

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 5 – Water Pollution Management (18 indicators)			
Indicator Types	Indicators	Progress	Description
Outcome Indicators	1. Percentage of monitored water bodies' ambient water quality meeting designated uses (agriculture, water supply, fisheries, industries, etc.)	85.7%	This is based on beach water quality.
	2. Percentage of industrial/ domestic effluent discharge complying with the country's effluent discharge standard	NA	PUB monitors effluent discharge from more than 5,000 companies annually to ensure compliance with national standards. 90 companies were found to have breached discharge standards over the seven-year period from 2017 to 2023. As the available data is cumulative rather than annual, a precise year-on-year compliance percentage cannot be accurately determined.
EE Indicators	1. Any "Policy" on water pollution control	8	
	2. Any "Legislation/Regulations" for water pollution control (i.e. for the management of water quality and wastewater quality)	8	
	3. Any "Financial framework and Financial plans" for water pollution control	NA	
IS Indicators	1. Any "Agency/ Department" responsible for water pollution control	8	
	2. Any "Steering Committee" on river water quality and environmental issues (e.g inter-agency committee)	8	
	3. Any "Formal institutional arrangements" among related agencies to manage water pollution	8	
	4. Any "Private/ public partnership and participant" in managing water pollution	8	
MT Indicators	1. Any river water quality master plan at national and local levels	NA	Singapore's waterways are urbanized channels

			designed to convey stormwater and are dry most of the time. As most of the waterways lead to a reservoir, the focus is on reservoir water quality.
	2. Any relocation plans for highly polluting industries in a river basin	8	
	3. Any effluent discharge standards	8	
	4. Any river water quality monitoring program	8	
	5. Any river water quality information system/ database	8	
	6. Any program to disseminate to the public regulator report on river water quality status	NA	PUB's monitoring of reservoir water quality is for water treatment purpose. Singapore's drinking water quality is available on PUB's website.
	7. Any groundwater quality monitoring programs and systems	NA	Groundwater is not monitored as it is not a source of water supply.
	8. Any computer simulation models used to predict river water quality	8	Refer to this link: PUB Innovation
	9. Any public awareness program on water pollution prevention	8	