



Water Supply and Sanitation Technology Platform

WORKSHOP - Pilot Program 1, Mitigation of Water Stress in Coastal Zones

Location: Can Serra, Carretera de Sant Joan, 1 Cornellà de Llobregat, Barcelona

October 15 2007, from 09:00 to 18:00

Agenda DRAFT

(to be confirmed two weeks prior to workshop)

08:45	Reception	
09:00	Welcome by Host and WSSTP Board	Luis Gutierrez and Diane D'Arras
09:15	Introduction to workshop organization and objectives	Angeline Kneppers
09:30	Brief presentation of ourselves (name, affiliation)	All
10:00	Presentation of each IC site: issues, priorities, scope of work. Maximum 10 minutes each (3 to 5 slides max, see template) .../...	IC1, IC2, IC3, IC4, IC5, IC6, IC7, IC8, IC9, ...
11:15	Coffee Break	
11:30	.../...Continued: Presentation of each IC site: issues, priorities, scope of work. 10 minutes each (3 to 5 slides max, see template)	IC1, IC2, IC3, IC4, IC5, IC6, IC7, IC8, IC9, ...
11:45	Summary of IC meetings results - RTD analysis: create work packages and work groups - Top priorities	Pilot Program 1 Manager (intro.) All : Designate facilitators/leaders for RTD work groups
12:30	Discussion on RTD topics common to other PP's (12 min per PP)	PP2 to PP6 Program Managers
13:30	IWRM Field Demonstrators – Implementation Cases - Review proposed IWRM Themes (<i>e.g. assessment, measuring and modeling, allocation, resources, risk and acceptance</i>) - Review Methodology (<i>define scope of work: project montage, demonstration phase, program setup with invitations to tender, structures</i>) - Discussions on Groupings .../...	Pilot Program 1 Manager (intro.) All : Designate facilitators/leaders for IWRM Themes, Projects
14:00	Lunch break	
15:00	.../...Continued: IWRM Field Demonstrators – Implementation Cases - Review proposed IWRM Themes (<i>e.g. assessment, measuring and modeling, allocation, resources, risk and acceptance</i>) - Review Methodology (<i>define scope of work: project montage, demonstration phase, program setup with invitations to tender, structures</i>) - Discussions on Groupings	Pilot Program 1 Manager (start) All : Designate facilitators/leaders for IWRM Themes, Projects
16:00	Proposals on the next steps and organization, such as - Economic estimation and valuation of possible solutions - Criteria for project justification - Sensitivity analysis - Consortia/Advisory Panel Creation - Financial Engineering Agreement actions and responsibilities (tasks, milestones, time frame) Workshop Minutes	All Pilot Program 1 Manager
18:00	Close	

IC: Implementation Case, RTD: Research and Technology Development, IWRM: Integrated Water Resources Management

Introduction & Background to the Pilot Program

1.1 Water Supply and Sanitation Technology Platform

The Water Supply and Sanitation Technology Platform is one of the technology platforms (ETPs) set up within the European Environmental Technology Action Plan (ETAP) adopted by the European Commission in 2004.

The aim is to bring together research, industry, financial institutions, decision-makers and end-user groups involved in European water supply and sanitation to federate all water stakeholders across sectors and disciplines around the development of joined technological solutions.

WSSTP produced a common vision document, a strategic research agenda and an implementation plan for the short (2010), medium (2020) and long term (2030) that can be found on the web home page www.wsstp.org (authors: 300 people in 20 countries over 2 years, organized in TWG's).

WSSTP aims to contribute to the competitiveness of the European water industry (Lisbon Strategy) and is therefore lead by Industry, solving the European water problems and reaching the Millennium Development Goals (Johannesburg).

The Strategy adopted is based on an Integrated Water Resources Management (IWRM) framework, supported by Decision Support Systems (DSS), to address major issues through 6 Pilot Programs and one of these pilots is the one addressing the Mitigation of Water Stress in Coastal Zones.

The execution of the pilots is based on a number of Implementation Cases (IC's) where Generic Research and Technology Developments (RTD's) as well as Enabling RTD's will be developed and implemented through field demonstrators.

1.2 Pilot Program 1 Mitigation of Water Stress in Coastal Zones, Objectives

Coastal Zones accommodate more than 60% of the world's population and represent 61% of the world's GDP (Gross Domestic Product, *source: World Bank*). Water is therefore essential to maintain coastal zones' economic growth in all sectors.

Coastal zones suffer from major water stress (quantity and quality), with large seasonal fluctuations related to the conflicts between water availability and water demands. For example most coastal areas are affected by over-abstraction of groundwater inducing both land subsidence (deltaic zones), salt-water intrusion and in some cases shore erosion. Water stress affects surface water and groundwater, with impacts on fragile aquatic (freshwater and marine) ecosystems and on aquifer recharge. As well, the accessibility to water resources may be restricted due to urbanization, variability of climate and water contamination related to e.g. inadequate sewage services or agricultural practices.

1.2.1 Implementation Cases (IC)

The following Implementation Cases have initially been proposed by the WSSTP:

	Area	Country
IC 1	Rhine-Meuse-Scheldt delta (with a twin project)	The Netherlands, Belgium
IC 2	Coastal zone Cyprus	Cyprus
IC 3	Algarve region	Portugal
IC 4	Southern Adriatic-Dinaric Coast	Croatia, (B-H), Montenegro, Albania, Greece
IC 5	Gironde Estuary	France
IC 6	Levante Coast (provinces of Castellon, Valencia, Alicante, Murcia and Almeria ?)	Spain

	Area	Country
IC 7	Maresme province of Barcelona, Catalonia	Spain
IC 8	Almiros Basin, Thessaly	Greece
IC 9	Dammour region	Lebanon

1.2.2 Research and Technology Development (RTD)

The RTD topics are listed in the SRA. Research and innovative technology is defined by its business potential for the competitiveness of Europe.

Generic research issues that have been identified (details in SRA and IP) –

- Knowledge capture
- Alternative water resources
- Salt water intrusion
- Global water management scenario builder
- Safe and sustainable supply of quality water
- IWRM/DSS systems

Enabling technologies that have been identified (details in SRA and IP) –

- Salt water intrusion mitigation technologies
- Alternative water resources treatment processes
- Water quality monitoring networks connected to DSS
- New sensors for water quality monitoring
- In-line water storage / aquifer storage and recovery to balance fluctuations of seasonal demand
- IWRM/DSS – algorithms for selection of optimum scenario for global water resource management
- Lower cost desalination technologies using renewable resources (wave power, solar and wind energy)

1.2.3 Integrated Water Resources Management (IWRM)

Themes to be extracted from 'Assessment documents' and 'IC Meetings' (see below)

2 Pilot Methodology and Protocols for Activities

To provide the Water Supply and Sanitation Technology Platform with a strategy implementation plan, to predict impacts and select alternatives with the largest net social welfare value and justify the investments, an approach based on Cost-Benefit Analysis for Water Resources Management was proposed to the Board at the meeting in Bologna on the 6th of February 2007.

- Identification and quantification of the Implementation Cases - IC's assessment
- Identification and quantification of solutions (Generic and Enabling technologies)
- Economic estimation and valuation of the possible solutions
- Criteria for project justification
- Sensitivity analysis

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- Business Plans/Proposals submission/Project Plans

This approach ensures the following key success criteria –

- IC's profile aligned with European Commission and WSSTP's goals, strategies and objectives
- IC's objectives and expected results well defined
- IC's feasibility and justification: compelling events clearly defined: why do the project, expected specific outcomes, metrics for project success, budgets, milestones, deliverables well defined
- Coordination with the other Pilots and transferability of the approach to other IC's

2.1 Assessment Document

An assessment document was circulated to identify and capture sufficient background information about the proposed Implementation Cases (February to June): identification of stakeholders and of water stress issues, evaluation of suitability for IWRM and RTD in line with the WSSTP. The document was circulated with a request to the IC initial contacts to organize a meeting at each IC site.

- Results will be summarized during the workshop.

2.2 Implementation Cases (IC) Meetings

Holding a meeting at each Implementation Case site was suggested (March to September) to convince and motivate the key stakeholders such as –

- End-user groups representatives (water for people, water for food, water for environment, water for industry and others)
- Water Technology and Service providers: water supply and sanitation companies, utilities, engineering and construction companies, consultants, SME, etc
- Academic and Institutional research entities dealing with water aspects
- National, regional and local government representatives, water authorities, water legislation and policies

Expected results: obtaining the commitment of the key stakeholders to the project, defining together the top priorities, how to cooperate and plan the project.

- Outcomes will be summarized during the workshop.

2.3 Workshop

The purpose of the workshop is to discuss Research and Technology Developments, as well as the practical implementation of Integrated Water Resources Management. The goal is to establish communication and discussion between Implementation Cases stakeholders and research and technology providers.

We intend to come out of this workshop with a clear view and well defined concepts on what are the priorities in research and technology and on how to realistically implement Integrated Water resources Management. At the end of the workshop, we hope that participants from different locations and background will be willing to work together on a number of given projects.

Expected outcomes:

- Final selection of Implementation Cases sites
- Creation of work groups around Research and Technology Developments
- Creation of workgroups around the IWRM themes

- Program and Projects planning and coordination