

Water Governance at the European Union

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It has been recognized that the current water crisis is a crisis of water governance (Global Water Partnership 2000). Resolving water governance problems will lead to the achievement of sustainable water resources management and development. Water governance refers to the range of political, social, economic, and administrative systems that are in place to regulate the development and management of water resources and provision of water services at different levels of society (Global Water Partnership 2002). Governance issues have important implications for the management of water resources at all administrative levels — global, regional, national and local — and good governance is a prerequisite for the successful implementation of Integrated Water Resources Management (IWRM), according to the Global Water Partnership (GWP) (2002).

Water laws provide the framework for water governance systems and are the pillar for achieving effective governance in a given country. The main principles for effective water governance are: openness and transparency, inclusion and communication, coherence and integration, equity and ethics. At the European Union (EU) level, the Water Framework Directive¹ (WFD) provides the basic elements to contribute to effective water governance in European Union member states².

The main objective of this article is to present the water governance system of the European Union, based primarily on the European Community Water Framework Directive. Firstly, it reviews the European Union context, in particular European Community (EC) environmental law and policy. It follows with a brief analysis of the instruments shaping the European Community water law architecture. In particular, it will emphasize the

Water Framework Directive that, since its entry into force on December 22, 2000, represents the primary water policy legislation in the European Union. Finally, some conclusions will be provided.

The EU Context: European Community Environmental Law and Policy

The European Community is a unique international organization. The European Court of Justice (ECJ) already held in 1964 that “it has its own institutions³, its own personality, its own legal capacity and capacity of representation on the international plane and, more particularly, real powers stemming from a limitation of sovereignty or a transfer of powers from the States to the Community. The member states have limited their sovereign rights, albeit within limited fields, and have thus created a body of law which binds both their nationals and themselves.”⁴ The European Community is the first pillar of what is known as the European Union which also is also comprised of two additional pillars: the Common Foreign and Security Policy and Cooperation in Justice and Home Affairs.

Environmental policy, including water policy, is European Community policy whose implementation is shared between the European Union and member states. This shared implementation implies that the European Community establishes minimum standards for environmental protection when it is necessary to intervene at the European level⁵ while leaving member states the freedom to establish stricter protection measures⁶. Community policy on the environment, including programs for future legislation and action, has been progressively developed in six action programs on the environment. Member states are obliged to

transpose and implement the minimum standards approved at the European level mainly in the form of directives⁷. Therefore, directives on water must be incorporated into the domestic law of its member states offering an indication of future developments in national water laws.

The white paper on European Union governance⁸ recommended the use of appropriate legislative instruments to facilitate compliance with European Community law. It also recommended that more frequent use be made of the “framework directives,” as they are less complicated texts, offer greater flexibility with respect to their implementation, and tend to be agreed to more quickly by the council and the European parliament.

European Community Water Law and Policy

As a result of the First Environmental Action Program of 1973, water legislation was one of the first sectors to be covered by the European Community environmental policy (Lanz and Scheuer 2001). European Community legislation to protect water quality originated in 1973 with the adoption of a directive prohibiting the sale and use of certain detergents with a low level of biodegradability (Sands 2004). Today more than 25 water-related directives and decisions are found.

The first legislative approach (1975-1980) used two kinds of techniques. Thus, we find directives and decisions providing environmental quality standards (EQS) for specific types of water (surface water, fish water, shellfish water, bathing water and drinking water directives) and establishing emission limit values (ELV) for specific water uses (dangerous substances directive and the ground water directive). The second approach to water legislation (1980-1991) used new techniques (Nitrates and Urban Waste Water Directives) and completed the dangerous substances directive through daughter directives on specific substances.

In spite of this developed legal framework, nine member states were found guilty by the European Court of Justice for not complying with water legislation in 42 cases concerning 17 directives (Demmke and Unfried 2001). The existence of diverse regulatory instruments as well as growing environmental problems derived

from the intensification of economic water uses required more coherent action from the European Community in the field of water. After five years of negotiation in the European Community, the Water Framework Directive was approved at the end of 2000 and Member States had to transpose it into their national laws before 22 December 2003. Just a few months before that date, the European Environment Agency (EEA) reported some progress achieved in the ecological quality of rivers, reducing pollution by oxygen-consuming substances and phosphorus as well as water abstractions, except for southern Europe (European Environment Agency 2003). However, it also warned on areas where no progress had taken place: nitrate pollution mainly from agriculture, over withdrawal for irrigation, energy use and tourism in southern Europe, and the presence of pesticides in ground water and drinking water (European Environment Agency 2003).

The Water Framework Directive: An Instrument for Good Water Governance in the EU

This Directive introduces key elements to achieve effective water governance at the European Union level, a coherent and effective legal and institutional framework, water-pricing policies, public participation and an integrated water resources management system (Barreira 2003). It provides an umbrella for the implementation of the various instruments of European Union water policy as well as introducing new standards and tools for the protection of the ecological quality of waters. As a result, until the Water Framework Directive becomes fully operational, the current European Community Water legislation is in force⁹.

The Water Framework Directive introduced a remarkable change in community water legislation. This policy moved from protection of particular waters of special interest such as nature areas, specific aquatic organisms or drinking water, to protection and use based on overall appreciation of the hydrology and ecology of the entire natural cycle of each river basin (Olsen 2001).

Its purpose is to establish a framework for the protection of all waters, which include inland surface waters, transitional waters, coastal waters

and ground water. To this end, the directive obliges member states to prevent further deterioration and to enhance and restore the status of aquatic ecosystems. The most important result of its implementation will be the achievement of the good status of waters by 2015. This goal is translated into environmental objectives for surface waters (good ecological and chemical status), ground water (good quantitative and chemical status) and to protected areas (compliance with standards and objectives specified in community legislation establishing those areas). The environmental objectives are to be achieved with the development and implementation of river basin management plans and of programs of measures. It also provides specific obligations on active and real public participation in the preparation, review, and updating of the river basin management plans for member states. In accordance with some initiatives to give specific weight to economic instruments in environmental policy, the Water Framework Directive fosters the use of water-pricing policies to motivate its sustainable use and recover the cost of water services¹⁰. Table 1 shows the key elements of the Water Framework Directive.

The Environmental Objective

The environmental objectives that insist on the achievement of a good and non-deteriorating status for all bodies of waters (surface and ground water) are legally binding. There are a number of objectives for protecting water quality. The key ones at the European level are general protection of aquatic ecology, specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. All these objectives must be integrated for each river basin. It is clear that the last three—special habitats, drinking water areas and bathing water—apply only to specific bodies of water (those supporting

special wetlands; those identified for drinking water abstraction; and those generally used as bathing areas). In contrast, ecological protection should apply to all waters: the central requirement of the treaty is that the environment in its entirety be protected to a high level.

For surface waters, good status is determined by a good ecological and chemical status. The ecological status is determined by biological, hydro-morphological and physico-chemical quality elements. The chemical status requires the reduction of the presence of priority substances and the elimination of priority hazardous substances by 22 December 2020. In the case of bodies of water designated as artificial and heavily modified, member states shall prevent deterioration and shall protect and enhance them with the aim of achieving good ecological potential and good surface water chemical status by December 2015.

For ground water, good status is determined by its quantitative status and its chemical status. Nevertheless, Article 4 of the Water Framework Directive also provides for certain exceptions to the binding environmental objectives when all the conditions that it specifies are met (see Table 2). One of the innovations of the directive is that it provides a framework for integrated management of ground and surface water for the first time at the European level.

Institutional Structure: River Basin Authorities and Plans

One of the important concepts of the Water Framework Directive is the organization and regulation of water management at the level of river basins, taking into account the natural geographical and hydrological unit, instead of using administrative or political boundaries. To this effect, river basin districts are the management units comprising the area of land and sea, made up

Table 1. Key Elements of the European Water Framework Directive.

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- protecting all waters, surface and ground waters in a holistic way
 - good quality (“good status”) to be achieved by 2015
 - integrated water management based on river basins
 - combined approach of emission controls and water quality standards, plus phasing out of particularly hazardous substances
 - economic instruments: economic analysis, and getting the prices right to promote prudent use of water
 - getting citizens and stakeholders involved: public participation
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Table 2. Environmental objectives and exemptions of the European Water Framework Directive.

The **main environmental objectives** in the directive are manifold and include the following elements (for details see Article 4 para. 1, (a) surface waters, (b) ground waters and (c) protected areas):

- **No deterioration** of status for surface and ground waters and the protection, enhancement, and restoration of all water bodies
- Achievement of **good status** by 2015, i.e. good ecological status (or potential) and good chemical status for surface waters and good chemical and good quantitative status for ground waters
- **Progressive reduction of pollution** of priority substances and **phase-out** of priority hazardous substances in surface waters and prevention and limitation of input of pollutants in ground waters
- **Reversal** of any significant, upward **trend** of pollutants in ground waters
- Achievement of standards and objectives set for **protected areas** in Community legislation

It is important to note that where more than one of the objectives relates to a given body of water, the most stringent shall apply (Art. 4,2), irrespective of the fact that all objectives must be achieved.

In order to achieve the specific objectives for heavily modified and artificial water bodies (i.e. good ecological potential and good chemical status), the provisions for designation (see Article 4, 3), contain elements of comparing the consequences of achieving the “good ecological status” to a number of aspects including economic considerations. Moreover, the assessment of “good ecological potential” is linked to the possible mitigation measures.

An integral part of the environmental objectives set out in Article 4 are the so-called exemptions. These **exemptions** range from small scale temporary exemptions to mid- and long-term deviations from the rule “good status by 2015,” and include the following aspects:

- **Extension of the deadline** by two times six years, in other words, good status must be achieved by 2027 at the latest (Article 4,4)
- Achievement of **less stringent objectives** under certain conditions (Article 4,5)
- **Temporary deterioration** of the objectives in case of natural causes or “force majeure” (Article 4,6)
- **New modifications** to the physical characteristics of a surface water body or alterations to the level of bodies of ground water, or failure to prevent status deterioration of a body of surface water (including from high status to good status) as a result of new sustainable human development activities (Article 4,7)

Common to all these exemptions are strict conditions to be met and a justification to be included in the river basin management plan. Furthermore, the assessment of the socio-economic impacts including the environmental and resource costs and benefits of achieving the objectives is one key element when considering the application of any exemption.

Finally, paragraphs 8 and 9 of Article 4 introduce two principles applicable to all exemptions:

- first, exemptions for one water body must not compromise achievement of the environmental objectives in other water bodies
- second, at least the same level of protection must be achieved as provided for by existing Community law (including those elements to be repealed)

of one or more neighboring river basins, together with their associated ground and coastal waters. Every decision about the use or interference with the aquatic systems within the river basin district should take place in principle in an integrated and co-ordinated manner and be laid out in so-called

River Basin Management Plans (RBMPs). The establishment and operation of the river basin authorities is the cornerstone of the implementation of the Water Framework Directive. Member states are required to designate river basins and competent authorities within their territory, or in co-ordination

with other states for international waters.

Roadmap to Achieve Good Water Status

In order to reach the overriding goal of the directive, that is to achieve good status in all water bodies, member states must follow a specified process which is called the planning process. The roadmap to achieve those objectives starts with an estimate of the status of water bodies to assess the likelihood of them failing to meet the environmental quality objectives set for them under Article 4 in accordance with the provisions of Article 5 (characterization of river basin districts-RBD). Such an estimate had to be finished by 22 December 2004.

Following the results of the characterization of river basin districts, the status of water bodies is being classified using information from the monitoring programs according to Article 8. This exercise must be finalized by 22 December 2006. Finally, the status of water bodies must be reported in the River Basin Management Plans to be complete by 22 December 2009. Based on the results of the monitoring programs for those water bodies being at risk of failing to meet good status, a program of measures will be prepared. The purpose of setting a goal of measures being operational by 22 December 2012 is to help in achieving good status by the year 2015. After this, a new planning process must commence.

Conclusions

The Water Framework Directive introduced new standards, criteria, institutions, and processes for managing Europe's waters under an integrated ecosystem-based approach. It provides an exemplary legal document that binds together fragmented environmental legislation under common ecosystem-based criteria and planning processes. In spite of existing challenges in implementing this directive, the assessment of progress toward compliance deadlines can be viewed as positive since the majority of member states have carried out the tasks required by the Water Framework Directive roadmap¹¹. The implications of the water Framework Directive are far-fetched and beyond the limits of Europe as it sets out a new legal and institutional approach to water management that may be useful and adopted

in other parts of the world¹².

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Endnotes

1. Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327 of 22.12.2000).
2. The member states of the European Union are: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, the Netherlands, United Kingdom.
3. The European Commission is a kind of executive power, the Council and the Parliament holding the legislative function and the European Court of Justice represents the judiciary.
4. *Costa v. Ente Nazionale Per L'Energia Elettrica (ENEL)* Case 6/64, [1964] ECR 585.
5. As required by the principle of subsidiarity.
6. Article 176 of the Treaty establishing the European Community (TEC 2004).
7. A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods (Article 249 of the TEC).

8. COM (2001) 428 final of 25.7.2001.
9. The following legislation will be in force until 22.12.2007: Directive 75/440/EEC concerning the quality required of surface water intended for the abstraction of drinking water; Council Decision 77/795/EEC establishing a common procedure for the exchange of information on the quality of surface freshwater in the Community; Council Directive 79/869/EEC concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking waters in the member states. On 22.12.2013 the following directives will be repealed: Council Directive 78/659/EEC on the quality of freshwaters needing protection or improvement in order to support fish life; Council Directive 79/923/EEC on the quality required of shellfish waters; Council Directive 80/68/EEC on the protection of ground water against pollution caused by certain dangerous substances; Directive 76/464/EEC, with the exception of Article 6, which was repealed when the WFD entered into force (22.12.2000).
10. Article 9 WFD.
11. See <http://ec.europa.eu/environment/water/water-framework/scoreboard.html>. This page provides an overview on the state-of-play of transposition and reporting by member states.
12. The Draft Plan of Implementation, one of the outcomes of the World Summit for Sustainable Development, refers to the need to establish integrated water resources management (Chapter IV. Protecting and managing the natural resource base of economic and social development, Para 25).

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