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Water Crisis: Public Management of an Emergency Situation

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Outline:

- a) Drought Context
- b) Distribution of Competences
- c) Set of adopted instruments and measures
- d) Context factors
- e) Behaviour Changes and Environmental Impacts
- f) Final recommendations

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Drought Context

PLUVIOMETRIA RESPECTE A LA MITJANA
FEBRER 2008 - FEBRER 2009

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Distribution of Competences

- **Catalonian Water Agency (ACA)- Regional:**
 - manages reservoirs and purification plants
 - distributes the water from the reservoirs to the municipal water tanks
 - coordinates the “**Inter-institutional Commission**”: restrictive measures are to be accompanied by special policy forces
- **Metropolitan Entity of Hydraulic Services and Waste Treatment (EMSHTR)- Greater Barcelona:**
 - distributes water from the water tanks to households in 33 municipalities together with *Aigües de Barcelona* distribution company
 - outside the metropolitan area, *Aigües de Barcelona* or some other water distribution companies must ensure household water supply

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Instruments and Measures (I)

a) Decree of Drought 84/2007

- regulate the use of water and preserve available domestic supply
 - application of progressive restrictions on urban supplies
- communicative aspects and additional measures
 - **Hydrological Status Scenarios**

b) Parliamentary Motion 21/VIII

- Support in the deployment of appropriate institutional campaigns in order to encourage water saving (urban households)
- Support to accelerate the construction of desalination plants foreseen in the National Hydrological Plan

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Instruments and Measures (II)

Hydrological Status Scenarios and measures involved

Pre-alert	Intensified monitoring of the evolution of reserves Information and awareness-raising measures
Exceptional Status 1	15% reduction in the supply for irrigation in regulated systems Cancellation of spill-overs for purely hydroelectric uses Intensified user controls Intensified water-saving measures in the supply networks Restrictions on discharges and non run-of-river systems
Exceptional Status 2	A 45% reduction in the supply for irrigation in regulated systems Greater intensification of water saving measures in the supply networks Restrictions on non-basic uses
Emergency	Restrictions to the supply

Source: Ecoinstitut Barcelona. Data gathering from the 84/2007 Decree (DECRET 84/2007, de 3 d'abril, d'adopció de mesures excepcionals i d'emergència en relació amb la utilització de recursos hídrics).

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Instruments and Measures (III)

"Install me!" Campaign

Designed by:
Cat. Government + Environment Association + Ironmonger Association




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Instruments and Measures (IV)

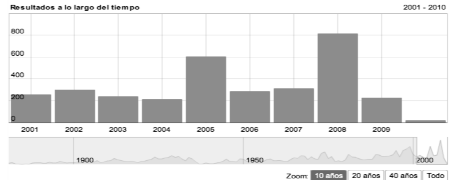
"Install me!" Campaign: Potential Impact


Year	Catalonian Water Consumption		Potential Savings (12-15%)			
	Household average (VHH/day)	Inhabitant average (l/p/day)	Household average savings (VHH/day)		Inhabitant average savings (l/p/day)	
			12%	15%	12%	15%
2004	466,3	167,1	55,93	69,91	20,05	25,06
2005	455,2	161,6	54,09	67,62	19,39	24,23
2006	445,9	157,8	52,82	66,03	18,93	23,67
2007	436,4	155,3	52,00	65,00	18,64	23,30
2008	418,8	148,3	49,48	61,85	17,80	22,25

Source: Alcantud, A. and Mazo, D. The "Install me!" Campaign. Communicative campaign within the Drought Context in Catalonia. Impact Assessment Paper (EUPOPP project; not published)

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Context Factors

- The Influence of the Mass Media**

- The Closure of Public Fountains**
- The Arrival of Water Tanks from Marseille**

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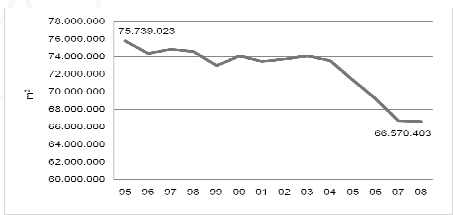
Behaviour Changes

- Awareness raising on the scarcity of water resources and the need to preserve it**
 - 91% of interviewees (ACA) → devices contributed
 - HH water consumption reduced (107,4 litres/inhabitant/day, GB, 2010) and former levels haven't been reached again → 19% reduction since 2000
- Installation of Water Saving Devices**
 - Efficient mechanisms that also reduce HH expenditures.
 - 61% interviewees installed 1 device (ACA)
 - 47% installed 2
 - 7% tried, but didn't
- Additional Water Saving Practices**
 - 94,1% of Catalonian HH


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Environmental Impacts

Household Water Savings (around 20% during acutest periods)




Source: Water consumption in Barcelona. Environment Area, Barcelona City Council, 2009

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Final Recommendations

Key elements for Public Administrations to confront emergency situations

- 1) Synergic Policy Interaction in the right context
- 2) Coordination of Public Bodies for competence distribution (avoid overlaps)
- 3) Stakeholders' participation → design and implementation
- 4) Effective Campaign Design (free) and promotion at right time and right place
- 5) Levels of behavioural change (don't request too much sacrifice)
- 6) Transparency from public bodies (motivations, goals, tools, etc.)
- 7) Avoid "Institutional Advertising" (don't overload citizens)
- 8) Development of Monitoring Mechanisms (for impact measurement)

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