

WaterStrategyMan Project Meeting Minutes, February 2nd– 4th 2004

The 2nd Annual WaterStrategyMan Project Meeting was held in Santa Cruz de la Palma, Canary Islands, at the Caza Salazar, on the 2nd, 3rd and 4th February 2004. The Project Meeting aimed at reviewing and reevaluating the Project progress thus far, and at discussing and elaborating the future steps to be taken. It was organized in parallel to the International Conference on “Water Resources Management in water stressed environments and Islands: the challenge of Ecodaptation”. The Conference was organized by the La Palma Biosphere Reserve in collaboration with the three ARID Cluster projects (Aquadapt, MEDIS and WaterStrategyMan) and was supported by the European Union. The Meeting Sessions were held on the 2nd (afternoon session), and the 3rd and 4th (morning sessions).

1. Case Study presentation and Identification of weaknesses (February 2nd – Afternoon Session)

Italy, Garcia Arancio Basin – ProGeA

The focal point of the presentation was the development and comparison of two management schemes for meeting local irrigation needs in the Garcia – Arancio Basin at the southern part of Sicily. The first presented water management scheme was the Base Case. The other involved the realization of a connection between Garcia and Arancio Lakes in order to meet irrigation demand in Sciacca and a review of performance for both reservoirs. The following points were stressed out:

- Evaluation of the performance of both examined WMS was missing.
- Non-structural options have not been examined (a suggestion was made by ProGeA for introducing changes in the cropping pattern of some areas).
- The goal for strategy formulation has not been yet defined.
- Demand and Hydrological scenarios have not been developed.
- Domestic use of water and potential growth has not been defined.
- No costs were presented for both WMS.

Israel, Tel-Aviv region – HUJI

The main point was the presentation of the supply, demand and priority modelling in the Tel Aviv region and the examination of two different availability scenarios, one with a stable water supply (Base scenario – repetition of average years) and one with low availability (Shortage scenario with a 3-year cycle of recharge 30% less than the normal year). Permanent population is estimated to grow at a steady rate of 1.5% annually. In both and especially the second case a reduction of irrigation supply use was observed, especially for the low priority crops. Economic results (RCR>270%) indicate that Tel Aviv, with the current pricing practices subsidizes other regions in Israel. Finally, an analysis of social welfare surplus according to different discount rates was conducted for both scenarios. The cases to be further analyzed is desalination (in order to meet domestic needs) and an analysis of the Tel Aviv pricing structure both as an independent region and as a part of Israel. A case study will also be conducted for Arava region.

Cyprus, Limassol area – WDD and Aioliki

The focal point of the presentation was the analysis of stakeholder proposals and the synthesis of management options to be analysed through the DSS. The following weaknesses were stressed out:

- There was no setting for conflicting uses (agriculture vs tourism) which was supposed to be the main scope of the case study.
- Only one management option from the ones proposed has been simulated (Desalination) and no evaluation results were presented.
- A suggestion was made to start simulations with reservoirs operating at full capacity to account for the recent very wet years in Cyprus.

Portugal, Ribeiras do Algarve basin – Porto University

The presentation focused on the analysis of two different water management interventions in order to meet domestic requirements and reduce aquifer exploitation levels at the Aliezur area (western part of the river basin): the construction of a medium-sized desalination unit and the expansion of the primary domestic supply system (water production from storage reservoirs). Both interventions were compared in terms of costs, RCR and evaluation indicators. In addition, the following aspects were covered:

- Formulation of demand scenarios;
- Formulation of water availability scenarios through analysis of historical data
- Improvements to the Case Study Database since the Workshop in Paris
- Comparison of Discharge and ProWAM modules

Spain, Tenerife – Insula

The presentation focused on an analysis of the existing supply system of Tenerife. Main weaknesses identified were:

- No presentation of results obtained through the Decision Support System.
- Lack of demand and hydrology scenarios as well as presentation and evaluation of management options.

2. Formulation of Scenarios (February 3rd – Morning Session)

Formulating Demand Scenarios – Rubr University

The main components for the formulation of demand scenarios were presented. Assumptions on domestic demand, irrigation and industrial demand, as well as the level of detail, data requirements, processing and forecasting techniques were presented to the Case Study partners.

Formulating Availability Scenarios – ProGeA

The first part of the presentation was devoted to the generation of water availability scenarios using ProWAM and the water balance equations applied for the computation of surface run-off, actual evapotranspiration, groundwater recharge (infiltration) and drainage. The problem with formulating the hydrological balance for the Portuguese Case Study has been solved through the introduction of the

drainage term in the water balance equation. Finally a proposal was made and discussed on the stochastic generation of availability scenarios.

A hydrological year generator – NTUA

An excel application was presented for the generation of hydrology year scenarios. The user has the ability to formulate different hydrology sequences and select one (or more) according to pre-defined criteria in order to meet the requirements for WP 8.3 (“*Formulation of coherent water management scenarios*”). The main criticism focused on the fact that any of these hydrology scenarios is of 0-probability. It was discussed that for meeting the requirements of the analysis it would be best to simply correct the historical series of rainfall in order to produce such scenarios.

Evaluation of Options under different conditions, The case of Paros– NTUA

Due to lack of time, the presentation was photocopied and delivered to all partners. The main goal of the presentation was to evaluate the performance and required “size” of structural and non-structural management options under different availability and socio-economic (demand) conditions. Such an evaluation will serve as the basis for strategy formulation and the common ground for the preparation of Deliverable 16 (“*Coherent management scenarios*”).

3. Formulation of Strategies and Annual Report (February 4th – Morning Session)

From Management Options to Strategies, The case of Paros– NTUA

The main goal of the presentation was to provide guidance and ground for discussion for the next phase of the project, the “Strategy Formulation Phase”. A tentative strategy for Paros Island, based on the evaluation of options of the previous day, was presented and evaluated. The presentation included the aspects of option selection, time scheduling of interventions and contingency planning. The discussion focused on the evaluation and ranking of options as well as the possibility to adapt the methodology to the particularities of each case study.

End of Year: Reporting, Deliverables and Administrative Issues– NTUA

Pending reporting requirements for the second year, deliverables and cost statements were presented for each case study partner. The summary of pending deliverables and reports for each partner at the time of the meeting is presented in Annex III.

4. Decisions Reached during the meeting

Hydrology scenarios

Partner 3 (ProGeA) will develop and distribute a hydrological scenario generator producing time series of availability (run-off and infiltration) to be used with the WSM DSS.

Pending Publishable Reports

Publishable reports D21.3 and D21.4 will be delivered with the 3rd Management Report, in June 2004.

- Partner 2 (Ruhr University) will develop Deliverable D21.3 on Water Management Methodologies.
- Partner 3 (ProGeA) will develop Deliverable D21.4 on the Decision Support System, including a summary from Deliverable 10 on the “*Review of models, tools and DSS for water management*”.

Economic Analysis Module

NTUA will prepare in close collaboration with HUJI and IOW a manual on the economic analysis of the DSS, which will be delivered to all partners by the end of February.

Training Material

Training material will be developed by Partners 4 (IOW) and 8 (Aioliki) and Partner 8 will start the development of the training material.

IPR and Exploitation Agreement

Ruhr University will add an article to the existing IPR document concerning the use of the DSS by the case study partners. It has been agreed that private use of the software (e.g. for consulting services) will be allowed during the project after permission from the coordinator (NTUA).

The IPR agreement will then be delivered to all Project Partners for signing.

Annex 1 - Meeting Agenda

February 2nd

Afternoon Session:

14:30 – 15:00	Overview of the work in WSM until the present (<i>D. Assimacopoulos</i>)
15:00 – 15:30	Comprehensive water management scenarios: Italy (<i>A. Peruffo</i>)
15:30 – 16:00	Comprehensive water management scenarios: Israel (<i>G. Rosenthal</i>)
16:00 – 16:30	Comprehensive water management scenarios: Cyprus (<i>G. Glekas</i>)
16:30– 17:00	Comprehensive water management scenarios: Portugal (<i>R. Maia</i>)
17:00– 17:30	Comprehensive water management scenarios: Spain (<i>C. Marin</i>)

February 3rd:

Morning Session:

09:00– 09:10	Discussion on Case Studies (<i>D. Assimacopoulos</i>)
09:10– 09:40	Formulating Demand Scenarios (<i>A. Schumann</i>)
09:40 – 10:10	Formulating Availability Scenarios (<i>E. Todini</i>)
10:10 – 10:30	Presentation of a Hydrology Year Generator (<i>D. Assimacopoulos</i>)
10:30 – 11:30	Discussion on Availability Scenarios (<i>All</i>)
11:30– 11:45	Coffee break
11:45– 12:00	Economic Analysis in WSM (<i>J. M. Berland</i>)
12:00 – 12:45	The New Module of Economic Analysis in the WSM DSS (<i>D. Assimacopoulos</i>)

February 4th:

Morning Session:

09:00– 09:45	Strategy formulation in Paros (<i>D. Assimacopoulos</i>)
09:45– 10:45	Discussion on Strategies (<i>All</i>)
10:45– 11:15	Coffee Break
11:15– 12:00	End of Year: Reporting, Deliverables and Administrative Issues (<i>D. Assimacopoulos</i>)

Annex 2- Meeting Participants

Project Partners:

- 1) NTUA
 - D. Assimacopoulos
 - E. Manoli
 - C. Karavitis
- 2) Ruhr University
 - A. Schumann
 - D. Wisser
- 3) ProGeA
 - E. Todini
 - A. Peruffo
- 4) IOW
 - J.-M. Berland
 - C. Juery
 - J.A. Faby
- 5) Hebrew University
 - E. Feinerman
 - G. Rosenthal
- 6) WDD
 - N. Nicodemou
 - C. Artemis
- 7) INSULA
 - C. Marin
 - G. Orlando
- 8) AIOLIKI
 - G. Glekas
- 9) Porto University
 - R. Maia
 - C. Silva
 - R. Faria

From the ARID Cluster steering group:

- B. Barraque
- I. Iacovides

Annex III

Summary of pending deliverables and reporting for the second year of the project

Partner 2 (Ruhr University)

- a) TIP Part 3

Partner 3 (ProGeA Srl)

- a) Deliverable 11 (“Integrated Decision Support System Applicable to the Paradigms”) **Final version**
- b) Cost Statements
- c) Datasheets for Annual Report
- d) Detailed report for WP5 (“Review, Testing and Application of Tools for Water Management”)
- e) TIP Part 2 for the DSS
- f) TIP Part 3

Partner 4 (IOW)

- a) Deliverable 13 (“Workshop Proceedings”) **Final version**
- b) Detailed report for WP7 (“Workshop for presenting findings and for training on the DSS”)

Partner 5 (HUJI)

- a) Contribution to Deliverable 14 (“Existing water management plans in the identified paradigms”)
- b) Cost Statements
- c) Datasheets for Annual Report
- d) TIP Part 3

Partner 6 (WDD)

- a) Contribution (with Aioliki) to Deliverable 14 (“Existing water management plans in the identified paradigms”)
- b) Cost Statements
- c) Datasheets for Annual Report
- d) TIP Part 3

Partner 7 (INSULA)

- a) Contribution to Deliverable 14 (“Existing water management plans in the identified paradigms”)
- b) Cost Statements
- c) Datasheets for Annual Report
- d) TIP Part 3

Partner 8 (Aioliki)

- a) Contribution (with WDD) to Deliverable 14 (“Existing water management plans in the identified paradigms”)
- b) Cost Statements
- c) Datasheets for Annual Report
- d) TIP Part 3

Partner 9 (Porto University)

- a) Cost Statements
- b) Datasheets for Annual Report
- c) TIP Part 3