

IWRM-Net SCP: collaborative funding for transnational water research

IWRM-net SCP : fonds collaboratifs pour recherche transnationale de l'eau

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RÉSUMÉ

Le projet IWRM-Net SCP (Scientific Coordination Project) vise à assurer la continuité du suivi administratif et scientifique des projets de recherche financés par IWRM-Net. Les activités comprennent l'animation de l'interface entre les projets de recherche et le groupe de financeurs, et plus largement avec les partenaires d'IWRM-Net. L'un des enjeux est de créer des synergies entre les projets de recherche, mais aussi entre les projets et les gestionnaires de la recherche, et enfin de soutenir la diffusion des résultats de recherche.

Les trois thématiques de recherche du second appel à projets d'IWRM-Net étaient a) l'évaluation sociale et économique pour la gestion de l'eau, b) la rareté de l'eau et sécheresse, c) l'adaptation au changement climatique. Six projets ont été sélectionnés et sont financés : CLIMAWARE, ESAWADI, ICARUS, IMPACT, WATER 2 ADAPT, WATER CAP & TRADE.

ABSTRACT

IWRM-Net Scientific Coordination Project (IWRM-Net SCP) aims to provide continuity for the research projects funded by IWRM-Net both on administrative and technical aspects. There are a number of areas covered including the animation of the interface between the research projects and the Core group, and more widely with IWRM-Net partners, creating synergies among research projects, between projects and IWRM-Net partners research programmes and other networks, and supporting the dissemination of IWRM-Net research outputs.

The three areas of research in the second call for projects were social and economic valuation for water management, water scarcity and drought and adaptation and mitigation for climate change. 6 projects in total were funded and the projects are as follows; CLIMAWARE, ESAWADI, ICARUS, IMPACT, WATER 2 ADAPT, WATER CAP & TRADE.

KEYWORDS

Climate change, collaborative funding, scarcity and droughts, social and economic valuation, water research.

1 INTRODUCTION TO ERA-NETS AND IWRM-NET

1.1 Background

IWRM-NET was an FP6 ERA-NET project (ERAC-CT-2005-026025) entitled "Towards a European-wide exchange Network for integrating research efforts on Integrated Water Resources Management".

The project worked on research programmes related to integrated water resources management (IWRM) and the European Union Directive setting out a framework for community action in the field of water policy (WFD) as a means of implementing integrated water resources management across Europe. By improving the knowledge transfer amongst stakeholders in charge of IWRM, the IWRM network enables partners to work on synergies between research needs and policy, and promotes interdisciplinary activities concerning IWRM across Europe.

The 2nd IWRM-NET joint Call published by the funding institutions mentioned was intended to establish trans-national collaborative research projects that link research with policy needs and promote transdisciplinary approaches to improve IWRM across Europe. The information created by IWRM-NET funded research will be expected to be disseminated across the network to the appropriate audience, in this instance the river basin managers, in the most effective way possible.

1.2 Aims of the Call

IWRM- invited research that links scientific advances to policy and/or practice in order to

- support the Water Framework Directive (WFD) implementation and integrate with other water related policies (agriculture, industry, energy),
- develop a common framework for integrated water resources management with multiple tools that can be applied at the local level,
- generate added value to national research projects across Europe by sharing expertise and efforts across national teams.

The focus for the 2nd Call is on developing strategies and solutions to meet the various challenges connected to climate change, droughts and water scarcity as such. Moreover, a special interest will be on assessing and further development of suitable instruments and methodologies for an economic and social embedding of IWRM measures in general.

1.3 The Scientific Coordination Project

IWRM-Net Scientific Coordination Project (IWRM-Net SCP) provides a technical and administrative support to the 6 funded projects and a means of providing continuity after the eranet project has closed. Three main challenges were identified:

- the interface between the research projects funded by IWRM-Net and the Core group, and more widely with IWRM-Net partners;
- create synergies among research projects, between projects and IWRM-Net partners research programmes and other networks;
- Support the dissemination of IWRM-Net funding initiatives in an integrated manner to IWRM-Net Core group (funders of the calls), to the scientific community and last but not the least, to the potential users (i.e. water policy makers and managers).

2 THE FUNDED PROJECTS

2.1 ESAWADI

Five research organisations and their local partners in France, Germany and Portugal have set up the 'ESAWADI - Utilising the Ecosystem Services Approach for Water Framework Directive Implementation' project that was launched on 1st July 2010 and will last for 2 years. The project partners are currently developing a common framework of analysis and, in relation to this, refining the topics of the case studies. The consortium is made up of Asconit Consultants, France (ESAWADI Coordinator) CREDOC, France, Seeconsult, Germany, Intersus, Germany, IMAR - Instituto do Mar, Portugal. <http://www.esawadi.eu>

2.2 CLIMAWARE

This project investigates the impacts of climate change on water resources management from a

regional strategy and European point of view. The consortium includes members from Germany, France and Italy. The scientific objectives are;

- investigation of changes in river flows and consequences e. g. flood frequency, drought occurrence and sectoral water uses
- effects of climate change on the hydromorphological conditions
- uncertainties in the use of models and scenarios
- definition of adaptation strategies concerning the programmes of measures of the WFD, dam management and irrigation practices

The project will consider climate scenario selection and European modelling, develop case studies (in particular hydromorphology in Germany, Dam Management in France and Agricultural Water Use in Italy. Following this there will also be cross-case and cross-scale comparison and integration.

<http://www.uni-kassel.de/fb14/wasserbau/CLIMAWARE>

2.3 ICARUS

This project considers IWRM for climate change adaptation in rural social ecosystems Southern Europe. Its consortium includes partners from Italy, Portugal and Spain. The aim is to increase, in selected areas of Italy, Portugal and Spain, efficient water use in agriculture by analysing biophysical, socio-economic and institutional dimensions of sustainable water management and identifying innovative adaptation strategies, practices and tools for saving water in irrigated productions systems, which could be disseminated in other Mediterranean countries

<http://www.cmcc.it/research/research-projects/icarus-1/icarus>

2.4 IMPACT

The IMPACT consortium from Germany, Portugal and France are developing an integrated model to predict abiotic habitat conditions and biota of rivers for application in climate change research and water management. The research project aims at developing an integrated model which predicts the abiotic habitat conditions and biota of natural (reference), semi-natural or restored river reaches. The coupled models will be used to assess the effect of climate change on discharge and in turn on river morphology and stream biota compared to the impact of other anthropogenic pressures like water quality, hydromorphological alterations, and altered re-colonization potential. The project will focus on macroinvertebrates and fish and for the first time include dispersal models of aquatic taxa to predict temporal scales of restoration success and population recovery.

<http://www.impact.igb-berlin.de/>

2.5 WATER 2 ADAPT

Looking at resilience enhancement and water demand management for climate change adaptation, this project will work in Italy, Germany, Spain and Portugal. The alteration of rainfall patten (form, intensity and timing of rainfall) will have significant effects on water availability and frequency of extreme events such as floods and droughts. The knock-on effects of these changes will affect almost all communities throughout Europe, and most economic sectors. This project will examine river basins Po (Italy), Weser (Germany), Guadalquivir (Spain) and Guadiana (Portugal). It will i) identify 'social drivers' of water scarcity; ii) assess the magnitude and mediating factors of water scarcity- and drought-induced impacts; and iii) revisit the performance and wider impacts of the water demand management policies.

2.6 WATER CAP AND TRADE

The consortium from France, Italy and Spain are investigating water market scenarios for Southern Europe and new solutions for dealing with water scarcity and drought risk. Structural water deficits and drought risk are expected to become more frequent, putting at stake the current mechanisms of water management and allocation. The establishment of water markets or systems of tradable abstraction quotas could represent a possible alternative. The use of a "cap and trade" approach could simultaneously guarantee environmental protection as required by the Water Framework directive and enhance flexibility in allocation to maximize water use utility and possibly reducing conflicts. The present research proposal aims at investigating the potential for water market scenarios in Southern Europe, focusing in particular on their socio-economic implications by mobilizing complementary socio-economic methods and tools.

<http://www.capandtrade.acteon-environment.eu/home>