



Sustainable Water  
Integrated Management (SWIM) -  
Support Mechanism



Project funded by  
the European Union

Water is too precious to waste

**Policies, measure & capacity needed to monitor & verify  
compliance. Athens 14 & 15 October 2014**

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# OBJECTIVE OF 7<sup>TH</sup> PRESENTATION

- The objective of this presentation is to identify and discuss the policies, measures & capacity needed to **monitor** & **verify** **compliance**.

# WHAT IS MONITORING COMPLIANCE?

- Monitoring compliance is the most important element of any enforcement program.
- Sustainable water management cannot be achieved without authenticated **good quality data**, monitoring, auditing and accounting for performance.
- Monitoring compliance by **collecting and analyzing** information on the compliance status of the regulated groups is fundamental for the following reasons:
  1. It detects and corrects noncompliance
  2. It assesses the enforcement program progress
  3. It provides evidence to support enforcement actions

National compliance strategy should be based on two basic elements:

- **1<sup>st</sup> Element** involves the establishment of a compliance monitoring program, which sets out the priorities and rationale for conducting on-site inspections and other types of compliance monitoring.
- **2<sup>nd</sup> Element** involves the establishment of an enforcement response policy, which details the appropriate level of enforcement action corresponding to the many ways a regulation can be violated.
- This enforcement policy should also detail the principles & rationale for determining the seriousness of various types of violations as factor in assessing penalties.

# WHAT ARE THE SOURCES OF COMPLIANCE INFORMATION?

- In general there are four main sources of compliance information that regulating authorities in SWIM-SM countries can develop, institutionalize and rely upon.

# I- INSPECTIONS BY PROGRAM OFFICERS

- Inspection is defined as the process by which inspectors determine that a facility is in or out of compliance.
- It includes examination of water quantity & quality records, quality of discharges and other conditions.
- Inspection is considered as the backbone of most compliance monitoring programs in the region.

# FUNDAMENTAL INSPECTION INFRASTRUCTURE

1. Trained staff to conduct integrated inspections.
2. Infrastructure with administrative & criminal prosecuting authorities (police, public prosecutor, municipalities, central government, etc.).
3. Logistics & support equipment - e.g. transportation facilities, sampling equipments, instruments, gears for rapid field assessments, etc.
4. Accredited laboratories for reliable & authenticated water analysis.

5. A functional administrative system to document, follow-up and keep records of inspections.
6. Documentation equipment including video cameras, flash memories, logbook & tape recorder to record information & capture evidences.
7. Safety equipment to protect the inspector from hazards that might be encountered during inspection.

# WHAT ARE THE FUNCTIONS OF A WATER INSPECTORATE?

1. Provide advice to permit applicants, communicate with the licensing authorities during the planning stage of new projects.
2. Assist the licensing authorities to define the content of the permits.
3. Advise & assist the regulated parties to comply with the regulations on the occasions of the inspection.
4. Define and impose remedial actions if necessary.
5. Apply or recommend sanctions if needed (fine, fees levied against the regulated party corresponding to the amount of money it made while avoiding compliance).

6. Follow-up results of monitoring on the occasion of the inspections & consolidate the results of the monitoring activities.
7. Prepare and maintain records on **(1)** performed inspections, **(2)** observations, **(3)** taken actions, **(4)** results of measurements, **(5)** samples analyzed and other **(6)** relevant information. Videos on compact disks, USBs and sound record keeping are essential for future enforcement activity (e.g. court case) if systematic violations of a permit occur.

6. Prepare and disseminate updated information to the regulated community on the regulations and on the currently available technologies leading to compliance.
7. It is also important for the inspectorate to play a role in keeping the public informed about the **(1)** current water quantity and quality, **(2)** potential hazards, **(3)** existence of emergency response plans, etc.
8. Finally, it is the implicit task of inspectorates to encourage voluntary compliance by promoting sound water management practices.

## II- SELF-MONITORING, SELF-RECORD-KEEPING & SELF-REPORTING

- **(1)** Self-monitoring, **(2)** record-keeping and **(3)** reporting are three essential ways in which sources can be required to track their own compliance and record or report the results for regulating authorities review.
- This approach heavily relies upon:
  1. public education,
  2. Integrity,
  3. degree of discipline,
  4. technical assistance, and
  5. the promotion of water and environment leadership by members of the regulated community and NGOs.

# III- AREA MONITORING BY REGULATING AGENCIES

- Area monitoring can be another method for the regulating authorities to use for monitoring compliance.
- Area monitoring includes
  1. Ambient monitoring,
  2. Remote sensing &
  3. Over-flights.

## **Area monitoring can be used:**

1. To assess the overall impacts of certain activities such as building dams, assess storage capacity, survey water quality, delineate lakes morphology, etc.
2. To assess trends at a macro scale (increase in turbidity, erosion, eutrophication, plume delineation, stratification, chlorophyll, etc. ).
3. To define the fate, transformation, transport and distribution of pollutants in the water bodies (oil spills, macrophytes, sedimentation, etc.
4. To provide data useful in assessing potential health impacts, risks assessment & communication and
5. To provide a screening device for identifying potential violations particularly where conformity problems may be found.

- **Ambient monitoring** is to determine quality of water bodies & its suitability for various uses including environmental flows.
- **Remote sensing** techniques are not widely used as a regular monitoring technique. It can be used to detect Climate Change (CC) impacts on water resources, geomorphology of rivers and lakes, provide snap-shots on water quality, etc.
- **Over-flights** can be used to monitor illegal discharges, irrigated crop patterns, groundwater reserves, desertification, flood & drought management, etc.

# IV- CITIZEN COMPLAINTS

- The public complaint process is one of the most common mechanisms for public input to support compliance.
- It usually allows any person to file a complaint with the government regarding activities that are over drafting of water resources or causing deterioration in water quality.
- The regulating authorities are then required to look into the matter & provide a response within a relatively short period.
- Citizen participation in ensuring compliance of regulations through complaints can build a broad-based popular support for what can be controversial enforcement actions.

- Citizen complaints are based on the fact that citizens know the country's land & natural attributes more intimately than regulating agency inspectors ever will.
- Their large number makes them more pervasive than the largest enforcement government agency and seeing citizen as part of the enforcement team helps shield the regulating agencies from isolation.
- Citizen complaints can be used to unveil & expose non-compliance's that are not detected by inspection or self-monitoring systems. However, this source of information is often sporadic, non-consistent & sometimes unreliable.

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Thank you  
for your attention

Merci pour  
votre attention



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