

# FEASIBILITY STUDY ON THE DEVELOPMENT OF A REGIONAL WATER OBSERVATORY MECHANISM IN THE MEDITERRANEAN REGION

## PHASE II

### TERMS OF REFERENCES

VERSION: 7 FEBRUARY 2007

## 1 BACKGROUND

The principle of a global observation mechanism on water and sanitation has been brought up many times in international bodies. The European Union presented its vision at the last Commission for Sustainable Development, held in New York in April 2005. The final document published by this Commission incorporates the key measures proposed by the EU to continue the progress made towards the objectives set by the international community: a global mechanism based on national and regional mechanisms, the improvement of data collection and the comparison of information.

On the basis of the mandate assigned to EMWIS by the Euro-Mediterranean Ministers at the Turin Conference on Local Water Management, the Euro-Mediterranean Water Directors agreed, during their last conference in Rome in November 2005, upon the *“Study, with the voluntary countries, of the objectives and feasibility of building up, within EMWIS, a Mediterranean water observation mechanism to monitor the indicators tracking the achievement of the Millennium Development Goals related to water and sanitation in the Mediterranean, as well as the implementation of the “water” component of the Mediterranean Strategy for Sustainable Development, based on the information provided by the National Water Information Systems, when they do exist.”*

## 2 CONTEXT

The 1st phase of the study has resulted in a global vision of the situation and the recommendation to “further analyse and first test the proposed regional water information partnership” (MEDWIP) in the 2nd phase of the study. These results have been validated by the Euromed water directors in Athens in November 2006. They will be used as guidelines for conducting this 2<sup>nd</sup> phase. The key priorities identified are:

1. **The need of reinforcing the capacities of the Mediterranean countries** in order to better meet the information needs of the regional level, while each country would keep its autonomy when organising its national water information system (NWIS).

Further to possible support to the development of their « NWIS » (or equivalent), the mechanism will be of **real interest to the countries**, if it can, above all, **contribute to reinforce the data production processes**, that meet both the regional and national expectations. This can be obtained by rationalising and by creating synergies in the

information requests from the international organisations on the one hand, and, on the other, **by studying with the countries the possibilities of sustainable financing of these processes.**

2. **The need for building a framework for co-operation and dialogue between the regional and national organisations** in order to meet, as well as possible, the expectations of users of the information necessary for effective water resources management in the Mediterranean, with, on the one hand, the rationalisation and co-ordination of the production of comparable data, and, on the other, the organisation of the production of and access to reliable, comparable and quality information.

### **3 STUDY OBJECTIVES AND EXPECTED RESULTS**

#### **3.1 Overall objectives**

The overall terms of reference (June 2006) of this study include:

- A 1<sup>st</sup> analysis phase, with the objective of defining the key orientations proposed for this mechanism;
- A second phase, which shall define detailed proposals for the implementation of this mechanism.

The expected results are:

- An analysis of expectations regarding such a mechanism
- A synthesis of the various existing observatory mechanisms at national and regional levels
- The vision and definition of the main orientations proposed by this observatory mechanism, including:
  - Its missions, targeted users, geographical and thematic scopes
  - Outline description of its organisational and technical architecture
- Proposal for an implementation scenario, including:
  - Description and recommendations for its organisational structure, including: its different components, partnerships to be established and complementary actions to be carried out at the regional and national levels
  - Description of its technical architecture, including access to basic (raw) data sources, common standards to be used for data exchanges and the production of thematic synthesis, production of review and dissemination
  - Provisional planning
  - Detailed budget including implementation and running costs

#### **3.2 Objectives of the 2<sup>nd</sup> phase**

On the basis of the recommendations from the 1<sup>st</sup> study phase, this 2<sup>nd</sup> phase will propose an implementation scenario for the regional mechanism and the related national mechanisms, including their organisational and technical structures and their relations, the services that could be provided, the potential funding, and priority actions that could be implemented with interested countries and regional/international initiatives.

The expected results are:

- National diagnostic studies in 4 other voluntary Mediterranean Countries (in addition to the studies carried out in France, Jordan, Spain and Tunisia during the 1<sup>st</sup> phase)
- Definition and evaluation of potential outputs:
- Draft implementation scenario
  - Organisational and technical framework
  - Draft partnership charter
  - Evaluation of budget requirements and funding opportunities
  - Provisional 2 years action plan

## **4 STUDY ORGANISATION**

### **4.1 Consolidating the country level studies with new voluntary countries**

#### ***4.1.1 Identification of new interested countries***

During the 1<sup>st</sup> phase of the feasibility study, national diagnostic studies have been carried out in France, Jordan, Spain and Tunisia. The interest of other countries to take part in the second phase must be confirmed (Algeria, Morocco, Libya, Turkey, Serbia, Cyprus and Malta).

#### ***4.1.2 Context overview analysis with new countries***

The objective is to carry out national diagnostic studies in 4 new countries (Morocco, Libya, Cyprus and Malta) in order to:

- a. To have a summary assessment of the organisations managing water data at the national level with a specific analysis of the status of the NWIS (caution, it concerns the management of water data and not water management). This summary can be done by adapting the chapter 40 as well as the sub-headings “information” of chapters 2, 17, 18 of the country profiles prepared for Johannesburg summit in 2002
- b. To analyse the information production processes allowing to meet the international and national information requirements (national level and management unit of the Mediterranean basin (at the national and management unit levels (basin or administrative unit according to the countries) of the Mediterranean countries);
- c. To collect the opinion of politicians/decision makers and the water resource managers on the indicators disseminated by the country at the international level, and to analyse the decision makers’ expectations with respect to the potential objectives of the mechanism.

The national diagnostic studies will be made using desk research and investigations (visit or such) in the main national water organisations as well as dissemination of a questionnaire to the main institutions concerned. For analysing the information production processes, the questionnaire used during the 1<sup>st</sup> phase will be used, while for the collection of opinions and expectations the phase 1 questionnaire will be adapted to take into account the 1<sup>st</sup> vision defined.

The expected result is a report for each country including:

- A briefing note with an update/adaptation of the chapters 2,17, 18 and 40 of the country profiles;
- A reminder on the progress made and on the organisation of the NWIS implementation and on the potential requests for support with NWIS development
- A presentation of the production processes
- A synthesis of' opinions and expectations of the politicians, managers, decision makers and main users on current production processes, MedWIP approach and functionalities proposed
- Annexes with the replies to the questionnaires and synthesis of interviews.

#### ***4.1.3 First draft of national data source catalogue***

Guidelines and online tools will be developed for the collection of national metadata on water data sources.

On this basis national consultants will collect the metadata available at the national level, giving priority to key topics for the national policy. Metadata will be collected for at least 30 data sources, and captured into with the on line tool implemented by IOWater for this study phase. An example of metadata will be provided in annex.

In order to get a significant level of information the online collection process will be advertised (with the EMWIS e-news Flash), giving the opportunity to register non institutional data sources (e.g. research laboratories, universities, private sector, etc.)

## **4.2 How to organise and structure the MEDWIP as a framework for concertation**

### ***4.2.1 Draft partnership charter and promotion***

This partnership could be established and based on a charter. This document would especially specify the **basic principles proposed for its organisation and operation**, such as:

- The principle of voluntary participation of the members (international and national):
  - No obligation of participation, they are free to leave the partnership at any time,
  - Each member defines the data and/or human resources and equipment (information system), which it wishes to share and/or develop within this partnership;
- The principle of openness to any organisation producing, administrating and/or using water data and information in the Mediterranean;
- The added value for members, such as:
  - Ability to facilitate or participate in the work of the working groups with privileged access to the results of the various groups (shared documents, etc.);
  - Enhancement of the produced data or indicators;
  - Privileged access to the tools and methods available for developing its own activities (catalogues, reference frames, tools for promoting actions by syndication of the information on events, diaries, documentary references, etc.);

- Participation in workshops for the exchange of experience, and privileged access to training/information capacities and regular information on work progresses (info flash, etc.);
- The principle of quality insurance:
  - The producers contribute to better quality by producing metadata and information on the completeness of the available data;
  - The partner will benefit from possibilities of internal “peer review” by the members to improve the quality of its data;

#### ***4.2.2 Deeper analysis of synergy with existing think tanks and main organisation***

Following the interviews carried out during the 1<sup>st</sup> phase of the study, a deeper analysis of potential synergies between the Partnership and the main working groups and regional organisations (UN-Water, EU, MAP, WWC, etc.) in the field of water data administration will be carried out in order:

- to present the MedWIP approach
- to identify the potential synergies with the organisation activities, in particular on
  - Common referential development
  - Indicators metadata definition
  - Common data source metadata management
  - Tools for interoperability development
  - ...
- to study the potential contribution to common working groups
- to collect information for the catalogue of information sources
- to review technical standards used
- to assess potential interest in specific activities

Meetings will be organised with each group and brief synthesis will be prepared.

#### ***4.2.3 Evaluation on first priority topic***

In order to test the global approach proposed, some first methodological elements and tools will be defined and applied on the following 5 priority topics:

- General indicators on water supply and sanitation (MDG7)
- Indicators related to water of the MSSD
- Data on uses of water for agriculture
- Data on water and sanitation services (as example of topic with dispersed information)
- Data and indicators on drought
- Climate Change

For each priority, the following action will be done:

- Identification of indicators
- Identification of information sources
- Collecting metadata for each information source
- First analysis/comparison of the approach used by the different sources
- Conclusions/recommendations for action in the framework of the MedWIP

#### **4.2.4 Working group organisation**

On the basis of the evaluation made on 5 priority topics, potential MedWIP activities will be defined on the basis of working groups or task force, including; its mandate, action plan, membership, organisation and financing.

#### **4.2.5 Prototype tools for collaborative activities**

A number of prototype tools based on open source software will be set-up to support the activities of this 2<sup>nd</sup> study phase and to evaluate their interest for the future:

- Web portal
- Catalogue of data sources
- Database on indicators (description of the indicators used)
- Web mapping

### **4.3 Definition of MEDWIP outputs**

Different level of potential products or services will have to be defined according to the targeted users:

- Support to the national level, for example:
  - o Catalogue of data source including topics (e.g. drinking water) and geographical level of interest (e.g. national, local, basin)
  - o Adoption of common indicators among the main stakeholders
  - o Preparation of data information agreements
  - o Etc.
- Identification of potential support to each regional/international programmes and initiatives (e.g. JMP, MSSD, WISE, Horizon 2020, MedStat)
  - o Concertation with others initiatives to agree on coherent metadata (i.e. that can be compared, shared) or development of common outputs
  - o Identification of information gap and priorities for national data collection processes
  - o Promoting national data collection processes according to jointly agreed standards
  - o Cost assessment of compiling specific indicators
  - o Etc.
- Services of common interest
  - o Regional catalogue of data sources to promote the indicators produced and relevant data producers with quality indicators
  - o Common neutral formats and metadata (for data representation) in order to allow exchange and comparison (data definitions, keywords, units; geographical areas, etc.)
  - o Common procedures for data exchange and information valorisation
  - o Definition of peer review mechanism for quality insurance
  - o Etc.

#### **4.4 Draft implementation scenario**

The objective is to define the conditions for the functioning of the partnership, including:

- An organisational and technical framework
- The human and technical resources required
- Evaluation of budget requirements and funding opportunities (regional/international and national)
- Provisional 2 years action plan

#### **4.5 Steering and coordination**

During this second phase, two steering group meetings will be organised:

- A kick off meeting of this 2<sup>nd</sup> phase in March 2007
- A meeting to present the draft conclusions at the end of September

In addition a workshop will be organised in 3-4 July 2007 (Madrid) with national and international experts in order

- to discuss the results of the analysis of synergy with existing “think tanks”
- to review the results of preliminary activities on priority topics and to define working groups/tasks force
- to initiate a common data source catalogue
- to discuss the organisation of concerted national and regional data plans (approaches for data production based on needs assessment, joint agreements of data standards, sustainability of data production)

The draft recommendations of this 2<sup>nd</sup> phase will be presented to the next conference of the Euromed water directors (October 2007, to be confirmed)

## 5 BUDGET AND TIMING

Activities	Period	Min. person-days	Total Budget	Fees	Travel and perdiem
<b>1 Consolidating the country level studies with new voluntary countries</b>					
	Jan-Feb'07	12	5 400	5 400	0
1.1 Identification of new interested countries and review of methodology and tools					
1.2 Context overview analysis with 4 new countries	March-April'07	40	18 000	18 000	0
1.3 First draft national data source catalogue (6 countries)	March-April'07	30	16 000	13 500	2 500
<b>2 How to organise and structure the MEDWIP as a framework for concertation</b>					
	March-July'07	15	6 750	6 750	0
2.1 Draft partnership charter and promotion					
2.2 Deeper analysis of synergy with existing think tanks and main organisation	Feb-April'07	15	10 500	6 750	3 750
2.3 Evaluation on first priority topic					
2.3.1 Methodology and tools	Jan-Feb'07	15	8 000	6 750	1 250
2.3.2 General indicators on water supply and sanitation (MDG7)	Feb'07	5	3 500	2 250	1 250
2.3.3 Indicators related to water of the MSSD	Feb'07	5	3 500	2 250	1 250
2.3.4 Data on uses of water for agriculture	Feb-March'07	5	3 500	2 250	1 250
2.3.5 Data on water and sanitation services	Feb-March'07	5	3 500	2 250	1 250
2.3.6 Data and indicators on drought	Feb-March'07	5	3 500	2 250	1 250
2.4 Working group organisation	April-June'07	10	7 000	4 500	2 500
			0	0	0
2.5 Prototype tools for collaborative activities					
2.5.1 Web portal, web mapping and Catalogue of data source	Feb-May'07	25	11 250	11 250	0
2.5.2 Improvement of tools and database of indicators	April-Sept'07	25	11 250	11 250	0
<b>3 Definition of MEDWIP outputs</b>	May-June'07	20	9 000	9 000	0
<b>4 Draft implementation scenario</b>					
4.1 Technical, organisational and financial requirements	June-Sept'07	20	9 000	9 000	0
			5 400	5 400	0
4.2 National and regional funding mechanisms	June-Sept'07	12			
<b>5 Steering and coordination</b>					
5.1 SC meeting (kick off meeting for phase 2)	March'07	8	6 900	3 600	3 300
5.2 Experts workshop	June'07	35	35 900	15 750	20 150
5.3 SG meeting (draft conclusions)	Sept'07	5	5 550	2 250	3 300
5.3 Presentation of the final results at water directors conference	Oct'07	5	6 000	2 250	3 750
5.4 Overall coordination	Feb-Nov'07	12	5 400	5 400	0

Total: 194 800 EUR (without budget for the logistics of the experts workshop in June)