



European
Commission



11th CoU meeting Extreme Weather and Climate events

***Droughts: an emerging risk in
developed societies requiring advanced
management***

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Drought

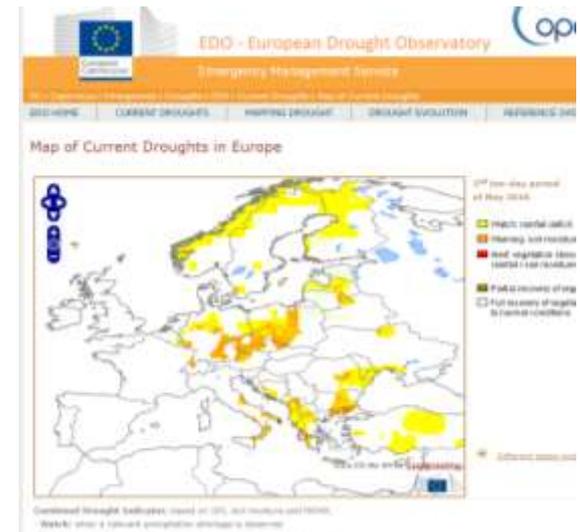
- Natural – low precipitation.
- Normal, recurrent feature in all climates.
- Highly variable in timing.
- Scale local or regional.
- Commonly used indicators: SPI, soil moisture, FAPAR indices...
- Management – focus on impact.
- More needed on forecasting, risk prevention, planning, insurance.

Climate change effects

- Will most likely worsen impacts.
- Drought episodes expected to be more intense and frequent in Europe, especially in arid and semi-arid areas (IPCC).
- Life span of infrastructures, such as dams, might be severely affected (decrease of river flows, higher sediment rates).

EU policy response to water scarcity and drought

- Commission [Communication](#) on water scarcity and droughts in 2007 and [follow-up reports 2008-2010](#)
- Water Blueprint 2012 - in depth [policy assessment including WS&D](#) (5 technical reports on efficiency, gaps, savings...)
- Activities under the Water Framework Directive **Common Implementation Strategy:**
 - Technical group on WS&D 2007-2012
 - Guidance documents on [water accounts](#), [ecological flows](#), water efficiency and cost recovery/incentive pricing, etc.
 - Case studies and [grants to apply water accounts 2012-2015](#)
- EEA: [Water Exploitation Index+](#) and water accounts
- JRC: [European Drought Observatory](#) and hydro-economic model
- Eurostat, EEA, DG ENV, JRC and DG RTD: Project on [Accounting for natural capital and ecosystem services](#)



EU Water scarcity and drought Policy Approach

- In long term it is more important to manage demand than increasing supply.
 - Water efficiency in urban supply networks, domestic consumption, agriculture, industry and energy sectors.
- Natural water retention measures – higher retention capacity than grey infrastructure.
- Water reuse.
- Water management – permits consistent with available sources, control of illegal abstraction.
- Pricing policy for efficient allocation.
- Reservoirs only when efficiency and NWRMs are not effective enough.



Villena -E. Iñíguez Rodríguez, 2011

The way forward

- **RBMPs should better integrate water scarcity and drought issues.**
 - **Water balances/accounts.**
 - **Water pricing and other economic incentives.**
 - **Programmes of Measures (Water efficiency, Natural water retention measures, Climate-proofed measures).**
- **Better coordination of policies (land use, agriculture), better coherence between plans (RBMP, drought management plans, climate change adaptation plans).**
- **Mobilise financial sources for water efficiency and NWRMs (Rural Development Programmes, Structural Funds Operational programmes, EFSI...).**
- **Emerging risk- Information exchange and learning from regions that have been more exposed (preparedness).**
- **Use of advanced tools: early warning, better monitoring, Copernicus (EU Earth Observation Programme based on satellite Earth observation and in situ data)...**