



Global Water
Partnership
Central and Eastern Europe

Drought management in context of river basin planning according Water Framework Directive

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What is Water Framework Directive?

- Water Framework Directive (WFD) - comprehensive legislation providing legal framework for integrated water management and **mitigate the effects of floods and droughts**
- WFD is predominantly focused on qualitative aspects, quantitative issues are covered only partly;
- In spite of that, WFD can be an instrument for addressing drought and water scarcity management through:
 - groundwater quantitative status assessment
 - ecological status assessment
 - exemptions from environmental objectives according Article 4.6 WFD – temporary deterioration in the status caused inter alia by prolonged droughts

WFD – River Basin Management plan

- River Basin Management Plan (RBMP) – tool for achieving environmental objectives. Some obligatory measures can contribute to mitigating water scarcity and drought effects:
 - Summary of measures taken for groundwater bodies which are unlikely to achieve good quantitative status (e.g. measures to prevent over-exploitation)
 - All practicable steps taken to prevent further deterioration in water status not achieving good status due to prolonged droughts and programme of measures for recovery quality of the water body
- RBMP may be supplemented by additional management plans to deal with particular issue (e.g. droughts) – Article 13.5 WFD

Drought-related initiatives at EU level

Some important drought-related initiatives at EU level:

CIS initiatives:

- Water Scarcity and Droughts (WS&D) first addressed by WD in 2003
- In 2006 technical document and a policy summary on WS&D was produced under CIS. In parallel a report on Mediterranean specificities and examples in the region were produced
- Mandate of the Water Scarcity and Droughts Working Group for the period 2007-2009 - establishing links between Water Scarcity and Droughts and the WFD implementation

Drought Management Report

WD in November 2007 endorsed Drought Management Report,
(which incl. Agricultural, Drought Indicators, and Climate Change Aspects)

- set basis for developing drought management plans complementary to RBMP – links between WS&D and WFD implementation

Drought Management Plan (DMP) – moving from crisis management to drought planning (risk management based approach)

Definitions for water scarcity and droughts

Water scarcity is defined as a situation where insufficient water resources are available to satisfy long-term average requirements. It refers to long-term water imbalances, where the availability is low compared to the demand for water, and means that water demand exceeds the water resources exploitable under sustainable conditions

Droughts represent relevant temporary decrease of the average water availability, refer to important deviations from the average levels of natural water availability and are considered as natural phenomena.

Drought Management Report

Main items of DMP:

- Indicators and thresholds establishing onset, ending, and severity levels of the exceptional circumstances (prolonged drought)
- Measures to be taken in each drought phase in order to prevent deterioration of water status and to mitigate negative drought effects
- Organizational framework to deal with drought and subsequent revision and updating of the existing drought management plan
- A section dedicated to 'prolonged drought': prevention and restoration steps; measures and indicators; annual review of the effects of prolonged drought.

Objectives of Drought Management Plan

The main objective of drought management plans is:

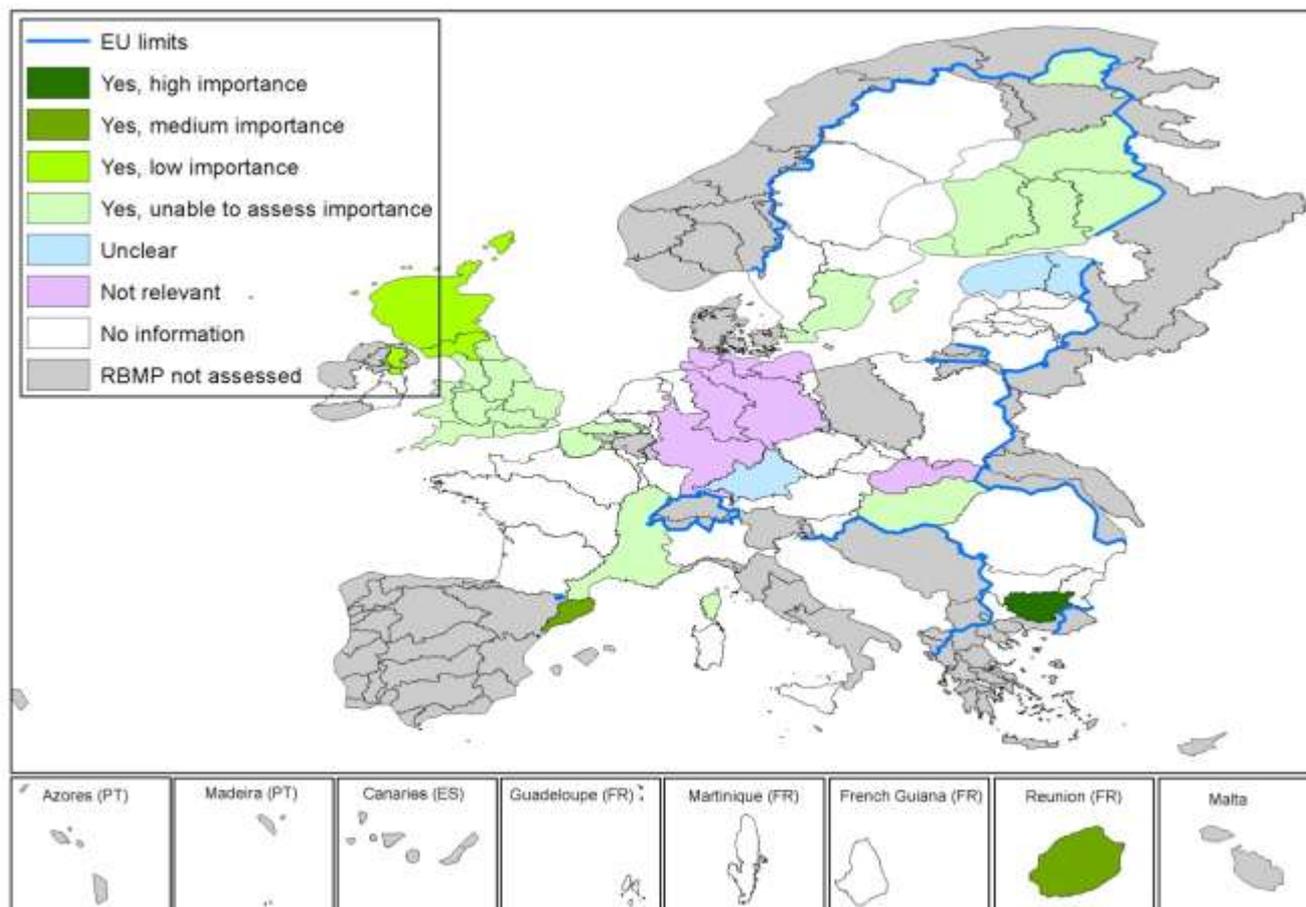
- Minimizing the adverse impacts on the economy, social life and environment when drought appears
- Aiming at extending WFD criteria and objectives to realize drought management.

This main objective developed through a series of specific objectives:

- Guarantee water availability in sufficient quantities to meet essential human needs to ensure population's health and life.
- Avoid or minimize negative drought impacts on the status of water bodies, especially on ecological flows and quantitative status for groundwater and in particular, in case of prolonged drought, as stated in article 4.6. of the WFD.
- Minimize negative effects on economic activities, according to the priority given to established uses in the River Basin management Plans, in the linked plans and strategies (e.g. land use planning)

Initial screening of the RBMPs: Drought Management Plan

Shall the Drought Risk Management Plan be included in the Programme of Measures?



Output of WS&D CIS program expected by December 2012

Water Scarcity & Drought Indicators System – 7 indicators tested

Standardized Precipitation Index (SPI)

Fraction of Absorbed Photosynthetically Active Radiation (fAPAR)

WEI+: Water Exploitation Index Plus

- Snowpack indicator
- Standardised Run-off Index (SRI)
- Groundwater indicator
- Soil Moisture indicator

Drought Risk Maps – two approaches suggested:

- Flood Directive Methodology
- Methodology based on WEI+

New EU policy drought-related initiatives

Communication from the Commission to the European Parliament and the Council (COM 2007) 414 - identifies a first set of policy options with a view to opening up a wide ranging debate on how to adapt to water scarcity and droughts:

- Putting the right price tag on water
- Allocating water and water-related funding more efficiently
- Improving drought risk management (inter alia Developing drought risk management plans)
- Considering additional water supply infrastructures
- Fostering water efficient technologies and practices
- Fostering the emergence of a water-saving culture in Europe
- Improve knowledge and data collection

New EU policy drought-related initiatives

A Blueprint to safeguard Europe's Water Resources – Discussion document of EC of November 2011

3 main objectives:

- improving the implementation of current EU water policy
- integration of water and other policies (with emphasis on quantitative water management needs to be better integrated into RBMP)
- seeking the completion of the current policy framework especially in relation to water efficiency and adaptation to climate change

Policy options will be built on on-ongoing assessments (Report on 2009 RBMP, Review Water Scarcity & Droughts Strategy, Climate Change Vulnerability and Adaptation)

The target date for adoption of the Blueprint is mid-November

Recommendations for regional drought activities

Based on identification of the gaps in WS&D Strategy

- to tackle drought problems in context of integrated water management according WFD
- to put emphasis on drought management planning process - development of Drought Management Plan (at different levels – river basin, sub-basin, local) as an integral part of RBMP following achievements reached within CIS of WFD
- to respond to policy options set in Blueprint focused on mitigating of drought effects (e.g. improving water efficiency, metering, pricing, knowledge base, etc.)
- to identify gaps in current solutions of WS&D problems in concerned region and suggest new measures to fully address WS&D on the regional level
- Recommendations, many, but for all identified gaps in general:
Strengthening the knowledge base, strengthening the quantitative dimension of the WFD