Session 5: How the Conventions promote implementation and cooperation on the ground?

# Tools of the Conventions: *Monitoring and Assessment and information exchange*

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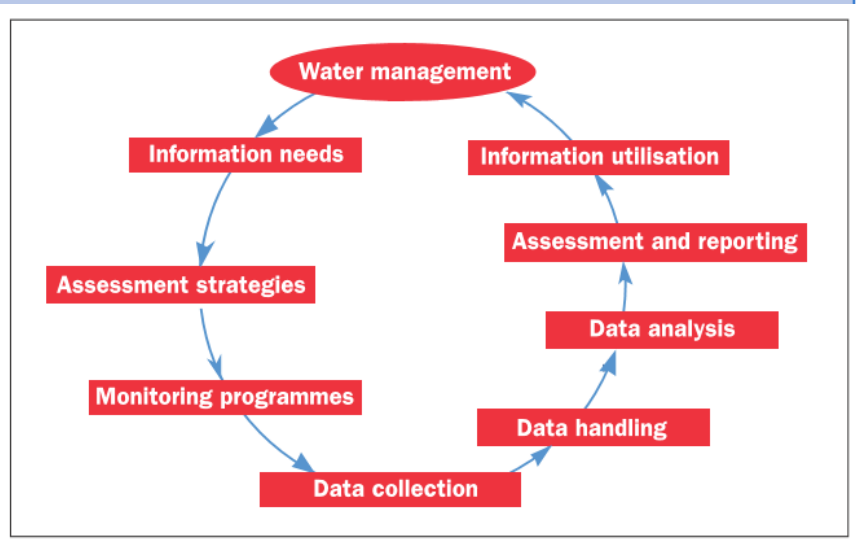
- 1. Relevant obligations under the Conventions



# 1. Relevant obligations under the Conventions (1)

- **Information needs:** *Proper identification of information needs requires that the concerns and decision-making processes of information users are defined in Information needs advance.*
- **Strategies for monitoring and assessment:** *Monitoring strategies should serve as a guide in establishing realistic monitoring priorities, not only in terms of what should be monitored and where, but also in terms of timing and funding. manner.*

- **Monitoring programmes:** *The allocation of monitoring resources should follow a tailor-made approach. Ranking and sectioning areas where potential pollution sources are located, or where groundwater use is high, will make the programme Monitoring programmes more effective.*

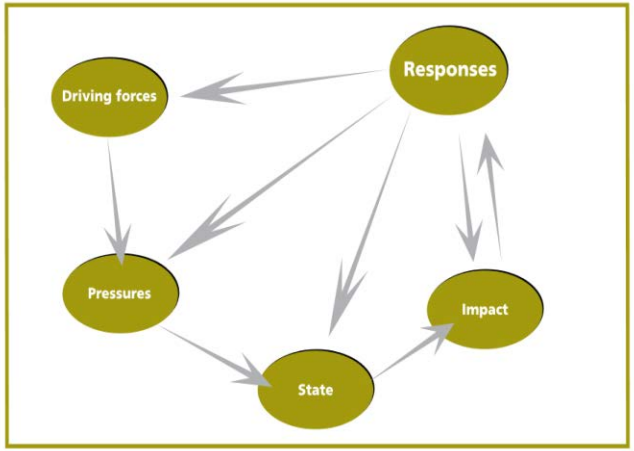
- **Data management:** *Monitoring data collected by riparian countries in transboundary aquifers should be comparable, available for integration with Information utilisation information from a variety of sources and easily aggregated spatially Assessment and reporting and temporally*

# 2. Tool(s) developed to support implementation of the obligations

# I. BASIC PRINCIPLES AND APPROACHES

Monitoring and assessment :

**Driving Forces–Pressures–State–Impact–Responses (DPSIR)** :*The DPSIR framework assumes that social, economic and environmental systems are interrelated. These links are illustrated conceptually by driving forces of environmental change, which create pressures on the environment*




**River basin approach** : ***A river basin means the area of land from which all surface runoff flows through a sequence of streams, rivers and possibly lakes into the sea at a single river mouth, estuary or delta, or the area of land from which all surface runoff ends up in another final recipient of water, such as a lake or a desert***.

# II. LEGISLATION AND COMMITMENTS

- **Relevant UNECE conventions and Protocols:**
  - UNECE Convention on the Protection and Use of TransboundaryWatercourses and International Lakes (Water Convention)
  - Protocol on Water and Health to the 1992 Water Convention
  - Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents onTransboundary Waters (Civil Liability Protocol)
  - Convention on the Transboundary Effects of Industrial Accidents(Industrial Accidents Convention)
  - Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention)
- **EU législation**
- **Other international commitments**
  - Legal obligations
  - International programmes

# III. ESTABLISHING THE INSTITUTIONAL FRAMEWORK

1. **Institutionnel arrangements at the national level**

2. **Institutional arrangements at the transboundary level**

3. **Institutional arrangements related to quality systems**

4. **Frameworks for exchanging and accessing information**

# IV. SECURING FUNDING FOR MONITORING AND ASSESSMENT

**The costs of monitoring should be estimated before monitoring programmes begin, or when major revisions are planned.**

**Monitoring costs can be divided into the following Components:**

- Network administration, including design and revision;
- Capital costs of monitoring and sampling equipment, automatic measuring
- stations and data transmission systems, construction of observation boreholes
- or surface water sampling sites and gauging stations, transport equipment, data
- processing hardware and software;
- Etc

# V. DEVELOPING STEP-BY-STEP APPROACHES

Monitoring and assessment of transboundary waters have multiple purposes.

- **Prioritizing monitoring efforts**
- **Use of models in monitoring and assessment**
- **Using pilot projects:**

# VI. IMPLEMENTING MONITORING PROGRAMMES

- **A. Monitoring and assessment cycle** : Monitoring and assessment of watercourses, including transboundary waters, follow a certain sequence of activities, which is reflected

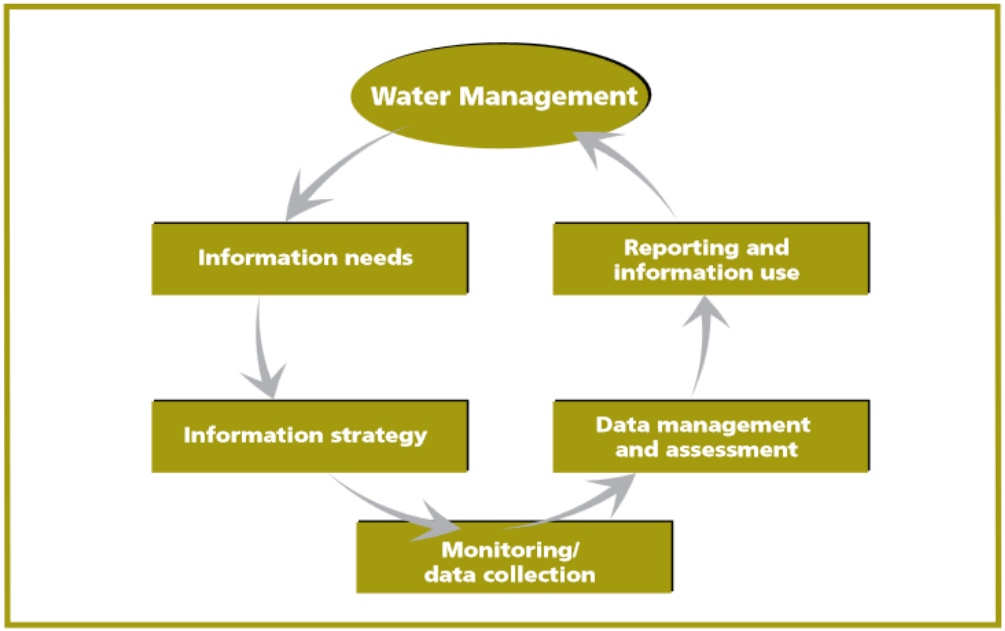



Figure 3: Monitoring and assessment cycle

# A. Information needs

**Information needs should be further specified so as to be able to design a monitoring and assessment programme.**

**The specified information needs should at least lead to**:

- Appropriate variables to be monitored;
- Criteria for assessment (e.g. indicators, early warning criteria for floods or accidental pollution);
- Specified requirements for reporting and presenting information (e.g.
- presentation in maps, GIS, degree of aggregation);
- Relevant accuracy for each monitoring variable;
- Degree of data rel iability;
- Specified response time (i.e. the period of time within which the information is needed), for example, for flood forecasts or early warning systems (e.g. minutes/
- hours), for trend detection (e.g. number of weeks after sampling) and other tasks.

# B. Information strategy

**The information strategy should culminate in a monitoring plan and a plan for gathering data from other sources**

# C. Monitoring/data collection

**This phase also entails high risks in producing reliable and accurate data. Therefore, it is important to employ qualified and experienced personnel and comply with guidelines and standards The main monitoring objectives for rivers, lakes and groundwaters as well as effluents are to generate information, to be used both in national and transboundary contexts, for:**

- Assessing the actual status of water resources;
- Detecting possible long-term trends in water levels or pollutant concentrations;
- Providing for hydrological forecasts;
- Assessing pollution loads from point and non-point sources;
- Testing for compliance with permits for water withdrawal or discharges of wastewater and establishing taxes, fines and sanctions;
- etc

**D. Data management** : to safeguard the future uses of the data that have been collected, the following steps are required before assessments can be made.

- Developing a data dictionary
- Data validation
- Data storage
- Managing data from multiple sources
- Data exchange
- Data analysis and interpretation
- Etc.

**E. Assessment methodology** : The assessment methodology will determine or at least influence the design of the monitoring programme. Therefore, it should be drawn up in parallel with undertaking an analysis of information needs and designing the monitoring programme.

# VII. REPORTING AND USING INFORMATION

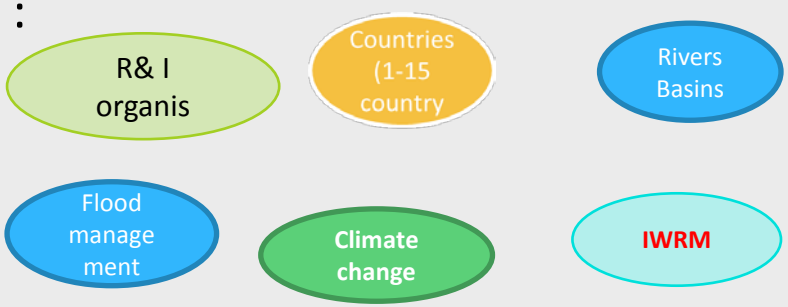
**Reporting**: The main issue is to present the interpreted data in an easily accessible and understandable way tailored to the audience being addressed:

- Reporting obligations
- Reporting formats and audiences

**Information use :** The information produced must be used and should contribute to management decisions. Therefore, the information products in their various forms need to be made accessible and attractive to users.

- 3. Usefulness of the tool in my region and relation to my work in this area

# Usefulness of the tool in my region and relation to my work in this area

| Activitlies | Relate Tools of the convention |
|---|---|
| **Networking :**<br>***1- Water network***<br>***2- Taskforce***<br>  | **Driving Forces–Pressures–State–Impact–Responses (DPSIR)**<br>**River based approch** |
| **Establishment of protocols of collaboration**<br>❑*Water Observatory should established a protocoled of collaboration with the 15 country of ECOWAS For data collection, data analysis, data sharing , information exchange et value-add*<br>❑***We need to build strong and operational prorocols of collaboration*** | ESTABLISHING THE INSTITUTIONAL FRAMEWORK<br>LEGISLATION<br>Quality système<br>Exchange information |
| **Amcow Monitoring and Evaluation report**<br>❑ Focal point of west africa<br>❑ Coordinate, supervise the process of reporting in the country<br>❑ centralize the countries reports et produce the west african report<br>❑ Send the regional report to Amcow | Step by step approach<br>Monitoringprograms<br>Reporting and using information |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