Sustainable Water
Integrated Management (SWIM) -
Support Mechanism

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Water is too precious to waste

Means and Measures to Gear Water Regulations to Commensurate with the Command & Control Approach Commonly Used in SWIM Countries, Athens 14 & 15 October 2014..

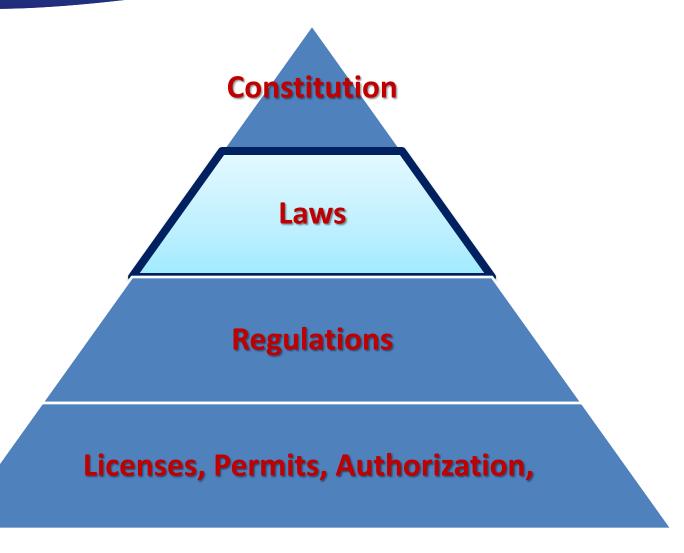*Presented by: Dr. Hosny Khordagui, Team Leader, SWIM-SM*

OBJECTIVE OF 3RD PRESENTATION

- To identify and discuss how to gear water regulations to commensurate with the command and control approach commonly used in SWIM region.

- The body of law which contains elements to control the human impact on the quality and quantity of water resources.

1- **WATER LAWS:**

- They provide the (1) vision, (2) scope and (3) authority for water resources protection and management.
- They will be most effective if they provide the regulating agencies with the following **authorities**:
  1. To issue regulations and guidance to **implement** the law.
  2. To **inspect** regulated facilities and **access** their records & data.
  3. To **require** regulated groups to have self monitoring, record keeping, and self reporting.
  4. To **take legal** action against non complying facilities.
  5. To **correct situations** posing a threat to water resources, aquatic environment and/or public health.

2- WATER REGULATIONS:

- They establish in greater detail, than specified by laws, the general **requirements** that must be met by the regulated community.

- In nearly all cases, the developed regulations in SWIM region are based on single medium approach that suffers from fragmentation & might cause problems.

REQUIREMENTS

- Requirements are at the heart of regulatory command & control approaches.

- The first step in ensuring compliance is to ensure that requirements are enforceable **==> (1)** laws provide the necessary authorities for enforcement, and **(2)** that requirements are clear & practical.

- In order to be enforceable, requirements should **<u>not</u>** rely on expensive, unreliable, or unavailable technology.

a) *Requirements in the Form of Ambient Standards:*

- Ambient Standards set maximum allowable limits in a receiving water body.

- Most of SWIM countries have established ambient standards for water.

- Most of ambient standards in SWIM region were adopted "by special national committees" from relevant sectors.

- Priority in most of the cases was given to the development of primary standards that aim to protect public health and the aquatic environment.

b) _Requirements in the Form of Performance Standards (Effluent Standards):_

- These standards limit the **rate** (_This is very common in the region_) and/or **amount – pollution load** (_This is very rare in the region_) of particular pollutants that a regulated entity can discharge into a water body in a given period.

- Sampling and monitoring are the only means to measure compliance with these standards.

- In most SWIM PCs, performance standards come next in importance to ambient standards.

- In some SWIM countries effluent standards do not cover all pollutants (particularly modern chemicals).

- The lag in the development and enforcement of **pollution load** (tons/day) performance standards compared to **effluent standards** (ppm) can be attributed to the following:

1. Inadequate environmental information, database and inventories of the regulated bodies and their associated effluent discharges.

2. Inadequate national expertise in aquatic environmental risk assessment of the discharged pollutants; identification of their potential toxicological effects and their control measures.

3. Inadequate water testing laboratories for the characterization of discharged pollutants and their potential transformation in the aquatic environment.

4. Insufficient expertise in mathematical simulation modeling to project the transport, dispersion, and dilution of the discharged pollutants to propose threshold limits for discharge.

5. Inadequate experience in defining the assimilation capacity of the receiving water bodies.

c) *Requirements in the Form of Technology Stds*:

1. They require the regulated body to use a certain type of technology to control/monitor discharges.

2. It is relatively easy for inspectors to determine compliance with technology standards by simply observing whether the prescribed equipment are in place and operate properly.

3. Specification of technology standards are not common in many of the SWIM countries.

d) *Requirements in the Form of Practice Standards*:

- These standards require or prohibit certain work activities that have significant impact on aquatic environment. Cr in tannery wastewater, phosphate base detergents, certain pesticides, etc.

- In SWIM region, practice standards are often implemented particularly for pollution prevention of hazardous chemicals.

e) *Requirements for Reporting Information*:

- They require a potential source of water pollution to regularly generate and report information to water regulating authorities.

- This type of self monitoring, and self reporting is not very common in the SWIM region, mainly because the duty of monitoring is often carried out by the regulating authorities.

3- PERMITS AND LICENSES:

- Permits are usually designed to control activities related to construction or operation of facilities that withdraw water and/or generate water pollutants.

- Licenses and permits are widely used in SWIM region due to their
  1. Versatility,
  2. Flexibility,
  3. Centrality &
  4. Minimum administrative and technical requirements needed to enforce these requirements.

Ideally, regulations should fulfill the following sequence of provisions to end-up with an enforcement action:

1. Are clear and understandable

2. Accurately define what water and/or environment activities are subject to the regulation.

3. Precisely define the regulations and the conditions for any exceptions or deviation.

4. Clearly define how compliance is to be achieved by specifying methods and procedures.

5. Clearly state the grace period and define the deadlines for compliance.

6. Are flexible enough to be constructively adapted in permits or licenses.

7. Are based on control and monitoring technologies that are available, affordable and reliable.

8. Are drafted clear enough to be the basis of criminal prosecution (considered as the most serious enforcement action).

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Thank you for your attention

Merci pour votre attention

For additional information please contact:
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