

WATER PRICING POLICIES IN THE EU. COMPLIANCE WITH THE WFD

E. Kolokytha, Y.Tsountas

Department of Civil Engineering, Division of Hydraulics and Environmental Engineering,
Aristotle University of Thessaloniki, 540 06
Thessaloniki Greece

ABSTRACT

The objective of the new Water Framework Directive, is the application and implementation of the basic principals of sustainable water resources management and specifically, effectiveness, efficiency and equity within the environment. In order to cope with these complex objectives, new instruments for water management have been introduced such as ecological and holistic water status assessment approach, river basin management planning, a wide range of measures, including pricing, economic and financial instruments for achieving the environmental objectives of the Directive. In this paper, the different pricing policies developed in almost all EU countries, in terms of effectiveness, efficiency and equity are discussed and their potential compliance with the requirements of the article 5 and 9 of the WFD are evaluated.

1. INTRODUCTION

The European Water Framework Directive (WFD) 2000/60/EC, establishes a new institutional framework, giving directions for the common approach, the common objectives, principals, definitions and measures for the management of waters in Europe (1). It provides the conditions for an important reform in the European environmental legislation and the administrative practice. The objective of the new Water Framework Directive, is the application and implementation of basic principals of sustainable water resources management and specifically, effectiveness, efficiency and equity. It is a prominent example of integrated water policy, based on river basin approach

The Directive integrates all water resources, ecological objectives, water uses and functions, interdisciplinary analyses and expertise within a common policy framework. EU Member States are bound to achieve “good ecological status” for water bodies.

In order to cope with this complexity, new instruments for water management have been introduced such as ecological and holistic water status assessment approach, river basin management planning, a wide range of measures, including pricing, economic and financial instruments for achieving the environmental objectives of the Directive (2).

The Water Framework Directive (European Communities, 2000), is taking into account scarcity and the environmental aspects. In particular the annex 9 of the WFD recommends the setting up of economic instruments, based on the polluter-pays principle in order to insure incentive pricing to water savings and “adequate” cost recovery. By the way this European directive is the first one to recommend the implementation of economic principles.

In this paper, the different administrative models and the different pricing policies developed in the EU countries, in terms of effectiveness, efficiency and equity are discussed and their potential compliance with the requirements of the article, 5 and 9 of the WFD are evaluated.

An assessment of the current level of cost recovery for water services for urban use, is attempted with some indication of a first picture related to subsidies, and information of how it may be improved in the future.

2. CLASSIFICATION OF EU COUNTRIES

The EU countries can be classified into western, eastern and Mediterranean ones as shown in table 1

Northwestern Countries	Eastern and Southeastern countries	Mediterranean countries
Austria	Hungary	Malta
Finland	Poland	Spain
Belgium	Romania	Italy
Germany	Slovakia	Cyprus
Denmark	Slovenia	France
United Kingdom	Czech Republic	Greece
Luxembourg	Bulgaria	Portugal
Holland	Estonia	
Sweden	Latvia	
	Lithuania	

TABLE 1: Classification of EU countries

3. THE ADMINISTRATIVE FRAMEWORK

There are a lot of combinations concerning the administrative model of water management of each EU country. Tables 2,3, 4 correspond to water management for urban use.

Northwestern Countries	Private companies	Public and private companies	Public and decentralized local management	Public	No data
Austria					
Finland					
Belgium					

Germany					
Denmark					
United Kingdom					
Luxembourg					
Holland					
Sweden					

TABLE 2: Water management for urban use in northwestern countries (5)

Eastern and Southeastern countries	Private companies	Public and private companies	Public and decentralized local management	Public	No data
Hungary					
Poland					
Romania					
Slovakia					
Slovenia					
Czech Republic					
Bulgaria					
Estonia					
Latvia					
Lithuania					

TABLE 3: Water management for urban use in Eastern and Southeastern countries (5)

Mediterranean countries	Private companies	Public and private companies	Public and decentralized local management	Public	No data
Malta					
Spain					
Italy					
Cyprus					
France					
Greece					
Portugal					

TABLE 4: Water management for urban use in Mediterranean countries (5)

4. COST RECOVERY

Water is both a public and an economic good. Water can not be owned privately for its low excludability and the societal dependency on water is high. This is a consequence of water being essential and non-substitutable. It is the responsibility of governments to make sure that there is safe access to water and that society is protected from water related hazards. It is of course not the responsibility of governments to provide water related services for free (4). When used to gain profit (agricultural use, industry, tourism) water is an economic good.

It is commonly acceptable today that water, as subject in the law of offer and demand, has an economic value in all competitive uses and this should be recognized so that the estimate of his real value becomes feasible. Moreover, the recognition of the real value of water constitutes the only guarantee for its sustainable management, maintenance and protection, as it contributes in the creation of feeling of property and responsibility to the citizens. According to the European Framework directive 2000/60, water pricing should reflect its true value for all uses (art 9). This could be achieved through full cost recovery.

In order to achieve full cost recovery 3 main categories of cost should be taken into account:

- a. *Direct cost* : operation and maintenance cost
- b. *Cost of natural resource*: This cost is proportionally estimated by the conditions. In the Mediterranean countries economic value of water is calculated under conditions of scarcity while in the northwestern countries the estimate derives in the base of loss of profit from the not acceptable economically distribution of water. When the supplies of water cover all needs of water demand in the time or between uses, the cost of natural resources is zero.
- c. *Environmental cost*: The cost that will be paid by the other uses in order to find alternative resources when the current users exhaust the quantities that are sold in the current price. In other words, the cost that is created either from the deterioration of water quality from pollution or deprival of quantity of water from the different uses.

According to:

Article 9 : “*Recovery of costs for water services*”(1) should be taken into account.

Article 5: “*Characteristics of the river basin district, review of the environmental impact of human activity and economic analysis of water use*”(1) should be carried out by all MS.

The current status of the EU countries concerning article 5 and 9 of the WFD is described in table 5.

Northwestern Countries	Eastern and Southeastern countries	Mediterranean countries
Have comply their pricing policies and have already achieved most of full cost recovery	Try to comply with the WFD but very slowly (7-12)	They follow their pricing policies having the WFD in mind, but still are far from reaching full cost recovery

TABLE 5: Achievements of EU countries in relation to art. 5 & 9

The countries’ future plans (if any) concerning article 5 and 9 of the WFD can be found in table 6

Northwestern Countries	Eastern and Southeastern countries	Mediterranean countries
No need for future plans since full cost recovery is almost achieved. Time schedule applied on time (7)	Could have progress under the condition that their economic potential would be helped by EU subsidies and their per capita income would increase (7-12)	Difficult implementation. Perception of water as a social good for almost all uses.

TABLE 6: Future plans concerning article 5 and 9 of the WFD (5)

The different EU countries have incorporated the environmental cost in their policies through direct or indirect environmental charges. Tables 7,8,9 indicate the current status of the countries in relation to environmental charges.

Northwestern Countries	Direct charges	Indirect charges	No charges	No data
Austria		Taxes per house		
Finland				
Belgium	Flanders			Wallonia's Brussels
Germany	All the confederate small states			
Denmark		Tax for urban water use and wastewater		
United Kingdom	Private companies (England-Oualia)	Covered by the state (Scotland, W. Ireland)		
Luxembourg				
Holland	Special tax according to economic condition			
Sweden		Under discussion		

TABLE 7: Environmental charges in northwestern countries (5)

Eastern and Southeastern countries	Direct charges	Indirect charges	No charges	No data
Hungary				
Poland				
Romania				
Slovakia				
Slovenia				
Czech Republic				
Bulgaria				
Estonia				
Latvia				
Lithuania				

TABLE 8: Environmental charges in Eastern and Southeastern countries (5)

Mediterranean Countries	Direct charges	Indirect charges	No charges	No data
Malta			Almost covered by Italy	
Spain				
Portugal				
Italy			Very low	
Cyprus			No prediction yet	
France		Tax for pollutants		
Greece		Some, to cover only some functional needs		

TABLE 9: Environmental charges in Mediterranean countries (5)

Countries	Price of water for urban use per m ³
Italy	0,79 €
Luxemburg	0,96 €
Portugal	1,00 €
Spain	1,00 €
Greece	1,12 €
Sweden	1,15 €
United Kingdom	1,57 €
Belgium	1,85 €
Austria	2,62 €
France	2,64 €
Finland	2,75 €
Germany	3,6 €
Denmark	4,3 €

TABLE 10: Price of water for urban use in E.U. countries

Source: *Aqualibrium 2002 (Organization of the water market in the European union)*

Pricing of water in European countries

5. CONCLUSIONS

As known by bibliography, *water is scarce, is a system, is non-substitutable, is not freely tradable*(4). Although individually these aspects may not be exceptional, their combination makes water a very special good. This implies that in the allocation and the use of the water it must be taken into account a complex set of economic interests. These are multi-sectoral, multi-objective and often non-monetary. The character of water is unique. It does not allow the application of market theory to the allocation of water between sub-sectors and different categories using water (4,6). Therefore, water should be treated as an economic good, under special conditions. The above mentioned aspects of water form this statement. According to these and the special socioeconomic conditions of each EU country it seems that full cost recovery is a difficult task for most of EU countries. This is especially true for the Mediterranean the eastern and southerneastern ones.

One of the biggest challenges facing southeastern European countries is the effective implementation and compliance with EU environmental legislation and the EU WFD. Implementing the environmental *acquis* will demand their national institutional and administrative structures and policies to adjust to the new regulatory regime. Diverse economic, political and ecological conditions impose considerable impediments in this process. Significant effort should be made in order to achieve a good status of harmonization of legal regimes and policies with EU environmental legislation in general and WFD in particular. In regard to economic issues of the

WFD, all written documents, describing water conditions, (since there exist significant problem with lack of data), sustain the idea that southeastern countries are far from achieving cost recovery.

The northwestern countries, have manage to cope with a lot of water management problems, including full cost pricing. In the Scandinavian countries, the price of water reflects its real economic value. Holland has a pricing policy which takes into account the stratification of the society. The French and German governments have adopted a decentralized administrating model giving power to local authorities to form their pricing policies according to their local needs. UK is the only country that water is managed by private companies. Still the price of water remains in normal rate (1,57 € / m³) compared to Germany (3,6 € / m³) or other countries. The most expensive water rate is found in Denmark (4,3 € / m³). This is due to the fact that Denmark uses exclusively groundwater resources for urban use.

Concerning Mediterranean countries, water scarcity is prevailed, as the most important problem. And yet this is not reflected in their pricing policies. The pricing policies do not seem to be very effective. Significant progress has been achieved for the transposition of the requirements of the Framework Directive into their legislation and especially economic considerations but the implementation of a pricing policy reflecting the real cost of water seems to be a hard task. Remarkable is the fact that Italy has very low prices and very high water consumption whereas amazing is the fact that in Malta water demand exceeds 5 times the capacity of the renewable resources.

REFERENCES

1. Directive 2000/60 of the European Parliament and of the Council of 23 October 2000, establishing a framework for Community action in the field of water policy found in http://ec.europa.eu/environment/water/water-framework/index_en.html
2. Kaika (2003), "The WFD: A new Directive for a changing social, political and economic European framework". **European Planning Studies** 11(3): 299-316.
3. CIRCA EU database for all member states for the implementation of the WFD www.forum.europa.eu.int/irc/env/wfd_library
4. H.H.G. Savenije (2001), "Why water is not an ordinary economic good", Value of Water **Research Report Series No. 9**, IHE Delft
5. Aqualibrium – Country Report for all EU countries under study.

aqualibrium – Country Report Austria Annika Schönauer 2002

aqualibrium – Country Report Belgium David Aubin 2002

aqualibrium – Country Report France David-Nicolas Lamothe 2002

aqualibrium – Country Report Germany B. Knothe, A. Kramer, Sh. Mohajeri 2002

aqualibrium – Country Report United Kingdom Fayyaz Ali Memon, David Butler 2002

aqualibrium – Country Report Ireland

aqualibrium – Country Report Spain, Jordi Molina, Santiago García Echevarría, Teresa del Val, Elisa Valdés 2002

aqualibrium – Country Report Italy Francesca Somma 2002

ΠΛΑΙΣΙΟ ΓΙΑ ΤΑ ΝΕΡΑ 2000/60/EK, Cyprus, mzachariou@wdd.moa.gov.cy

aqualibrium – Country Report Luxembourg David Aubin, Frédéric Varone 2002

earth trends country profiles Malta

aqualibrium – Country Report Netherlands Jasper Dalhuisen 2002

6. Gleick H., Wolff G., Chaleski E., Reyes R., "The new economy of water", Pacific Institute, 2002)

7. Country Report for all Baltic Sea countries , Roman Marec October 2002

9. ESTONIA. The Ministry of Environment of Estonia: "Water pricing in Estonia"

10. LATVIA. HELCOM PITF 18/2001, INF.5 (meeting document): "Application of water pricing and full cost recovery"

11. LITHUANIA. Ministry of the Environment: "The Republic of Lithuania – Water pricing and cost recovery in water sector" (5 pages).

12. POLAND. HELCOM PITF 18/2001, 5/4 (meeting document): "Water pricing and cost recovery in water sector in Poland"