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.

In all a a f a m	IWRM Issue 1 - Water Supply Management	<u> </u>	
Indicator Types	Indicators	Progress	Description
Outcome Indicators	1. Percentage of population having access to basic drinking water service	90.8 %	2017 baseline
		96.3%	2022 update Based from PSA
	 Percentage of water delivered to customer meeting WHO guidelines for drinking water quality 	%	
	3. Average hour of water supplied/day	19 hr/day	
	4. Per capita domestic water consumption	90 l/c/day	
	5. Percentage of water supply metered	%	
	6. Percentage of UFW/NRW	22 %	
EE	1. Any "Policy" on water supply	Yes (8)	BR No. 14-
Indicators	management	No (1-7)	0921- Standard
		NA	Rules and Regulations in
		Yes	the Operation of Waterworks Systems, As Revised 2021
	 Any "Legislation/Regulations" on water supply distribution management 	Yes	RA 11659 or the Public Service Act
	3. Any "Legislation/Regulations" on water supply quality management	Yes	While water supply quality is included in BR 14-0921, standards and compliances are under the jurisdiction of DENR-EMB and LGUs.
	 Any "Legislation/Regulations" on water conservation management 	Yes	PD 1067 or the Water Code of the Philippines and its Amended IRR
	 Any "Financial framework and Financing plans" for development of water supply 	Yes	BR 25-0818 or the Adoption of the NWRB Economic

IS	 Any "Operator business plan" (Annual Budget, Manpower resource plan, etc.) Any water supply planning and policy 	yes	Regulatory Framework ("Revised Tariff Methodology - 2018") MWSS and its
Indicators	department		concessionair es Local Water Districts
	 Any water supply quality office, water testing lab, water sampling team 	NA	Not under the NWRB mandate
	3. Any water supply operation centre	NA	
	4. Any water conservation unit	NA	No specific unit in the NWRB
	5. Any water meter management unit	yes	For private water service providers
	 Any customer account/meter reading/billing unit 	NA	Present in the Water Service Providers
	7. Any water meter workshop	yes	For technician use of test bench machine
	8. Any water leak detection unit	yes	Water service providers
	9. Any 24-hr water supply call centre	yes	Water service providers
	10. Any water supply network maintenance unit		
	11. Any water supply meter management unit		
	12. Any water supply EMI unit		
MT Indicators	 Any short and long term water demand projection and infrastructure development plan 	Yes (8) No (1-7) NA <mark>Yes</mark>	IWRMPlan
	 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	DOH AO 2014-2022 National Policy on Water Safety

			Plans for all WSPs
3.	Any water supply pressure monitoring system – e.g. pressure sensor/ monitoring in network, flow and level monitoring at service reservoirs, waterworks outputs	NA	
4.	Any water conservation plan – e.g. water saving measures, public education programme	Yes	IEC
5.	Any water supply meter installation plan – e.g. all new premises must be metered	NA	
6.	Any monitoring of water treatment plant output meters – e.g. all are metered and the meters are checked periodically	yes	Every 3 years
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	
	Any water supply network record /mapping system, network asset management and pipeline replacement/ renewal programme	Yes	Water service providers
9.	Any water supply leak detection programme		
10	 Any 24–hour Call Centre and Operation Centre for feedback on leak and deployment of crew for repair 	yes	