order No. 279-A**, issued on August 1, 2008, amended Executive Order No. 279, which dealt with financing policies in the water supply and sewerage sector, as well as the structure of the Local Water Utilities Administration (LWUA). The **National Sewerage and Septage Management Program (NSSMP)** is a key initiative under the Philippine Clean Water Act of 2004 (Republic Act No. 9275). It provides a policy and investment framework to support local government units (LGUs) and water service providers in developing and implementing effective sewerage and septage systems. One of its core components is the financing framework, which outlines how sanitation infrastructure can be funded, particularly in cities and municipalities. Key financial incentives include: • Grants: Offers up to 40% capital subsidy for eligible projects. • Technical Assistance: Provides support for project preparation and implementation. • Incentives for Outstanding Projects The **Unified Resource Allocation Framework (URAF)** for the Water Supply and Sanitation (WSS) sector in the Philippines is a strategic initiative developed by the National Economic and Development Authority (NEDA), in collaboration with other national institutions and supported by the World Bank. The URAF aims to address the fragmented nature of the WSS sector by rationalizing and prioritizing the distribution of public resources for municipal projects, focusing on municipalities' level of access, poverty levels, and incidence of waterborne diseases.
IS Indicators	1. Any Integrated national and provincial institutions to implement sanitation policies	yes	The **Department of Environment and Natural Resources (DENR)** plays a critical role in implementing sanitation policies in the Philippines, particularly those related to wastewater management, environmental protection, and public health. As the primary national agency responsible for environmental governance, the

			DENR works to ensure that sanitation systems—whether urban or rural—meet national standards, protect the environment, and safeguard public health. The **Department of Health (DOH)** is responsible for ensuring that sanitation systems meet standards that prevent disease transmission and promote community health. Its role spans across policy development, regulation, implementation, and monitoring, with a key emphasis on ensuring that sanitation facilities and wastewater systems contribute to public health improvement. Executive Order 22 (s.2023) mandates the **DENR-Water Resources Management Office (WRMO)** and attached agencies including the **National Water Resources Board** to integrate sanitation as part of its integrated water management plan The **Department of Public Works and Highways** plays a critical role in sanitation policy implementation through its focus on infrastructure development, particularly in the construction and maintenance of sewerage systems, wastewater treatment plants, and stormwater management systems. It is a key partner in ensuring that sanitation infrastructure is aligned with public health and environmental goals. The **Local Water Utilities Administration (LWUA)** was created under Presidential Decree (P.D.) No. 198 as a specialized institution for the promotion, development and financing of local water utilities in provincial cities and municipalities outside of Metropolitan Manila. It has the power and duty to establish standards for local water utilities including water quality, design and construction, operations and maintenance, among others. **Local Government Units (LGUs)** in the Philippines bear a significant responsibility for ensuring sanitation in their jurisdictions. This includes providing safe water and sanitation services, managing solid waste, enforcing sanitation regulations, and ensuring proper wastewater treatment. LGUs also play a crucial role in educating and mobilizing the community towards improved sanitation practices.

	2. Any Policy and Planning Department on sanitation and sewerage	yes	- Local Government Units - Department of Environment and Natural Resources – Environmental Management Bureau - Laguna Lake Development Authority
	3. Any Project management Department for sanitation and sewerage	yes	- Department of Environment and Natural Resources – Environmental Management Bureau - Laguna Lake Development Authority - Local Government Units
	4. Any Development control branch or unit for sanitation and sewerage	Yes	- Department of Environment and Natural Resources – Environmental Management Bureau - Laguna Lake Development Authority - Local Government Units
	5. Any private sector participant in providing sanitation services for the people	Yes	- National Institute of Molecular Biology and Biotechnology provides water and wastewater testing services - Cebu laboratory analytical services
	6. Any sewerage Network Rehabilitation department	No	
	7. Any Sewerage & Sanitation Maintenance department	Yes	- Local Government Units - Metropolitan Waterworks and Sewerage System Concessionaires
MT Indicators	1. Any national sanitation/ sewerage information system/ database	Yes	**Department of Health (DOH) – Health Information Systems.** The DOH manages health-related data systems that encompass aspects of environmental health, including sanitation. These systems collect data on sanitation-related health indicators, which are crucial for planning and implementing public health interventions. **Philippine Statistics Authority (PSA) – Water and Sanitation Data.** The PSA conducts nationwide surveys, such as the Annual Poverty Indicators Survey (APIS), which include data on access to water supply and sanitation facilities. These surveys provide insights into the proportion of Filipino families with access to improved water sources and sanitation services. **Department of Environment and Natural Resources (DENR) – Environmental Management Bureau (EMB).** The EMB under DENR oversees the classification and monitoring of water bodies in the Philippines. They have completed the classification of numerous water bodies based on their usage and water quality, which is essential for managing sewerage and sanitation efforts.
	2. Any comprehensive sewerage/ sanitation master plan at national,	Yes	- Philippine Water Supply and Sanitation Master Plan - Local Government Unit Plans

	regional and local levels		- Integrated Water Resources Management Plans - Water Quality Management Area (WQMA) Action Plan - LLDA Programs - Clean Water Act - Pasig River Rehabilitation Commission - Barangay Water and Sanitation Association (BWSA)
	3. Any code of practice for sewerage and sanitation system design	Yes	**Presidential Decree No. 856**, also known as the **Code on Sanitation of the Philippines**, was issued on December 23, 1975. It serves as the foundational legal framework for public health and sanitation standards in the Philippines. The Code outlines comprehensive sanitation policies and regulations to promote public health, prevent diseases, and ensure safe and healthy environments.
	4. Any system for treating wastewater for reuse [for non-potable water purposes (i.e. further treatment after waste water treatment process)]	Yes	**Metropolitan Waterworks and Sewerage System (MWSS) Concessionaires** -Ultrafiltration, reverse osmosis and UV disinfection -Treat wastewater to recover and. Reuse water in areas with water scarcity -Greywater recycling, basic recycling, sludge disposal programs -City-wide fecal sludge management programs -sludge treatment and disposal methods **Zero Liquid Discharge (ZLD) Systems** Some industrial facilities in the Philippines are implementing ZLD systems, which treat wastewater to recover and reuse virtually all water, leaving minimal waste. This approach is particularly beneficial in areas facing water scarcity - 1) San Miguel Corporation – Limay Power Plant. 2) CAMANA Water Reclamation Facility **Modular Sewage Treatment Plants.** Clark Freeport Zone: Modular systems used to support growing industrial and residential developments. Boracay Rehabilitation (2018–2020): Modular STPs were deployed to improve sewage treatment in hotels and commercial establishments during the island's environmental cleanup. **Household-Level Greywater Recycling.** Ayni Bahay Water Services Cooperative is developing a closed-loop water remediation system that integrates greywater recycling with phytoremediation using native reed species and

			water hyacinths. The system aims to provide clean water for 400 residents, producing compost and biochar from biomass, thereby promoting sustainable agriculture and water management
	5. Any sludge disposal programs and systems	Yes	The **Department of Health (DOH)** has established comprehensive guidelines and programs for the proper management and disposal of sludge, particularly in healthcare settings. These initiatives aim to mitigate health risks and environmental impacts associated with improper sludge handling. **Local Government Units (LGUs)** play a crucial role in managing septage and sludge, the waste generated from septic tanks and other onsite wastewater disposal systems. LGUs are mandated to establish Septage Management Programs (SMPs) through local ordinances, ensuring proper treatment, collection, and disposal of this waste to prevent pollution The Local Government Code of 1991 (RA 7160) grants Local Government Units (LGUs) significant powers to manage waste, including septage and sludge, within their jurisdictions. This includes establishing and managing waste management programs, generating resources for these programs, and even exercising eminent domain for related purposes. **City-Wide Fecal Sludge Management (FSM) Programs**. In Tacloban City, a fecal sludge management project aims to provide basic sanitation services to approximately 80,000 residents in the northern resettlement areas.