



Newsletter on the Human Dimension in Water Management



December 2004

Supported by the European Commission

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1 Implications for EU policy emerging from socio-economic projects on water management meet with the European Commission

Workshop with representatives of Intermediaries, HarmoniCOP, Euromarket and the Directorate General for Research & Technology Development in Bruxelles

What implications for EU policy are emerging from socio-economic research projects on water management funded under the 5th Framework Programme? What prospects are there for building on this knowledge resource under the future 7th Framework Programme? These two questions were the subject of a workshop

organised by DG Research on 24 November in Brussels.

In the morning session, attended by representatives from eight Directorate Generals and the Secretariat General, preliminary results from three ongoing research projects were presented and

assessed in terms of their EU policy relevance:

Timothy Moss (Intermediaries) described how intermediary organisations in the water sector are advancing the implementation of EU water policies, developing novel modes of policy delivery and linking water management to other EU policy issues (e.g. new services and jobs, public health, urban and regional development).

Claudia Pahl-Wostl (HARMONICOP) illustrated the importance of social learning in resolving conflicts and promoting collective action in river basin management and introduced tools developed by the research to assist greater public and stakeholder participation in implementing the Water Framework Directive.

Matthias Finger and Jeremy Allouche (EUROMARKET) presented six scenarios of water market liberalisation in the EU on the basis of earlier analyses of EU water policy and the structure of water markets in selected European countries.

Overall, the session emphasised the importance of generating awareness about EU-funded research projects amongst other

Directorate Generals engaged in work relating to water management and revealed important fields for potential collaboration in the future.

The afternoon session entailed a more informal discussion of the prospects for funding social science-led research in the 7th Framework Programme in general and in the thematic priority on the environment in particular. Presentations by Gilles Lequeux and Marialuisa Tamborra (both DG RTD) outlined current thinking on the structure and priorities of FP7 and the scope for socio-economic research both vertically (at the single programme level) and horizontally (across all programmes). In the subsequent discussion these inputs were reflected critically but constructively from the perspective of experiences gained in bidding for, and participating in, research projects under the 6th Framework Programme.

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2 New Integrated European Research Projects NeWater and AquaStress with prominent role of human dimensions in water management

Insights from and the capacity developed in the context of the HarmoniCOP and other FP5 EU projects feed into further research. For further information on the projects: pahl@usf.uni-osnabrueck.de

The NeWater project (New methods for adaptive **water** management, coordinated by the Institute of Environmental Systems Research, University of Osnabrück) aims at a paradigm shift in water resources management in both research and practice. **NeWater** will develop new methods for integrated water management taking into account the complexity of the river basins to be managed and the difficulty to predict the factors influencing them (e.g. climate, socio-economic developments). **NeWater** will focus in particular on the transition from

current regimes of water management in a river basin to more integrated, adaptive approaches with strong stakeholder participation. The project has case studies in Europe, Africa and Central Asia, where new methods are developed and tested in participatory settings.

The AquaStress project (Mitigation of Water Stress through new Approaches Integrating Management, Technical, Economic and Institutional Instruments, coordinated by IRSA, Istituto Ricerca Sulle Acque, Rome) will generate scientific

innovations to improve the understanding of water stress from an integrated multisectoral perspective to support diagnosis and characterisation of sources and causes of water stress, assessment of the effectiveness of management measures and development of new options and the development of a participatory process to implement solutions tailored to environmental, cultural, economic

and institutional settings. The project has case studies in the Mediterranean region in Europe and North Africa.

NeWater and AquaStress will cooperate closely to capitalize on synergies and to strengthen the international visibility and the impact of the innovative research to be pursued under their umbrella. The projects will start January/February 2005.

3 NOSTRUM-DSS: A new Co-ordination Action for bridging the communication gaps between science and policy in water resources management

NOSTRUM-DSS Network on Governance, Science and Technology for Sustainable Water Resource Management in the Mediterranean. (EC Contract No INCO-CT-2004-509158). Project Co-ordinator: Carlo Giupponi, Fondazione Eni Enrico Mattei, Italy. For further information on the project: nostrum@feem.it

The Mediterranean basin is one of the areas where water resource scarcity and conflicts between different water users are more dramatic. The need and relevance for sustainable integrated water management strategies is therefore clear. The great theoretical potential of Dss tools for helping policy makers to bring the principles of Integrated Water Resources Management (IWRM) into practice for managing socio-political conflicts over competing demands for water uses in different environmental situations seems to be not yet exploited.

The key objectives of NOSTRUM-DSS Co-ordination Action are:

1. To establish durable links between scientific institutions, governments, NGOs, SMEs and other stakeholders and improve public awareness on water management;
2. To improve scientific knowledge and applied methodologies in IWRM;
3. To promote the development of suitable Dss tools built upon real needs of policy making in IWRM.

In particular, NOSTRUM-DSS Co-ordination Action aims at contributing to bridge the gaps between science and real life, in order to provide Dss developers with insight into the language and the needs of policy makers and stakeholders, and subsequently to provide the first with effective tools based on an integrated approach for problem solving. Activities undertaken in NOSTRUM-Dss involve a group of eighteen partners drawn from the North and South of the Mediterranean.

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4 New Project on Global Scale: The Global Water System project (GWSP)

The Global Water System Project is a newly established joint project of the international

program of biodiversity science DIVERSITAS, the International Geosphere

Biosphere Program, the International Human Dimensions Program, and the World Climate Research Program, which together form the Earth System Science Partnership (ESSP). The GWSP aims at providing a sound base for understanding the global dimensions of the influence of

human activities on the water system. Over the past two years the science plan was developed and the project has now entered the phase of implementation. The science plan and further information can be downloaded from the website www.gwsp.org.

5 Announcements

EFIEA/TIAS Conference 28th February - 2nd March 2005, Berlin

EFIEA, the European Forum for Integrated Environmental Assessment and TIAS, The Integrated Assessment Society, will hold a

joint conference 28th February to 2nd March, 2005 in Berlin on the theme Challenges for Integrated Assessment in a Fast Changing World. Further information can be found on the website: www.tias-web.info.

Harmoni-CA Second Forum and Conference, 5 - 7 April 2005, Ghent -1st Announcement

Harmoni-CA1 organizes a series of conferences in support of the implementation of the WFD. These conferences aim to connect a wide range of people for information and knowledge exchange. Scientist, ICT developers and tool providers are invited to support the water managers and policy makers in their work on the implementation. In the first conference in 2004, a number of problems have been identified and responding actions have been put into action.

The second Harmoni-CA Forum and Conference aims:

- to focus on problems may arise from (or may derive from) the national WFD-art.5 reports to be completed by April 2005:
- How can the problems be supported and resolved by means of existing tools and knowledge
- What are the questions that remain unresolved and need future research
- to present existing knowledge (including methodologies and tools) based on:



- Experiences during the preparations of the art.5 reports by the different Member States

- Experiences of the Pilot River Basins on different subjects of the implementation

- Experiences from support by commercial and non-commercial parties

- to link people involved in the actual preparation of Integrated River Basin Management Plans;

- Water Managers in charge of preparing sub-river basin plans

- Specialists and consultants actually supporting these plans

- Developers and providers of tools and data related to IRBMP's

- Researchers involved in developing related knowledge and tools of tomorrow.

Invitations for expressions of interest for (oral / poster) presentations and demonstrations:

- Presentation of problems:

Major relevant problems on national level will be selected in a meeting preceding the conference (by Working Group 2B). Presentations of additional problems are welcome and should be additional to

national problems and relevant in relation to support by ICT tools, methodologies and/or data.

- Presentation of experiences and demonstrations (including tools, technologies and methodologies)

Commercial and non-commercial parties supporting the WFD implementation are invited to present their experiences, methodologies, tools and technologies as have been used in actual activities. Selection

(if necessary) will be done on the basis of deriving an equal spread of parties all over the countries of the EC as well as on being complementary with respect to subjects presented.

Expressions of interest are invited to be send to Harmoni-

CA.WP1@riza.rws.minvenw.nl before January 10, 2005.

For more information please look at our web-site: www.harmoni-ca.info

6 Project News: SLIM research on ‘social learning’ as an alternative policy approach successfully completed

The outcomes of this research are now publicly available at <http://slim.open.ac.uk..> It is likely to be of interest to policy makers, water managers and other researchers interested in developing an interactive social science for natural resource management.

The SLIM project officially finished at the end of May 2004. SLIM was a multi-country research project funded by the European Commission. Its main theme is the investigation of the socio-economic aspects of the sustainable use of water. Within this theme, its main focus of interest lies in understanding the application of social learning as a conceptual framework, an operational principle, a policy instrument and a process of systemic change. A premise of SLIM is that it is very useful to view sustainability as an emergent property of stakeholder interaction, and not the technical property of the ecosystem.

All of the SLIM research outputs, which include a SLIM Introduction, seven Policy Briefings, a ‘SLIM Framework’ and 13 Case Study Monographs can be downloaded under a creative commons licence from the SLIM website. Some of the ‘headlines’ include:

SLIM case studies provide evidence for achieving the transformation of individual and institutional behaviour, at large social scale, with significant technical results, through deliberate investment in multi-stakeholder learning processes (social learning). We propose that these processes be seen as a complementary governance mechanism.

- SLIM research has produced a framework for organising analysis and action in situations of complexity, connectedness, controversy, multiple perspectives and uncertainty, such as water catchments. Included is operational guidance for dealing with complex resource management situations. A full account is given in the publication SLIM Framework. At the core of this Framework is a heuristic device for facilitating changes in understanding and practice. The SLIM Framework has been built based on our case study research and tested in a number of fora, including with Brussels-based policy makers; meets SLIM’s first research objective to formulate an effective operational interactive approach which policy makers at different levels can foster and apply.

- We identify a range of situations where current traditional policy initiatives are not doing well and suggest purposeful investment in Social Learning could do better.

- We identify a number of constraints to enacting a Social Learning Approach as well as factors which are facilitative. Of particular importance is the need for capacity building if social learning is to be used purposefully in the water or other sectors.

7

Projects' news: Briefing paper from Intermediaries

The project "Intermediaries" has recently produced a briefing paper, which can be downloaded under http://www.irs-net.de/texte/intermediaries/Brief_paper1.pdf entitled "New intermediary services and

the transformation of urban water supply and wastewater disposal systems in Europe". Paper versions can be requested from Tim Moss (mosst@irs-net.de)

8

Harmoni-CA/WP5: Expert Meeting on Economics in Water Management Models

18 experts met in Copenhagen to discuss state of the art.

One of the key requirements of the EU Framework Water Directive is the establishment of water management plans in river basins in each of the Member States. Integrative models, which simulate the water management processes, can facilitate the conceptualisation, construction and implementation of such plans. However, models that link hydrological domains, such as groundwater use, water development, water pollution and flood control, with socio-economic issues are currently rare. The Expert Meeting on Economics in Water Management Models on 15-16 November 2004 in Copenhagen aimed to summarise the state-of-the-art and to highlight the future challenges in developing hydrologic-economic models. Leading researchers presented models that apply socio-economic approaches to solve different water problems (<http://hit.infu.uni-dortmund.de/login/html>,

userid: Copenhagen, password: EconoMod). Economic tools, such as the cost-effectiveness-analysis and cost-benefit-analysis, but also policy instruments, such as water pricing, water markets and participatory approaches were considered. One of the main conclusions of the meeting was, that there is a need to improve the modeling of socio-economic processes in river basins and to link them with hydrological-engineering models. Modeling interfaces, such as the OpenMI framework (created by the EU CatchMod project HarmonIT) can help in doing this.

Contact person: Dr. Ingo Heinz, University of Dortmund, Institute of Environmental Research (INFU), Germany, iheinz@infu.uni-dortmund.de, <http://www.infu.uni-dortmund.de>.

9 HarmoniCOP: 9 Case Studies were conducted to test results on social learning and IC-tools

Participation Processes in water management were analyzed to identify best practices for handbook on public participation

In its second year, the HarmoniCOP project

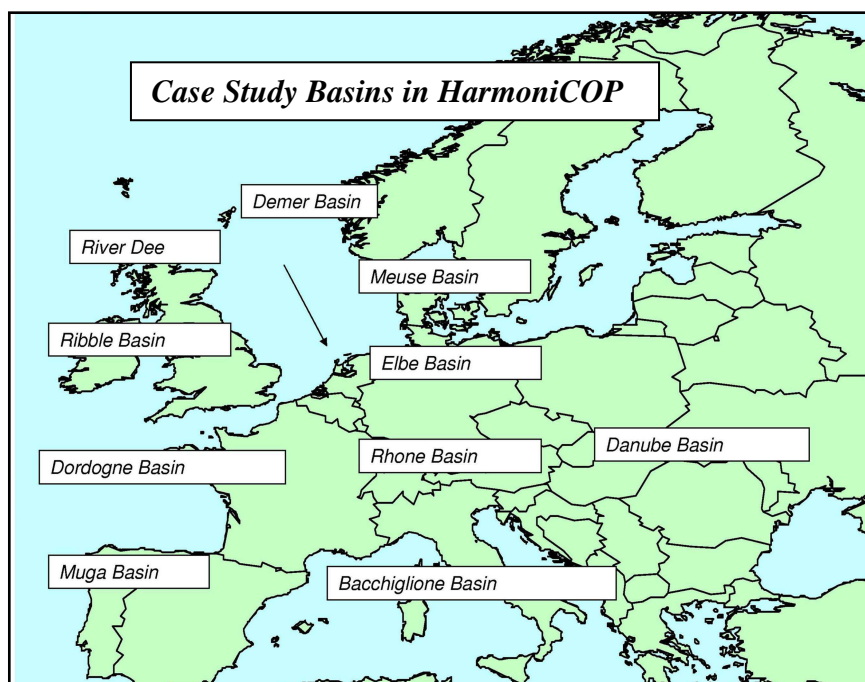
conducted nine case studies which investigated how far an improved application of existing participatory tools and the development of a new generation of improved IC-tools can support the process of implementing the WFD.

The case studies show that the variety of stakeholders involved makes it difficult to train all actors to the same level of technical knowledge.

Tools applied so far played an important role for information supply through GIS- and/ or internet. One reason for that is more sophisticated tools are not very well known among the technical water managers carrying out public participation.

There are, however, also examples for more sophisticated use of tools (e.g. French case). In terms of social learning the concept has been proven to be very supportive to successful participation. The 9 different

cases show also that the diversity of cultures



may give rise to learning difficulties.

You can find the reports for download at www.harmonicop.info. A report on best practices will be delivered in spring 2005. For further information, please contact Yvonne Rees (rees_y@wrcplc.co.uk) oder Bradley Searle (searle_b@wrcplc.co.uk).

10 List of Projects in the HDWM Cluster

Harmoni-CA – Harmonizing Modelling Tools at Catchment Scale

<http://www.harmoni-CA.info>

The concerted action Harmoni-CA will provide guidance on management concepts and ICT tools for river basin management and the implementation of the WFD. Of specific interest for the HDWM cluster is the work package on “Integrated Assessment and the Science Policy Interface” that deals specifically with the involvement of stakeholders in the development of river basin management plans and the representation of socio-economic aspects in river basin management models.



HarmoniCOP – Harmonizing Collaborative Planning

<http://www.harmoniCOP.info>

The project HarmoniCOP explores stakeholder and public participation and the role of ICT tools in river basin management planning using a social learning perspective. HarmoniCOP aims at improving the conceptual base for stakeholder and public participation and provide practical guidance for the implementation of the European Water Framework Directive.

GOUVERNe

GOUVERNe

http://www.c3ed.uvsq.fr/c3ed/Gouverne/PresGOa_n.html

The project responded to the requirement for integrated systems of information permitting coherent policy and resource management decisions covering water uses in Europe. The project developed and implemented in pilot studies a user-based and scientifically validated Decision Support System (DSS) for the improved management of underground water resources at the catchment and sub-catchment levels.



SLIM - Social Learning for the Integrated

EUROMARKET

<http://www.epfl.ch/mir/euromarket>

The EUROMARKET project studies the likelihood, nature, and forms water liberalisation may take in

Management and Sustainable Use of Water at Catchment Scale

<http://slim.open.ac.uk>

This project develops strategic planning methodologies and social tools for the integrated management of water at catchment or river-basin scale and other "bundles" of natural resources. It emphasizes the importance of processes of social learning for integrated resource management.

AQUALIBRIUM

www.aqualibrium.de

This project investigates the implications of the increasing deregulation of national water markets, and the fact that more and more private companies are involved in the water market. It aims at giving an overview on the current debates and analyses the various models of involvement and co-operation between the public and the private sector in the EU member states.



FIRMA

<http://firma.cfpm.org/>

This project explored new approaches to improve water resource planning by developing and applying agent-based modelling to integrate physical, hydrological, social and economic aspects of water resource management. Specific emphasis was given to stakeholder participation and participatory model building and scenario development.



INTERMEDIARIES - New intermediary services and the transformation of urban water supply and wastewater disposal systems in Europe

<http://www.irs-net.de/intermediaries>

This project maps the development of intermediary services and organisations in the water and wastewater sectors, examines how they facilitate the application of new resource-saving technologies and social practices and assesses their impact on the environment, economic efficiency and network management.

Europe in the foreseeable future. This is done by analysing different liberalisation scenarios, depending upon the evolving water markets, the different enterprises' strategies, and the existing

legislation/regulation both at the national and at the European levels.



MULINO

<http://www.feem.it/web/loc/mulino/index.html>

The MULINO project is developing a Decision Support System for the integrated management of water resources. The system includes a decision software based on multi criteria analysis procedures. This software is being developed in collaboration with representatives from water authorities in Italy, Romania, the UK, Belgium and Portugal, and through these relationships is exploring ways to include stakeholders' preferences in the assessment of a decision problem.



EUWARENESS - European Water Regimes and the Notion of a Sustainable Status

<http://www.euawareness.nl/>

focuses on the dynamic relationships between conflicting uses of water resources, the regimes under which these uses are managed, and conditions generating regime transitions towards sustainability. Water basin regimes have been studied in six European countries (Netherlands, Belgium, France, Spain, Italy, Switzerland).

More information:

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AE Enschede, The Netherlands

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Internet: www.euawareness.nl

ADVISOR

<http://ecomana.dcea.fct.unl.pt/projects/advisor>

ADVISOR aims at the delivery of a set of guidelines to river basin authorities and related EU agencies for the execution of integrated evaluation of projects. The theoretical platform thereby established will support the development of new integrated evaluation methodologies and tools, which will incorporate the state of the art of the latest scientific thinking and assessment tools together with modern participatory, multi-stakeholder decision making processes.



PRINWASS - Barriers and Conditions for the Involvement of Private Capital and Enterprise in Water Supply and Sanitation in Latin America and Africa: Seeking Economic, Social, and Environmental Sustainability

<http://www.geog.ox.ac.uk/~prinwass/>

The project develops an indicative framework of strategy and processes, expressed by relevant guidelines, for sustainable water supply and sanitation services in developing countries, taking into account the roles of the state (national, regional, and local government levels), civil society (users associations, citizen movements, etc.), market forces (privatized water utilities), and their interrelations (e.g. public-private partnerships, other forms of private sector involvement in WSS, etc.)

MERIT - Management of the Environment and Resources using Integrated Techniques

<http://merit-eu.net/>

The aim of MERIT is to develop a water resource management methodology to help engage the stakeholder in the decision making process. Bayesian networks are being used as tool to help the decision maker by using input from stakeholders to design and construct the networks. A range of participatory techniques are being developed to facilitate the engagement process.



AQUADAPT - Strategic Tools to Support Adaptive, Integrated Water Resource Management under Changing Utilisation Conditions at Catchment Level: A Coevolutionary Approach

<http://www.aquadapt.net/>

The overall aim of the Aquadapt project is to generate knowledge which supports the strategic planning and management of water resources in semi-arid environments at catchment level under changing supply/demand patterns.

TiGrESS - Time-Geographical Approaches to Emergence and Sustainable Societies

<http://www.riks.nl/projects/TiGrESS>

The aim of the TiGrESS project is to improve the methodology for understanding human-environmental interactions on the basis of three regional case studies.



MANTRA East - The Integrated Strategies for the Management of Transboundary Waters on the Eastern European Fringe - the pilot study of Lake Peipsi and its drainage basin

<http://www.mantraeast.org>

The aim of the MANTRA East Project is to analyze and develop strategic planning methodologies and scientific tools for integrated water management in transboundary water basins following the requirements of the EU Water Framework Directive. The project's special geographical focus is on transboundary water basins located on the existing and future borders of the European Union.



River Dialogue - Empowerment and Awareness Building in River Basin Management Through Focus Groups and Citizens Juries

<http://www.riverdialogue.org>

River Dialogue is aimed at identifying the best approaches to increase public participation in implementation of the EU Water Framework Directive, including preparation and implementation of river basin management plans. The project will practically test two specific participatory methods of citizens' involvement – focus groups and citizens' juries.

WASAMED – Water Saving in Mediterranean Agriculture

<http://wasamed.iamb.it/>

WASAMED is to establish a platform for effective Mediterranean communication and debate on water saving in agriculture, contributing to improved management of limited water resources and sustainable development in the Mediterranean Region.

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