WATER GOVERNANCE

DURING DROUGHT PERIODS
Water management

• Is always based on:
  climatic aspects
  the infrastructures available in the territory
to store, transport and treat water.

• Hydrological drought periods being then
  needed a prioritization and limitation of
  water demand.
Negative effects

• On the social and economic life.
• On the water ecosystems
• A diminishing can be improved if civil society is involved in the process
Levels of people involvement

• 1º as consumers, adopting advisable water saving practices.
• 2º as a productive factor, minimizing water consumption per unity of production.
• 3º as citizens, assuming a small decrease in their living standards because of collective water saving measures.
People involvement I

• Compulsory (water cuts, punishments, increment in water prices for higher consumptions, etc.)

• Voluntary (increasing awareness, information, training and reinforcement of positive attitudes.)
People involvement II

• Awareness is relatively easy. Citizens, under a drought episode, change their attitudes towards water.

• Information is the key element of any participation.

• Training in order to promote the changing of habits that water saving requires
People involvement III

• The reinforcement of positive attitudes means to disseminate and amplify the small successes in water saving being achieved.

• A higher level of positive involvement can be achieved by making people taking part in the decision making process.
Participatory process

• 1º By means of debating forum with stakeholders: neighbours associations, irrigation communities, other users associations, unions, companies, etc.

  2º By implementation of tools for the direct participation of the people through post, phone, internet.

• 3º By implementation or adaptation of the existing participatory bodies in water management, with consulting or with decision making capacities.
An example

• The water management during the 2005 drought in Spain.
• Rainfall was the scarcest in the last 125 years.
Precipitación media en España.
1º Planning I

• Defining for each zone or tributary:
  – objectives indexes based on stream flow, water storage and head level in aquifers, to establish the degree of hydrological drought,
  – the range of management measures potentially suitable for each zone and its drought degree.
1º Planning II

• This planning was approved by the Governing Board of each Basin Water Authority, (which the Autonomous Communities, Municipalities and Users).
Precipitación según zonas del sistema global de indicadores hidrológicos
2º Emergency works

• 2ºA Inventory of all built during the last drought period (1992-1995) and were refurbished and updated.

• 2ºB Along the year, in successive waves, 400 million € to meet urban water demands. It included several works such as desalting plants (speeding up the schemes already planned), new connections of urban facilities to big canals or digging up new wells.
3º Participation

• Of water experts was fostered by implementing a Drought National Observatory in charge, mainly through a web site, of releasing all the information to people.

• The municipalities affected carried out campaigns to increase awareness about water saving.
4º Legal measures

- Temporarily alter water rights in order to be able to prioritize some water uses.
- A participatory Permanent Commission was created in each Basin Water Authority, elected by the Governing Board and extended to other stakeholders (civil society, environmentalists, etc.).
Final result in 2005

- Drought only affected seriously to the agriculture.
- It made possible not to have serious problems neither in any important town nor in the coast where the tourist resorts are located.
- There were some problems in small villages in mountainous areas that take water from subsurface aquifers.
PORCENTAJE de la PRECIPITACION  (periodo: 01/10/05 - 07/03/06)
• Unfortunately the story continues and we have entered our second year under drought.