

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 1 - Water Supply Management (34 indicators)			
Indicator Types	Indicators	Progress	Description
Outcome Indicators	1. Percentage of population having access to piped drinking water	97.1 %	Peninsular Malaysia and Labuan, 2022
	2. Percentage of water delivered to customer meeting WHO guidelines for drinking water quality	98.5%	580 out of 589 water networks meet internal DWQI by MOH Malaysia, 2023
	3. Average hour of water supplied/day	24 hr/day	Peninsular Malaysia and Labuan
	4. Per capita domestic water consumption	237 l/c/day	Peninsular Malaysia and Labuan, 2022
	5. Percentage of water supply metered	100.0%	Peninsular Malaysia and Labuan, 2022
	6. Percentage of UFW/NRW	34.4 %	Peninsular Malaysia and Labuan, 2022
EE Indicators	1. Any "Policy" on water supply management	Yes	Policy by Ministry (PETRA)
	2. Any "Legislation/Regulations" on water supply distribution management	Yes	WSIA 2006
	3. Any "Legislation/Regulations" on water supply quality management	Yes	WSIA 2006
	4. Any "Legislation/Regulations" on water conservation management	Yes	WSIA 2006
	5. Any "Financial framework and Financing plans" for development of water supply	Yes	Establishment of PAAB to develop water asset
	6. Any "Operator business plan" (Annual Budget, Manpower resource plan, etc.)	Yes	By Water Operators
IS Indicators	1. Any water supply planning and policy department	Yes	Policy by PETRA and planning by Water Operators
	2. Any water supply quality office, water testing lab, water sampling team	Yes	By Water Operators
	3. Any water supply operation centre	Yes	By Water Operators
	4. Any water conservation unit	Yes	By Water

			Operators
	5. Any water meter management unit	Yes	By Water Operators
	6. Any customer account/meter reading/billing unit	Yes	By Water Operators
	7. Any water meter workshop	Yes	By Water Operators
	8. Any water leak detection unit	Yes	By Water Operators
	9. Any 24-hr water supply call centre	Yes	By Water Operators
	10. Any water supply network maintenance unit	Yes	By Water Operators
	11. Any water supply meter management unit	Yes	By Water Operators
	12. Any water supply EMI unit (If EMI means Electrical, Mechanical and Instrumentation)	Yes	By Water Operators
MT Indicators	1. Any short- and long-term water demand projection and infrastructure development plan	Yes	Monitor by SPAN and done by Water Operators
	2. Any water safety plan – e.g. water sampling programme, water testing lab, real time monitoring of water quality at water treatment plants and service reservoirs	Yes	By Water Operators
	3. Any water supply pressure monitoring system – e.g. pressure sensor/ monitoring in network, flow and level monitoring at service reservoirs, waterworks outputs	Yes	By Water Operators
	4. Any water conservation plan – e.g. water saving measures, public education programme	Yes	SPAN and Water Operators
	5. Any water supply meter installation plan – e.g. all new premises must be metered	Yes	By Water Operators
	6. Any monitoring of water treatment plant output meters – e.g. all are metered and the meters are checked periodically	Yes	By Water Operators
	7. Any water meter management system – e.g. comply with ISO/EU standard, error check system, meter replacement programme, meter repair and testing facilities	Yes	By Water Operators
	8. Any water supply network record /mapping system, network asset management and pipeline	Yes	By Water Operators

	replacement/ renewal programme		
	9. Any water supply leak detection programme	Yes	Done by Water Operators
	10. Any 24-hour Call Centre and Operation Centre for feedback on leak and deployment of crew for repair	Yes	Done by Water Operators