Interfacing mechanism between science and policy

An EC case study on floods and droughts

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Philippe QUEVAUVILLER
European Commission
DG Research
Directorate I 'Environment'
Global Drivers of Change:
Need for understanding interactions

From Richard Harding, Centre of Ecology & Hydrology (WATCH)
Climate related natural hazards will increase throughout Europe, although different type of hazards will predominate in different regions e.g.

- Increasing risk of floods, snowmelt-related floods, flash floods
- Possible storms increase in the north-eastern Atlantic, decrease in storminess and wind intensity in the Mediterranean
- In mountains, change in $T^\circ$ and snow conditions may increase avalanches, affect permafrost and rock falls
- In the Mediterranean, decrease precipitation and increased temperature may lead to a longer fire season and dry season.

But considerable uncertainty e.g. about rainfall trends, magnitude of changes – Different hydrological models give different responses to rainfall drivers
WFD
Adopted on 20.12.2000

River basin districts
Delineation water bodies
2005

Analysis of pressures
and impacts
2005

Design of monitoring
Programmes
2006

RBMP – 2009/2015

Programmes of Measures
2012

GOOD STATUS
OBJECTIVE

6 years cycle / Review

Parent legislation
& policy trends

☑ Flood Directive
☑ Water scarcity & drought
☑ Disaster Response capacity

Anticipating – Feeding
with research outputs
linked to well defined
Policy milestones
In principle....

Integration

All types of waters
All disciplines, research
Defining measures, e.g. Flood & Drought prevention

Environmental objectives

Water legislation
Multi-stakeholders involvement

River basin management plan
Key underlying principles (1)

- Addressing diversity of flood events across Europe, such as river floods, flash floods and debris flows, coastal flooding
- Different types of droughts (meteorological, agricultural, hydrological) not to be confused with water scarcity (linked to availability and demand)
- Flexibility for planning (risk assessment, mapping) and action at local / regional / sub-basin level whilst ensuring cooperation / coordination across the basin
Key underlying principles (2)

- Building on experience (including research), planning and programmes already in place; using existing cooperation structures such as river basin agreements (links to WFD) and civil protection plans.
Main drivers:

✓ International commitments (e.g. Hyogo Framework for Action), initiatives concluded by the EU and its Member States

✓ Existing and emerging EU environmental legislation and policies

✓ Implementation of the 6th Environmental Action programme, associated thematic strategies and the action plans

✓ Climate and environmental change, their consequences and the link to energy
Establishing links with ‘science-users’
Communication involves two way exchanges of research information

- **who** - is your audience or the users of the information?
- **what** - do they need to know?
- **how** - is it best presented?
- **when** - do they need the information?

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Translators/transformers

a two-way process

Research Community

“Doers of science”

“Translator/Transformer”

“Users”

(e.g. Policymakers & regulators)

DEFINING THE NEEDS

TRANSLATING & UNDERSTANDING

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Courtesy of Peter Allen-Williams (IWRM.Net) & Bob Harris
Research results
Four stages to implementation

- Research
- EC FP7 PROJECTS
- International / National / Regional Policy and Research
- Dissemination
- Communication
- Uptake
- Implementation

Courtesy of Peter Allen-Williams (IWRM.Net) & Bob Harris
One route to find user’s ears: WFD Common Implementation Strategy

Strategic Steering Group “WFD and Hydromorphology”
   Chair: DE, UK and Commission

Strategic Steering Group “WFD and Agriculture”
   Chair: FR, UK and Commission

Water Directors
   Steering of implementation process
   Chair: Presidency, Co-chair: Commission

Strategic Co-ordination Group
   Co-ordination of work programme
   Chair: Commission

Drafting Group “Objectives/Exemptions/Economics”
   Chair: Commission and DK

Working Group A “Ecological Status”
   Chair: JRC, DE and UK

Working Group C “Groundwater”
   Chair: Commission and AT
   “Chemical Monitoring”

Working Group D “Reporting”
   Chair: Commission, EEA and FR
   “GIS” Expert Network

Working Group E “Priority Substances”
   Chair: Commission
   “Chemical Monitoring”

Working Group F “Floods”
   Chair: Commission

Stakeholder Forum “Water Scarcity and Droughts”
   Chair: Commission
   Co-Chair: FR/ES/IT

Art. 21 Committee

Stakeholders, NGO’s, Researchers, Experts, etc.
Interfacing mechanism

- **R&D, tools**
- **Research recommendations**
  - When needed (short to long-term)
- **Scientific knowledge**
- **INTERFACE**
- **Transfer & dissem. “usability”**
- **Demonstration, practical works**
- **Data infrastructure “memory”**
- **Interactive interface**

**POLICY-MAKERS**
- Member States
- Commission
- Int. organisations
APPLICATIONS
River basins
Sectoral needs

INTERFACE
Multi-stakeholder
Expert groups

DEVELOPMENT

IMPLEMENTATION

RESEARCH
EU-wide or National (ERANET)

POLICY
Review, Integration, Research needs

Formulation

Demonstration (applicability)

Gap identification

Communication

REVIEW

Seventh Framework Programme
Linking efficiently research and Flood & Drought EU policies…
Africa call (drought)

2009 2015

Directive 2000/60/EC
Directive 2007/60/EC
First River Basin Management Plan

ACQWA
IMPRINTS
CIS-WG F
“Promoting early action”

ANTICIPATING RESEARCH NEEDS?
ENSURING APPROPRIATE TRANSFER?

FLOODsite
HYDRATE
WATCH/ CIRCE
XEROCHORE

Link with HFA?
Conclusions

• EU-funded research establishes close links with international policy developments e.g. through participation in IPCC, UNFCCC, ISDR etc.
• At EU level, direct support to policy developments and implementation with participation of policy-makers and stakeholders in research consortia and involvement of scientists in policy discussions
• At international level, European inputs are fully relevant to carry out worldwide and multidisciplinary research on climate change impacts on water
• However, strong need for strengthening the efficient transfer of research knowledge to policy-makers with the perspective of reducing uncertainties of predictive scenarios for better decision-making at policy level
Thank you very much for your attention

More info on
http://ec.europa.eu/research