

# IMPLEMENTATION OF THE UNWC: PROCEDURAL RULES *Implications*

3-5 August 2015

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# Procedural rules under UNWC

- **Exchange of information**
  - **International implications: watercourse states to agree on what to exchange, when, at what intervals => *data exchange protocols***
  - **National implications : watercourse states to**
    - **carry out wr monitoring & assessment, within their respective territories;**
    - **arrange adequate databases (by river basin, aquifer, ...)**
- **Information on emergency situations**
- **Notification of planned measures**

# UNWC – Art. 13

## Regular exchange of data & information

- 1. Pursuant to article 8, watercourse States shall on a regular basis exchange readily available data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrogeological and ecological nature and related to the water quality as well as related forecasts.
- 2. If a watercourse State is requested by another watercourse State to provide data or information that is not readily available, it shall employ its best efforts to comply with the request but may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.
- 3. Watercourse States shall employ their best efforts to collect and, where appropriate, to process data and information in a manner which facilitates its utilization by the other watercourse States to which it is communicated.

# UNECE WATER CONVENTION

- **Article 11 - JOINT MONITORING AND ASSESSMENT**

1. In the framework of general cooperation mentioned in article 9 of this Convention, or specific arrangements, the Riparian Parties shall establish and implement joint programmes for monitoring the conditions of transboundary waters, including floods and ice drifts, as well as transboundary impact.
2. The Riparian Parties shall agree upon pollution parameters and pollutants whose discharges and concentration in transboundary waters shall be regularly monitored.
3. The Riparian Parties shall, at regular intervals, carry out joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken for the prevention, control and reduction of transboundary impact. The results of these assessments shall be made available to the public in accordance with the provisions set out in article 16 of this Convention.

- **Article 4 - MONITORING**

*The Parties shall establish programmes for monitoring the conditions of transboundary waters.*

# IGAD REGIONAL WR POLICY:

## *Water resources information management*

- **Water resources monitoring and assessment**

*Member States shall monitor the conditions of their transboundary/shared water resources and related resources, whether individually or jointly, on the basis of monitoring programmes agreed upon among them.*

*Member States shall monitor and assess transboundary/shared water resources and related resources within their respective jurisdictions in accordance with common or comparable procedures, within the framework of national programmes.*

- **Data and information sharing**

*Member States shall cooperate, exchange data and information and consult each other on the conditions of their transboundary/shared water resources.*

# IGAD REGIONAL WR POLICY:

## *Water and climate change*

- **Monitoring climate change and variability**

*Member States shall incorporate climate change considerations into their water resources monitoring and assessment activities.*

# IGAD DRAFT REGIONAL WR PROTOCOL

- **Article 10: Monitoring and assessment**

*Member States shall, individually and, where appropriate, jointly, monitor and assess their transboundary/shared water resources and related resources on the basis of monitoring and assessment programmes agreed upon by them and in accordance with agreed parameters.*

*Member States shall take measures, as appropriate, to monitor the utilization of their transboundary/shared water resources in accordance with agreed or harmonized standards and procedures.*

# Data sharing protocols: examples

- OKACOM Hydrological Data Sharing Protocol (2010)
- Nile Basin Data and Information Sharing and Exchange Interim Procedures (2012)
- Draft IGAD data exchange and sharing policy and protocol



# Transboundary context: Requirements *(inter/state relationship)*

- Harmonized rules for operating (& maintaining) monitoring network;
- Basin water resources monitoring networks;
- Harmonized rules for equipment, methods of data processing, storage & administration, data QC, data transmission, etc.;
- Designation of responsible authority in each state;
- States may agree on joint water resources monitoring & assessment;
- Custodianship & Access to knowledge
  - Data bank (basin/aquifer, regional, national, etc.)
  - Agree on modalities of access
- Capacity building

# Scope of resource monitoring & assessment

- **Surface water**
- **Groundwater**
- **Protected areas, wetlands, other specific situations, since there might be specific requirements**
- **Quantity and quality**
- **Risks**
- **Climate variations and their effects**
- **Other**

# Basin information systems: examples

- Nile Information system: content

- Hydrology

- Evapotranspiration

- River flow

- Sediment

- Water quality

- Climate

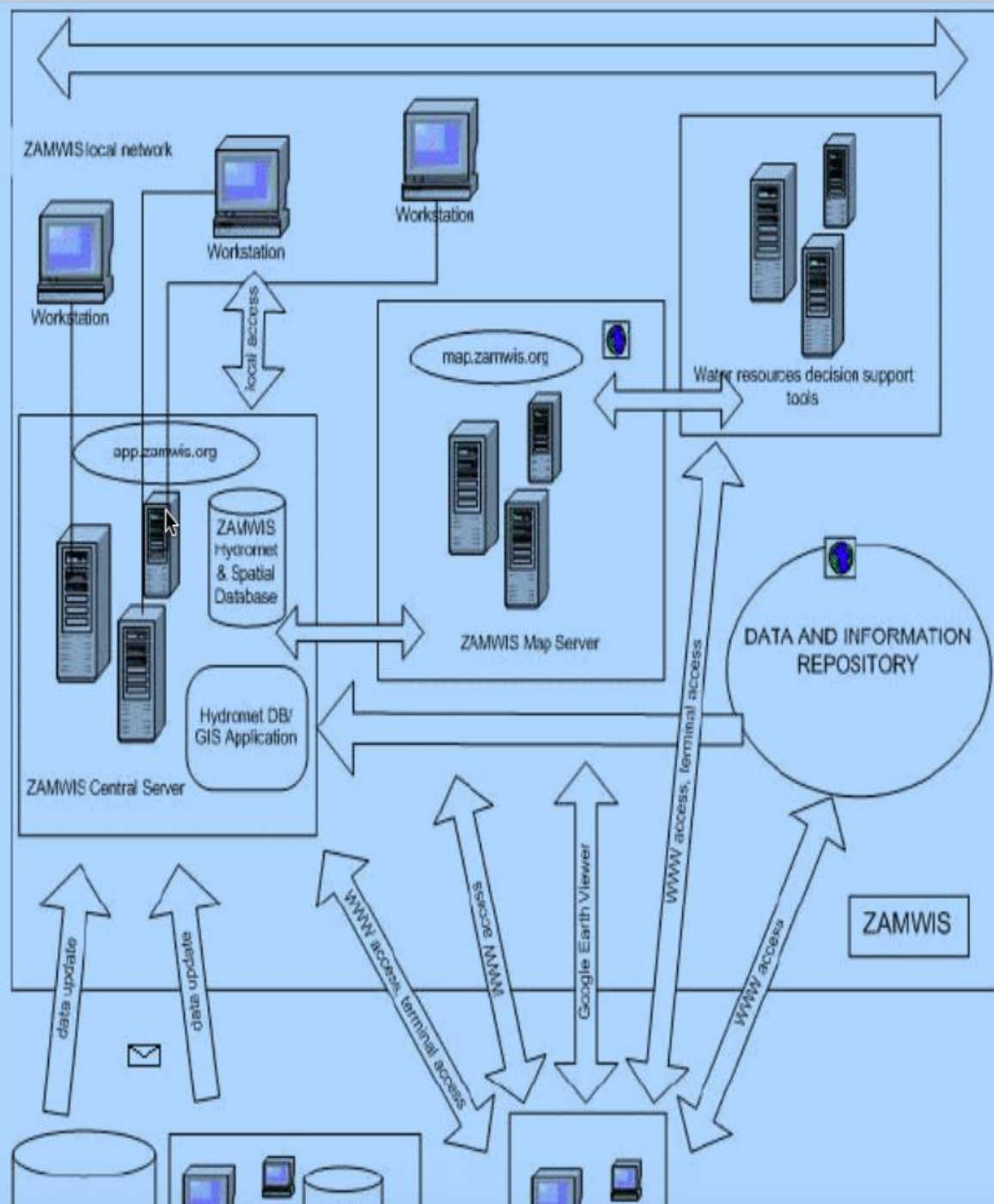
- Rainfall

- Temperature

- Wind speed

- Environment

- Socio-economic



# National context: Requirements

- Present situation: in many countries many institutions collect & process data independently
- Need: one institution responsible for coordination
  - may be at the basin/aquifer level
  - may be at the national level
- Monitoring to take place within the framework of a programme
- Data and information to be stored by, or with reference to, basin/aquifer
  - Must be accessible by institutions concerned
  - Access by the public

# IGAD countries: national legislation

Djibouti Water Code 1996	Ethiopia W.R. Procl. 2000	Kenya Water Act 2002	Somalia -	S.Sudan -	Sudan Water Act 1995	Uganda Water Act 1995
Water Directorate: WR monitoring & assessment; coordination, centralization & diffusion of data & info. Administered by WS, CERD & MeteoDir.	Now MWE, but RB Authority has mandate for RB <i>Monitoring data fed into MinFinance (Statistics Agency)</i>	National WRM Strategy to provide for national monitoring & info systems. Several institutions (NEMA, regional development authorities), which duplicate WRMA	No formal data collection. Some scattered rainfall and weather stations Due to war, hydrometric network in disrepair: no monitoring. Data collection resumed after SWALIM rehabilitated river gauges (2002-2008).	No policy and legal framework for data collection & admin. Data collected by many institutions .	By MWRE WR Department and GW Department; Min. Physical Planning & Public Utilities (on water distributed)	DWD: surface w, gw, quality. Persons to keep records. Under NEA persons carrying activities with significant impact to keep records (for env. Inspectors). No mechanisms for data coordination .

# Possible content of a monitoring programme

- *responsibilities for monitoring and monitoring coordination*
- *monitoring locations and monitoring stations (incl. transboundary locations), and criteria for the selection thereof*
- *frequency of monitoring*
- *start and end dates of monitoring*
- *parameters to be monitored for surface water and groundwater, for water quantity/(hydromorphology) and water quality*
- *monitoring requirements for protected areas, wetlands or other specific situations*
- *methods to be used for field measurements, sampling, laboratory analysis*
- *equipment to be used for measurements, sampling, laboratory analysis*
- *quality management procedures (QA/QC)*
- *data handling, including validation, processing and storage*
- *interpretation and presentation of the monitoring results*
- *requirements on reporting on monitoring results.*

# Procedural rules (cont'd)

- **Notification of planned measures**
  - **At the basin level, need to agree on**
    - **what types of projects/activities should be notified,**
    - **When (at what stage)**
    - **technical details to be notified,**
    - **documents to be provided,**
    - **detailed procedures,**
    - **Authorities involved (and interaction with basin/aquifer – or regional - organization, if any)**
- **EIA**
- **Stakeholder participation**