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Review

European Union Water Framework Directive

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Abstract

The Water framework directive of the European Union (WFD) represents a milestone in the history of water polices in Europe. The directive establishes a common framework for the sustainable and integrated management of all waters. It covers groundwater, inland surface waters, transitional waters and coastal waters and requires that all impact factors as well as economic implications are taken into account. The **ultimate objective** of the Directive is to achieve good status of all water bodies in the EU member states and associated states by 2015. The defining of the good status is based on a new concept of ecological quality which takes into consideration the biological, chemical and physical characteristics of water. For underground waters it includes the quantitative status. The key factor of **water framework directive** is **„***integration*" which takes into consideration all natural and anthropic factors which can influence the quantity and quality of water resources.

Keywords: water, EU, directive

1.Background

Among the global problems to which the humankind is confronted at the beginning of the third millennium, are recorded the water shortage and water quality degradation. In the last hundred years world population has increased threefold and water consumption increased times.

William Cosgrove, vice-president of the World Water Council declared at the beginning of 2003 that **„**at present, 30% of world population is facing a water crisis. If the current rate of consumption will be continued, by 2025 the crisis will affect 50% of the planet inhabitants".

Taking into account the numerous studies ah scientific community warnings, in 1988, the European commission decided that is the moment to be elaborated a comprising and coherent policy in the water field, and proposed the elaboration of a water framework directive. Following a decisional process which lasted for about 10 years, in 1997 was

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published the first version of the legislative document, and subjected to times in European Parliament debate in February 1999 and in February 2000. The official text was adopted in October 2000 and entered in force after the publication in the Official Journal OJ L327 in December 2000under the name *"Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy"*.The Water framework directive of the European Union (WFD) represents a milestone in the history of water polices in Europe. The directive establishes a common framework for the sustainable and integrated management of all waters. It covers groundwater, inland surface waters, transitional waters and coastal waters and requires that all impact factors as well as economic implications are taken into account. The **ultimate objective** of the Directive is to achieve good status of all water bodies in the EU member states and associated states by 2015. The defining of the good status is based on a new concept of ecological quality which takes into consideration the biological, chemical and physical characteristics of water. For underground waters it includes the quantitative status. The key factor of **water framework directive** is **„***integration*" which takes into consideration all natural and anthropic factors which can influence the quantity and quality of water resources. The new monitoring and characterizing water quality strategy is based on a new concept of water integrated monitoring which uses a triple integration [2 – 11]:

- **Of the investigation areas at watershed level:** surface water bodies in natural regime (rivers, lakes, transitional waters, marine littoral waters), artificial water bodies or heavily modified water bodies, underground water bodies, protected areas, effluents;
- ***Of investigation environments***: water, sediments, biota;
- ***Of the monitorised environments***: biological, hydro morphological, and physical-chemical (quality and quantity).

Although the integrated water management represented the final goal for a long period of time, at present the concept of watershed integrated management is required by legislation. Each watershed presents individual characteristics, thus requires specific management measures. Designing the specific measures requires a through assessment of the specific problems, using a generic strategy generally applicable to all watersheds.

The Water Framework Directive requires a holistic approach of the water resources management and represents the modality of approach in the integrated resources management in Europe. It requires integration and interaction among the water use sectors (agriculture, water supply, industry, energy recreation) and decision factors (government, private sector, civil society).

The purpose of WFD is to prevent further deterioration and protect and enhance the status of aquatic ecosystems, and contribute to progressive reduction of discharges, emissions and losses of priority substances in water< good water quality will contribute to ensuring water supply for population.

In the purpose of environment protection is required a better integration of quantitative and qualitative aspects, both for surface waters and for underground waters, taking into account of the natural conditions.

Accordingly to WFD, the use of economical instruments by the member states will be considered as part of the program of measures. The principle of water services cost recovery, including the environmental and resources expenses, associated with the damages or with negative impacts on aquatic environment, must be taken into consideration accordingly to principle **polluter pays**. For this purpose, an economical analysis on water services, based on long tem forecast of water intakes and water demand at watershed level is required. The Pollution prevention and control policies must be based on a combined approach, using source control pollution, through establishing maximum allowable limits of emissions and environmental quality standards.

The Water Framework directive **aims**:

- to prevent further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;
- to promote sustainable water use based on a long-term protection of available water resources;
- to enhance protection and improvement of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- to ensure the progressive reduction of pollution of groundwater and prevents its further pollution, and
- to contribute to mitigating the effects of floods and droughts

and thereby **contributes** to:

- the provision of the sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use
- a significant reduction in pollution of groundwater,

- the protection of territorial and marine waters, and
- achieving the objectives of relevant international agreements, including those which aim to prevent and eliminate pollution of the marine environment

Water Framework Directive imposes to member state a series of obligations regarding planning, applying legislative measures, monitoring, public consultation and report .

Under practical aspect, Directive ***demands***:

- More wider field of instruments for water monitoring and classifying, in the purpose of assessing the ecological status;
- An authorizing and registration system for water intakes;
- An official planning system at watershed level and applying suitable measures for diffuse water pollution control.

The innovative elements of WFA are:

- Realization of Watershed Management Plan
- Characterization of the water status in five quality categories taking into account mainly the biological elements;
- Defining of the reference status for surface waters;
- Defining of water good ecological status;
- Defining of new heavily modified water categories;
- Defining of the river rehabilitation **concept**.

Implementing the WFD will ensure multiple environmental social and economical benefits.

Environmental benefits**:**

- improved protection and enhancement of the water environment;
- promotion of more efficient uses of water to reduce pressure on the water environment;
- effective and more sustainable water management

Social benefits:

- increased opportunities for getting involved and influencing how the water environment is managed;
- improved quality of information available about water environment and how it is managed;
- safeguards the water environment for sustainable use and enjoyment.

Economic benefits**:**

- delivers a proportionate and cost-effective approach to water protection and improvement;
- enables the right balance to be struck between social, economic and environmental considerations in setting environmental objectives.

WFD implementation in Romania

Romania engaged to implement the WFD simultaneously with the other EU member states. Under the coordination of the International Commission for Danube River Protection (ICPDR), Romania contribute along the other riverine states in the realization of the Danube watershed management plan which re[presents a common view of the sustainable management activities in the whole Danube watershed [1].

Water Framework Directive was transposed in Romanian legislation through the Law no. 310/2004 regarding modification and completion of the Water Law no. 107/1996 [2 – 11].

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