### COMMISSION OF THE EUROPEAN COMMUNITIES



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## COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

Towards sustainable water management in the European Union

- First stage in the implementation of the Water Framework Directive 2000/60/EC -

[SEC(2007) 362] [SEC(2007) 363]

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### Towards sustainable water management in the European Union

### INTRODUCTION

"Water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such."

Water is indispensable for human survival and development. It is essential for human life and it is needed for many industrial activities and processes. Adequate quantities of sufficient quality have to be available in the wilderness to sustain wildlife, plants and unique ecosystems.

Too much water can cause loss of life and serious damage through flooding, as happens in the European Union nearly every year. Too little water is equally devastating, like the droughts that are occurring more and more often. All these events are expected to become more frequent and extreme according to predictions on the impacts of climate change.

Maintaining a sustainable balance between all these aspects is the aim of the **Water Framework Directive** (WFD), adopted in 2000<sup>2</sup>, which lays the foundation for a modern, holistic and ambitious water policy for the European Union.

This Communication summarises the first report on progress with implementation of the WFD (as required for by Article 18(3))<sup>3</sup>. It also makes recommendations for the next important milestone: the river basin management plans. These plans, which are due by December 2009, will bring further real improvements for the whole water system in the form of programmes of measures, which must be operational by 2012 and deliver the environmental objectives of the Directive by 2015.

#### 1. EU WATER POLICY – A BRIEF OVERVIEW

The Water Framework Directive establishes a legal framework to guarantee sufficient quantities of good quality water across Europe. Its key aims are:

- to expand water protection to all waters: inland and coastal surface waters and groundwater;
- to achieve "good status" for all waters by 2015;
- to base water management on river basins;

A more detailed analysis is published in the Commission Staff Working Document (SEC(2007) 362).

Recital 1 of the Water Framework Directive

Directive 2000/60/EC of the European Parliament and the Council establishing a framework for Community action on water policy (OJ L 327, 22.12.2000, p. 1).

- to combine emission limit values with environmental quality standards;
- to ensure that water prices provide adequate incentives for water users to use water resources efficiently;
- to involve citizens more closely;
- to streamline legislation.

The Directive also identified two areas where more specific legislation was needed: groundwater (Article 17) and priority substances<sup>4</sup> (Article 16). The new Groundwater Directive<sup>5</sup> was adopted by the European Parliament and the Council only recently, whereas the proposal for a Directive on Priority Substances<sup>6</sup> is still under negotiation.

Two additional recent legislative proposals will broaden the scope of the EU water policy and complete its comprehensive management and protection framework. These are the proposals for a Directive on the assessment and management of floods<sup>7</sup> and for a Marine Strategy Directive.<sup>8</sup>

#### 2. EUROPEAN WATERS – A THREATENED RESOURCE

Under Article 5 of the WFD, Member States had to produce an environmental and economic analysis by December 2004, for the most part using existing information. The results below are based entirely on reports from Member States of this "Article 5 analysis".

### 2.1. Current status of EU waters – Worse than expected

In the specifications to Article 5 set out in Annex II of the Directive, the key question Member States had to answer was: "What is the risk of failing to meet WFD environmental objectives based on current data?" (see Figure 1). As the WFD objectives have to be achieved by 2015, the results illustrate the current "distance to target" of national water protection efforts

<sup>&</sup>lt;sup>4</sup> Chemicals of EU-wide concern which cause pollution of surface waters.

<sup>&</sup>lt;sup>5</sup> Directive 2006/118/EC (OJ L 372, 27.12.2006, p.19)

<sup>6</sup> Proposal (COM (2006)397 final) of 17 July 2006

<sup>&</sup>lt;sup>7</sup> COM(2006) 15 final of 18.1.2006

<sup>8</sup> COM(2005) 505 final of 24.10.2005

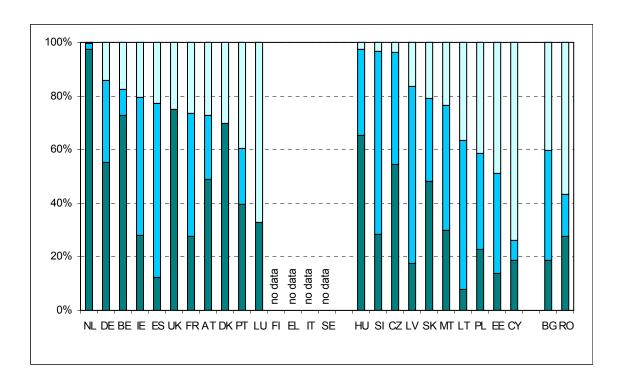


Figure 1: Percentage of surface water bodies at risk of failing WFD objectives per Member State -  $\blacksquare$  = 'at risk',  $\blacksquare$  = 'insufficient data',  $\blacksquare$  = 'not at risk' (based on Member States' reports)<sup>9</sup>

The actual percentage of water bodies meeting all the WFD objectives is low, in some Member States as low as 1%. However, the results need to be analysed in more detail.

High "at risk" numbers are clearly associated with densely populated areas and regions of intensive, often unsustainable, water use. Furthermore, the WFD comprehensively considers all pressures and impacts on water for the first time at Community level, including problems caused by structural degradation of ecosystems and impacts on biological parameters. Many Member States have addressed this challenge by using "worst case" estimates to assess the health of aquatic ecosystems and of the biodiversity-related indicators.

Moreover, EU water policy addressed some important pressures, like pollution by domestic waste water discharges, <sup>10</sup> nutrients from agriculture, <sup>11</sup> industrial emissions <sup>12</sup> and discharges of hazardous substances <sup>13</sup> well before the WFD. Aggregated analysis of the impacts of those pressures clearly reveals differences in the level of implementation of this legislation (which in some Member States is very low). Where adequate investment has been made over the last 10 to 30 years, these problems have been largely resolved. For the ten Member States that joined in 2004 and the two that joined in 2007 (together EU-12), full implementation of the

For more details, see SEC(2007) 362.

Directive 91/271/EEC (OJ L 135, 30.5.1991, p.40)

Directive 91/676/EEC (OJ L 375, 31.12.1991, p. 1–8)

Directive 96/61/EC, OJ L 257, 10.10.96, p. 26

Directive 76/464/EEC (OJ L 129, 18.05.1976, p. 23) and related daughter directives

investment-heavy regulations for point source control is subject to transitional periods, which in most cases run until 2015.

### Pollution from municipal wastewater - current implementation (for details see SEC(2007) 363)

The European Community adopted Directive 91/271/EEC on urban waste water treatment in order to regulate discharges of municipal wastewater from larger villages, towns and cities. The Directive explicitly specifies the kind of treatment to be provided.

In the EU-15, significant amounts of wastewater are still not being treated adequately before discharge into surface waters. As the status on 1 January 2003<sup>14</sup> shows, only 81% implementation of the Directive has been reported by the Member States. The main gaps are the lack of (appropriate) treatment and the lack of designation of "sensitive areas" where more stringent treatment is needed to protect vulnerable lakes, coastal and marine waters from nutrient pollution. The Commission challenges some of the reported levels of implementation provided by the Member States. Consequently, the Commission has taken decisive legal action against several Member States in recent years.

The EU has spent a considerable amount of Community funds (mainly Cohesion Funds) on co-financing wastewater treatment plants in the Member States. For example, 9 billion euros were allocated to four of the EU-15 Member States and 5.6 billion for the EU-10 in the period 2000-2006. For the new EU-12 Member States, it is estimated that approximately 35 billion euros will be needed over the next 10 years to comply with the Directive.

### Pollution from nitrates in agriculture – current implementation (for details see COM(2007) 120 final)

Diffuse pollution of agricultural origin is a major threat for EU water. The third report on implementation of the Nitrates Directive confirms the significant contribution from agriculture to nitrate pollution of groundwater and surface water and to eutrophication. Progress has been made in the recent years in implementing this Directive, although implementation is still incomplete and further work is required. Designation of nitrates vulnerable zones, which increased from 35.5% of EU-15 territory in 1999 up to the 44% in 2003, needs to be completed, in particular in Southern European Member States. Action programmes need to be improved with regard to quality and completeness of the measures, including adoption of reinforced actions if it is evident that the objectives of the Directive are not achieved.

### 2.2. Pressures and driving forces – Consequences of unsustainable water use

The most significant and widespread pressures are diffuse pollution, physical degradation of water ecosystems (physical modifications) and, particularly in Southern Europe, overexploitation of water. In some of the EU-15, and more generally in the EU-12, point source pollution is also an important problem. The main driving forces behind these pressures are industry, households, agriculture, navigation, hydropower, flood protection and urban development.

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Data were only available up to 1 January 2003. The status of implementation of Directive 91/271/EEC for all EU27 Member States is planned to be published in 2008.

The lack of internalisation of environmental costs hitherto may be an additional reason why water use has not been sustainable so far. However, the WFD introduces a scheme whereby environmental and resource costs need to be taken into account when determining the contribution of the different uses to the recovery of costs of water services.

#### 3. Performance of Member States – Room for improvement

The Commission assessed Member States' reports for four aspects in particular: conformity of legal transposition, compliance with Article 3, compliance with Article 5, and overall reporting performance. For these last three issues, results are presented in a figure showing the relative performance of the Member States on the basis of a simple scoring system. The methodology, more detailed results and their interpretation are presented in the accompanying Commission Staff Working Document<sup>15</sup>.

### 3.1. Legal transposition – A negative picture

Few EU-15 Member States transposed the Water Framework Directive into their national legislation by the required deadline, *i.e.* by December 2003. The Commission launched eleven infringement cases and the Court of Justice ruled against five Member States<sup>16</sup> for not communicating transposition of the WFD. In addition, the Court clarified a number of issues regarding transposition<sup>17</sup>. For EU-12, the deadline for notifying their national legislation was their day of accession, which was kept by all of them.

The quality of legal transposition is poor. On the basis of a preliminary assessment, the Commission identified 19 Member States with serious shortcomings as regards Article 4, 9 or 14. Most other Member States fail to transpose the WFD in full conformity. The Commission will address these negative findings with highest priority.

### 3.2. Administrative arrangements (Article 3) – An encouraging start

After transposition, the next important step was to set up river basin districts and to designate competent authorities (under Article 3). Most Member States reported to the Commission on time. For delayed reporting, the Commission launched nine infringement procedures of which all, except one, have been successfully resolved by now.

Although most of the administrative arrangements appear capable of ensuring proper implementation, actual performance will only become evident in practice over the coming years. It is, however, often unclear how the coordination arrangements between different authorities within the Member States are functioning.

Figure 2 shows the overall performance of Member States in setting up river basin districts and competent authorities.

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<sup>15</sup> SEC(2007) 362

Belgium (C-33/05), Luxemburg (C-32/05), Germany (C-67/05), Italy (C-85/05) and Portugal (C-118/05)

Cons. C. 32/05: Commission vs. Luxembourg. (Judgment of 20/11/2000). This is the only one of the control of 20/11/2000.

Case C-32/05: Commission vs. Luxembourg - (Judgement of 30/11/2006). This is the only case which is still open.

Most Member States which are part of an international river basin district have put in place the necessary agreements and coordination arrangements. In some cases, however, this process is still ongoing or there is clear scope for improving the international coordination arrangements. More conclusions on the assessment of the Article 3 reports can be found in the Commission Staff Working Document.

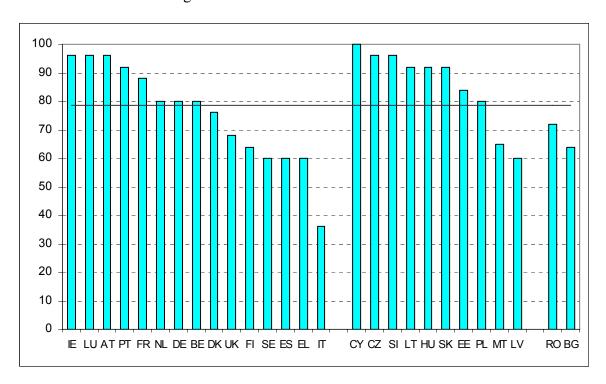


Figure 2: Performance indicator per Member State regarding the implementation of the administrative set-up – Article 3 WFD –including the EU-27 average (based on Member States' reports)<sup>18</sup>

# 3.3. Environmental and economic analysis (Article 5) – Great diversity and some major gaps

The first WFD analysis includes a comprehensive environmental assessment of all impacts from human activities and an economic analysis of water uses and cost-recovery levels. Most Member States were submitting reports in time. The Commission is pursuing infringement procedures against two Member States that only submitted first (incomplete) reports with considerable delay.

In general, most Member States put considerable effort into this first analysis, producing an information base that did not previously exist at EU level. However, the quality of the reports and the level of detail vary considerably.

The overall performance of Member States can be seen in Figure 3. Several Member States produced a good or satisfactory report. However, in all cases, data gaps need to be filled in order to provide a solid basis for the 2009 river basin management plans. Some reports clearly do not meet the minimum requirements of the Directive. Economic analysis is the main

For more details on the figures and their interpretation, see SEC(2007) 362.

weakness. This concerns in particular the proper identification of water services and uses, and the assessment of the level of cost-recovery. These findings are explained in more detail in the Commission Staff Working Document.

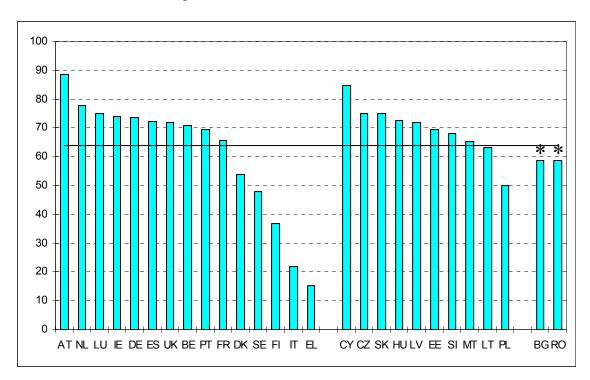


Figure 3: Performance indicator per Member State regarding the implementation of the environmental and economic analysis—Article 5 WFD- including the EU-27 average (based on Member States' reports). \*The scores for BG and RO are based on preliminary assessments. 18

### 3.4. Reporting performance – Some missed opportunities

Besides the quality of the content of the reports, another important indicator is the general reporting performance. The WFD offers significant potential for streamlining administration and saving costs in the long term. Meanwhile, improving the clarity and completeness of reports will make it easier to communicate results to the public.

The first indications on reporting performance are whether the report was provided on time and whether is was clear and complete. Figure 4 gives an overview and awards Member States average scores in terms of meeting the reporting requirements on Article 3 and Article 5.

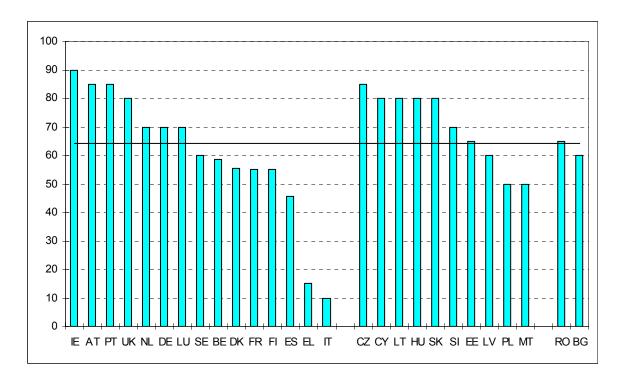


Figure 4: Indicator per Member State regarding its reporting performance and the EU-27 average (based on Member States' reports). 18

### 4. RECOMMENDATIONS TO MEMBER STATES – TIME TO ACT UNTIL 2009

Member States have to complete the first river basin management plans by the end of 2009, and they have to put a water pricing policy in place in 2010. Learning from experience with implementation to date, there is still ample time to improve the situation and close gaps on data. Moreover, the obligation to inform and consult the public when preparing the management plans will require more transparency and justification on what measures are necessary and cost-effective, and what exemptions can be justified.

The Commission therefore urges the Member States to focus especially on the following three areas:

- **a) Overcoming the current shortcomings**. To reach this objective, Member States are encouraged to:
  - fully implement other relevant EU legislation, in particular on urban wastewater and nitrates;
  - put in place all the economic instruments required by the Directive (pricing, recovery of costs of water services, environment and resource costs, and the polluter pays principle). Full exploitation of these economic instruments will contribute to truly sustainable water management;
  - put in place a comprehensive national ecological assessment and classification system as the basis for implementing the Directive and meeting its "good ecological status" objective. The deficiencies of the current intercalibration

exercise must be remedied as soon as possible. Only complete, robust and reliable ecological assessment will generate faith in the WFD and ensure its credibility;

- improve the methodologies and approaches on some key issues (such as designation of heavily modified water bodies, criteria for assessing risk or addressing groundwater quantitative status) and enhance comparability between the Member States, in particular in international river basins;
- considerably reduce the existing data gaps and shortcomings of the Article 5 analysis as part of preparation of the river basin management plans.

### **b)** Integrating sustainable water management into other policy areas. To reach this objective, Member States are encouraged to:

- make sure that infrastructure and sustainable human development projects, which could cause deterioration of the aquatic environment, undergo an appropriate environmental impact assessment. In this respect, full transposition and appropriate, transparent and coordinated application of Article 4.7 is crucial;
- ensure the allocation of the appropriate funding. To reach this objective, it is important to make the best use of the potential of national funds and EU financing instruments, such as the Common Agricultural Policy and the Cohesion Policy. The national allocations so far of these funds for improvements in the water field are insufficient to cover all needs as identified in the findings of the environmental analysis under the WFD.

### c) Making the best use of public participation.

• Public participation should be seen as an opportunity. The ongoing work on voluntary reporting and the Water Information System for Europe will assist in informing the public in a transparent way.

#### 5. COMMISSION ACTIONS – OFFER FOR A PROLONGED PARTNERSHIP

From these assessments and recommendations, it is clear that the Member States still have an ambitious and challenging task ahead if they are to make WFD implementation successful. The Commission realises that it has an important role to play. In this respect, the Commission is planning the following actions, which are in line with the WFD and, in some cases, have a wide-reaching aim.

### **Action 1: Renewing the partnership with the Member States**

The Commission is committed to continuing the successful cooperation under the Common Implementation Strategy. This joint work programme<sup>19</sup> together with the Member States and other countries, and with the involvement of stakeholders and NGOs, promotes common understanding, best practice and information exchange on some of the key issues. The Commission is convinced that this approach has already delivered better results than a more

See new Work Programme: http://ec.europa.eu/environment/water/water-framework/strategy4.pdf.

formalistic approach to implementation. However, if it should become evident that it is likely to fail, the Commission will not hesitate to use its powers under the Treaty.

This support will focus on the current shortcomings described in point 5.1, in particular the economic instruments. The Commission will also put specific effort into improving assessment of "ecological status". In 2005, the Commission published the network of intercalibration sites<sup>20</sup>. It is now preparing a decision on the results of intercalibration, for adoption before the end of 2007, which will be the benchmark for what "good ecological status" means in all Member States. It will then continue working towards a comprehensive framework for ecological assessment of aquatic biodiversity.

In addition, the Commission will continue helping the EU-12 Member States to implement EU water policy and being involved in international river conventions.

### Action 2: Ensuring integration into other EU policies

Considerable progress has already been made in integrating water policy into other EU policy areas, in particular agriculture, energy, transport, research, external relations and regional development. The joint and open discussions between the different competent authorities at EU and Member State level involving all relevant stakeholders and NGOs have produced valuable results and conclusions.<sup>21</sup>

The Commission is committed to continuing its leadership role in this area by exploring further ways of strengthening the integration of water-related considerations into other EU policies and legislation. The aim is to make other policy areas contribute even more effectively to protecting the water environment and achieving the objectives of the WFD, the Flood Risk Management Directive and other Community water legislation.

As recently identified by the EU Water Directors regarding agriculture<sup>22</sup>, there is a window of opportunity in the upcoming discussions on the future of the Common Agriculture Policy of further integrating water policy and agricultural policy. On cohesion policy, the Commission will continue efforts to ensure that assistance from the Funds is consistent with water policy<sup>23</sup>. Transport (navigation) and energy (hydropower) policies will continue to be implemented in a way that reduces negative impacts on the aquatic environment. Moreover, implementation of the Seventh Framework Programme for Research will need to maintain a water focus. Finally, the upcoming review of other environment legislation, such as the Directives on integrated pollution prevention and control and on habitats, may further strengthen their contribution to the delivery of the WFD objectives. The Commission will also continue to stimulate enhanced water management in relevant non-Member States.

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<sup>&</sup>lt;sup>20</sup> Commission Decision 2005/646/EC of 17.08.2005 (OJ L 243, 19.9.2005, p.1)

Some significant achievements are listed in Annex to SEC(2007) 362.

See the Agriculture Declaration recently agreed by the European Water Directors and discussed by the Environment Council (16650/06 ENV 698 AGRI 402), December 2006 http://forum.europa.eu.int/Public/irc/env/wfd/library.

See also http://ec.europa.eu/environment/integration/pdf/final\_handbook.pdf.

### **Action 3: Promoting the use of economic instruments**

The Commission will make the use of economic instruments a priority in the context of implementation and stimulate further exchanges of information with and between Member States on best practices, including more use of the existing guidance documents. Moreover, the Commission is also looking at promoting benchmarking between water operators. It is also working on an exploratory study on the costs and benefits of implementing the WFD, and will promote the development of EU harmonised methods and tools, for example by using research projects.<sup>24</sup>

### Action 4: Addressing climate change in water management

Climate change impacts, including increased flooding and droughts, could enhance the risk of non-attainment of the objectives of the WFD. The increased risk on extreme events is partly addressed by the proposal for a Directive on floods. The results of an in-depth analysis on water scarcity and droughts will be included in a Communication planned for mid-2007.

In addition to mitigation and adaptation policies included in the European Climate Change Programme and in the planned Green Paper on Adaptation to Climate Change, the Commission will encourage full use to be made of existing possibilities for including climate change into river basin management plans, and will encourage further integration of climate change, mitigation and adaptation strategies, into the implementation of EU water policy.

### Action 5: Setting up an ambitious Water Information System for Europe (WISE)<sup>25</sup>

The Commission and the European Environment Agency are committed to developing WISE by 2010. WISE will serve as the focus for wider efforts to modernise and streamline the collection and dissemination of information for European water policy. It is an integral part of wider initiatives such as the Shared Environmental Information System (SEIS) and INSPIRE.

#### 6. CONCLUSIONS

Reports from the Member States on their initial obligations under the Water Framework Directive show some encouraging results, although there are major shortcomings in some areas. There is still time to remedy the gaps before 2010, when the first river basin management plans have to be adopted.

The poor transposition and the lack of economic analysis are the biggest gaps in WFD implementation so far. While international cooperation needs to be enhanced in many cases, significant improvements have been observed in some regions, such as the Danube.

Further progress is needed in areas like integration of water policy into other policies and assessment of the impacts of climate change in the water cycle, including floods and droughts and long-term demand and supply of water, in order to effectively implement a long-term, sustainable water management across EU.

http://water.europa.eu

One example is the current FP6 project AQUAMONEY (http://www.aquamoney.org).

The Commission is committed to renewing its partnership with the Member States under the Common Implementation Strategy in order to jointly address some of these challenges ahead. One important element is the development of the Water Information System for Europe.

In conclusion, this first report on the implementation of the WFD illustrates that we have made significant steps forward 'Towards Sustainable Water Management in the European Union'. Together with the water-related directives that are still under negotiation, the WFD provides all the tools needed to achieve truly sustainable water management in the EU for years to come. However, there is still a long and challenging road ahead for Member States to implement these tools in the best possible way. Member States have to deploy considerable efforts to achieve this.