Thematic Work Group 3 - Basin governance

IWRM indicators in transboundary basins

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WATER INFORMATION AND INDICATORS ARE NEEDED!

We cannot manage that we cannot measure!!

- WATER INFORMATION AND INDICATORS HAVE TO BE USED AS AN OBJECTIVE BASIS FOR:
  - DIALOGUE BETWEEN STAKEHOLDERS,
  - NEGOTIATION,
  - DECISION-MAKING
  - EVALUATION OF UNDERTAKEN ACTIONS,
  - REPORTING AT DIFFERENT LEVELS,
  - COORDINATION OF FINANCING FROM THE VARIOUS DONORS
  - INFORMATION OF THE GRAND PUBLIC.
TWO KINDS OF INDICATORS ARE NEEDED:

• INDICATORS TO EVALUATE UNDERTAKEN ACTIONS EFFICIENCY,

• INDICATORS TO EVALUATE QUALITY OF BASIN GOVERNANCE.

We cannot manage that we cannot measure!!
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To measure, we need good data… 😊

These data are produced in the field by many stakeholders …

To produce indicators, we need first to organize WATER INFORMATION SYSTEMS !!

In transboundary basins, data have to be produced by riparian countries
WATER INFORMATION SYSTEMS ARE NEEDED!

• BUT, THIS INFORMATION IS TOO OFTEN DISPERSED, HETEROGENEOUS AND INCOMPLETE ... AND IT IS RARELY COMPARABLE AND ADAPTED TO THE PREREQUISITES FOR OBJECTIVE DECISION-MAKING.

• IT IS NECESSARY TO DEFINE COMMON STANDARDS AND FRAMES FOR GLOBALLY GATHERING COMPARABLE INFORMATION, PRODUCED BY THE VARIOUS STAKEHOLDERS.

• THESE INFORMATION SYSTEMS ARE PRIORITY TOOLS TO BE IMPLEMENTED IN ORDER TO SUPPORT AN EFFECTIVE POLICY FOR WATER RESOURCES MANAGEMENT AND RISK PREVENTION!
COMPLEX INFORMATION SYSTEMS

Data Production
Data Transfer
Data Storage
Data Interpretation and Use

- measures
- withdrawals
- analyses
- location

- automatic
- on-line
- manual
- periodical

- Banks
  - thematic
  - geographic
  - specialized
  - general

- models
- expert systems
- warning
- telematic
- directories
- mapping
- assistance to decision-making
- publications

AUTOMATIC WARNING OR OPERATION SYSTEMS - "SLOW" SYSTEMS FOR STATISTICS
- Surface water (Rivers – Lakes)
- Groundwater
- Wetlands

- Quantity
- Quality
- Ecology

- Requirements
- Abstractions
- Discharges
  - Flowrates
  - Pollution

- Frequencies
- G.I.S
- Cost, budget...
All kinds of water and environments Must be taken jointly into consideration

* surface waters
* groundwater

* transitional water
* coastal waters...
* Aquatic ecosystems
* Spacial planning
INTEGRATED WATER RESOURCE MANAGEMENT

- OVERALL MEETING
  OF RATIONAL AND LEGITIMATE DEMANDS
    Agriculture          Electricity
    Domestic uses       Transports
    Industry            Leisure- Tourism
    Fish farming        Fishing

- WASTEWATER TREATMENT AND RECYCLING,

- CONSERVATION OF ECOSYSTEMS: AND LANDS
  rivers, lakes, wetlands, aquifers, costal areas, forests, lands

- RISK PREVENTION:
  Erosion
  Drought
  Floods
ALL MAJOR WATER USES ARE CONCERNED

**Urban uses:**
- drinking water supply
- wastewater treatment

**Industrial uses**
- abstraction
- discharges

**Agricultural uses**
- abstraction
- diffuse discharges

**Recreational / ecological uses**
- angling
- bathing...

**Hydropower**
- Powerplants cooling

**Inland Navigation**

**Conservation**
- of ecosystems:
  - rivers, lakes, wetlands, aquifers, coastal areas,
Governance and indicators

HARD
Investments, agenda, costs, ...

SOFT
Governance,
Legal framework,
Ownership, IWRM,
Participative planning,
Funding, Monitoring +
Information System
Integrated information and monitoring systems, which are reliable, representative, harmonized and easily accessible, and specific research, should be organized in each basin...
In the European Union,

50,000 "WATER BODIES" have been identified:

- River WB = 27,455
- Lake WB = 10,060
- Groundwater WB = 7,719
- HMWB/AWB = 5,783

European Hydro – eco-regions

THE DEFINITION OF COMMON FRAMES OF REFERENCES.
KPI (Key Performance Indicators) have been tested in 10 transboundary basins in Africa:

- Niger (ABN / NBA)
- Volta (ABV / VBA)
- Victoria Lake (LVBC)
- Nile (NBI)
- Congo (CICOS)
- Sénégal (OMVS)
- Gambia (OMVG)
- Okavango (OKACOM)
- Orange (ORASECOM)
- Lake Chad (CBLT / LCBC)
THANK YOU FOR YOUR ATTENTION!