

Session 4/5 -  
Recent Achievements and Future Plans  
for National Water Information Systems  
in OECD countries

Rapporteur:  
Beate Werner  
European Environment Agency

# Session 4/5 national water information systems - **Information Systems**

- IS can be a reporting framework or a technical IS with physical data collection, storage and assessments
- Common problems to all information systems are: lack of data, maintenance issues, integration with policy processes
- Economic data (financial and e.g. use/abstraction) are less well represented than physical/hydrological data in most IS
- Social information is crucial but so far hardly covered in national IS



# Session 4/5 national water information systems - **Information Systems**

- Chain of data, monitoring, information, indicators and knowledge is common to all information systems.
- Whole chain has to be built up policy relevant, taking into account the specific needs and regional boundary conditions of (sustainability of) water management.
- Different focus/balance might be needed on operational (for river basin management) and wider strategic level regional and international policy evaluation.
- For operational/planning level, RB approach is crucial



# Session 4/5 national water information systems - **assessments/targets**

- The data, indicator knowledge chain has to relate to concrete (environmental) policy targets. (e.g. EU GES in WFD), set as a political decision, based on sound scientific data (supported by the IS).
- Environmental targets (e.g. environmental flow ) are used in several countries and need to be set on RB level (classification)

# Session 4/5 national water information systems - **Driving Forces**

- **From crisis management to long term preparedness**
- Need to build up long term information systems with long term consistent data series without being dependent from short term policy priorities and interests.
- CC adds to the urgency and puts extra challenges (modelling)
- financial investments and sufficient funding are essential (e.g. \$450 mio in Australia)

# Session 4/5 national water information systems - **Driving Forces**

- Legislative background helps financing and enforcement of monitoring and data collection
- Data collections from an international level have to be of use also for the countries and data providers (OECD), which can be the case when international requests can drive national internal harmonisation or to raise new important issues.



# Session 4/5 national water information systems - **institutional alignment**

- Diversity of involved institutions reflects the complexity of water issues as environmental and economic good
- Policy integration of relevant sectors and public participation are key for awareness, buy-in, operational power and policy implementation.
- IS provide communication platform and the process of their building and operation itself can support institutional integration.
- Decentralised development of information systems is possible and seemed to work in US, (but maybe only in case of a common culture, EU more divers)

# Session 4/5 national water information systems - **Climate Change/modelling**

- Tackle downscaling from GCM to make global (IPCC level) information operable on regional level to inform concrete forecasting and adaptation measures
- Modelling and assessment tools are central element in IS to use data and information on operational level (River Basin) e.g. for flood forecast, drought management and modelling of water quality information in its link to different (point or diffuse) sources



# Session 4/5 national water information systems - **technological setup**

- For distributed, decentralised systems harmonisation of metadata and compatible data interfaces are crucial (EU e.g. INSPIRE)
- Most systems take (raw or aggregated) data, have a central storage unit and an reporting side based on different assessments applications/modelling
- The input side in many systems use monitoring as well as remote sensing and near real time data
- Output sides are increasingly building on web services links to mobile phones, sms services (also citizen input?)

# Session 4/5 national water information systems - **assessments/accounts**

- Water accounts are element of many of the presented information systems (Mexico, Israel, Austria), but are done in different ways.
- Economic information is, if at all, covered in national IS often related to an accounting form.
- In principle the SEEAW can provide a useful "box" for data collection, common terminology and gives structure to the information collection in the different tables

# Session 4/5 national water information systems - **assessments/accounts**

- However enough flexibility is needed to allow application in the different national and regional context. (e.g. Australia, EU, OECD....)
- this flexibility ensured, accounts might in particular help to give a good common basis for environmental-economic assessments, communication with the statistical community and ensure the integration and policy relevance for economic assessments (for EU ev. relevant for the economic analysis under the WFD)

# Session 4/5 national water information systems - **assessments/accounts**

- However to go further into policy relevant assessments, the concrete proposal of SEEAW with the part so far covered by hybrid accounts have to be further developed and specifically adapted to allow for region /and RB) specific assessments.
- This developments can be related to the upcoming review processes of the OECD questionnaire and the SEEA(W), but have to be steered by the users in member states and regions.