

Joint Process results

(v. 12/10/2010)

This document gives the results and the achievements of the Joint Process carried out during its two phases (2004-2006 & 2007-2009). Further information & details are available at the website: <http://www.emwis.net/initiatives/medeuwi/JP>

1. INTRODUCTION

The Joint Water Framework Directive / EU Water Initiative process (JP) aims at developing synergies between the two mechanisms to facilitate the implementation of sound water policies. The "Mediterranean Joint Process" is a technical platform for collaboration between the various countries bordering the Mediterranean, allowing evaluations and discussions in connection with the Mediterranean characteristics through the use of the Water Framework Directive – WFD - of the European Union as a discussion basis. Moreover, this Joint Process (JP) is developing its activities in phase with the European Neighbourhood Policy (ENP) principles (cooperation, regional stability, Exchange of information etc.).

Six working groups have been launched in this process, with their mandates approved by the Euro-Mediterranean Water Directors:

- [Groundwater management](#), lead by Greece
- [Drought and water scarcity](#), lead by MENBO, European Commission and EMWIS
- [Shared water resources management](#), lead by GWP-Med
- [Monitoring networks and programmes](#), lead by EMWIS
- [Waste water re-use](#), lead by Malta and the European Commission
- [Linking rural development with water management](#), lead by European Commission/JRC (In 2007, due to internal reorganization, the JRC is no longer in a position to ensure his leadership for this WG. Hence no further practical steps were implemented).

These WGs are a flexible and effective tool for the exchange of experiences between practitioners on issues of common interest while keeping decision makers in the loop: validation of working groups mandates, regular information on progress, validation of results. As regards concrete outcomes, the work has two dimensions:

- **Production of specific documents** useful for water resources management in the region, based on the requirements of the EU Water legislation and particularly of the WFD. Mediterranean recommendations could be used for the EU countries as guidance (complementary to the general ones produced by EU WGs) and as technical elements for convergence of legislation for non-EU countries.
- **Promote the development of a Mediterranean expert network.** Building a community of Mediterranean EU and non-EU experts knowledgeable in the specificities of the implementation of the WFD in their region and aware of potential

solutions to face existing problems would facilitate the achievements of common environmental objectives and work together towards sustainable development.

Complementary to these working groups and the EU Pilot River Basins exercise, pilot activities have been developed in the southern rim of the Mediterranean. The exercise consisted in testing the existing EU guidance as well as recommendations produced by the Med Thematic WGs covering different aspects of the WFD. Concrete testing would allow identification of activities / measures to be implemented for achieving the objectives of the WFD. They have been developed in the frame of the project called Science-Policy Interfacing in support of the Water Framework Directive implementation (Acronym: SPI-Water - Workpackage 3) under the coordination of MENBO.

The two pilot river basins are Sebou (Morocco) and Litani (Lebanon). Both river basins have written a report describing the physical and administrative framework of the river basins and the status of IWRM implementation (similar article 5 report). A special emphasis was put on the identification of weaknesses.

These reports are instrumental in matching major water management problems and needs of the river basins with solutions from the EU experiences.

2. BACKGROUND

The Mediterranean EUWI/WFD Joint Process was first presented during the EU Water Directors Meeting in Dublin, on 23 June 2004. Two phases have been achieved (Phase I: 2004-2006 & Phase II: 2007-2009). The specific objectives of the first phase (2004 – 2006) of the Mediterranean Joint Process were discussed during 2 technical meetings, organized in Stockholm (Sweden) in August 2004 and in Brindisi (Italy) in September 2004, where the idea of creating synergies between WFD implementation and EUWI was welcomed by the participants, in particular those from partner countries.

Three topics were selected as a first basis of common interest: **“Water Scarcity”**, **“Groundwater Management”** and **“Rural Development & Agriculture”**. Three Mediterranean thematic Working groups were set up to address these issues aiming at the production of specific Mediterranean recommendations and examples, based on the Water Framework Directive (WFD) approaches and objectives and the regional conditions. The drafting process led to the production of specific reports on these issues with an emphasis on the WFD implementation and its major difficulties in the Mediterranean context. Two working groups were directly linked to activities carried out under the umbrella of the Common Implementation Strategy (CIS) of the WFD: Groundwater (led by GR and COM) and Water Scarcity (led by FR and COM); the third one, focused on linkages between rural development and agriculture and water resource management was indirectly connected to the EU Steering group on Agriculture, through the participation of the leader of the WG, the JRC.

The progress and results of the three thematic Working Groups of the first phase were presented in the **“Conference of the Water Directors of the Euro-Mediterranean and Southeastern European Countries”**, held in Athens, on 6 & 7 November 2006. The Water Directors **welcomed the results achieved from Phase I** (2004-2006) of the Mediterranean Joint Process, proposed to continue and deepen the topics selected in the first phase and **agreed on the development of the second Phase** (2007-2009). Phase II of the Mediterranean Joint EUWI/WFD Process included the three Working Groups of the first phase as well as three new WGs on specific focus themes of major interest and concern for the Mediterranean Region: **“Waste Water Reuse”**, **“Shared Water Resources Management”** and **“Water Monitoring”**.

Furthermore, the Water Directors expressed interest for developing **“Mediterranean Pilot Basins”** within the Phase II of the Joint Process, as a tool for practical testing of the recommendations produced. The objective of this activity was to test the applicability of the WFD principles and requirements in selected Pilot Basins in non-EU countries and identify bottlenecks and solutions.

3. MEDITERRANEAN JP OBJECTIVES

The Med Joint Process encourages the establishment of a network of water experts, volunteers for sharing their own difficulties and ready to get experiences from other basins or countries.

To achieve this objective, the Med Joint Process aims at developing a mechanism to ensure the flow of information and knowledge between water managers / experts from both sides of the Mediterranean. The role that Med Pilot River Basins¹ could play is of particular interest in this framework. They cover a broad scope of problems frequently encountered in the North Mediterranean countries. But similar situations are encountered also in the Southern and Eastern border of the Mediterranean Sea, exacerbated by additional factors such as intensive and increasing demand for irrigation purposes, faster growing population and improvement of standard of living. The experience gained by the Med PRB, particularly on the development of River Basin Management Plan could be valuable for other basins in the area. On the other side, specific know-how already developed by non-EU countries facing the same challenges could bring interesting solutions for EU basins and thus could facilitate the implementation of the WFD. The Med PRB could act as interface to transfer specific knowledge get in the context of the CIS, and bring back to the CIS specific experience gained in the Mediterranean context.

The recommendations prepared have been presented to the Mediterranean Water Directors in the framework of the EuroMed water director Forum². This permitted to mobilise and served as political platform to support the Med Joint Process. In the Balkan region, no specific activities have been carried out.

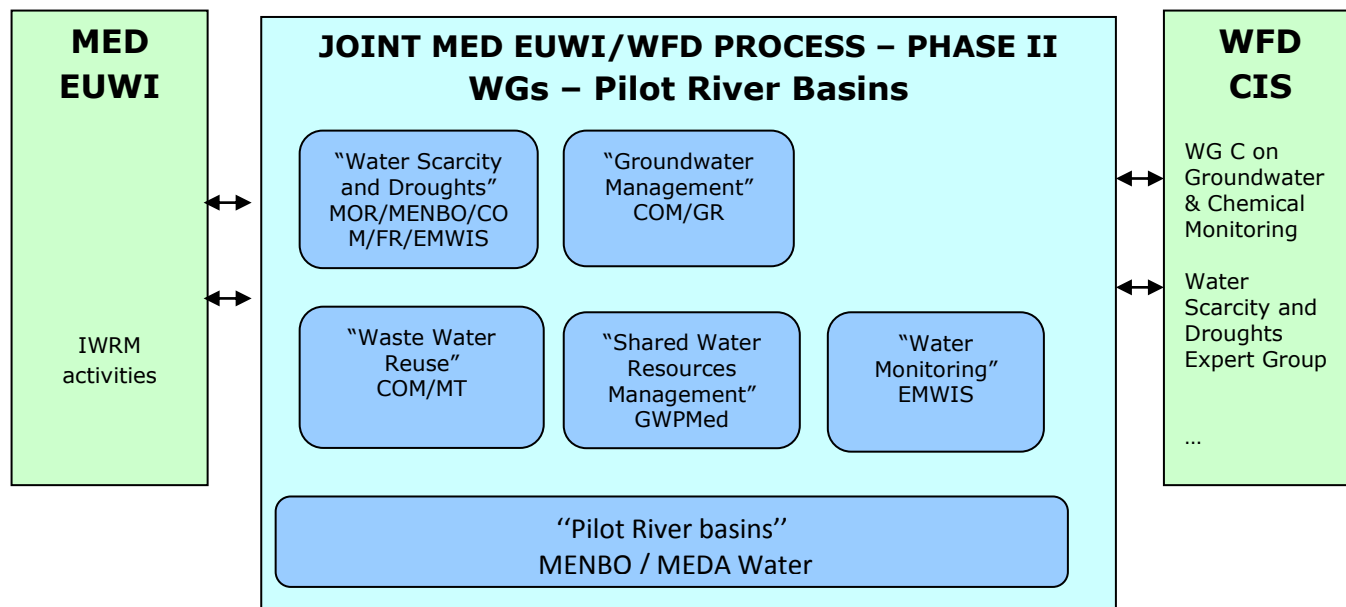
¹ Cecina (IT), Jucar (SP), Pinios (GR), Tevere (IT)

² Including Turkey, Jordan, Israel, Palestinian Authority, Lebanon, Syria, Egypt, Tunisia, Algeria and Morocco but not the Balkan countries.

4. ORGANISATION OF THE JP

4.1 Mediterranean Thematic Working Groups

Linkages with working groups –WGs- of the EU Common Implementation Strategy of the Water Framework Directive (WFD CIS) are ensured thanks to EU experts involved in EU WGs dealing with similar issues.



The WGs are composed of water managers, EU and non-EU experts, basin authorities, institutions and stakeholders of the Mediterranean region. Countries representativeness Detailed in each WG is included in Annex 1. Membership is open to experts and water managers, EU and non-EU, who are ready to actively contribute in the process (notably contribution in drafting).

The main tasks of these groups are, for each issue, a study of the current practices in the region, an analysis of the implications of the WFD or other EU relevant legislations and finally the establishment of recommendations. Detailed mandates (URLs) of the 6 Med. Thematic WGs are included in Annex 2.

4.2 Mediterranean Pilot Basins

Complementary to the EU Pilot River Basins exercise, pilot activities are developed in the southern rim of the Mediterranean. The exercise consists in testing the existing EU guidance as well as recommendations produced by the Med Thematic WGs covering different aspects of the WFD. Concrete testing would allow identification of activities / measures to be implemented for achieving the objectives of the WFD.

To date, pilot basins activities have been implemented in Sebou (Morocco) and Litani (Lebanon) river basins. In addition, these two basins took part in a pilot exercise related to data collection for drought and water scarcity indicators.

Pilot activities (horizontal activities) have also been carried out by the "Agriculture & Rural Development" WG in Turkey and Tunisia.

4.3 Exchange of Information

Exchange of information is a crucial challenge between EU and non-EU water experts. Participation of non-EU experts in EU meetings and workshops as well as participation of EU experts in Mediterranean workshops and conferences strengthen this objective.

The “**Euro-Mediterranean Information System on Know-how in the Water Sector (EMWIS)**” has developed electronic forums for all the WGs of the JP II, providing a platform for information exchange among water managers in the Mediterranean Region through its website: www.emwis.net , visited by more than 100.000 visitors per month, and through its monthly e-newsletter (flash) sent to more than 15.000 subscribers.

4.4 Financial Resources

The tasks of the Working Groups are carried out on voluntary basis by the group leaders and their members. In some cases, technical support has provided by the European Commission staff members and consultants mandated by the EC with a limited budget for facilitating the participation of non-EU experts in working groups meetings. These meetings are as far as possible organized in the framework of broader related events allowing minimizing costs.

Pilot river basins activities have been implemented in the framework of several projects:

- SPI-Water a project of 6th Framework Programme of R&D. It started on 1st November 2006 and took 2 years. River basins activities are carried out under the workpackage 3 coordinated by MENBO.
- Ec'Eau Sebou project funded by the MEDA-Water programme under the activities of its Regional Monitoring and Support Unit –RMSU-. It started in January 2007 for 15 months and was coordinated by WWF Mediterranean Programme.
- ‘Strengthening Litani River Authority’ project, funded by the MEDA-Water programme under the activities of its Regional Monitoring and Support Unit –RMSU-. It started in March 2008 for 15 months and was coordinated by IME – Institut Méditerranéen de l'Eau.
- Pilot projects funded by COM/JRC.
- Towards a Mediterranean Water information mechanism compatible with Wise (2008-2010) funded by ENRTP programme and coordinated by EMWIS. This project supported testing data collection on water quantities with pilot basins in Southern Mediterranean countries, but also the meetings of the “water scarcity and drought” and the “water monitoring” working groups; and the preparation of Joint Process synthesis.

5. MED JP ACHIEVEMENTS

5.1 Working groups achievements

Progress achieved since the launching of the Mediterranean Joint EUWI/WFD Process, as regards the activities of the WGs, is described in the following Table (except Pilot basin activities which is detailed later in this document). The main documents produced so far are:

- (i) the Groundwater report³,
- (ii) the Water Scarcity & Drought report⁴
- (iii) the Waste Water Reuse report⁵.
- (iv) The water quality monitoring draft report⁶
- (v) Briefing note on monitoring water scarcity and drought in the Mediterranean⁷

³ http://www.semide.net/topics/groundwater/Mediterranean_Groundwater_Report_final_150207.pdf

⁴ http://www.semide.net/topics/WaterScarcity/8a_-_Water_Scarcity_Report_1.pdf

⁵ http://www.emwis.net/topics/WaterReuse/Final_report.doc

⁶ <http://www.semide.net/topics/watmon/MedWatMon-report>

⁷ <http://www.semide.net/topics/WaterScarcity/WaterQuantityMonitoring-Med>

Progress achieved by the WGs of the Mediterranean Joint EUWI/WFD Process Phases I & II 2004-2009

ACTIVITIES	WATER SCARCITY & DROUGHTS	GROUNDWATER MANAGEMENT	WASTE WATER REUSE	SHARED WATER RESOURCES MANAGEMENT	WATER MONITORING
Drafting of Recommendations / Report	<p>The phase I final report published in June 2008, available online</p> <p>A test data collection is ongoing 2 pilot river basins (Litani in Lebanon & Sebou in Morocco) using EEA reporting tool on water quantity. A survey on data availability has been launched (based on the EEA approach for voluntary reporting on water quantity).</p> <p>A synthesis note on key data for WS&D in the Mediterranean will be edited in 2010</p>	<p>The phase I final report (Mediterranean Groundwater Report) was published in February 2007.</p> <p>Detailed content of a new document with case studies and practical approaches was agreed in the meeting of the WG (Lisbon, 20/9/07)</p>	<p>Final report on waste water reuse published on November 2007, available online</p>	<p>Work-plan and modalities defined. Some delay due to slow feedback from some contributors based on questionnaires prepared.</p> <p>Operational linkages with the Petersberg / Athens Process and GEF Strategic Partnership for the Mediterranean were established.</p>	<p>Synthesis of the survey on water monitoring networks in Mediterranean Partner countries Including examples from Jordan, Algeria & Lebanon, as well as EU countries: Austria & Spain</p> <p>State of Play report foreseen at the end of 2010</p>
Development of Electronic Forum / Improve Access on Information	<p>Hosted by EMWIS website. Available at: http://www.emwis.net/topics/WaterScarcity</p>	<p>Hosted by EMWIS website. Available at: http://www.semide.net/topics/groundwater</p>	<p>Hosted by EMWIS web site. Available at: http://www.emwis.net/topics/WaterReuse</p>	<p>Hosted by EMWIS web site. Available at: http://www.emwis.net/topics/swrm</p>	<p>Hosted by EMWIS web site. Available at: http://www.emwis.net/topics/watmon</p>
Meetings / Exchange of Knowledge	<p>Seville, 2007-06-19, during the Int. Drought Forum. Madrid, 2010-02-17 during the Int. Water Scarcity and Drought Conference Sophia Antipolis, 2010-09-06/07</p>	<p>Lisbon, on 2007-09-20, in the framework of IAH Conference</p>	<p>1st working group meeting, 2007-03-15, Brussels</p> <p>2nd meeting 2007-10-19, Brussels</p>	<p>Inception Meeting, Athens, 2007-01-17</p> <p>Workshop on Shared Groundwater Resources in SEE, 2007-11-14/16</p>	<p>1st meeting, Madrid: 2007-07-03</p> <p>2nd meeting, Beirut: 2009-10-06</p> <p>3rd meeting, Madrid, 2010-11-10</p>

The following results have been achieved by the working groups in the second phase (briefly):

1- Water Scarcity & Drought: <http://www.emwis.net/topics/WaterScarcity>

A first meeting of the second phase of the WG took place in Seville, 2007-06-19, during the International Drought Forum.

The final report for the first phase has been presented at the 5th Conference of the Water Directors of the Euro-Mediterranean and South-eastern European Countries, Athens (Greece), 2008-07-21/22. This report provided a good overview of the information available on water scarcity and drought so far in the Mediterranean Region. The conclusions of the report point out the issues that need to be further addressed in order to progress towards a Mediterranean system of information on water scarcity and droughts.

From 2008, close relationships have been established with EU expert group on drought and water scarcity resulting in an assessment of data availability to compile comparable WS&D indicators and a pilot exercise on 2 non EU river basins for a full data collection. Data collection and drought management plans were the main issues discussed at WG meeting held in Madrid, 2010-02-17, during the International Water Scarcity and Drought Conference. This meeting has shown the willingness of its members for a new phase with pilot activities on data collection, quality assurance, evaluation of DPSIR WS&D indicators, and management plans in close relationship with the water topic center of the EEA (that could provide some support) and EU CIS-WG on water scarcity and drought. A test data collection has been carried out in 2 pilot basins: Sebou (Morocco) and Litani (Lebanon), results have been discussed and validated during a technical meeting with the local experts in September 2010. A publication entitled "Monitoring water scarcity and drought in the Mediterranean" will be published by the end of 2010.

2- Water Monitoring: <http://www.emwis.net/topics/watmon>

The first meeting of this new WG took place in Madrid, 2007-07-03, and the last one took place in Beirut, 2009-10-06.

In order to describe the status of water monitoring networks and programmes in Mediterranean Partner countries, a survey was carried out among water authorities in the Mediterranean Partner countries, between April and August 2009. 19 organisations from 9 countries (Algeria, Cyprus, Israel, Jordan, Lebanon, Morocco, Syria, Tunisia and Turkey) replied to this questionnaire. A synthesis of replies has been prepared as well as some good practices presented at the last meeting of Beirut (2009-10-06). A status report is scheduled for the end of 2010, and an outline table of content has been proposed. Additional activities will focus on: potential common indicators for regular monitoring, awareness campaigns on quality issues, cost efficiency of monitoring networks; coordination of institutions undertaking quality monitoring. The next meeting is planned for November 2010 in Madrid where the status report as well as a revised mandate will be presented and discussed.

3- Groundwater management: <http://www.emwis.net/topics/groundwater>

The Phase I final report (Mediterranean Groundwater Report) was edited in February 2007. A detailed work plan and table of content for a new report was agreed in the meeting of the WG (Lisbon, 2007-09-20 in the framework of IAH Conference). Unfortunately, the persons leading this group (both at the Commission and in Greece) moved to new positions and the activities were not continued after the end of 2007.

4- Agricultural and rural development: <http://www.emwis.net/topics/Rural>

Due to internal reorganization, the JRC leadership for this WG is no longer in a position to ensure his role. Hence no further practical steps were planned yet.

A meeting for this 2nd phase took place at the JRC Ispra in March 2007 and dealt with case study experiences (RBs and agriculture sites). Set up cases for applied research was the purpose to try to get a project proposal together but this could not be finalized.

5- Wastewater reuse: <http://www.emwis.net/topics/WaterReuse>

After two WG meetings (2007-03-15, Brussels and 2007-10-19, Brussels) and thanks to the strong participation of the AQUAREC project (FP5) the final report on waste water reuse was published in November 2007. No further meetings or activities were organised after.

6- Shared water resources management: <http://www.emwis.net/topics/swrm>

Two meetings were organised: the inception Meeting in Athens on 2007-01-17 and a workshop on Shared Groundwater Resources in South-Eastern Europe on 2007-11-14/16. The work-plan and modalities have been defined after some delay due to slow feedback from some contributors based on questionnaires prepared. Operational linkages with the Petersberg / Athens Process and GEF Strategic Partnership for the Mediterranean were established.

5.2 Mediterranean Pilot Basins Activities (see Annex 3)

Apart from the pilot activities carried out by the Agriculture WG and by the water scarcity and drought WG, Med Pilot Basins activities have been developed in the frame of 3 projects.

i) The first one called **Science-Policy Interfacing in support of the Water Framework Directive implementation (Acronym: SPI-Water - Workpackage 3)**, was coordinated by MENBO. The aim is to develop EU Water Initiative/WFD Joint Process activities for facilitating the implementation of integrated water resources management principles in non-EU countries. The two pilot river basins of this project are Sebou (Morocco) and Litani (Lebanon). Both river basins have written a report describing the physical and administrative framework of the river basins and the status of IWRM implementation (similar article 5 report). A special emphasis was put on the identification of weaknesses.

The actual political situation in Lebanon is very difficult and water is a highly political issue. Even though, SPI-Water project succeed in the identification of problems and needs in the Litani River basin:

- Pollution of surface and groundwater
- Over-exploitation of groundwater
- Lack of a basin wide approach to water management due to a missing institutional setting

The work for the staff of the Litani River Authority was very complicated due to this reason and regional and national circumstances made it nearly impossible to obtain certain vital information for the elaboration of the report.

The reports have a high value for the river basin organisations as a document, which summarises the actual status of the river basins. In the frame of the SPI-Water project the documents serve as a base for future goals to reach. The main aim of the report is

to be instrumental in matching major water management problems and needs of the river basins with solutions from the EU experiences.

Both documents are available on the SPI-Water project website (www.spi-water.eu).

ii) The second one called **Ec'Eau Sebou** has developed complementary activities on Sebou basin and successfully tested the feasibility of the economic analysis as required by the WFD, which are essential for the effective application of the key principles of Integrated Water Resource Management. A workshop focused on Litani and Sebou river basins was organized the 19th February 2008 in Fez, Morocco. Invited were especially water managers from Morocco and Lebanon. Later in April 2008, the applicability of the economic analysis to Sebou river basin and conclusions on this test were discussed.

The main achievements of this project were:

- Economical importance of water uses: the socioeconomic indicators such as turnover, added value and employment were calculated for various key sectors. With regard to the economic importance of water uses, socio-economic data were crossed to the technical data of the mass balance, to understand the relative importance of different uses of water from a technical point of view and the socio-economic integration between economic development and water policies in the Sebou basin. Thus, the preliminary results showed that the industry presents the most important turnover when agriculture is important for employment. Other sectors such as tourism, fishing, crafts were not detailed due to lack of availability of data.
- Trend Scenarios: the various factors and indicators affecting water demand and pollution have been identified. The future developments of these factors were evaluated until 2015, in particular to obtain initial estimates on the quantitative aspects for the Gharb and Saïss aquifers, and on the qualitative aspects for the surface water of the Sebou River. The preliminary results show that the water balance will increase between 2004 and 2015 from -31 Mm³ to 58 Mm³ for the Gharb aquifer and from -128 m³ to 6 Mm³ for the Saïss aquifer. This increase is attributed in both cases in particular to the irrigation from surface waters instead of groundwater and to the improvement of the overall performance of the distribution network of drinking water for the urban population.
- On the other hand, it was concluded that an overall improvement of water quality of the Sebou river will be observed between 2004 and 2015. This improvement will result in the equipment of many cities with sewage treatment plants. Meanwhile, this gain in quality seems not to be enough to induce a real change of the overall class of the water quality.
- Water pricing and cost recovery: the analysis focused on screening water services available, the level of financial contribution of users, public funding provided and the cost of water in the Sebou basin.
- Cost effectiveness: On the basis of data gathered on water abstraction, pollution and environmental conditions, mass balance has been prepared for the two aquifers and for the various sub-basins of Sebou. These assessments were connected to the pressures and impacts on the environment. An evaluation of the effectiveness of potential measures was proposed and a cost was attributed to each measurement. A data base structuring the measures, their dimension and their costs was developed.
- Cost benefit: Uses affected by the proposed measures were identified. The impact of the proposed measures on these uses were described, evaluated qualitatively and monetized to calculate the cost and benefits of action programmes to achieve the environmental objectives for the surface water in the Sebou basin.

iii) The third one called '**Strengthening Litani River Authority**', was coordinated by the Mediterranean Water Institute (IME). Its overall purpose is to contribute to institutional capacity building of the Litani River Authority (LRA) to assist the institution in its anticipated change from river exploitation institution to River Basin Management (RBM) Authority. The final report of this project emphasized the fact that several studies on the fundamental elements and aspects of IWRM were undertaken by different institutions in the Lebanese water sector and partial decisions with regard to implementation have been taken mainly by the responsible Ministries (MEW, MOE, and MOA). What lacks until now, is an inter-institutional and coherent global approach involving all stakeholders and including the consultation of the public as demanded by IWRM principles.

A 2-day workshop on "Litani River Authority (LRA) and River Basin Management – constraints and possibilities in integrated Lebanese water management" took place in Lebanon on 11th and 12th of June 2009. Its main goals were to bring together most of the stakeholders in the Lebanese water domain and to discuss LRAs anticipated shift towards RBM Authority, identify constraints and give recommendations for the possible role of WUAs within this process, and identify data requirements and availability for the use of Decision Support Systems in IWRM.

The main results of this project are:

- Development of the "Management Road Map" through five thematic work groups on different subjects that are considered as bottlenecks in LRA's managerial capacities with regard to River Basin Management,
- Development of a database of all information currently available on the Litani River Basin. Development of a Decision Support System (DSS) based on this database and simulation of 3 different scenarios at economic, social, and environmental level, and
- Establishment of a LRA consultant service to potential donor agencies working in the Litani River Basin area, based on the management road map, to coordinate different projects related to environmental governance, water quality and management, and rural development.

ANNEX 1
Countries representativeness in the 6 WGs

Country/WGs	ARD	GWM	SWRM	WM	WSD	WWR
Albania			X			
Algeria		X		X		
Belgium	X			X		
Croatia			X			
Cyprus		X			X	X
Denmark	X					
Egypt		X	X	X	X	X
France	X	X	X	X	X	X
Germany			X		X	
Greece	X	X	X			X
Hungary	X					
Ireland	X					
Israel	X				X	X
Italy	X				X	X
Jordan	X	X		X	X	X
Lebanon			X	X	X	
Macedonia			X			
Malta		X				X
Morocco		X		X	X	
Palestine				X	X	X
Portugal	X					
Slovenia			X			
Spain	X	X	X	X	X	X
Sweden						X
Syria	X					
Tunisia				X	X	X
Turkey	X			X	X	

ARD: Agricultural and rural management
GWM: groundwater management
SWRM: shared water resources management
WM: water monitoring
WSD: water scarcity and drought
WWR: wastewater reuse

ANNEX 2

MANDATES OF THE THEMATIC WORKING GROUPS

1. Water Scarcity and Droughts:

http://www.emwis.net/topics/WaterScarcity/JP_II_Mandate_WG_Water_Scarcity.pdf

2. Groundwater Management:

http://www.semide.net/topics/groundwater/MED_EUWI_Groundwater_WG_2nd_Phase_TORs.pdf

3. Agriculture & Rural Development:

http://www.emwis.net/initiatives/medeuwi/JP/JP2/JP_II_Mandate_WG_Agriculture.pdf

4. Waste Water Reuse:

http://www.emwis.net/initiatives/medeuwi/JP/JP2/JP_II_Mandate_Wastewater_Reuse.pdf

5. Shared Water Resources Management:

http://www.emwis.net/topics/swrm/TWRM_mandate_FINAL.doc
<http://www.gwpmed.org>

6. Water Monitoring:

http://www.emwis.net/topics/watmon/Monitoring_mandate_draft_20070710.doc

ANNEX 3

Pilot River Basins activities (horizontal activities)

1- SPI-WATER

The Spi-Water project has 3 aims:

1. Analysis and evaluation of projects in the field of river basin (RB) management that are of potential use for the WFD implementation. If necessary the information will be transformed into less scientific language suitable for non specialist users.
2. A reliable and user friendly web based tool to support the science-policy interface regarding the needs on the implementation of the WFD will be established ⇒ the WISE-RTD web portal.
3. Further adapt EU Water Initiative/WFD Joint Process activities to help non-EU countries to better benefit from the knowledge accumulated by EU-countries during the implementation of WFD.
 - a. To review water policy experiences in non-EU countries and to compare with the current WFD practices; to perform a need assessment of 2 Mediterranean RBs (Sebou in Morocco and Litani in Lebanon).
 - b. To study the applicability of WFD practices to non-EU countries and to identify activities for facilitating its implementation in non-EU countries.
 - c. To disseminate the obtained results to non-EU countries.

In the frame of Aim 3 partners have written two reports: 1) Report on IWRM needs in selected-non EU countries. Review of recent EUWI/WFD Joint Process activities and related practices (research activities) and 2) Description on selected non-EU river basins Litani (Lebanon) and Sebou (Morocco). Both available on the project website:

- Report 1) presents recent practices regarding the transfer of knowledge acquired in EU countries to support the implementation of IWRM principles in Mediterranean non-EU countries. Several initiatives have been analysed to highlight their strong and weak points.
- Report 2) is composed of two reports about the pilot river basins (RB) Litani (Lebanon) and Sebou (Morocco). The reports include a general overview of the physical, climatic, biotic and administrative framework in both RBs as well as the status of IWRM implementation with particular emphasis on weaknesses. The reports are instrumental in describing and identifying major water management problems and pressing needs of the RBs and matching those with solutions from the EU experiences.

Once the main problems and most pressing needs in both pilot RBs have been identified WISE-RTD is used to search for relevant information on projects, field study documents and tools, that may be considered in resolving the needs/problems. The collection of experiences of the pilot RBs using WISE-RTD serves to adapt the web portal to the needs of non-EU countries.

In the frame of the project two technical visits to EU RBs will be organised. The selection of these will be done, considering the results of searching the web portal and identifying EU RBs which confront similar problems as the non-EU RBs.

In the second year of the SPI-Water project a special emphasis will be put on the dissemination of the obtained results to non-EU countries.

2- Ec'Eau Sebou project

Ec'Eau Sebou project is a pioneer experience in the Mediterranean non EU countries in using the Water Framework Directive tools and principles to test their applicability and potential use for facilitating integrated water resource management in a pilot basin (namely the **Sebou basin pilot basin in Morocco**). The project is using the economic elements of the WFD which are essential for the effective application of the key principles of Integrated Water Resource Management. At this aim the main steps required by Article 5 of the WFD are covered, namely:

- The analysis of the economic importance of water uses
- The development of trend scenarios in the Sebou basin
- The analysis of the water pricing and cost recovery policies
- The cost-effectiveness analysis as support to the selection of measures and projects allowing to achieve environmental goals (to be defined in the case of the basin of Sebou) at lower cost
- The cost-benefit analysis, considering in particular the environmental benefit associated to the improvement of the quality of the aquatic environment.

The progresses currently are the following:

- a. The draft reports of: **pressures and impacts**, economic importance of water uses, pressures and impacts, water pricing and cost recovery have been produced;
- b. A methodology for assessing the trend scenarios have been developed and the **report is in the final revision stage**;
- c. A list of measures have been identified and their cost-effectiveness is under analysis;
- d. A high number of meetings with the various members of the steering committee have been held;
- e. A Steering Committee representing all the administrations directly or indirectly involved in water resources management and **NGO** has been set up and two meetings organized.

The next steps of the project are:

- f. Finalization of analysis and reports
- g. Dissemination of results at Morocco level (publication and workshop)

A second phase of the project has been already shaped building on the preliminary results of the project. It will focus on depth assessment of the ecological status of the river basin as a baseline to develop an operational monitoring network of the ecological status, and a more accurate programme of measure (in comparison to the one developed in the first phase)

The project is strictly interlinked to SPI-Water project which has provided the characterization of the river basin as a background for the economic analyses.

The project is implemented by WWF Mediterranean Programme and the Sebou basin agency with the technical expertise of ACTeon.

3- 'Strengthening Litani River Authority' project

The overall objective of this project is to contribute to institutional capacity building of the Litani River Authority (LRA) to assist the institution in its anticipated change from river exploitation institution to River Basin Management Authority. Assist LRA in becoming the reference-partner for EUWI in Lebanon. The overall purpose is that institutional capacity building of LRA that should lead to better overall management at River Basin level, better information management and increased dissemination, and increased project coordination.

The main activities carried out by this project were:

- 1.1 Creation of five thematic work groups
- 1.2 Preparation of one report per TWG
- 1.3 Development of the "Management Road Map" based on the work group results,
 - 2.1 Data collection
 - 2.2 Data organization and storage
 - 2.3 Development of the Decision Support System (DSS)
 - 2.4 Documentation of database and DSS
- 3.1 Establishment of LRA consultant service to donor agencies
- 3.2 Identification of all projects in the target area and establishment of contacts with LRA
- 3.3 Identification of possible pilot case studies
- 3.4 Publication of results, dissemination of results through final workshop

The main Results and achievements were:

1. Development of the "Management Road Map" through five thematic work groups on different subjects that are considered as bottlenecks in LRA's managerial capacities with regard to River Basin Management,
2. Development of a database of all information currently available on the Litani River Basin. Development of a Decision Support System (DSS) based on this database and simulation of 3 different scenarios at economic, social, and environmental level, and
3. Establishment of a LRA consultant service to potential donor agencies working in the Litani River Basin area, based on the management road map, to coordinate different projects related to environmental governance, water quality and management, and rural development.

Abbreviations and Acronyms

CIS	Common Implementation Strategy
EEA	European Environmental Agency
EMWIS	Euro-Mediterranean Information System on Know-how in the Water Sector
ENP	European Neighbourhood Policy
ENRTP	Thematic Programme for Environment and sustainable management of natural resources, including energy (programme)
EUWI	EU Water Initiative
GWP-Med	Global Water Partnership-Mediterranean
H2020	Horizon 2020 Initiative to De-Pollute the Mediterranean
ICPDR	International Commission for the Protection of the Danube River
IWRM	Integrated Water Resources Management
JP	Joint Process
JRC	European Commission's Joint Research Centre
LRA	Litani River Authority
MAP UNEP	Mediterranean Action Plan of the United National Environment Programme
MED EUWI	Mediterranean component of the EU Water Initiative
MDG	Millennium Development Goals
MENBO	Mediterranean Network of Basin Organizations
MEW	Lebanese Ministry of Energy and Water
MOA	Lebanese Ministry of Agriculture
MOE	Lebanese Ministry of Environment
MSSD	Mediterranean Strategy for Sustainable Development
RB	River Basin
RBM	River Basin Management
RMSU	Regional Monitoring and Support Unit
SPI-Water	Science-Policy Interfacing in support of the Water Framework Directive implementation
SWM	Strategy for Water in the Mediterranean
TDG	Technical Drafting Group (for the Strategy for Water in the Mediterranean)
UfM	Union for the Mediterranean
WEG	Water Expert Group (of UfM)
WFD	Water Framework Directive (of the European Union)
WG	Working group
WISE-RTD	Water Information System for Europe-Research, Technology and Development
WUA	Water Users Associations