



## **Water Scarcity & Droughts – 2012 Policy Review – Building blocks Non-Paper**

### **Background**

The balance between water demand and availability has reached a critical level in many areas of Europe (water scarcity). In addition, more and more areas are adversely affected by changes in the hydrological cycle and precipitation patterns (droughts). Climate change will almost certainly exacerbate these adverse impacts in the future, with more frequent and severe droughts expected across Europe and the neighbouring countries.

Over the past thirty years, droughts have dramatically increased in number and intensity in the EU. The number of areas and people affected by droughts went up by almost 20% between 1976 and 2006. The total cost of droughts over the past thirty years amounts to € 100 billion. At least 11% of the European population and 17% of its territory have been affected by water scarcity to date.

Reduced water availability has a direct negative impact on citizens and economic sectors such as agriculture, tourism, industry, energy and transport, and may affect competitiveness and the internal market.

In 2007 the European Commission addressed this challenge in a Communication on water scarcity and droughts in the European Union (COM (2007) 414 final). The Communication identified 7 main policy options to address water scarcity and drought issues:

- (1) Putting the right price tag on water
- (2) Allocating water and water-related funding more efficiently
- (3) Improving drought risk management
- (4) Considering additional water supply infrastructures
- (5) Fostering water efficient technologies and practices
- (6) Fostering the emergence of a water-saving culture in Europe
- (7) Improve knowledge and data collection

Given the huge potential for water savings in the EU, the Communication laid down a water hierarchy under which water demand management should come first, and alternative supply options should only be considered once the potential for water savings and efficiency has been exhausted.

The **Environment Council** conclusions of 30 October 2007 were supportive of the above mentioned Commission Communication and invited the Commission to review and further develop the evolving EU strategy for WS&D by 2012.

In October 2008, the **European Parliament** adopted a report (Rapporteur R. Seeber) on the Commission communication (COM (2007) 414 final) calling for a number of initiatives at the EU level. The European Parliament has also requested the Commission to initiate pilot projects in areas of key interest.

Since the adoption of the Strategy on water scarcity & droughts in 2007, a number of studies, research and other activities have been launched and the implementation of the above 7 policy options has been assessed on an annual basis (see: [http://ec.europa.eu/environment/water/quantity/scarcity\\_en.htm](http://ec.europa.eu/environment/water/quantity/scarcity_en.htm)).

At the hearing in the European Parliament in January 2010, Environment Commissioner Potočnik stated that a focus area for his mandate would be resource efficiency, including water efficiency. He furthermore announced a new Commission initiative, a "Blue Print for safeguarding European Waters", by 2012 comprising a review of the Strategy on Water Scarcity and Droughts, a review of the implementation of the Water Framework Directive, and a review of the vulnerability of water and environmental resources to climate change and other man-made pressures.

Important knowledge gaps still exist as regards water scarcity & droughts in the EU. In view of the 2012 Blueprint, new studies and activities will be launched in the coming months. The present "non paper" intends to give an overview of the current planning. These ideas might be supplemented in the future according to the needs.

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### **Water Scarcity & Droughts – Gap Analysis**

The Commission intends to launch – before the summer 2010 - a study (approximately 250.000 €) to look into the current state of play regarding water scarcity & droughts, to check the adequacy of existing measures, identify gaps and suggest new measures where gaps are identified. This study will feed into the water scarcity & droughts policy review in 2012 and the accompanying impact assessment which will include environmental, economic and social impacts.

A large number of existing or on-going studies, data collection and research activities will contribute to establishing or updating the overview of where and when water scarcity & droughts is a problem in Europe and to assessing the magnitude of the problem. The study will further summarise and where possible quantify the driving forces, pressures and impacts associated with water scarcity & droughts throughout the EU.

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## **Leakage reduction in water distribution networks**

Studies show that water leakages from distribution networks are as high as 50% in certain areas of Europe. The EC will – before the summer 2010 - launch a pilot project (approximately 1 Million €) to identify the options for establishing a more efficient water distribution system and reducing water losses and related economic losses in Europe.

The project will look at all non-revenue-water in selected river basins where there are significant problems with water scarcity and/or droughts and where losses are known to be high. The selected cities/River Basins will be further analysed in order to determine the actual resource and economic losses and the underlying technical, economic and institutional reasons for the losses.

The analysis will distinguish between actual losses due to leakages and losses in revenue linked to non-authorized abstractions and the aim will be to establish the link between water losses and the value of water (price-structure, taxes etc.) in the given basins.

The project will furthermore identify positive case studies of areas which have already minimised water losses. These cases will serve as best practices and will be used to determine the most possible solutions in the areas with high losses.

On the basis of the analysis of the specific situations in the selected cities/River Basins as well as the best practices identified, tools to improve water efficiency will be identified.

The tools should include both possible investments and best practices regarding operations and management of the infrastructure. The proposed solutions should be accompanied by a Cost-Benefit analysis to determine the most economically feasible ways of reducing water losses in the selected basins/cities.

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## **Europe wide measures on water performance of buildings**

The Communication on water scarcity and droughts<sup>1</sup> adopted in 2007 highlights the huge potential for water saving across Europe. Europe continues to waste at least 40% of its water due to inefficiency<sup>2</sup>. In some regions, up to 30% of the volume of water consumed in buildings could be saved. This is the reason why one of the key orientations of the Communication is to put priority on water savings, covering also water saving in buildings. The Communication requires further assessment in terms of feasibility and follow-up concerning the possibility of developing requirements for water performance of buildings at EU level, in particular the development of a new directive similar to the Energy Performance of Building Directive.

In June 2009, two studies were carried out for the Commission, one on water performance of buildings and another one on water efficiency standards<sup>3</sup>. The studies

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<sup>1</sup> Communication from the Commission to the Council and the European Parliament - Addressing the challenge of water scarcity and droughts, COM(2007) 414, 18 July 2007

<sup>2</sup> [http://ec.europa.eu/environment/water/quantity/scarcity\\_en.htm](http://ec.europa.eu/environment/water/quantity/scarcity_en.htm)

<sup>3</sup> [http://circa.europa.eu/Members/irc/env/wfd/library?l=/framework\\_directive/scarcity\\_droughts](http://circa.europa.eu/Members/irc/env/wfd/library?l=/framework_directive/scarcity_droughts)

concluded on the need for EU action and identified several policy options in this respect. These options require now further assessment in terms of technical, environmental and economic feasibility.

The Commission (DG ENV) will therefore launch a call for tender for a detailed assessment of the identified policy options (regulatory and non-regulatory) on water performance requirements for buildings across Europe. The open call for tenders will be published in the first half of 2010 (approximately 130.000 €).

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### **Pilot project on prevention activities to halt desertification in Europe**

The Commission is carrying out a pilot project on prevention activities to halt desertification in Europe initiated by the European Parliament. The amount foreseen for funding the project is EUR 2 500 000. A call for proposals will be published in the first half of 2010 with the aim of identifying 3 to 5 projects eligible for financial support. The objective of the grant is to support the development of concrete pilot initiatives on innovative technologies, techniques or practices for halting desertification in Europe.

The aim of the pilot projects will be the promotion of prevention activities to halt desertification and droughts in pilot river basins, and contributing to the exchange of best practices at the local level on four issues, such as conservation of rainwater and surface water, alternative forms of irrigation, water saving/water efficiency measures and crops less water-intensive crops.

The pilot projects are demonstration projects aimed at testing specially designed technologies, techniques or practices carried out preferably in the identified priority regions in Greece, Cyprus, Spain, Portugal and Romania. They will have to demonstrate the potential of water saving for improving human and environmental conditions in the different regions of the European Union, using low-cost approaches.

The eligibility criteria and the conditions will be listed in the relevant Grant Application Guide. The guide, as well as the relevant grant application forms will be available at the Europa website (see: [http://ec.europa.eu/environment/water/quantity/scarcity\\_en.htm](http://ec.europa.eu/environment/water/quantity/scarcity_en.htm)).

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### **Agriculture**

Agriculture has been identified as the major sustainable water management issue in the implementation of the Water Framework Directive (WFD). In particular, abstraction of water for irrigation accounts for 24% of total water abstraction in Europe and can be up to 80% in some southern Member-States (EEA, 2009 water resources in Europe – confronting water scarcity and droughts). Moreover, unlike other sectors like energy production, the majority of the water abstracted is consumed and not returned to the water bodies (c. 70% according to the EEA). Thus, this sector has to be addressed as a priority when considering any action against water scarcity and droughts in Europe.

The Commission will organize with the Belgian Presidency in September a conference on the enforcement of EU water legislation in the agricultural sector with a special focus on illegal abstraction.

Several studies may be envisaged by the Commission between 2010 and 2012.

Thanks to the last reforms, the current CAP offers more opportunities for sustainable water management but can also lead to adverse effects. The Commission will consider the added-value of a specific study this year on the post-2013 CAP.

After the issuance of the WFD River Basin Management Plans by the Member States, it is important to look into the effectiveness of the agricultural measures therein, including their technical, financial and social dimension. This will be done in close cooperation with the WFD Expert Group on agriculture and with its technical subgroup, the Pilot River Basin network on agriculture, and may be accompanied by studies as needed. On this basis, a database about WFD agricultural measures could be created in order to enhance the exchange of experiences.

The Commission also intends to address water pricing in agriculture in a dedicated conference, which could take place next year in Poland. Taking into account that the OECD just issued a publication on this topic, we are currently considering the added-value of a new study in view of this conference.

The Commission will ensure that all the available studies which have been carried out regarding options for water savings in agriculture will be taken into account in the preparation of the 2012 Blue Print for European Waters and may launch additional studies if needed.

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The ideas presented in this non-paper do not bind the Commission and are subject to changes, in line with the evolving nature of the consultation process. Your comments can be emailed to the European Commission DG ENV, Unit D1 Water Marco Gasparinetti ([Marco.Gasparinetti@ec.europa.eu](mailto:Marco.Gasparinetti@ec.europa.eu)) and Henriette Faergemann, ([Henriette.Faergemann@ec.europa.eu](mailto:Henriette.Faergemann@ec.europa.eu)).