

First Meeting of the Stakeholder Forum on Water Scarcity and Droughts Policy Review

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Water Scarcity and Droughts Policy Development and Implementation Spanish Experiences 2007-2010

**Advances in the main policy options of the Communication
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1. Putting the right price tag on water (tariffs, incentives)

- a) Progressive implementation of block-pricing systems in municipalities.

- b) Compulsory metering programmes: already reflected in the current Water Law, but more detailed and specific schemes have been applied for aquifer and wetland restoration, and in irrigation systems (pressure systems have been widely implemented in irrigated areas, achieving up to 30% of water savings).



2. Allocating water and water-related funding more efficiently (land-use planning, financing water efficiency)

- a) Stringent implementation of the Directive on Strategic Environmental Assessment (SEA) in the hydrological planning process.
- b) Biofuels impact considerations: reflected in the Hydrological Technical Guidance of the RBMPs, and the Sustainable Rural Development Law 45/2007 (renewable energy sources currently cover 18% of the Spanish demand, within which, 1% accounts for biomass).
- c) River basins that face quasi-permanent or permanent water stress or scarcity are fully identified.
 - i. Special water saving measures (campaigns, abstractions control, emergency urban plans, restriction according to prioritization of uses, ecological flows, irrigation savings...)

2. Allocating water and water-related funding more efficiently (land-use planning, financing water efficiency)

- d) Implementation of rural development programmes coordinated by Regional Governments
- e) National Strategy for Sustainable Irrigation 2009-2015 -1.2 M€ (modernization techniques to ensure water savings and reduce water cost for users in the long term)
- f) Financial aids for domestic devices (water and energy savings)



3. Improving Drought Risk Management

- a) In March 2007, **Drought Management Plans** were approved through Ministerial Order for the 8 river basin districts dependent on the Ministry of Environment and Rural and Marine Affairs. Since then, drought technical offices have been incorporated into the River Basin Authorities to monitor, apply and follow-up DMPs and their technical measures. Public supply restrictions have been avoided and environmental protection has increased under drought periods.
- b) Some regional governments have also developed specific drought plans.

3. Improving Drought Risk Management

Type of Objective	Description
General	Minimize environmental, economic and social impacts of drought situation
Specific	Guarantee water availability required to ensure population's health and life
	Avoid or minimize drought negative effects over water bodies ecological status, specially over environmental flows regime, avoiding in every case, permanent negative effects over this status.
	Minimize negative effects over urban supply.
	Minimize negative effects over economic activity, depending on the uses prioritization stablished in water legislation and RBMPs.
Instrumental	Define mechanisms to prevent and detect drought situations.
	Define thresholds of progressive seriousness phases during droughts.
	Define measures to achieve specific objectives in each drought phase.
	Ensure transparency and public participation in the Plans develop and application.

4. Considering additional water supply infrastructures

- a) New infrastructures follow public consultation processes, EIA and SEA processes. Even with maximum savings, infrastructures are in some cases needed.

E.g. Works in the Barcelona metropolitan area:

- Llobregat desalination plant (functioning since 2009, supplying 20% of the demand, by producing 60hm³/year)
- Enlargement of the Llobregat water treatment plant and implementation of an electro dialysis reversal treatment (in operation since 2008)



5. Fostering water efficient technologies and practices

- a) Application of regional and municipal water-using devices decrees and ordinances (saving water techniques in buildings, faucets and sanitary equipments)
- b) Royal Decree of 2006 from the Ministry of Housing establishes a code for buildings: heating water through solar energy and water requirements.
- c) Improvement of supply networks (modernization, reparations)
- d) Eco-Management and Audit Scheme (EMAS): Over 1.000 Spanish sites registered. EN/ISO 14001, Environmental management system required by EMAS, 7.000 certified companies.

6. Fostering the emergence of water-saving culture in Europe

- a) Numerous water saving and awareness campaigns at national, regional and local level.
- b) Collaboration of the Ministry with NGOs, networks, Red Cross (cultural and social value of water, cleaning of valuable sites and educational programmes)...



7. Improve knowledge and data collection (research and technological activities)

- a) Research activities: active participation in XEROCHORE project. Final workshop in 22 February 2010. Joint initiatives of the Ministry with the CEDEX (Hydrological Studies Centre) and universities, on climate change and hydrological aspects, and drought economic costs. Studying remote sensing techniques to obtain a Drought Standard Index in Surface (soil humidity, growing vegetation index – NDVI-)
- b) Considerable advances have been made to the SIA system: Integrated Water Information System and digital book, with updated information from River Basin Authorities. Allows downloading data and its interactive process (graphs, maps). National Drought Observatory.



8. Other measures

- a) **International Water Scarcity and Drought Conference.**
The path to climate change adaptation. 18 - 19 February 2010. Madrid, Spain (Under the Spanish EU Presidency). Conclusions to be transferred to the European Council (Working Party on the Environment meeting 29 April).
- The conference gathered 300 participants from over 15 different countries. The event provided a participative forum for interaction among public, private, NGOs and interested stakeholders.
- b) Chair of the technical drafting group of the **Long-term Strategy for Water in the Mediterranean**, which includes broad references to WS&D (Union for the Mediterranean, with 43 states). Ministerial Conference on 13 April 2010. Pending of approval due to political Middle East related aspects.