

4th Conference of the Water Directors
of the Euro-Mediterranean and Southeastern European Countries
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Results of the 3rd regional workshop on water
& sustainable development in the Mediterranean

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Gestion de la demande en eau en Méditerranée, progrès et politiques

Water demand management in the Mediterranean, progress and policies

ZARAGOZA, 19-21/03/2007



- ◆ Objectives, activities & participation in the workshop
- ◆ Main conclusions of the national reports, papers (thematic groups) and regional studies presented
- ◆ Recommendations of the workshop



- Workshop organised on request of the rim countries and the EU, following the Fréjus (1997) & Fiuggi (2002) workshops and the adoption of the MSSD (2005)
- By the Blue Plan,
Jointly with its regional partners in the field of water: CIHEAM, IME, GWP Med, MedWet, MIO-ECSDE, as well as Expo Zaragoza 2008 and the IAMZ,
Under the aegis of the MCSD,
With the support of: UNEP/MAP, European Commission, French MESD, Expo Zaragoza 2008, GWP-Med,
- Over 100 participants, 15 Mediterranean countries represented, international organisations and financial institutions



4 main objectives

- Taking stock of progress on implementing the MSSD water component (indicators)
- Taking more detailed stock of progress on WDM (indicators, good practices, instruments)
- Enabling a regional sharing of experiences
- Proposing ways to speed up the mainstreaming of WDM across sectoral, water and cooperation policies

Presentations

- 12 national reports on WDM (progress, policies)
- 22 papers (4 thematic groups)
- 3 regional studies (virtual water, impacts of the CAP, international cooperation for water)



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« Monitoring progress and promotion of WDM policies »

Reports prepared by 12 volunteer countries:

Bosnia & Herz, Cyprus, Egypt, France, Israel, Italy, Malta, Morocco, Spain, Syria, Tunisia, Turkey

Contents of the reports:

1. Major changes in the water situation in the country (resources, demands, pressures, degradations and threats)
2. Improve efficiency in the various sectors of activity using WDM policies (indicators, retrospective and prospective analyses)
3. Taking into account environmental objectives (needs for ecosystems) and integrating WDM into water policies
4. Taking into account WDM in the cooperation and development aid policies



Monitoring indicators of the MSSD water chapter

- 5 priority indicators
- 14 complementary indicators

Mediterranean Strategy for Sustainable Development Follow-up

Water

Is water demand becoming more moderate?

Better water demand management, especially for agriculture, is one of the priority actions recommended in the framework of the Mediterranean Strategy for Sustainable Development.

This implies stabilising water demand (reducing in the north and controlled increase in the south and the east). But water demand and growth in GDP should also be decoupled, while increasing the value added per cubic metre of water used.

Better demand management could also bring about a decoupling of the rise in irrigated production and the rise in the use of water for irrigation.

Overall, the evolution in water demand is alarming in the Mediterranean countries because this resource is often scarce.

The evolution in demand over the last ten years is different from one country to the next. In Croatia there has been a 48% reduction and a reduction of 30% in Slovenia, while Albania has increased its demand by 21% and Algeria by 31%.

The share of water for agriculture remains high in all the countries, often higher than 50% and even 90% in Syria and Morocco.

In some countries such as Croatia where green water (rainwater evapo-transpired by vegetation) is used for agriculture, demand for irrigation purposes is low.

The volume of water used to produce 1000 dollars of agricultural value added goes from about 15 m³ in Slovenia to more than 3000 m³ in Syria and Egypt.

Drinking water demand per inhabitant varies greatly from one country to the next, from fewer than 30 m³/annum/inhabitant (80 litres/day) to about 150 m³/annum/inhabitant (410 litres/day).

Definition

Total water demand is defined as the sum of the volumes of water mobilised to meet the various uses, including the quantities lost in production, transport and use.

It corresponds to the sum of the water withdrawals, of unconventional production (desalination, reuse, and so on) and of imports less exports.

Water demand compared to GDP per sector of activity corresponds to the demand for water used divided by the value added in the same sector (agriculture, industry).

Precautions / Notes

For agriculture, the indicator could be even more polished by calculating the ratio of irrigation water demand to the value added of the irrigated production.

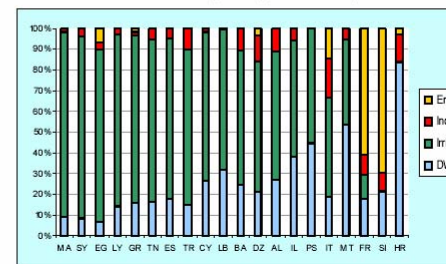
Sources / References

FAO-Aquastat, Eurostat, World Resources Institute, Plan Bleu and several national sources, including the reports presented at the regional workshop in Saragossa in 2007.

World Bank for the agricultural value added.

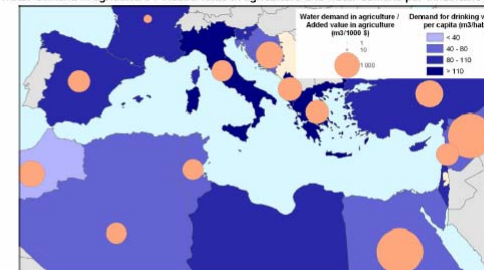
2. Water demand, total and by sector, compared to GDP

Water demand by sector (period 2000-2005)



Source: Several sources and Plan Bleu

Water demand in agriculture / Added value in agriculture and water demand per inhabitant in 2004



Source: Several national sources and Plan Bleu



Indicator WAT_P02

Updated on 02/05/2007

Monitoring indicators of the MSSD water chapter

Main trends observed through the monitoring of the priority indicators

- **Evolutions of the water demands** (notably for irrigation) **alarming** because incompatible with those of the availabilities in the majority of the countries,
- **A strong pressure on the water resources** (notably in Egypt, Malta, Syria, Libya and Israël) highlighted by the exploitation index of renewable natural resources,
- ↗ **proportion of the Mediterranean population having access to drinking water** (> 80% in the majority of the countries in 2004),
- ↗ **proportion of the population having access to an improved sanitation system** (> world average of 59%), but still about 47 millions Med. persons with no adequate sanitation system in 2004,
- For these 2 last indicators : a **situation less favourable in rural areas**, in particular in the South and East



- ✓ **Reality of progress made** since Fiuggi in matter of taking into account WDM in the water policies and certain sectoral policies (strategy documents, legislative texts...),
- ✓ **But obstacles** still hindering a concrete implementation of WDM policies and strategies:
institutional constraints, lack of integration of the various policies, lax control, inadequate water pricing, lack of involvement of the users...
- ✓ Countries having availed themselves of **various tools of WDM**, but the **economic tools** are still insufficiently used or inadequate.
Need to use planning and concerted action tools.
- ✓ **Decisive effect of the WFD** on accelerating the adoption of WDM in the water policies.



2. Papers : factoring WDM into sectoral and water policies

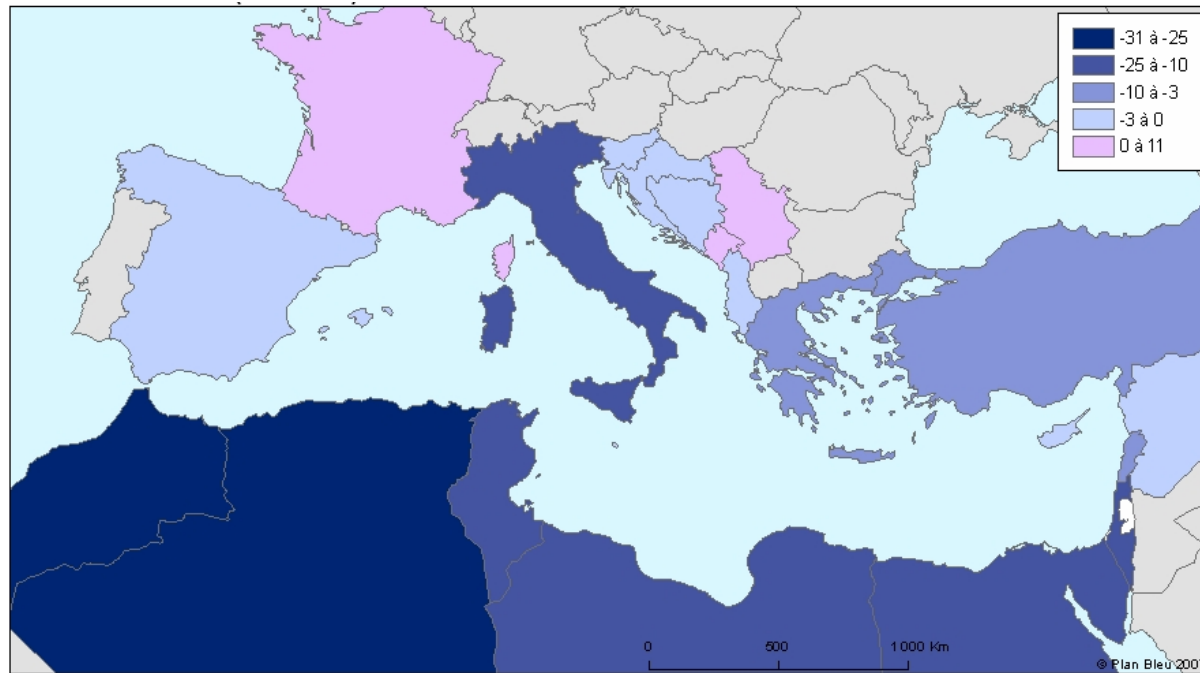
Thematic working group	Organization and chair
Factoring WDM into the agriculture sector	CIHEAM
Factoring WDM into drinking and industrial water management	IME
Factoring natural water needs for ecosystems into policies	MedWet
Factoring WDM into water policies	French MESD Water Directorate

↳ Preparation of conclusions and recommendations by each thematic working group



« Virtual water in the Mediterranean »

*Net balance of virtual water exchanges, average over 2000-2004
(grain, soya bean, olives, specific vegetable products and bovine meat)*



Billion m³/year

- Most of the Med. countries are net importers of virtual water, with a North/South dichotomy,
- The concept of virtual water is an interesting additional decision-making assistance tool (orders of magnitude of the VW flows),
- Need to refocus the debate on the countries' food security strategies, while taking into consideration the social dimension of agriculture.

« The impacts of the CAP reform on water demand for irrigation »

- **Evolution of cultivated land area:**
 - depending on the degree of decoupling adopted by the Member States (↘ of irrigated surface less important if partial decoupling)
 - ↘ of crops with substantial comparative advantage in the production-based coupled payments (maize, cotton, durum wheat)
 - ↗ of the regional polarisation (coveted plains/inland areas)
- **Environmental protection:** no such an improvement, unless additional environmental measures are introduced (cross-compliance, good agricultural and environmental conditions)
- **Evolution of irrigated land area and water demand:**
 - more marked effects with the forthcoming reform of the fruits & vegetables and wine CMO (reorientation towards non irrigated arable crops?)
 - *The impacts of the CAP reform on water demand for irrigation are limited.*



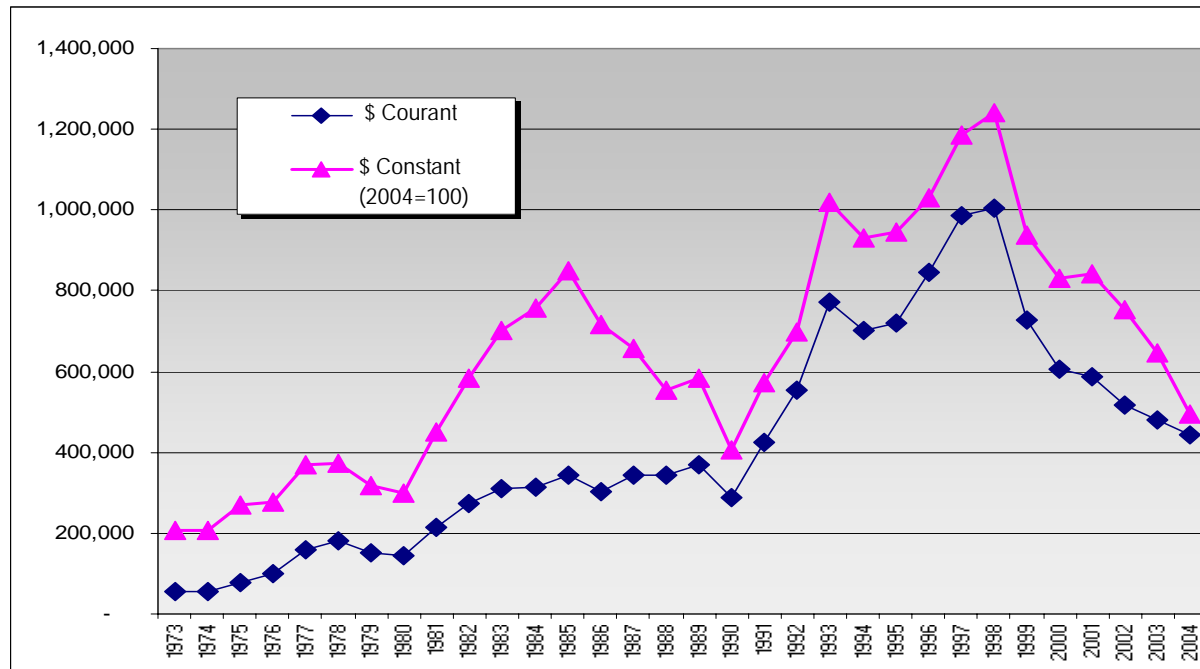
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« International cooperation and ODA for water »

Evolution of the ODA to water sector 1973-2004



1980-1986
Large hydro-electric dams
& irrigation networks

↓

1991-1998
Major urban infrastructures
for water supply and
sanitation

↓

Actions related to an
improved water
management from the
1990's

- Aid concentrated on i) a few large projects related to water supply and sanitation infrastructures and ii) a limited number of countries,
- Since 1998, aid to water sector in the region is declining,
- Strategies of donors are increasingly focused on IWRM with, sometimes, incentives related to WDM,
- It is above all up to the countries to list WDM as a national strategy.

to the national political authorities of the Mediterranean countries

- ✓ Include, in accordance with the MSSD orientations, WDM, in the national priority strategies,
- ✓ See to it that the problems connected with WDM are properly integrated within the global environmental problems (climate change, biodiversity and ecosystem conservation)
- ✓ Promote mobilization and responsabilization of the various stakeholders concerned with WDM,
- ✓ Take all necessary measures to raise the awareness of the public in terms of WDM,
- ✓ Assess, every two years, progress accomplished in WDM and therefore reinforce the inclusion of WDM in the national information systems on water,
- ✓ Reinforce the regional scientific and institutional cooperation to promote WDM and contribute to setting up a Mediterranean Water Observatory.



- ✓ Make a report, every two years, on progress accomplished in the Mediterranean in the field of WDM,
- ✓ Contribute to establishing a compendium of good practices in the field of WDM,
- ✓ Organize, in 2012, the fourth regional workshop on WDM.



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For more information:

www.planbleu.org

http://www.planbleu.org/theme/s/atelier_eau_saragosse.html

Thanks for your attention

