Water Information Systems:
Tools to support knowledge and management of water resources, aquatic environments and their uses

Side-event at the French Pavilion
18 March 2009
SYNTHESIS and RECOMMANDATIONS

5th World Water Forum- session 6.4.1.
Marie-Perrine Miossec, ONEMA, FRANCE
6 experiences of water information systems

Establishing a national framework for water data supporting water policies in France, Patrick Lavarde, French National Agency for water and Aquatic Environments – ONEMA –

The Water Information System for Europe – (WISE), Beate Werner, European Environment Agency – EEA –

Water information systems in the South and East Mediterranean, Eric Mino, Euro-Mediterranean Information System on know-how in the Water sector – EMWIS-

Brazilian National Water Information System (SNIRH), Mauricio Cezar Rebello Cordeiro, National Water Agency of Brazil


MULTIPLE AIMS AND BENEFITS

Inform citizens
Facilitate public participation in decision making processes

Analyse the water system (status, pressures, use....)
Support decision making
Assess efficiency of policies and check compliance with implementation requirements of these policies

Need to raise awareness of benefits of Water Information Systems as key features for water management and governance
MUTIPLE ACTORS AND SCALES

Environmental objectives set at **International, regional and national levels**

Measures and monitoring implemented at the **local / basin level**

Applied at local, basin, national, regional and international levels

Example: Shared Environmental Information Systems in Europe

Need cooperation structures from local to national to regional levels
ESSENTIAL TO ANCHOR WIS IN HYDROLOGICAL UNITS

GIS reference layer ensures geographically relevant and correct assessments

Water relevant statistics (status + use):
- Need to relate to hydrological units
- Need to be disaggregated to river basin districts/subunits
- Need to be comparable over transboundary river basins

Example: Brazilian National Water Resources Information System applies a hydroreferencing system; all the information is geographically indexed

Leave data, information and basic quality assessment and control at source
STANDARDIZATION IS ESSENTIAL

Objectives: reliable and comparable data
- Transparency and efficiency
- Shared definitions, tools, methodologies
- Inter-operability

Ensure harmonised format, streamlining of definition and methodologies at national/regional/international levels
LEGAL FRAMEWORKS AND RESOURCES

In every country, and especially in developing countries, there is a huge quantity of information on water, but a lot of it is not widespread and not accessible.

Main barriers identified are:
- Lack of legal framework for reporting/sharing water data
- Lack of resources (human, technical and financial)
- Lack of capacities

Supra-national and national legal frameworks

Examples:
- In 2003, the Brazilian National Water Resource Information System was established by the Brazilian Water Bill as one of the five instruments for the management system.

- EU Directive INSPIRE on infrastructure for spatial information and EU WFD

Need political commitment to improve data management (from production to dissemination)
CAPACITY DEVELOPMENT

Need to develop national and local capacities and tools for data collection, analysis and dissemination to better inform policy making and to empower user communities and citizens.

Take profit from new technological developments in data collection techniques (including remote sensing) and knowledge management tools.

Examples:
- EMWIS = 16 national water information portals federated in a Mediterranean network using common standards.
- Water Monitoring Alliance of the WWC is a Global Knowledge Platform to Improve Accessibility, Exchange and Use of Water Monitoring Information & Data.

Importance of networks to share best practices.
Some key remarks and questions from the debate

- Need to distinguish data, indicators and knowledge: how to make best use of the data we collect?
- How to ensure adequate funding for long-term sustainable monitoring networks, especially in developing countries?
- Do we need regulatory and enforcement rules or can we develop incentives for voluntary use of shared information systems?
- How to ensure optimal coordination between the various information systems at the global level to create synergies and avoid duplications?
THANK YOU!