Newsletter on the Human Dimension in Water Management

December 2005

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1 HarmoniCOP: Successful project completion and release of handbook on social learning in water management

The project aimed to increase the understanding of participatory river basin management planning (RBMP) in Europe as required by the Water Framework Directive. HarmoniCOP focused on public participation as a means to foster social learning in RBMP. An approach to social learning was developed in combination with tools and methods meant for supporting social learning processes in water management. The closing conference of the project took place the 4th of October '05. Besides presentations based on different results of HarmoniCOP, other projects and organisation also presented comparable results and experiences. Discussions lead to the conclusion that e.g.

- Social learning can foster changes in the understanding of problems. This can occur at a more local to regional

level but it is harder to receive this result at a higher institutional level.
- The openness of the approach of social learning offers the possibility to better recognise uncertainties and better react to change. The management style becomes more adaptive.
- Resulting out of this social learning also entails new roles for government.

The final output of the HarmoniCOP project is represented by the handbook "Learning Together To Manage Together – Improving Participation in Water Management". This handbook, meant for practitioners of (regional) water management, complements the guidance document on public participation that was prepared in context with the implementation strategy for the European Water Framework Directive. The book will be available by the end of December '05. Additionally, to the printed English version, the handbook can then be found for download on the internet in Dutch, French, Spanish, Hungarian, German, Italian and certainly also in English (www.harmonicop.info). The website will also contain the possibility for uploading additional resource documents on participation and social learning as well as the possibility to comment the HarmoniCOP handbook. With your help it may become a 'living document'.

To gather first experiences with the handbook content, training workshops on social learning were conducted in most of the HarmoniCOP partner countries. The invited practitioners – all dealing with the WFD implementation- welcomed the support of stakeholder participation by the HarmoniCOP concept of social learning and in particular the different tools and methods proposed in the handbook. The trainings confirmed that people want to get involved in "water collaborations" and they are generally confident about their technical knowledge but feel insecure in regard to communication styles and team management as well as dealing with other organisations or individual people. For further information please contact Dagmar Ridder on dridder@usf.uni-osnabrueck.de

2 'Aquadapt' project completed

Insights into European attitudes to water policy mechanisms and the adaptive cpacitry of water governance regimes.

The need to place strategic water management for arid and semi-arid areas on a robust theoretic footing has presented a challenge to the scientific and practitioner communities for several decades. Meaningful debate on the relative merits of different water policy mechanisms can only be conducted in the context of a broader appreciation of how water supports and nurtures our societies. The starting point for the AQUADAPT project has been a perspective on this relationship which emphasises connectivity and feedback. The challenges facing those charged with planning and managing our water resources are increasingly characterised by inter-scale, multiple-element and dynamic patterns of demand and supply. That the various aspects of the water environment (water availability & quality, land use, governance regimes, etc.) are mutually influential is therefore an intuitively powerful concept. Our ambition has been to explore just how useful this concept might be.

The broad aim of our study was to expose variations in the determinants of water use at individual, family, community, and catchment levels across four European countries (France, Spain, UK, and Slovenia).

We were particularly interested in why and under what conditions individuals might alter or modify their water usage patterns (quantities used, quality required /accepted, and timings of use) in response to changing economic conditions and demand management tools such as price and education initiatives. We investigated the attitudes of consumers towards water (e.g. as a communal resource, as a right, as a commodity) and the use of it for domestic, leisure, industrial and agricultural purposes, focusing on variations in water quality and water availability (in terms of both volumes and the timing of access). Findings suggest that although the environment and water are not considered as a major problem for European citizens, survey results demonstrate that respondents have a high concern about water issues. The high willingness to accept different kinds of measure to decrease water consumption must be taken into account when making decisions to activate such demand side strategies. On the other hand, the lack of knowledge about the process of tap water and the lack of interest in participating in public debates are the main challenges to be addressed in order to design sustainable strategies of water use.

The primary goal of our work on governance structures has been to investigate how they adapt to increasing water stress. Working in catchments in Spain, France, The Netherlands and the UK, we structure our analysis to address five classes of issue; levels and scales, actors and networks, perspectives and objectives, strategies and instruments, and resources for implementation. Findings from this element of the project suggest that whilst there is already a long tradition of adaptation in the water management sector, existing modes of water management and water utilisation are often preserved due to the fact that property rights do matter and maintain rivalries. We also conclude where adaptive responses can be identified they are often triggered by a sense of urgency. However, significant changes to the structure or terms of reference of governance bodies are more likely to be initiated by broad political initiatives rather than as a response to disparity in the supply-demand balance. For further information on the outcomes of the Aquadapt project please contact Dr. Paul Jeffrey at the School of Water Sciences, Cranfield University, UK. (p.j.jeffrey@cranfield.ac.uk) or visit the project website at www.aquadapt.net

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3 Public participation and the implementation of the European Water Framework Directive 2000/60 in Italy

Conclusions of the conference organized by Gruppo 183, University of Udine and IEFE- Bocconi, Milan the 30th of May 2005.

Which are the conditions and requirements to implement public participation in Italian water management and planning, how can public participation contribute to creating an effective and efficient management system, and what are the specific features of public participations in the water sector? These are the main challenges that the Italian water management system is facing, and these were the questions addressed during the conference organized by the University of Udine, Gruppo 183 and IEFE Bocconi in Milan, the 30th of May 2005.

Public participation in water policy

However, in order to be efficient and operational, public participation has to be institutionalized at legislative level and has to be modelled, with the intervention of specific expertise, and subsequently adapted to local features. In this way, public participation can be the key to help bringing conflicts and confrontation among the

various stakeholders into the planning and management activity, therefore avoiding them to prevent the system from functioning. [*Antonio Massarutto, University of Udine and IEFE Bocconi*].

Various approaches to public participation in water management have been experimented with in Italy, especially in the Veneto Region, where they have been promoted by the *Italian Association for a better culture and quality of the rivers* (CIRF). The aim of these various initiatives was to involve the public in the planning system at different stages, in order to increase consensus for the administrative bodies and subsequently to guarantee compliance and enforcement. CIRF witnessed positive outcomes in various cases of this nature, like the establishment of a local Agenda 21 to support the planning activities of the River Basin Authority; or like the promotion of River Contracts, which raised confrontation among the various stakeholders involved in water management. Among other initiatives, CIRF also promoted education towards public participation, organising seminars, on-line discussion groups and courses on water management, fundamental activities to raise public awareness [*Erich Trevisol, CIRF and IUAV Venice University*].

The main requirement to guarantee operational efficiency and effective public participation is to model participatory processes, in order to avoid failures in the system. A model facilitates the interaction between science, administrative bodies and stakeholders, planning step by step the process. The Mulino project, for example, modelled the process in five stages: a) problem exploration, b) analysis and evaluation matrices, c) decision rule - ranking, d) sensitivity analysis, e) sustainability analysis. The NetSyMod project, which followed the Mulino project and is still at an experimental stage, aims to model even more in details the participatory process trough: a) identification of actors, b) social network analysis, c) creative system modelling – brainstorming, d) analysis of the option – sensitivity and sustainability analysis, e) final outcomes. It is important to test the model in various case studies, to adapt it at every single local situation [*Carlo Giupponi, University of Milan*].

Experiences of public participation in water management in Italy

At the conference, the diverse experiences on public participation in Italy have also been discussed. For more information on the conference, please consult Antonio Massarutto antonio.massarutto@uniud.it

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4 Follow Up 2 from the SLIM project

More social learning to support the water policy

Members of the SLIM teams have been progressing social learning approaches with policy-makers and also writing. Forthcoming chapters are in preparation on Social Learning in Water Governance (Jiggens, Roling and Van Slobbe 2006) and Interactive Learning in situations of Competing Claims on Water Use (Roling and Jiggens 2006). More information from janice.jiggins@inter.nl.net. The lead researcher from Italy, Pier Paolo Roggero, recently presented SLIM's findings at a "Science meets Policy" EU-wide workshop organised by DEFRA UK within the framework of events during the semester of the EU presidency of UK.

The SLIM concepts were very well received by the international audience. More information from p.p.roggero@univpm.it . Members of the UK team have recently

finished a year long collaborative enquiry into social learning approaches to river basin planning with the UK Environment Agency. The final report is due to be published by the EA soon (Collins, Ison and Blackmore, 2005). The team is now working on a second phase of research with the EA, extending social learning approaches to implementing the WFD at policy level and also focussing on the practices of catchment science. More information from k.b.collins@open.ac.uk.

5 Dutch 'water framework explorer' project enters new stage.

The prototype of the water framework explorer was successfully released last summer and the project which aims at supporting water policy makers is now moving into a second phase that will lead to a widely applicable tool

At the HarmoniCOP Final Conference last October in Osnabrueck the first prototype of the Dutch 'water framework explorer' was presented by Herman van der Most of WL/Delft Hydraulics. This explorer is being developed as a relative simple tool for water policy makers that should allow them to assess the ecological and economical impacts of water quality management measures. In the project research institutes, universities, waterboards and consultancy companies join forces. The tool is based on state-of-the-art knowledge on the relation between water management measures and their ecological effects. The prototype was developed for the natural flowing Gelderse Vallei/Eem region in the higher part of the Netherlands. The base-version of the model that is now being developed will allow also for brackish and controlled water systems to be evaluated. The base version is expected in May 2006, just in time for the water managers to set their objectives and choose their management measures for the next phase of the implementation of the European Water Framework Directive.

For further information you can contact Bert Enserink, Faculty of Technology, Policy and Management, Delft University of Technology, P.O. Box 5015, 2600 GA Delft, The Netherlands. E-mail: b.enserink@tbm.tudelft.nl

6 Conferences and Events

EUROMARKET Final Conference

"Water liberalisation scenarios: An empirical analysis of the evolution of the European water supply and sanitation sectors", EPFL, Lausannne, Switzerland, December, 14TH 2005. Organised by: Swiss Federal Institute of Technology in Lausanne (EPFL)

The conference will firstly present the **results** of the research and will then **discuss them with major stakeholders** in Europe (i.e.: private and public operators, European Commission, Independent national regulators, Consumer associations and NGOs). The full programme is available at the following website: [http://www.epfl.ch/mir/euromarket]

The main topics of the conference:

- ✓ Explicit and implicit **policies** of the European Union
- ✓ Existing and potential dynamics of *de facto* and *de jure* **liberalisation**
- ✓ Possible water supply and sanitation **scenarios**
- ✓ **Implications** of these scenarios (economic, ecological, social, legal, institutional, and organisational)
- ✓ Practical **recommendations to policy makers**

Contact: Dr. Jeremy Allouche, jeremy.allouche@epfl.ch; scientific

coordinator of the EUROMARKET project.

For registration (mandatory): [http://mir.epfl.ch/euromarket/conference.htm]

AQUAREC final conference
1-3 February 2006, Barcelona, Spain:
The project **AQUAREC** ("Integrated Concepts for Reuse of Upgraded Wastewater") is ending February 2006. The project, which has been funded by the European Commission within the Fifth Framework Programme, intends to develop integrated strategies for the reuse of upgraded effluent from wastewater treatment plants as a water substitute for non-potable use. The project final conference will be held in Barcelona on 1-3 February 2006 for which a limited number of places are available. For further information, please visit http://www.tilesa.es/aquarec2006/ or the project web site: http://www.aquarec.org

3rd Harmoni-CA Forum & Conference "Supporting the WFD implementation-tools for monitoring program design and public participation", Osnabrueck, Germany, 5-7th April 2006
During this 3rd Harmoni-CA Forum & Conference we will continue the dialogue between operational water managers, water policy makers, researchers and technology providers. Both experts from water management and developers of tools are invited to exchange experiences on their current work, related to river basin management and the implementation of the WFD.
The aim of this meeting is set by the priorities within te WFD framehwork activities for 2006: the design of monitoring programmes and the involvement of interested parties in the river basin planning process. The invitation for posters is still open. **For more information on the conference, please consult www.harmoni-ca.info**. Preceding the conference, two Harmoni-CA Workshops are held:
The **3rd Harmoni-CA/WP5 Policy Workshop** will invite policy makers before the conference to enter into discussions on how best to use existing models for their current WFD tasks. For more information, please contact harmoni-ca.wp5@usf.uos.de.
The **3rd Harmoni-CA/WP2&WP4 Workshop** will give audience to water managers also before the conference to exchange experiences on their monitoring programmes. For more information, please contact harmoni-ca.wp2@biomath.ugent.ac.be or harmoni-ca.wp4@geus.dk.

7 Publications

NOSTRUM-Newsletter
The first issue of NOSTRUM-DSS electronic Newsletter is now available on the project web site in the download section (http://www.feem-web.it/nostrum/downloads_nl.php).

NOSTRUM-DSS project is a Coordination Action funded by the European Commission under the Sixth Framework Programme (Specific measures in support of international co-operation - Mediterranean Partner Countries). The project started on the 1st August 2004

and involves eighteen partners from the North and South shores of the Mediterranean Basin.
The overall project aim is to contribute to the achievement of improved governance and planning in the field of sustainable water management, by establishing a network between the science, policy, and civil society spheres.
The final expected outcome of the project is a set of Best Practice Guidelines for the design and implementation of Decision Support System (DSS) tools for Integrated Water Resources Management (IWRM) in the Mediterranean Area. These Guidelines will be developed through the active involvement of the relevant stakeholders in the different stages of the project.
If you need further information on the project please do not hesitate to visit NOSTRUM-DSS web site (http://www.feem-web.it/nostrum/) or to contact us: nostrum@feem.it

Two recent EC FP5 publications are available:
The R&D project **WADI** "Sustainability of European Irrigated Agriculture under Water Framework Directive and Agenda 2000" has published a book summarising the impact of the application of EU policies such as the Water Framework Directive and the Common Agriculture Policy on irrigated agriculture including detailed country case-studies.
The electronic version freely available at: http://www.uco.es/grupos/wadi/wadibook.pdf
The book published within the framework of the project **Aqualibrium** "European Water Management between Regulation and Competition" is aiming to present and discuss the role of private operators in the water sector within different national contexts.
The electronic version can be downloaded from: http://www.oieau.fr/aqualibrium/ (Source: Water & Soil Times, No 15)

Water Supply and Sanitation Technology Platform: consultation process for the vision document and the strategic research agenda:
A common vision document for the whole European water industry together with a strategic research agenda have been drafted by the five working groups of the Water Supply and Sanitation Technology Platform (WSSTP), consisting of water sector experts and representatives of water sector stakeholders. The vision paints a picture of what could be achieved by 2030 if resources for research and development resources would be made available and targeted to respond onto the issues and challenges that the European water sector is facing. The strategic research agenda describes the research that must be undertaken to realise that vision. Interested parties were invited to provide comments to the drafts of both documents, so as to the specific documents produced by each working group of the Platform, by 04/11/2005. So as it has been done for the drafts, the final version of the documents prepared by the Platform will be available at the web site: http://www.wsstp.org. (Source: Water & Soil Times, No 15)

8 List of Projects in the HDWM Cluster

HarmoniCA – Harmonizing Modelling Tools at Catchment Scale
http://www.harmoni-CA.info
The concerted action HarmoniCA 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 FrameworkDirective.

GOUVERNe
GOUVERNe
http://www.c3ed.uvsq.fr/c3ed/Gouverne/PresGOan.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 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.

EUROMARKET
http://www.epfl.ch/mir/euromarket

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.
The EUROMARKET project studies the likelihood, nature, and forms water liberalisation may take in 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.euwareness.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:
Project coordinator: Stefan Kuks
Address: University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands
Email: s.m.m.kuks@cstm.utwente.nl
Internet: www.euwareness.nl

ADVISOR
http://ecoman.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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