

CONFERENCE OF THE WATER DIRECTORS OF THE EURO-MEDITERRANEAN AND SOUTHEASTERN EUROPEAN COUNTRIES



MED EUWI /WFD Joint Process



Mediterranean Groundwater Working Group

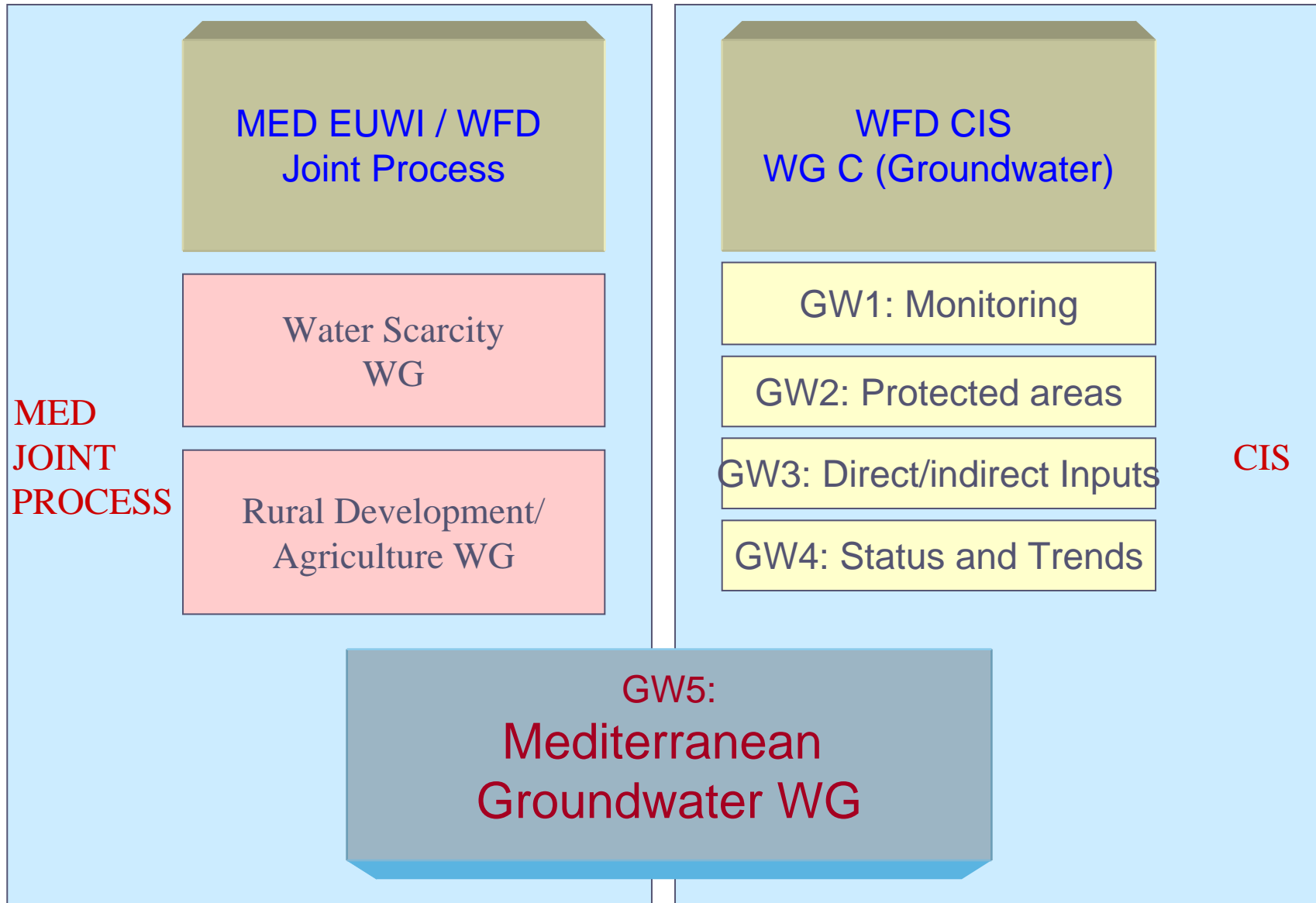
<http://www.semide.net/initiatives/medeuwi/JP/GroundWater>

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Hellenic Ministry for the Environment, Physical Planning and Public Works
Central Water Agency

Athens, 6 & 7 November 2006



Mediterranean Groundwater WG





Mediterranean Groundwater WG

Objectives:

Exchange experiences, share common challenges and develop synergies between EU and non EU countries, basin authorities, institutions and stakeholders of the Mediterranean region, aiming at the **adoption of a common vision on groundwater resources management**, based on the Water Framework Directive (WFD) approaches and principles and the regional specific conditions





Mediterranean Groundwater WG

Members:

29 members (chapter coordinators, co-drafters & example providers) from: Morocco, Algeria, Egypt, Lebanon, Jordan, Turkey, Cyprus, Greece, Albania, Malta, France, Spain, MENBO, CEDARE, INWEB, IAH, Plan Bleu, WWF Greece, etc.

Operation of web page (hosted by EMWIS):

<http://www.semide.net/initiatives/medeuwi/JP/GroundWater>

Meetings:

- Marrakech (24 May 05)
- Malaga (24 April 06)
- Plenary WG C meetings

Demonstration of the work and results



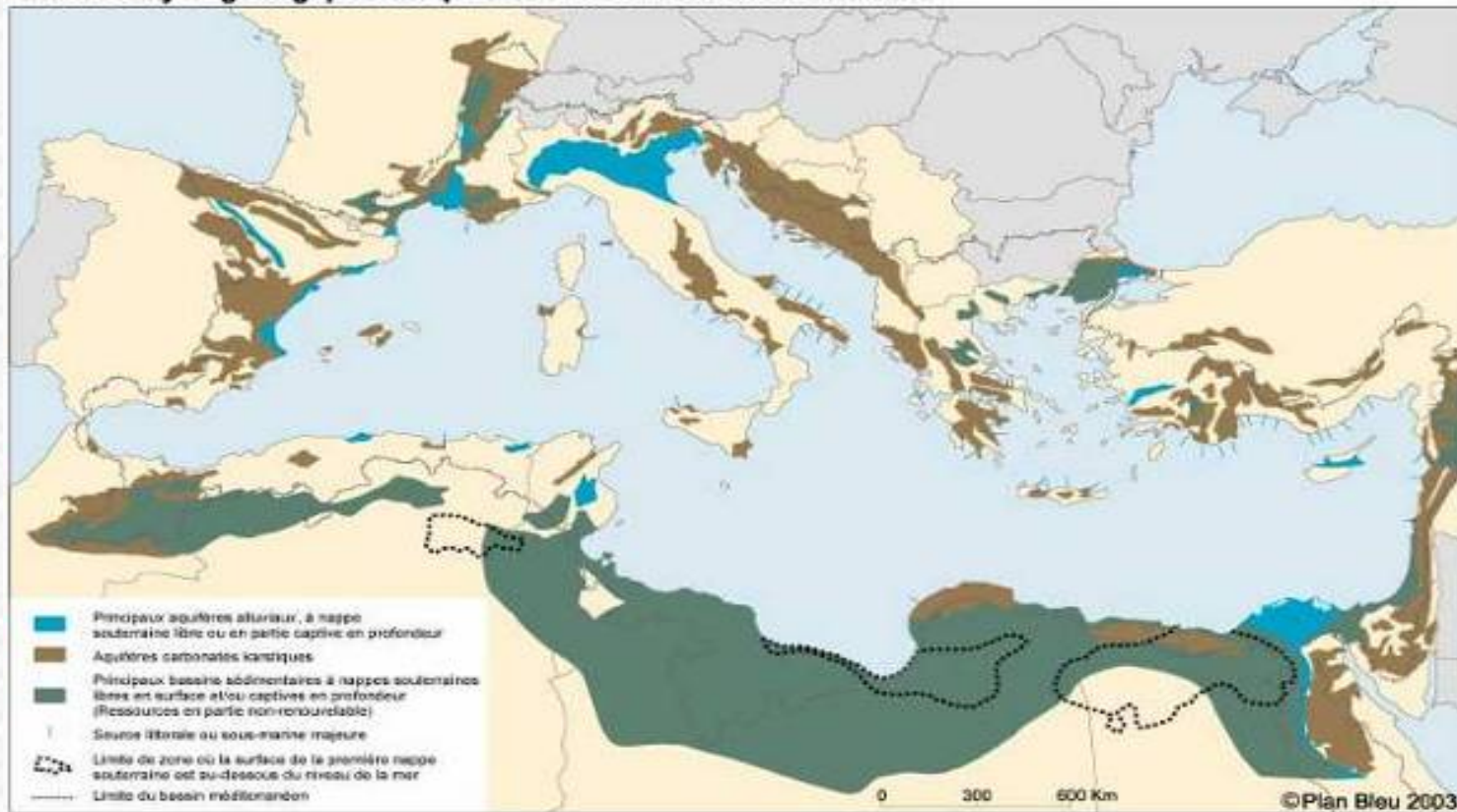
Mediterranean Groundwater WG

Mediterranean Groundwater Report:

- **Over-Exploitation of Groundwater Resources** (GW uses, non-renewable resources)
- **Deterioration in Groundwater quality** (chemical pollution, saline water intrusion, economic assessment of groundwater protection)
- **Monitoring and data management**
- **International cooperation**
- **Institutional aspects** (strategic planning, legislation, public participation, economic aspects)
- **Conclusions/Recommendations**

Hydrogeological structures and aquifers in the Mediterranean

Structures hydrogéologiques et aquifères dans le bassin méditerranéen



Mediterranean Groundwater WG

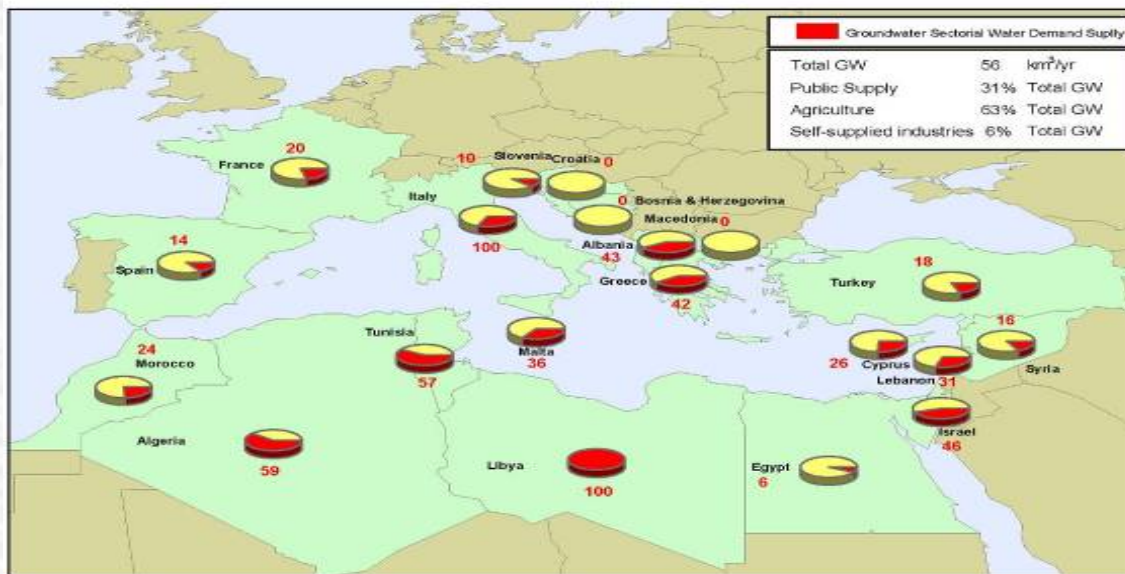
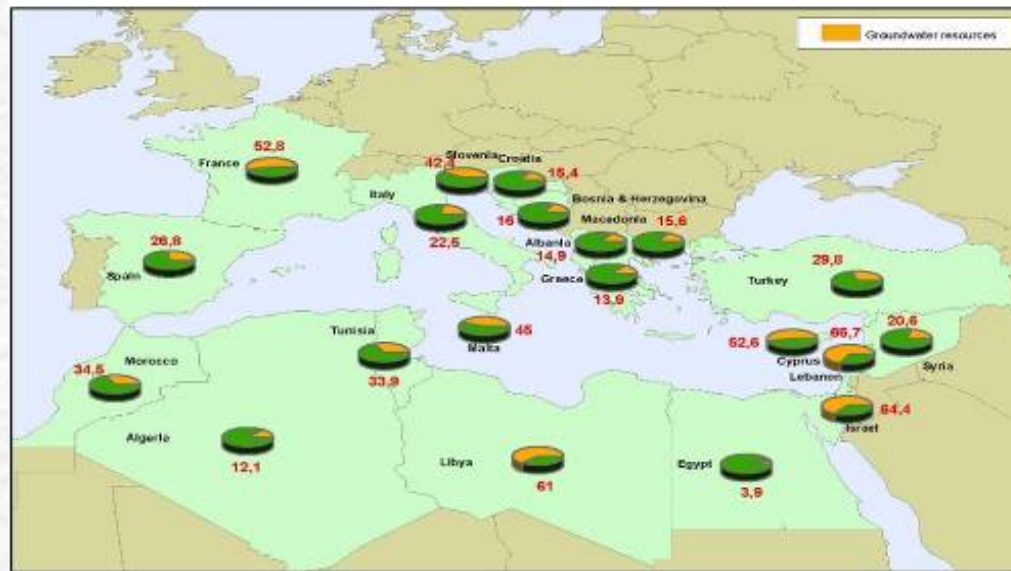
Mediterranean specificities/challenges:

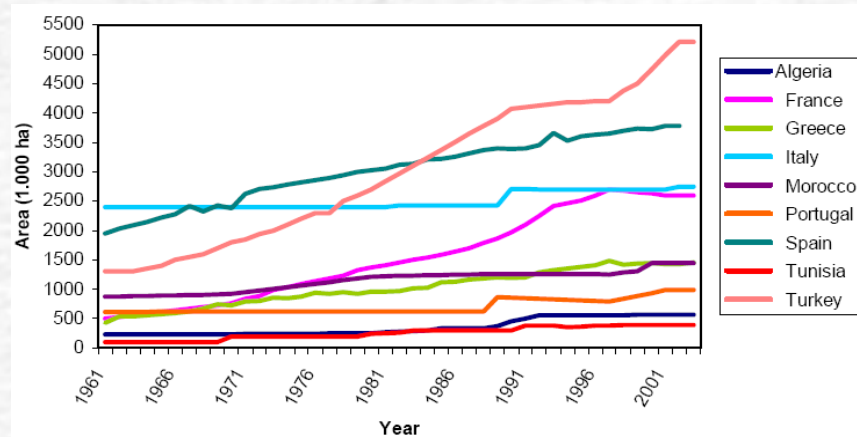
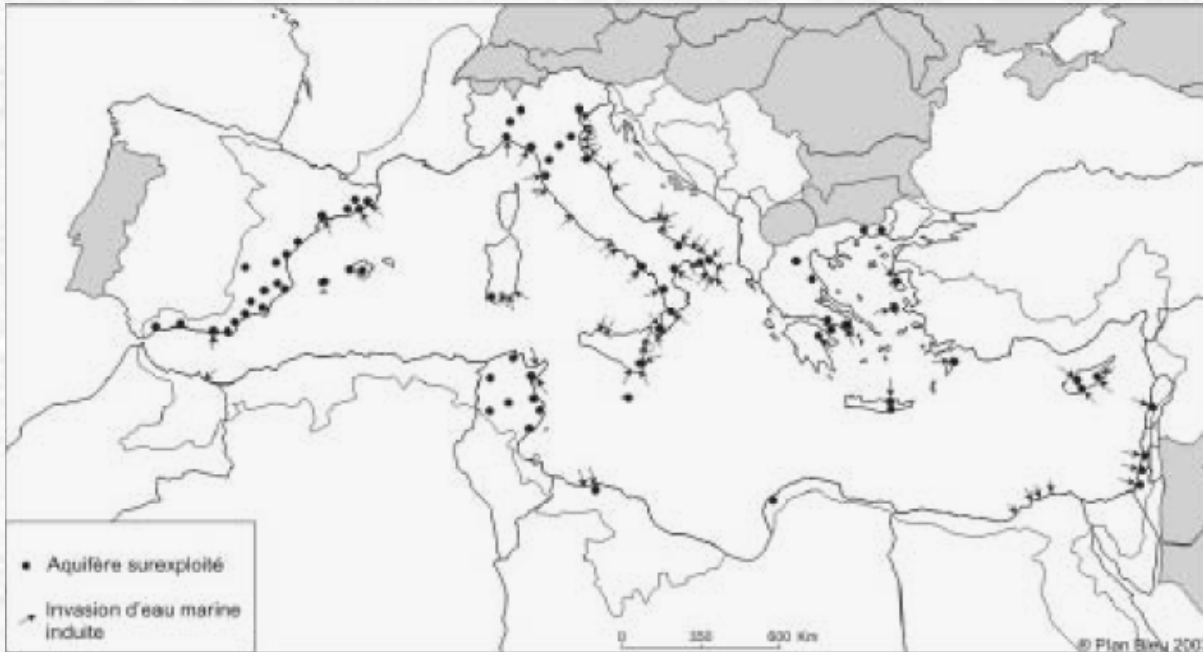
- In the Mediterranean, specific types of aquifers require particular attention and specific management:
 - **Coastal aquifers** because they play a crucial role for development of economic activities in these zones, and also because they are **prone to saline intrusion due to overexploitation**.
 - **Deep aquifers** in some southern countries that have huge volumes of water but **are non renewable**.
 - **Shared aquifers** between several countries in Balkans, Southern and South-eastern parts of the region.
- In some southern parts- semi-arid zones- **groundwater is not fed by surface water but on the contrary**. In many cases, only surface flows during floods constitute recharge for aquifers.

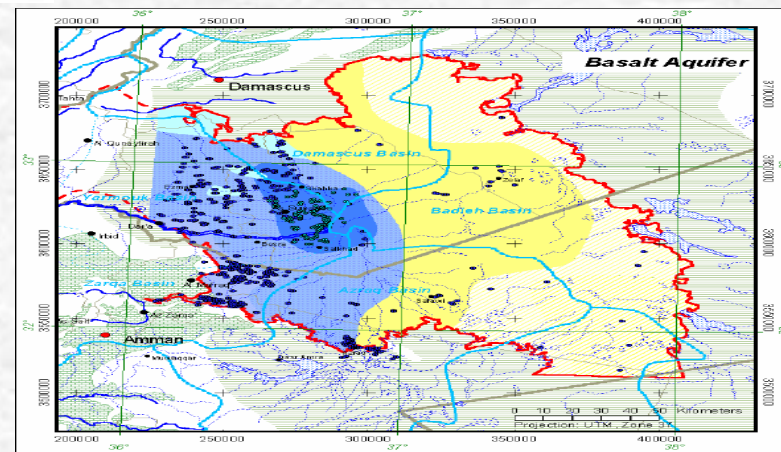
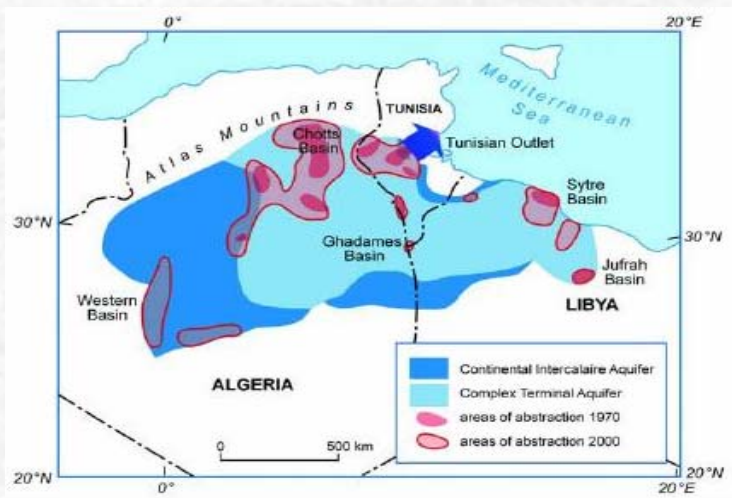
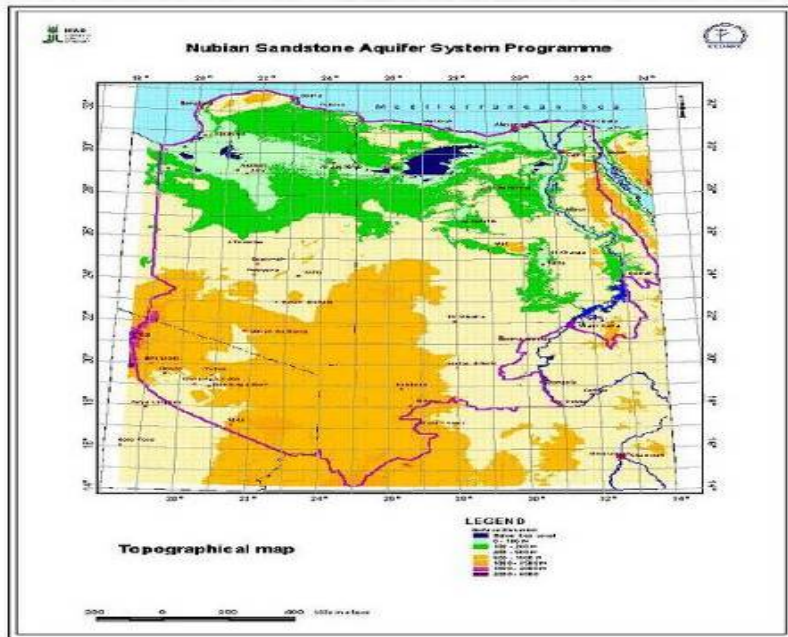
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Mediterranean specificities/challenges:

- Groundwater resources play a major role in the water economy of the countries of the Mediterranean. In many parts of the region, groundwater is the main supply source for all water use activities.
- The demand for groundwater is expected to increase.
- The rational distribution and use of groundwater requires a **resolution of conflict between the different end-users of water** (e.g., the tourism industry versus agricultural activities).
- There is a **lack of reliable and chronic data on groundwater conditions and trends** in many parts of the Mediterranean region because there is no systematic groundwater monitoring. Furthermore, for many aquifers, water quantity and water use data are available but **there is a significant lack of information on groundwater quality**.







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Recommendations:

- **Controlling intensive exploitation** (infrastructures to mobilise GW resources and reduce losses, use of non-conventional resources, etc.)
- **Reducing pollution** (preventive, controlling reducing GW pollution, wastewater treatment facilities, etc.)
- **Harmonising monitoring** (cost-effective GW quality and quantity, comparable way of monitoring, etc.)
- **Promoting joint management of shared aquifers** (development of cooperative framework, joint projects, etc.)
- **Developing of an IWRM** (strategic planning, specific regulations, public participation, economic incentives, efficiency of administration, access to data, etc.)
- Promoting **exchange of experiences**, disseminating **good practices**. Groundwater resources management should be implemented in accordance with the local hydro-geological, social, economic and cultural conditions. Successful groundwater management is a function of how optimally the different policy measures are integrated according to the local situations.

Mediterranean Groundwater WG

WFD – Challenges for the Med. region:

- Most major groundwater aquifers in North Africa are fossil non-renewable groundwater aquifers with very limited recharge potential. In these cases, **a balance between abstraction and recharge is impossible to be accomplished.**
- **The use of economic instruments, such as water pricing, can be difficult** in some countries where it is believed that water is a priceless (i.e. precious) public resource that should not be value-priced, but rather on operation and maintenance cost recovery charged.
- **The concept of 'river basin district' can not be applied where aquifers are not directly linked with surface water** and therefore the concept of *river basin* is not relevant. There, a management structure should be set up at the level of the aquifer itself.

Phase II of the EUWI /WFD Joint Process

(Work Programme 2007-2009)

Activities:

the work and activities of the Mediterranean Groundwater WG could continue, with a priority to the development and/or promotion of common approach methodologies and techniques for controlling intensive exploitation and preventing/reducing pollution of groundwater resources in the Mediterranean region.

Members:

Members from the first phase of the WG as well as new members from EU Member States, MEDA and Balkans countries, experts from International Organisations and stakeholders.

Linkages:

The WG will be linked to the WG C (Groundwater) of the EU Common Implementation Strategy (CIS) of the WFD. In parallel, specific aspects of the WG will be linked with all the other activities to be developed under the second phase of the Mediterranean EUWI/WFD Joint Process.

Final output:

Report that will include technical specifications and specific recommendations on various groundwater protection, conservation and management issues in the Mediterranean region

THANK YOU FOR YOUR ATTENTION



<http://www.semide.net/initiatives/medeuwi/JP/GroundWater>