



Newsletter on the Human Dimension in Water Management



June 2006

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Table of Contents:

1. EUROMARKET Project: Final Results
2. Hydro-economic models: State-of-the art presented in recent conferences
3. Using Science to Create a better place - Activities from the UK Environment Agency
4. The application of the NetSyMoD approach to the Italian Case Study (ISIIMM)
5. 3rd Wademed seminar
6. Call for Papers: Formalised and Non-Formalised Methods in Resource Management
7. Announcements
8. List of Projects in the HDWM Cluster

1 EUROMARKET Project: Final Results

New Book: Water and Liberalisation: European Water Scenarios

The EUROMARKET project is now finished. The main result of this project can be found in a book entitled “Water and Liberalisation: European Water Scenarios” (edited by Matthias Finger, Jeremy Allouche & Patricia Luís-Manso). The synopsis of the book is as follow:

In most network industries, new dynamics are leading to an unprecedented opening up to competition and private sector participation. With the development of a single European market, the in-stages

liberalisation process of public utilities has spread to almost all sectors. However, the water supply and sanitation (WSS) sector is considered somehow different and it has been excluded until recently from the restructuring processes achieved in other sectors.

Water and Liberalisation: *European Water Scenarios* presents a better understanding of the specific demands of the WSS sector. Covering the operators’ strategies, the regulatory dynamics as well as their interactions on the evolution of the sector, it

addresses the likelihood, the nature, and the forms the WSS sector may take in Europe in the foreseeable future. Adopting a neutral political stance, the book analyses the implications of alternative scenarios in economic, ecological, social, legal, and institutional terms.

Key Sections include:

1. In depth introduction to the current situation in the WSS sector.

2. The European Water Supply and Sanitation Markets; The Institutional Framework of the Water Supply and Sanitation Sector in the EU: a Comparative

Analysis; Analysis of the EU Explicit and Implicit Policies and Approaches in the Sector; Analysis of the Strategies of the Water Operators in Europe.

3. Scenarios on the Evolution of the Water Sector in Europe.

4. Economic, Environmental, & Social Implications of the Scenarios; Major implications per scenario.

For information on how to order the book, please visit the International Water Association Publishing website (<http://www.iwapublishing.com>)

2 Hydro-economic models: State-of-the art presented in recent conferences

The purpose of the European Water Framework Directive (WFD) of 2000 is to achieve good status of water bodies in each of the Member States. A key element of the directive is the integrated water resource management (IWRM) that embraces both hydrological and socio-economic and political issues. Hydro-economic models can be helpful tools to implement this approach. Recently, three international conferences took place where currently existing models were presented: Copenhagen 2004, Amsterdam 2005 and Valencia 2006.

One of the messages from these conferences was that the development and application of hydro-economic models are still in their infancy. The main reason for that is the fact, the hydrologists and economists are two different communities, between them collaboration in the field of modelling is rare. A further reason is the complex interrelationship between water resources and the society. As the presentations in the three conferences showed, hydro-economic models can be

useful for *forecasting* water demand and water quality in relation to socio-economic driving factors (such as population, industry and agriculture), for assessing the *cost-effectiveness and affordability* of measures to achieve good water status and for estimating the *success of policies* to tackling water problems. Moreover, they can enhance participatory approaches in water management. The challenges for further development of hydro-economic models refer, first of all, to a better linkage of water-related and societal processes, so that management activities can be embedded in an IWRM.

A further task is to improve modelling of socio-economic processes at watershed level. The current stage of hydro-economic models is promising. This concern, for instance, the implications of water pricing in relation to the cost-recovery principle and economically efficient water use. In autumn 2006, a further conference will be organised by WP5 of the Harmoni-CA Concerted Action. Hydro-economic models will be discussed together with

water managers and policy makers. Information on each of the three conferences can be found on:

<http://hit.infu.uni-dortmund.de/login.html>
(user ID: Copenhagen, password: EconoMod), <http://www.falw.vu.nl/ivm/watereconomics/>,

<http://www.upv.es/aquatool/jornadas/indexE.htm/>.

Ingo Heinz, Institute of Environmental Research (INFU), University of Dortmund, Germany

3 Using Science to Create a better place – Activities from the UK Environment Agency

The relationship between regulators, the regulated, local communities and the wider society is changing. There is plenty of evidence that ‘command and control’ approaches to governance have only limited success in changing behaviours. For the Environment Agency, this means playing different roles in order effectively to protect and improve the quality of the environment: influencing and catalysing behaviour change as well as regulating and reporting on environmental changes. In the past, much of the Environment Agency’s influencing and advisory work focused on government and the business community. These days, the Environment Agency works much more with communities and the public. Like other public bodies, the Environment Agency recognises that working with communities allows it to draw on knowledge of local conditions and so work better. It has made efforts to improve local engagement. But it hasn’t given as much consideration as to how it might enable people to have greater choice, or to how it could encourage them to take

on responsibilities. It hasn’t, that is, looked closely at citizenship, either in terms of the services it provides or in the context of facilitating behaviours that are more environmentally friendly. In 2004, the Environment Agency commissioned research to understand what encouraging environmental citizenship would mean, and what benefits this approach could provide. Two publications have resulted from this: The first explores what role environmental citizenship may have for the activities of the Environment Agency. The second analyses how the current interest in changing behaviour policies may help the work of the Environment Agency.

You can order copies of this and other Environment Agency publications from our on-line catalogue at <http://publications.environment-agency.gov.uk/epages/eapublications.storefront>.

If you have any queries about these projects, please contact Peter Bailey: peter.bailey@environment-agency.gov.uk.

4 The application of the NetSyMoD approach to the Italian Case Study within the ISIIMM project

By Anita Fassio, Fondazione Eni Enrico Mattei

A shared understanding of the future and participatory planning and decision-making for water resources management

The NetSyMoD (Network Analysis – Creative System Modelling – Decision Support) methodology, aimed at facilitating the involvement of stakeholders in

decision/policy making processes related to environmental matters, was applied to the Italian case study within the EU-funded ISIIMM project. A Creative System

Modelling Workshop on scenario building was organised ad hoc in Treviso, Italy, in December 2005 to further involve the local stakeholders in the planning process of the foreseen new integrated water management project.

In the seminar, selected local actors were put together to exchange views and experiences and to discuss visions. Participants were asked to:

- create a shared vision of the problem related to future land and water uses
- judge the strengths and weaknesses of the project in the light of the evolution of water and agricultural policies and the dynamics of the territory

First, three triggering scenarios concerning different levels of implementation of the Water Framework Directive and Fischler Reform of the Common Agricultural Policy, and of intensity of urban sprawl were presented. Then, the assessment of the irrigation system conversion project and the

choice of the most plausible scenario were carried out.

Outcomes were:

- collection of opinions concerning water management and visions concerning possible future land and water uses in the pilot area
- general agreement on the fact that water conservation measures need to be introduced
- general pessimism about the future of agriculture in the area
- general acceptance of the new irrigation system project, independently from future scenarios

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To download the report (only in Italian):

<http://www.feem.it/Feem/Pub/Conferences/default.htm>

5 3rd Wademed seminar “The future of irrigated agriculture in the Mediterranean – New institutional arrangements for a management of agricultural water demand”

Cahors, France, 6th to the 9th November 2006

The project Wademed is a concerted action of the INCO-MED programme which aims to share experiences of agricultural water demand management in Southern Mediterranean countries. Within the duration of the project, three thematic seminars have been organised: a seminar about the impact of modern irrigation techniques on water use and agricultural production was held in Morocco in 2004; the effectiveness of economic instruments on irrigation practices, water use and agricultural production was the topic of a seminar held in Tunisia in 2005; and the impact of new institutional arrangements in the shared water management of irrigation schemes and on water use and agricultural production will be the issue for the seminar which will take place in Cahors, France, in November.

The aim of this year’s seminar is an exchange between practitioners and researchers about current institutional changes in Southern Mediterranean countries’ irrigated agriculture. On the one hand, the adaptive capacity of institutions and organisations concerned with agricultural water management will be a focus, - how do new collective rules emerge and provoke organisational changes? Which kind of support is needed in order to strengthen the capacities of agricultural stakeholders to collectively adapt their institutions to current changes? Further, the emergence of the region’s agricultural profession and its role in institutional transformations within irrigation schemes will be discussed.

Especially in the water domain, the disengagement of the State poses the

question how and under which conditions a professional agricultural organisation can take over. And finally, the opening up of markets brings in new dynamics in irrigated agriculture, leading to a redefinition of agricultural water demand and its

management. The seminar will combine presentations, discussions and knowledge exchange with the visit of a case study.

For further information please check:

http://www.wademed.net/pres_seminare2006.htm.

6 Call for Papers: Formalized and Non-Formalized Methods in Resource Management

Knowledge and Learning in Participatory Processes - Workshop, 21 / 22 September 2006, Osnabrück

Participatory processes are becoming increasingly important in the management of natural resources. Policy makers, ‘experts’, and ‘lay persons’ – citizens or representatives of organised interest groups – are more and more collaborating in public decisions on issues such as water management and land use planning. Different forms of involvement have been established, allowing for varying degrees of interaction, e.g. focus groups, citizens’ juries, consensus-conferences, mediated modelling, and stakeholder platforms, to name but a few. Given the complexity of the issues and associated uncertainties, one main reason to involve non-state actors in public decisions is to incorporate different sources of knowledge and to foster social learning, which is anticipated to result in better, i.e. more informed and creative, decision-making. Other expected outcomes include the facilitation of actually reaching agreements, greater acceptance of, and compliance with, these, and generally improved communication among participants.

A spectrum of methods, instruments, tools, and models is available to structure information flows in these participatory processes. Most of the formalised methods involve some kind of modelling in order to derive generalisations from particular facts or situations, and to identify the key information. While more formalised methods have the advantage of eliciting, handling and delivering focused, clear and unambiguous information (or of making uncertainties and ambiguities transparent),

their use also involves important challenges:

- The process of formalisation usually is more laborious, requires more time and specific expertise, or trained personnel, and often technical equipment, and is thus more costly.
- Stakeholders may have difficulties to accept some more formalised methods as they might not comprehend all modelling steps and thus distrust certain model implications, or simply dread the required efforts.

Researchers dealing with these questions from the perspective of different disciplines are invited to submit abstracts for papers. The workshop’s main areas of application will be land-use planning and water management. Of special interest are papers that discuss

- the strengths and weaknesses of various methods in participatory resource management with special attention to the conditions under which formalised, or non-formalised methods, respectively, are most appropriate;
- how the choice of methods depends on the goals and context of the process as well as on
- the particular individuals involved in the process;
- possible trade-offs between the degree of formalisation of methods and the degree of participation;
- integration of formal and informal approaches;

- the relation of method-driven participatory processes and policy implementation.

Conceptual and methodological contributions, empirical analyses of applications of selected methods and case studies are equally welcome.

On the basis of the submitted abstracts, a maximum number of 15 papers will be selected for invitation to the workshop. After notification of acceptance (30th June 2006), authors will be asked to submit short versions of their papers (1500 to

2000 words) by 31st August in order to allow the participants to get a more complete picture of all papers to be presented. A selection of papers will be published in a peer reviewed journal or book.

Abstracts of no more than 400 words should be sent to all members of the scientific committee by 15th June 2006.

Please submit your papers to:

Dr. Jens Newig, University of Osnabrück
(jens.newig@usf.uos.de)

7 Announcements

❖ New e-journal launched by the Institute for Environmental and Sustainability Communication (INFU) at the University Lüneburg, Germany, **Communication, Cooperation, Participation. Research and Practice for a Sustainable Future (CCP)**. The multi-

lingual communication platform is creating a forum to discuss scientific papers and practical experiences in communication processes that engage questions regarding the future. For more information: www.uni-lueneburg.de/infu/ccp/

❖ **Integrated River Basin Governance: Learning from International Experience**. Bruce Hooper. 2005. IWA Publishing. The book is designed to help practitioners implement integrated approaches to river basin management (IRBM), and to help the

coming generation of senior university students learn how to design IRBM. To order: http://www.iwapublishing.com/template.cfm?name=integrated_river_basin_governance_newspage

❖ RTD info - **Special issue on surveys about science**. Of interest to those working at the science/stakeholders interface.

http://europa.eu.int/comm/research/rtdinfo/special_euro/index_en.html

❖ Participation is invited for a regional dialogue launched in the **New languages of 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. By now, the

handbook can then be found for download on the internet Spanish, English, German, and Italian. Dutch, French and Hungarian will follow during the next months. <http://www.harmonicop.info/handbook.php>

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 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

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.

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

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.fcem.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:

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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

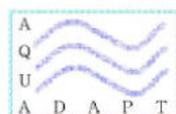
<http://www.geog.ox.ac.uk/~prinwass/>

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.



NeWater- New Approaches to Adaptive Water Management under Uncertainty

www.newwater.info

NeWater identifies key elements of current water management regimes and investigates their interdependence. Research is focused on transformation processes of these elements in the transition to adaptive integrated water resources management.



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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