

Policy Department
Economic and Scientific Policy

WORKSHOP
Assessing the Commission's Impact Assessment on
the "Communication on
Water Scarcity and Droughts"

Consolidated texts

These texts were requested by the European Parliament's Committee on the Environment, Public Health and Food Safety for the workshop held in Brussels on 14 February 2008.

Only published in English.

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1. Introduction

A **workshop** was organised on the Impact Assessment on the "Commission's Communication on Water Scarcity and Droughts". This was held in the context of an ENVI report currently drafted by **MEP Richard SEEBER** (EPP-ED) on the abovementioned Communication published by the European Commission on 18 July 2007. A panel of 3 experts analysed and debated the Commission's presentation and subsequently answered Members' questions about the different policy options presented in the Impact Assessment.

This workshop could be considered a **pilot project** as it was the first one to be **exclusively focused on the Commission's Impact Assessment**. In the past, previous experiences brought the European Commission to present impact assessment on ENVI dossier during the meetings of the Environment, Public Health and Food Safety Committee. However, no real debate took place as no real challenge was made on the Impact Assessment.

The **panel of three experts** was invited to give their own **critical** and complementary **evaluations** of Commission's Impact Assessment in terms of methodology, terminology, and policy conclusions.

2. Programme

WORKSHOP **Assessing Commission's Impact Assessment on the** **" Communication on Water Scarcity and Droughts "**

European Parliament, Altiero Spinelli Building ASP 1E1, Brussels
Thursday 14 February 2008, h.09:00 - h.10:30

- 09:00 Welcome and opening – Rapporteur Dr. Richard Seeber MEP
- 09.05 The main elements of Commission's Impact Assessment: Ms Stephanie Croguennec, European Commission, DG ENV
- 09.20 A critical assessment:

Expert panel on Impact Assessment:

Dr Govert Geldof
Dr Philipp Schepelmann
Dr Alan Gustard

TAUW Consulting (NL)
WUPPERTAL INSTITUTE (D)
EVALUATION PARTNERSHIP (UK)

- 10.00 Discussion with Members of the European Parliament
- 10:30 End of workshop

Venue: European Parliament – Altiero Spinelli Building **ASP 1E1**
Brussels, Rue Wiertz 60 (main entrance)

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3. Reaction to Impact Assessment Water Scarcity and Drought

Dr. Govert D. Geldof, Tauw bv Deventer, The Netherlands & Technical University of Denmark, Lyngby, Denmark

Water Scarcity and Drought

The reports on Water Scarcity and Drought give a very good impression on what might be the effects of climate change. On the one hand we will expect more intensive rain and floods, on the other droughts will increase and countries that are already under water scarcity stress will have real problems. There will be many negative effects on ecology, economy and the social situation. Europe is in a luxurious position now. In most countries reliable and unlimited drinking water comes out of the tap. The people take that for granted. Due to climate change this will change. The reports offer good insight in what might happen – taking into account the many uncertainties that are connected to climate change.

In 2005 the municipality of Rotterdam made a plan for climate change adaptation, together with water boards and the national water authority. The result was presented as a scale model at the 2nd Architecture Biennale in Rotterdam. The result shows that adaptation to drought risk is more difficult than reducing flood risk. The perception at the beginning of the Rotterdam project was that it would be the other way around. The results underpin the fact that improving land-use planning is essential, both on local, national and European scale. In the present we can do nearly everything at every location. In the future we have to accept that some places have water limitations.

So the reports give a good overview. However, there are some essential elements missing:

- There is no real holistic vision on what the Integrated Approach looks like. The reports describe three options for policy: A. 'Water supply only', B. 'Water pricing policies only' and C. Integrated Approach. The assessment is clear: an Integrated Approach offers the best opportunities, both on the short-term and long-term. But the Integrated Approach is still fragmented.
- Water Scarcity and Drought will have an influence on the economy. That is important for Europe, because Europe has to be attractive for people and companies to invest. To get a clear picture of the effects, the effects in Europe have to be compared to the climate change impact in other parts of the world. Also: we have to learn from experiences in non European countries where they have water scarcity problems for decades.
- It is not clear what the short-term actions have to be when we choose for the Integrated Approach (option C). The Integrated Approach asks for a real societal transition. How can that be effectuated? We can learn from experiences in Australia.

Integrated Approach

Mahatma Gandhi stated "The quality of society is reflected by the way it makes use of its water." This is a useful quote. And in fact it is true. All high level cultures show brilliant ways to handle water. For example the Maya's and Inca's had an impressive water distribution system, the Romans introduced aqueducts, in ancient Persia they had a sophisticated irrigation system: the Quansats, etc. In deprived areas bad water use reflects the bad conditions. In the participative Interreg water projects it has become clear that people are not really interested in water issues. However, most people want to live

in a highly qualified society. So a real Integrated Approach does not only change the water use, but initiates a societal transition where people become more proud on where they live and how they live. The good water use (and availability) is a mirror for that. Our experience is that when residents and companies are confronted with Gandhi's quote, they start to be fanatic. So a good interpretation of the three options in the report could be:

1. Options A & B: the technological fix: water demand management is a goal in itself.
2. Option C: the Integrated Approach: a societal transition: water demand management is a tool for improving social, economic and ecological conditions.

This way of formulating the options offers a good foundation for a holistic view on Europe's water future.

Position of Europe in the world

The water availability in most European countries is good, compared to other places on earth. We have a moderate climate. The assessment report shows that climate change in Europe will have negative impact, both on social, economic and ecological values. However, in other parts of the world the effects are even worse. In the Middle East and even parts of the USA groundwater levels drop every year. Semi arid areas will change into arid areas. Huge cities with millions of people are located in regions that are really vulnerable to water scarcity and drought. Although there will be negative effects in Europe, it is still relatively good and it can be expected that in the next coming decades we will have 'climate change refugees' coming to Europe, to our mild climate.

So, in the European policy we have to improve the situation in Europe itself and develop a strategy to handle the increasing differences between Europe and other parts of the world. Then, the word solidarity comes into play.

Short-term actions

The reports make clear that an Integrated Approach is preferable. But what is the European influence and what has to be done on a short-term? That is not described very well. Somehow the reports say that the implementation of the European Water Framework Directive (WFD) already has all the elements in it, because it says that also quantitative issues have to be taken into account (article 11). But that is not enough. People are not really aware and in situations of drought the reactions are characterised as crisis management. A pro-active water scarcity and drought strategy is not embedded in society. To come to a short-term action plan it can be wise to learn from experiences in Australia, where they suffered from water scarcity during many years. In that continent the big cities are situated in regions where they will have less rain in the future. Partly the water scarcity strategy in Australia failed until now, but there are also some real successes. These successes have been analysed¹. The key factors for success were:

1. Socio-political Capital;
2. Bridging Organisations;
3. Trusted and Reliable Science;
4. Binding Targets;
5. Accountability;
6. Strategic Funding Points;
7. Demonstration Projects and Training;
8. Market Receptivity.

Of course it is difficult to influence the 2nd and 8th key factor from Brussels, but it is possible to organise activities around the other factors. Partly it is reorganising processes that have already started, partly it will be new.

¹ R. Brown & J. Clarke (2007). *Transition to water sensitive urban design. The story of Melbourne, Australia.*

4. Lena Partzsch, Philipp Schepelmann

Statement on the Commission staff working document accompanying the Communication addressing the challenge of water scarcity and droughts in the EU (Impact Assessment) (SEC (2007) 993)

Procedural issues

In impact assessment (IA) one of the main limiting factors for the quality of an assessment is time. In spite of the considerable time pressure, the Commission has managed to compile an impressive amount of facts. Under these circumstances the IA is a good result. Generally it needs to be noted that the notorious time pressure of the IA procedure could not only compromise the quality of EU legislation but have moreover a deterring effect on the EU scientific community participating in impact assessment.

More information on the “consultation of all stakeholders” and informal expert networks¹ (section 1.2.1.) would have been instructive (e.g. lists of workshop participants).

In section 1.2.2 extensive references is made to studies which ought to be undertaken or which have been forthcoming in 2007. It is not clear why the IA had to be published before these important studies had been completed.

Terminology in section 1.3 is well-chosen. It describes water scarcity not only in terms of natural availability (which applies only to arid or semi-arid regions) but dependence on human water consumption exceeding natural supply (which also applies to regions with large water supply such as most parts of Central and Northern Europe). Also important is the connection between water quantity and quality. Furthermore, the working document distinguishes between water use and consumption.² This implicit distinction needs to be made explicit, because even if water is not consumed but only used, it is often returned to ecosystems in a modified way (e.g. when cooling power plants).

Problem definition and framing

A more profound limitation of the IA is the scope of the problem definition. In the second part of this document, the Commission explains the problem including underlying drivers, economic, social and environmental impacts, and no policy change scenarios. At the beginning of section 2.1 it is made clear that only “the sustainable availability of water in Europe from now on” is considered. This framing does not consider water footprint accounting and virtual water trade³. The EU is the largest net water importer, if resources used for the production of goods and services (“virtual water”) are considered. Countries such as the Netherlands (1223 m³/cap/yr) and

¹ For a critical survey on expert networks in the water sector see Dober, Petra (2006): Did the state fail? Zur Transnationalisierung und Privatisierung der öffentlichen Daseinsfürsorge: Die Reform der globalen Trinkwasserpoltik (www.dvpw.de/fileadmin/docs/2006xDobner.pdf).

² The Commission calls agriculture a large consumer of water (1.2.1. (7); 2.2.), but speaks, for example, only of water use by the energy sector (2.3.; or exploitation in 2.1.). When the terminology is given in 1.3., water scarcity is defined as a result of high levels of water consumption.

³Allan, Tony. 2003. Virtual Water—The Water, Food and Trade Nexus: Useful concept or misleading metaphor? Water International Vol 28, No 1. Chapagain, A.K./Hoekstra, A.J. (2004): Water footprints of nations. Volume 1 and 2: Main Report, UNESCO Institute for Water Education, Delft, p. 66-68

the United Kingdom (1245 m³/cap/yr) have extremely high water import dependencies, requiring 82% and 70% of the water needed from production abroad. Therefore, the scope of the IA needs to be broadened:

1. Impacts of *existing* production and consumption patterns (including trade practices) in the EU on worldwide water availability need to be assessed.
2. Impacts of *planned* actions against water scarcity and drought in the EU should be examined for their social, economic and ecological impacts also in other parts of the world.

Objectives

As a consequence of the narrow scope of the problem definition policy objectives presented under section 3.1 are limited to domestic considerations. This is insufficient, because a sustainable water supply across Europe can only be achieved if water extraction for satisfying European consumption is taken into account. There is a risk that the EU addresses domestically the challenge of water scarcity and droughts, and encourages water-intensive production to other regions of the world. This would contribute to the already existing trend of shifting environmental burden from the EU primarily to developing and transition countries. In these countries burden shifting often contributes to social, economic and humanitarian problems (e.g. biofuels, coffee, cotton, flowers).

Policy options

The working document discusses three general options for meeting the objectives outlined before. Option A represents a supply-oriented approach. Option B "Water pricing policies only" is a demand-oriented approach. Option C stands for an integrated approach combining A and B. Section five of the document is an analysis of impacts supporting the Commission's argumentation and preference for Option C. The arguments are consequential but at too great length and partly redundant. The divide into "options" and "impacts" seems to be biased and therefore slightly farcical. Before comparing the options in the sixth part of the document, the comparison (and evaluation) seems to be already implicit. More effort should have been made to elaborate concrete actions instead of supposedly comparing options although this approach may be in conflict with the existing IA guidelines of the European Commission.

"Option C" includes the concept of mainstreaming water issues into diverse policy fields. This is indeed pivotal in order to tackle water problems. It is necessary to radically improve the water performance of sectors and technologies. The document could be more precise in describing how this will be achieved. The legislative examples of France and Hamburg are only illustrative. The Communication could have gone into detail and elaborated how water mainstreaming could be implemented by actions at the European level.

Voluntary agreements (discussed in section 2.5., 4.3., 5.3.2.3.) should be accompanied by more binding regulations (Construction Products Directive, Directive on the Energy and Water Performance of Buildings etc., the reform of CAP and ESF, as outlined in section 4.3., 2.4.4, 1.2.2 and elsewhere). Where appropriate labelling measures are easy to realise and provide an immediate tool to foster water performance technologies. The Eco-design Directive (see section 4.3.) and, furthermore, the Organic Farming - EC Control System should contribute to control water

use of the production process. For example, for acquiring the organic farming label the adaptation of irrigation practices to regional water availability should be obligatory.

Europe should further develop its eco-pioneering role and stimulate water-saving innovations in farming, industrial production and power generation. As outlined in section 5.3.2.3 and elsewhere European business should take a pioneering role and establish lead markets as in the renewable energies sector. Even, if regulation in the EU will get tougher the risk of shifting production to “pollution havens” outside Europe (as considered in section 5.1.2.) is unlikely because water prices constitute only a minor percentage of production costs. Water prices are also not the limiting factor for agriculture, but the scarce availability of arable land.

Follow-up initiatives should be more precise and discuss the diffusion of policies to different policy levels. Section seven on monitoring and evaluation summarises that the challenge of water scarcity and droughts will need to be addressed both as an essential environmental issue and as a precondition for sustainable economic growth in Europe. Although the working paper fails to address important dimensions of the EU’s intragenerational responsibility the case for action is made.



IMPACT ASSESSMENT REPORT

Assessing Commission's Impact Assessment on the Communication “Addressing the challenge of water scarcity and droughts in the European Union”

to the European Parliament
Directorate-General for Internal Policies

Submitted by:

The Evaluation Partnership Limited (TEP)
www.evaluationpartnership.com

6/02/2008

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1. INTRODUCTION

This evaluation identifies the Impact Assessment's

- Strengths and weaknesses
- Significant omissions
- Topics requiring further clarification

The evaluation makes a number of recommendations and is structured by the relevant sections of the Impact Assessment (IA) Report. Relevant section numbers and page numbers are shown in parenthesis. The IA would benefit from being more concise and cross references should be checked.

2. TERMINOLGY (Section1.3 p6)

There have been different definitions in Member States of "drought" and "water scarcity" and different interpretations of the term "drought". The IA provides an unambiguous definition of "drought" and "water scarcity. However despite being a key aspect of the Communication there is limited discussion about European droughts in the main body of the IA.

Recommendations:

- The impacts of regional differences in European droughts should be presented.
- Examples of "natural droughts" and "water scarcity" should be presented.

3. WHAT PROBLEM IS THE COMMUNICATION EXPECTED TO ADDRESS? (Section 2 p8)

3.1 What are the issues that may require action? (p8)

The IA correctly identifies the main issue at stake as "The increasing impacts of water scarcity and droughts in the context of climate change" (p8).

Recommendations:

- Discuss climate change impacts and uncertainties in detail in the main body of the report and not just in Annex 2.
- Highlight the benefits of improvements in water efficiency on resource reliability, and improving the aquatic environment even in the absence of any change in climate.
- Present the issues that may require action in two stages by addressing.

- 1) Droughts and water scarcity with the current climate variability.
- 2) Scenarios of change including climate.

3.2 Droughts (p9)

The IA states (p 10) that “Compilations of national data clearly show that the total area (and total population) affected by droughts doubled in the period from 1976 -1990 to 1991-2006”. In contrast Annex 2 of the report states “In summary it is still hard to detect changes in hydrological drought (streamflow and groundwater) in the 20th Century and, if occurring, to attribute this to climate change”. This illustrates that the report confuses the terms “droughts” and “water scarcity” despite the clear terminology in section 2.0.

Recommendation: Follow the terminology throughout the IA presented in Section 2 and state that change in drought frequency cannot be detected.

The statement “The approach taken by the Commission on Energy policy resembles the approach needed for water scarcity and droughts, as managing the limited stock of freshwater resources can be considered to be similar to managing fossil energy resources” (p10) is misleading. Fossil energy resources are finite in that once used they cannot be used again. In contrast water is a renewable resource driven by the hydrological cycle and can be managed sustainably.

Recommendation: The policy similarities and differences between fossil energy and water should be presented.

3.3 Climate change (p10 and p16)

The report correctly highlights the Mediterranean region, where a consensus is emerging that conditions will deteriorate due to climate change, but it does not highlight (except in Annex 2) regions in much of Europe where climate change may lead to improvements in resources or where projected changes are small in relation to current levels of uncertainty.

Recommendation: The key issues presented in Annex 2 should be included in the main body of the IA report. In addition the vulnerability to drought with our **current climate** should be presented as a major driver for policy decisions.

4. OBJECTIVES (Section3 p24)

The key policy objectives are presented at a general level.

Recommendation: Include specific examples of operational policy alternatives e.g. to provide consumers with an unrestricted water supply during extreme droughts or introduce temporary restrictions on water use.

5. WHAT ARE THE MAIN POLICY OPTIONS TO ACHIEVE THE OBJECTIVES? (Section 4 p25)

The report provides a good summary of a wide range of policy issues and identifies some of the continuing and important problems associated with European Agricultural policy. Many of the proposed beneficial impacts described in the report can only be achieved with the acceptance and pro-active implementation of a much higher degree of regulation on water use.

Recommendation: Highlight the need for greater regulation in some regions of Europe.

Options A (Water Supply only), B (Water Pricing Policies only) have been discarded as viable alternatives in many Member States and to present Option C (Integrated Approach) as a “new approach” may be considered naive.

Recommendation: Include Section 4 with the three options but present A or B as no longer viable. Only include details of Option C in Section 5

The sub heading (p27) “measures to prevent droughts” is misleading. There can be measures to mitigate adverse impacts of droughts but not to prevent them.

Recommendation: replace “prevent” by “mitigate”

6. ANALYSIS OF IMPACTS (Section 5 p30)

There have been considerable advances in European drought planning and management practice in recent years (e.g. regulation of surface and groundwater abstractions, improved metering and advances in hydrological forecasting and prediction). As a result of these actions by Member States the impact of recent severe droughts on the consumer in many parts of Europe has been benign.

Recommendation: Present the positive experience in many Member states of successfully mitigating the impacts of recent droughts. Include details of initiatives for sharing knowledge and reducing uncertainty e.g. European Drought Centre (EDC) (<http://www.geo.uio.no/edc/>), WATCH (WATER and climate Change) EU FP6 Project and XEROCHORE (An Exercise to Assess Research Needs and Policy Choices in Areas of Drought) EU FP7 Project.

The impacts of the three policy options on many different socio economic issues are presented in detail (p 30-48) however there are some omissions.

Recommendation: Include more details of impacts on groundwater, water quality, freshwater ecology, hydropower, navigation and opportunities for water re-use through enhanced treatment of domestic effluent.

Planning and decision making is only as good as the information on which it is based.

Recommendation: The opportunities for reducing water scarcity by improving the collection, storage and dissemination of accurate data from the natural environment and water use should be stressed.

6. Summary

Following Chairman's introduction, **Ms Stéphanie CROGUENNEC**, a representative of DG ENV, presented the European Commission's Impact Assessment, stressing that due account had been taken of the opinion of the Impact Assessment Board in the final IA¹.

She briefly explained the issues at stake, the relevance of a Community action, the objectives, the different policy options identified and compared, and the follow-up and evaluation foreseen.

The different policy options identified by the IA are:

- **'No policy change' scenario;**
- **Option A: 'Water supply only' option** (enhancing the development of new water supply on the basis of existing EU legislation and supporting the widespread development of new water supplies);
- **Option B: 'Water pricing policies only'** (effective water pricing and cost recovery);
- **Option C: Integrated approach** (set of measures to prevent droughts, to support efficient water allocation and sustainable land use planning, to foster water performance technologies and practices, to foster the emergence of a water-saving culture in Europe, for new water supply);

The European Commission identified Option C as the best option to have a full "Integrated approach".

Three experts took the floor afterwards: **Dr Govert GELDOLF** (TAUW Consulting - NL), **Dr Philipp SCHEPELMANN** (Wuppertal Institute - DE) and **Dr Alan GUSTARD** (The Evaluation Partnership - UK). General positive comments were made referring to the Commission analysis of the situation, the terminology used and the choice for an integrated approach.

The following conclusions arose from the debate on:

- Options A and B were not sufficiently elaborated and deeply assessed by the European Commission. They were soon discarded as viable alternatives in many Member States and the European Commission failed to proceed in the analysis;
- Holistic vision on option C is missing;
- **Lack of integration** into other policy areas (energy, transport and agriculture) and with existing legislation already in place for those policy areas;
- The impacts of EU production and consumption patterns and planned policies on **other parts of the world** are not assessed;
- The impact of **regional differences** in European droughts and the positive experience on many Member States in successfully mitigating the impact of droughts should be presented.

¹ In fact, the IAB gave two opinions, one on a first draft IA (21 May 2007) and one on a resubmitted draft IA (4 June 2007).

In addition, Chairman concluded that:

- A clearer definition should be made between water scarcity and droughts in the Impact Assessment in particular related to human activity vs. climate change;
- The possibilities for actions should not be limited to European Union but assessed globally;
- There is not enough evidence and arguments in the IA on why option C has been taken on board by the European Commission as the best option;
- More concrete actions should have been presented in particular for European local authorities, regions and cities.