Underpinning EU Water Initiative
EU Framework Programme

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Website

RESEARCH

EU Water Initiative
International Cooperation - from knowledge to action
WATER for Life

World Water Day, 22/03/2003

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- Principal instruments of European international policies
- Five thousand years of water works supporting diverse human societies
- Balancing people and nature – Integrating approaches
- Safe water and sanitation
- Cost-effective approaches that work
- Catchment basin approaches – Strategies for reconciling multiple demands
- Protecting mountainous upstream areas
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- Project overview tables
- International cooperation projects - PDF (size: 221 Kb)
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- Download the Water for Life brochure or project annexes in PDF format (551 kB and 136 kB)

WATER for Life

This is the web site of the scientific research dimension of the European Union's Water Initiative. Targeting a key driver of the EU's Co-operation with the developing world, its most prominent goal is to halve, by 2015, the number of people without access to safe water and basic sanitation, estimated at over 1 and 2 billion people respectively. The second thrust is to generalise the adoption and practice of integrated river basin approaches based on knowledge and innovation.

The scale of the challenge means that 'business as usual' is not an option. The Initiative therefore aims at promoting mobilisation and partnerships between science, public, non-governmental and private actors in Europe and partner countries and regions in other parts of the world with a view to achieve the water-related objectives of the Millennium Development Goals.

Scientific communities worldwide are called to participate actively in identifying societal problems and addressing them through research. In order to develop a shared vision across societies, policies and their implementation instruments, this web site offers a wide range of information on results of scientific co-operation within Europe and jointly with our partners and promotes exchanges that build bridges from knowledge to action.

On line data base with information on water-related RTD projects funded by the Community Research Framework Programme

http://europa.eu.int/comm/research/water-initiative/index_en.html

EU Water Initiative - A Quick Overview

Geographical Components

- AFRICA (sub-Saharan)
- EECCA
- MEDITERRANEAN (North Africa & Middle East)
- LATIN AMERICA

others to follow...

Denmark

France

Thematic Areas

- ✓ Water Supply and Sanitation (WSS)
- ✓ Integrated Water Resources Management (IWRM...including transboundary resources)

Horizontal Components

Financing (UK)

Research (European Commission)

Discussions on Monitoring Aspects

EU Water Initiative

- **Key elements :**
  - Reinforce political commitment to action
  - Promote better water governance arrangements
  - Improve co-ordination & co-operation
  - Encourage regional and sub-regional co-operation on water management
  - Catalyse additional funding

European efforts in international water research and scientific co-operation
Building on existing foundations

- The EU Water Initiative recognises that innovation and better knowledge management is central to the achievement of the water related MDGs
- Europe is doing a lot: International water research maintains a high policy profile at Community and EU Member States level
- Wealth of European knowledge but limited interaction between the various international water research and scientific co-operation programmes
- Strategic approaches differ and so does impact: There is a diversity of strategic approaches and forms of international co-operation in water research
- Focus in all EU Water Initiative key sectors, but integration, synthesis and multidisciplinary approaches need to be reinforced

Objectives and Expected Results of the Research Component

Strengthen Co-ordination, coherence and complementarity of European efforts, capitalize on existing programmes and results and establish synergies, to enhance IMACT

- ➔ Bring together the necessary **critical mass** and promote **strategic partnerships**
- ➔ Shift from **supply** to more **demand-driven** approaches through pro-active stakeholders participation (**ownership**)
- ➔ Establish feedback mechanisms for joint **research policy** and **implementation review** based on lessons learnt and good practices
- ➔ Promote **integrated research approaches** for strategic water management sectors

Objectives and Expected Results of the Research Component

- Promote **awareness**, **proactive stakeholders' participation**, **development of human resources** and better **knowledge** and **innovation management** in developing countries
- **Integrate** further and **synchronise research** with **development co-operation** efforts

PERFORMANCE INDICATOR

TIMELY AND EFFECTIVE TRANSFER AND DISSEMINATION AT LOCAL LEVEL (REGIONAL AND NATIONAL)

Integrated water resources management (at its various levels – river basin, transboundary, urban, rural) an old concept but practice, all over the world, recognises complexity and current limitations : ***need for further input from research and scientific co-operation***

- Water Governance, Policy and Institutions
- Climate Change, Surface and Aquifer Hydrology
- Ecological Management / Pollution
- Social Equity And Stakeholders Participation
- Preparedness for Extreme Events (Drought and Floods)
- Public and Private Sector Participation
- Renewable Resources and Energy
- Strategic allocation between uses/users
- Irrigation Management, Food Security ….Virtual Water Trade

Similar Issues for Water Supply and Sanitation

System Design, Management, Maintenance and Strategic Rehabilitation

Resource Conservation

Peri-Urban Development

Community-based management

Wastewater Treatment and Reuse (+ decentralized)

Household Food and Water Security

Quality Control / Safe Drinking Water

Gender Dimensions

Water Demand Management, Econ/Fin Cost, Pricing, Tariff Structures

Public Health / Education / Hygiene

Energy Demand and Emissions

EU RESEARCH FRAMEWORK PROGRAMME

... three decades of water research

- **Water** research was a **major component** of successive EU environmental research programmes
- EU funded research in the field of water covered a **wide number of areas** (e.g. hydrological and biogeochemical aspects, aquatic ecosystems functioning, etc.)
- **Earlier** programmes were focussed on the **development of scientific knowledge** to support environmental quality standards and objectives
- In **FP5 and FP6** emphasis is given on **integrated approaches** for sustainable water management, support to water policies and global change impact assessment

International Research Co-operation 6th Research Framework Programme (2002-2006)

EUROPEAN RESEARCH AREA (ERA)

Within the 6th FP, International Water Research and Scientific Co-operation can be funded both through Specific Actions in support of International Co-operation (INCO) and Thematic Priorities

Global Budget
International Research

INCO
315 mi EURO

Thematic Priorities
285 mi EURO

Human Resources and Mobility

Training for researchers from Partner countries

FP6 – GLOBAL CHANGE AND ECOSYSTEMS

GLOBAL CHANGE AND ECOSYSTEMS	
AREA I	IMPACT AND MECHANISMS OF GREENHOUSE GAS EMISSIONS AND ATMOSPHERIC POLLUTANTS ON CLIMATE, OZONE DEPLETION AND CARBON SINKS
AREA II	WATER CYCLE, INCLUDING SOIL-RELATED ASPECTS
AREA III	BIODIVERSITY AND ECOSYSTEMS
AREA IV	MECHANISMS OF DESERTIFICATION AND NATURAL DISASTERS
AREA V	STRATEGIES FOR SUSTAINABLE LAND MANAGEMENT, INCLUDING COASTAL ZONES, AGRICULTURAL LAND AND FORESTS
AREA VI	OPERATIONAL FORECASTING AND MODELLING INCLUDING GLOBAL CLIMATIC CHANGE OBSERVATION SYSTEMS
AREA VII	COMPLEMENTARY RESEARCH
AREA VIII	CROSS-CUTTING ISSUES: SUSTAINABLE DEVELOPMENT CONCEPTS AND TOOLS
AREA IX	SPECIFIC SUPPORT ACTIONS

Water cycle and soil-related aspects

the objective is to understand the mechanisms and assess the impact of global change and in particular climate change on the water cycle, water quality and availability, as well as soil functions and quality **to provide the bases for management tools for water systems to mitigate the impacts**.

Budget: ~760 M€

Duration: 4 years

Research and scientific co-operation to support the EU Water Initiative in the 6th Research FP

International Co-operation

- **Developing Countries:** Rational Use of Natural Resources - Ecosystem dynamics - Renewable natural resources; Integrated approach to natural and agro-resource use systems - Multiple Demands on Coastal Zones, Food Security
- **Mediterranean:** Integrated Management of Limited Water Resources - Water Treatment, re-use and energy implications
- **Western Balkans:** Waste water treatment and reuse, treatment of industrial and municipal waste - Use of recycled materials
- **Russia and other NIS (EECCA):** Environment and Health Protection

Research and scientific co-operation to support the EU Water Initiative in the 6th Research FP
Thematic Priority Global Change and Ecosystems

- **Integrated water management at catchment scale:** "twinning" partnerships with African, Latin American and NIS river and transboundary basins
- **Integrated urban water management:** African, Asian and/or South American mega-cities and peri-urban areas
- **Management of water under scarcity:** south-Mediterranean countries
- **Development of scenarios of water demand and availability at 25-50 years:** SE Mediterranean, Black Sea region and other NIS countries

Some Important Features in River 'Twinning' Projects

- Emphasis on '**global change'** concepts…
- Blueprints for **integrated river basin management plans** adapted to local conditions…
- **Public participation** and **End-Users**…
- On-the-job **training**…
- **Replicability**…

River Basin 'Twinning' between Europe and Developing Countries

RIVERTWIN (STREP)	*Total Budget*	2.964.140
	EC contribution	2.460.160
TWINBAS (STREP)	*Total Budget*	2.113.708
	EC contribution	1.383.713
WADE (STREP)	*Total Budget*	2.558.789
	EC contribution	1.700.000
TWINLATIN (STREP)	*Total Budget*	2.724.000
	EC contribution	2.000.000
TWINBASINxn (CA)	*Total Budget*	1.710.000
	EC contribution	900.000
BRAHMATWINN (STREP)	*Total Budget*	3.035.000
	EC contribution	2.872.000
STRIVER (STREP)	*Total Budget*	3.678.000
	EC contribution	2.491.000
TOTALS	*Total Budget*	18.792.637
	EC contribution	13.806.873

FP6 RTD projects underpinning EU WI some examples

River Basin "twinning" between Europe and Developing Countries

Overall objective

Promote twinning of European and third countries river basins for the development of Integrated Water Resources Management (IWRM) to underpin the implementation of the EU WI

EUROPE: Spain (Guadalentin River Basin) , UK (Thames), Sweden (Norrstrom), Germany (Neckar), Austria (Mur), Upper Danube River Basin (UDRB), Norway (Glomma), Spain/Portugal (Tejo/Tagus) and various RBOs in France, Netherlands, Italy, Poland, Hungary

AFRICA: Namibia (Kuiseb Catchment), South Africa (Western Namaqualand), Botswana (Okavango), Benin (Queme), RBOs in Niger and Senegal

MEDITERRANEAN COUNTRIES: RBOs in Algeria, Morocco, Israel (Nahal Zin Catchment - Negev Desert)

EECCA Countries:

Uzbekistan (Chirchik/Upper Syrdaria), Kazakhstan (Nura)

LATIN AMERICA: Chile (Bio Bio) and RBOs from Mexico and Brasil

SE ASIA: RBOs in Indonesia, Upper Brahmaputra River Basin, Vietnam/Cambodia (Sesan)

INDIA: (Tunga Bahdra)

FP6 RTD projects underpinning EU WI
Some examples

NEWATER - New Approaches to Adaptive Water Management under Uncertainty (IP)

- To develop **concepts** and **tools** to support process of transition from the **current** water management system to **adaptive IWRM** by addressing **governance**, **sectoral integration**, **scales in IWRM**, **information management**, **infrastructure**, **finances and risk mitigation strategies**, **stakeholder participation**

It will :

- analyse **current practices** and **lessons** in IWRM, especially uncertainties in integration across scales and distributional conflicts
- analyse the key factors for **transition to adaptive management**, integrating poverty alleviation, gender and health issues

FP6 RTD projects underpinning EU WI
Some examples

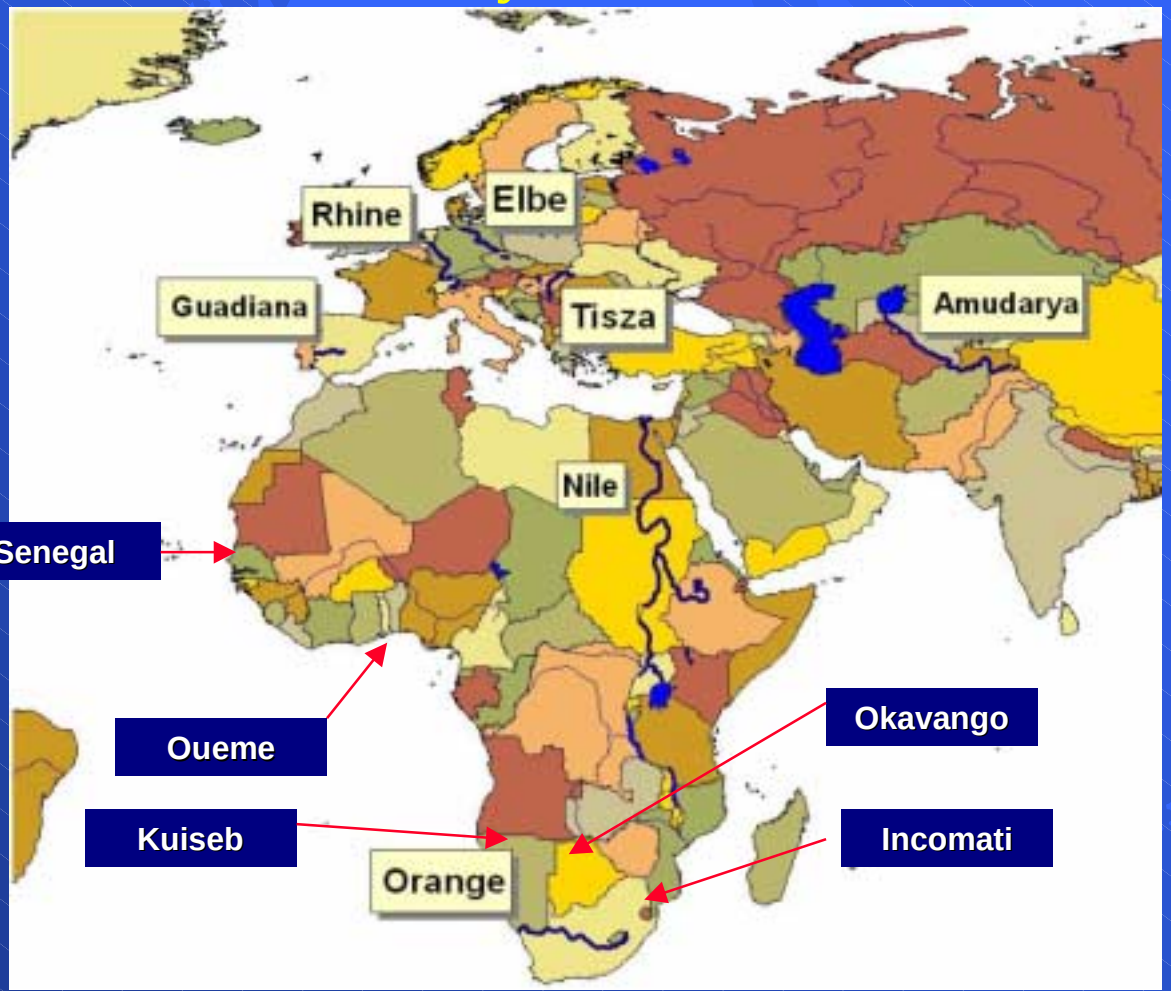
NEWATER - New Approaches to Adaptive Water Management under Uncertainty (IP)

- develop appropriate **scenarios** of future vulnerability and adaptive capacity
- develop a **toolkit and guidance for practitioners** in using innovative tools for adaptive management
- share experience and innovation in **dialogues**, **publications** and **actions world-wide**

NEWATER

New Approaches to Adaptive Water Management under Uncertainty

Locations of seven case study basins in Europe, Africa and Central Asia



FP6 RTD projects underpinning EU WI
Some examples

African Water
Strategic Objectives

- Increase the involvement of African research community in the EU Framework Research Programme and their partnership with European researchers, and research managers in….
- Identifying and tackling major water and sanitation research challenges; including issues affecting the EU-ACP Water Facility.

FP6 RTD projects underpinning EU WI
Some examples

….more projects

- ROSA: Resource-Oriented Sanitation concepts for peri-urban areas in Africa
- NETSSAF: Network for the development of sustainable approaches for Large Scale Implementation of Sanitation in Africa
- AQUATEST: Low cost water test for developing countries – a preparatory study
- ANTINOMOS A knowledge network for solving real-life water problems in developing countries: Bridging contrasts

FP6 RTD projects underpinning EU WI
Some examples

TECHNEAU- Technology enabled universal access to safe water (IP)

- To develop and demonstrate **adaptive supply system** options and new and improved **supply and monitoring technologies** and **management practices**.
- It will address: **Treatment strategies**, **Monitoring technologies**, **Practices for risk assessment/risk management**, **operation and maintenance** and **models** for consumer acceptance

FP6 RTD projects underpinning EU WI
Some examples

SWITCH
Sustainable Water management Improves Tomorrow's Cities' Health

- To underpin a paradigm shift in **urban water management** (UWM) by converting ad-hoc **problem/incident driven** actions into a coherent and consolidated **sustainability driven** approach. Emphasis will be given to **users involvement**; creation of **learning alliances** among stakeholders, **multiple-way learning** through sharing experiences among European and developing countries cities, **multiple-level and integrated approach** in considering urban water system and interactions with natural environment and Global Change pressures

FP6 RTD projects underpinning EU WI
Some examples

EUWI ERA–Net: Water Research in Developing Countries

- To improve **communication**, **collaboration** and **coordination** of water research funded by Member State in **developing countries** to increase the **effectiveness** and **benefits**, reduce **duplication** and **repetition** and enhance **synergy** between actions under the Commissions Sixth (2002-2006) Framework Programme for RTD and Member State research programmes

FP6 RTD projects underpinning EU WI
Some examples

Watsan Technology Platform

- **Multi-stakeholder forum** bringing together various public, private and non-state actors in order to coordinate actions in a the Watsan technological area
- Define the **future strategic research agenda** and **address barriers** in the dissemination of relevant technologies, including also developing countries needs
- Identify potential **interfaces** with the EU Water Initiative

Some things to retain…

- Results include blueprints for integrated River basin management plans adapted to local conditions…opportunity need to be timely exploited
- Public participation and end-users…
- On-the-job training…and not only information exchange
- Need to work on sustainable linkages with EU WI and WFD groups / better interface between RTD, policy and development co-operation
- Future replication of similar topic for twinning of European river basins within other geographical regions….

FP6 RTD projects underpinning EU WI
Some examples

…but also

- ✓ Building research capacity in developing countries, including facilitating South-South transfer.
- ✓ Stakeholders from developing countries involvement in research programming.
- ✓ Private sector involvement in water research in developing countries.
- ✓ Collaboration with international organisations with research interests / programmes.

- **Sources of information:**
  - EUROPA server: http://ec.europa.eu/research/index_en.cfm
  - CORDIS server:
    - FP6: http://cordis.europa.eu/sustdev/environment/home.html
    - FP7: http://cordis.europa.eu.int/fp7/
  - CIRCA server FP5 and FP6:
    - http://www.forum.europa.eu.int/Public/irc/rtd/eesdwatkeact/home
  - Newsletter “Water and Soils Times”
    - http://forum.europa.eu.int/Public/irc/rtd/eesdwatkeact/info/data/index.htm