



“DROUGHTS IN THE MEDITERRANEAN THE IMPORTANCE OF COOPERATION”



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Droughts in the Mediterranean

- Water scarcity and droughts are greatly affecting the Mediterranean area
- Droughts impact slowly and sometimes are prolonged for years
- Even when affecting the same region, impacts greatly differ depending on population amount, crops vulnerability, availability of alternative resources.

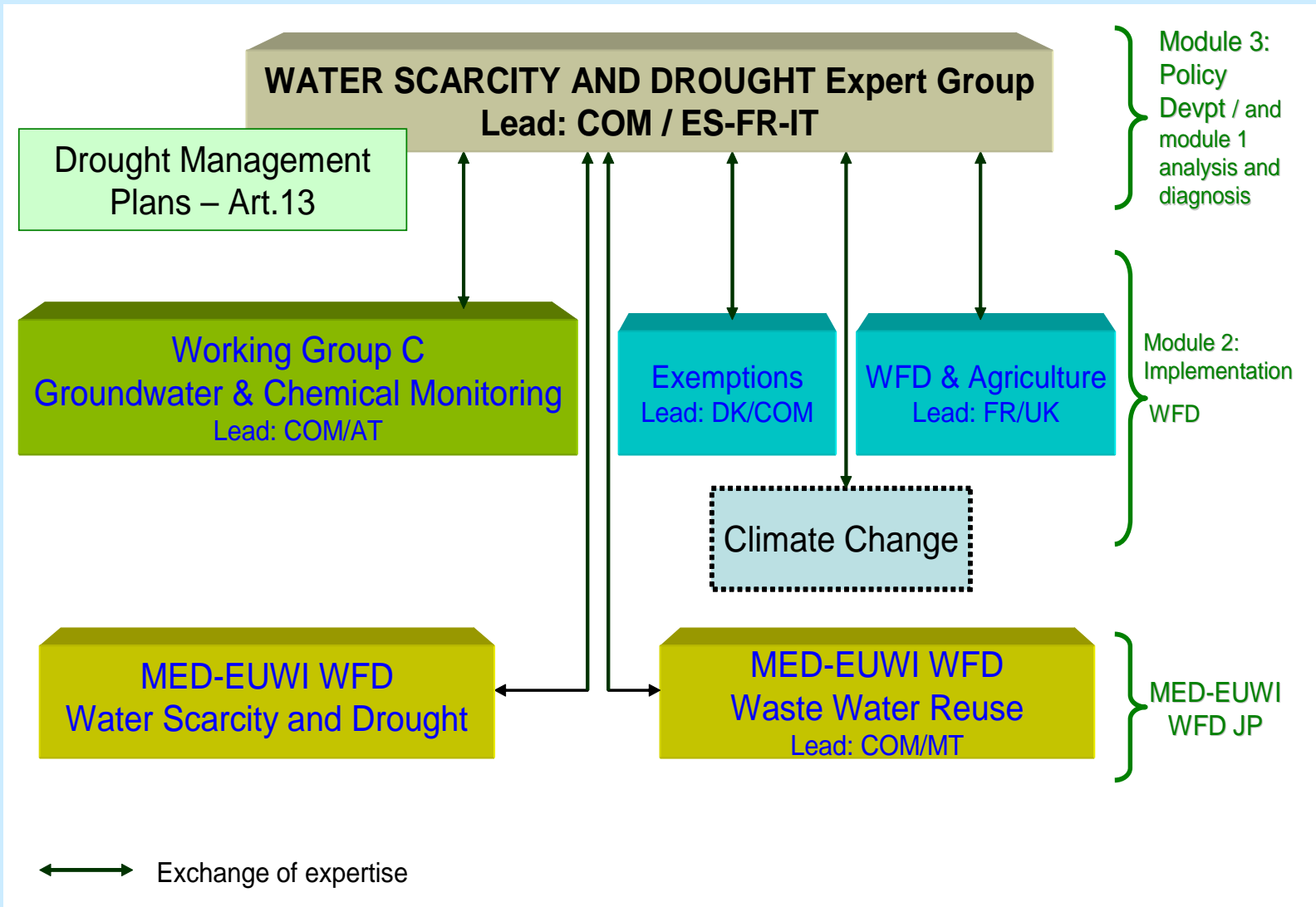
International Cooperation

- There are well developed flood prevention projects but on the contrary not so many available for drought management and scarcity.
- Cooperation: key to fight droughts in the Mediterranean region.
- Important to promote exchange of technical practices and find common solutions
- Importance of involving all interested parties to assess damages, socio-economic interests and minimize impacts.

EU Efforts

- Under the WFD Common Implementation Strategic: existing working group on water scarcity and droughts (WS&D)
- Homologous WG for the Mediterranean through the Joint Process (MS Sylvie Detoc)
- Goals of the group:
 - Common definition/understanding of drought and scarcity
 - Common impact approach and exchange of practices and measures to apply
 - Ensuring WFD objectives under drought and scarcity conditions
 - Homogeneity of indexes used to assess drought status

Links to other activities





SPANISH CASE

Management alternatives for droughts

a) **As an emergency situation**

Considering it as a crisis situation, which has to be tackled using extraordinary resources.

b) **Within the general planning framework**

Making an analysis of the existing risk, and introducing droughts in the general planning strategies.

In Spain, traditionally, droughts have been managed as emergency situations.

Drought management as emergency

Spanish Water Law (TRLA), in art. 58, foresees in extraordinary drought situation the adoption, by the Government, of necessary measures to overcome these situations, related to the use of the public water domain.

Specific decrees of urgent extraordinary measures.

Bases for drought planned management

Law 10/2001, July 5, of the Hydrological Water Plan, establishes the bases for the drought planned management.

Article 27. Drought management

Section 1. The Ministry of Environment, for the interregional basins, in order to minimize environmental, economic and social impacts of eventual drought situation, will establish a **global hydrologic indicators system** that will **allow foreseeing these situations**, and will serve as general reference for river basin organizations for the **formal declaration of emergency situations and eventual drought**. This declaration will imply the entry into force of the Special Plan referred in the following section.

Bases for drought planned management

Hydrological National Plan Article 27. Drought management

Section 2. **Basin Organizations** will develop (in 2 years) **special action plans for alert situations and eventual drought** (exploitation rules and measures)

Hydrological National Plan Article 27. Drought Management

Point 3. **Public Administrations responsible for public urban supplying**, for town of or above **20,000 inhabitants**, will provide: **Emergency Plan for drought** situations (taking into account rules and measures planned in Special Plans) to be applied within four years.

Special drought plan

Objective

Anticipate to droughts, foreseeing solutions to supply demand and comply with environmental requirements.

Bases for the Special Drought Plan. Plans must be based on:

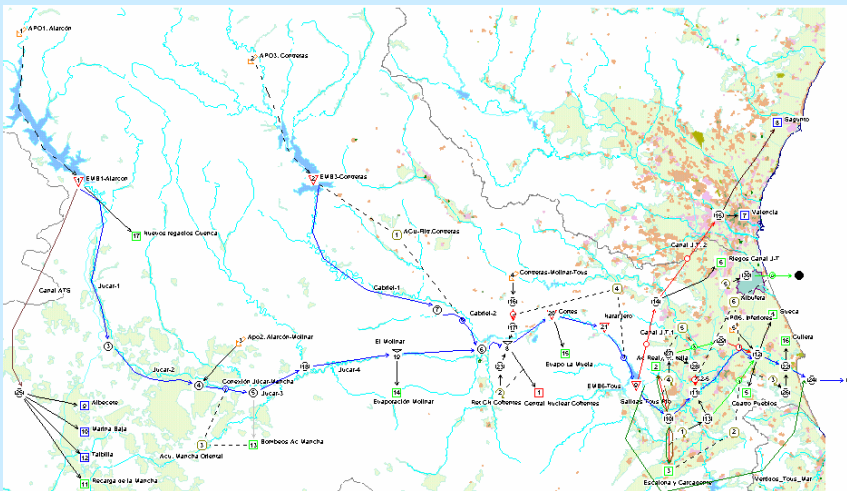
- a) Knowledge of resources system and capacity to be forced
- b) Knowledge of the demands system and its vulnerability
- c) Indicators system for identifying drought situations.
- d) Measures to reduce impact according indicators status
- e) Adaptation of the administrative structure for its follow-up
- f) Plan for public information

Status

Special Drought Plans are being finished by the River Basin Organizations.

Main measures to apply during drought situation

- Exploitation rules, savings and use restrictions
- Joint management of surface water and groundwater: drought wells
- Non-conventional resources: reuse of treated wastewaters in agriculture
- Water markets.



Use of models to define exploitation rules and use restrictions



Emergency measures: use of drought wells



COOPERATION BETWEEN SPAIN and MOROCCO: IWRM STRATEGY

Cooperation between Spain and Morocco: IWRM Strategy

- Important and historical links among both countries (proximity, similarity of climate, geographical location...)
- In the past years stronger links established for water resources initiatives
- Since 1998 the Water Institute (Andalusian Regional Government) intensified cooperation on water resources practices with the Northern area of Morocco
- During 2005, specific meetings facilitated through the Mediterranean Network of Basin Organisations (MENBO) and its current President, the Minister M. Elyazghi, increased the bi-lateral cooperation

2006 Specific IWRM strategy

- During 2006 the Spanish Ministry of Environment, Directorate General for Water, and the Moroccan Ministry of Land Management, Water and Environment (MATEE) formalized a cooperation strategy for the exchange of expertise on IWRM.
- On July 12, 2006 during the meeting held in Rabat an agreement was signed specifying the areas of interest for both sides and covering all the activities to be developed in the near future.
 - MATEE General Secretary Mr. M. Ameur, and Spanish Water Director, Mr. J. Palop

2006 Specific IWRM strategy

- The Specific areas of work included in the strategy:
 1. Seawater desalination
 2. Urban and industrial wastewater treatment and sewage facilities
 3. Efficient use of water resources
 4. Twinning among the Moroccan Water Agencies, and the Spanish River Basin Organisations (RBOs)
 5. Water supply and water treatment in rural areas
 - 6. Drought management**
 7. Support of territorial workshops for the Northern Moroccan Water Agencies
- Other: exchange of views and invitations for different national IWRM events of importance