

# **Water-Pricing Policies in the European Union**

As stipulated in Article 9 of the European Union Water Framework  
Directive

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Policies and Approaches to Sustainability  
Market-Based Instruments Assignment

Lund, Sweden, December 2014



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**TABLE 5-1 OVERVIEW OF WATER PRICING IN SELECT EU COUNTRIES**



## 1. Introduction

Water plays a vital role in supporting human life, natural processes and the economy (European Commission, 2012). Freshwater represents less than 2% of all water on earth and, while it is a renewable and replenishable resource, water does have a finite supply (European Commission, 2012). With increasing global population and increased urbanization, demand for water continues to increase (Elnaboulsi, 2009) to the point where it is projected that there will be up to a 40% global water supply shortage by 2030 (European Commission, 2012).

In recent years, the role of government has been to ensure and provide pure drinking water to its citizenry (Elnaboulsi, 2009). To this end, many countries see water as a public good; the legal basis originates in the 19<sup>th</sup> century where governments began regulating water supply because of the spread of infectious disease (Elnaboulsi, 2009). However, water scarcity is, in part, due to the fact that people see water as a public good and a human right (Elnaboulsi, 2009).

Water supply and quality is impacted by climate, land use, economic activities (industry, energy, agriculture, tourism), urban development and population growth (European Commission, 2012). Within the European Union (EU), agriculture accounts for 24% of the total water used (European Commission, 2012). Similarly, energy production – in particular water used for cooling – accounts for 44% of all water used in the EU (European Commission, 2012). Therefore, over-abstraction and over-allocation of water rights is among the largest pressures on water within the EU (European Commission, 2012).

In 2000, the European Parliament passed the *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* (European Commission, 2000). This directive became known as the Water Framework Directive (WFD). This directive recognizes “[w]ater is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such” (European Commission, 2000, p. 1).

The WFD in Article 9 stipulates that member states shall introduce a water-pricing scheme aimed at recovering the full cost of water (European Commission, 2000). However, nearly fifteen years since, more than half of Member States are still not in compliance with this portion of the Directive (European Commission, 2012). This paper will evaluate Article 9 and the subsequent water-pricing schemes and provide analysis suggesting its lack of political acceptability among other criteria. In doing so, the paper will provide a rationale for the WFD and discuss the premise of full cost recovery. It will address the many water-pricing schemes and demonstrate how the WFD is being implemented in Member States. Finally, the paper will conclude with best practices and lessons learned.

## 2. Rationale for Water Framework Directive

While the EU has a tradition of relatively stringent environmental regulations, the WFD looks to be the most complex and ambitious undertaking (Elnaboulsi, 2009). The WFD looks to protect, improve and contribute to sustainable and equitable water use amongst inland surface waters, coastal waters, transitory waters and groundwater (European Commission, 2000). In doing so, the Directive aims to provide quality surface and groundwater, achieve full ecological potential and reduce chemical load (François et. al., 2010). In reaching these achievements, the WFD looks to capitalize on the use of market-based instruments with the introduction of a mandatory water-pricing scheme as outlined in Article 9. Article 9, Paragraph 1 stipulates: “Member States shall take account of the principle of recovery of the costs of water services, including environmental and resource costs ... in accordance in particular w/ the polluter pays principle” (European Commission, 2000, p. 12). Further, Article 9 requires that “water-pricing policies provide adequate incentives for users to use water resources efficiently” (European Commission, 2000, p. 13).

The Directive outlines key definitions to aid in the understanding of what is required by member states. For instance, the European Environment Agency (2013, p. 8) in its guidance for Member States defines water pricing as the “monetising [of] the abstraction, use or pollution of water.” Further, the European Commission provides the definition for water services as it relates to water use in agriculture, industry, households, power generation (including hydropower), navigation, flood protection, etc. (European Environment Agency, 2013).

Article 9 of the Directive calls for the application of market-based instruments to recover the cost associated with water use. In doing so, the Directive looks to apply the various economic principles including the polluter pays principle, cost-effectiveness analysis and water pricing. The polluter pays principle looks to internalize all external costs associated with potential environmental remediation leading to behaviour change in line with the socially accepted level (Unnerstall, 2007). This principle has seen expansion over the years to where, in the WFD, it includes pollution prevention costs, administrative costs associated with monitoring and regulating along with environmental damage-related costs (François et. al., 2010).

The WFD allows Member States to implement water-pricing schemes as they see fit in accordance with the Directive (European Commission, 2000). The management and implementation of the WFD is delegated to river basin management groups and influenced by political decision-making and water utilities (François et. al., 2010). Therefore, a wide number of actors are responsible for determining the proper level of internalization of environmental externalities (François et. al., 2010). The complexity of such a task lies in the heterogeneity of water utility ownership within Member States where 63% are publicly managed or owned and 21% are privately managed or owned (European Environment Agency, 2013). Another challenge is developing a water policy that is both politically and socially acceptable (Elnaboulsi, 2009). Meanwhile, the water-pricing scheme must reach full-cost recovery (see Appendix I for explanation of full cost recovery) in order to be in compliance of the directive (Unnerstall, 2007).

### **3. Water Pricing Schemes**

Economic environmental policy instruments include grants and subsidies, taxes and charges along with market creation and aim to impact the costs or benefits of those using an environmental resource (Mickwitz, 2003). Unfortunately, planning for full cost recovery water-pricing schemes is difficult due to inconsistent demand, improving technologies and infrastructure improvements, climatic pressures and increased environmental regulations (European Environment Agency, 2013). Moreover, it is difficult to balance the perception of water as an economic good as well as a human right (François et. al., 2010). Therefore, any pricing scheme must achieve full cost recovery while preventing unfair distributional effects. Pricing mechanisms should be efficient, maximize equity, ensure financial viability, be simplistic and prevent discrimination (Elnaboulsi, 2009).

An economically efficient water-pricing scheme requires that consumers are metered and pay a marginal price for each additional unit of water used (Elnaboulsi, 2009). Riegels et. al. (2013, p. 574) further stipulates that “an efficient water pricing scheme or water market will balance the full costs of water supply with the full benefits of water use so that no Pareto improvements are possible.” Efficient outcomes where the marginal benefits are equal to the marginal costs are only possible when water users behave in a economically rational way; that is, producers adjust supply and consumers adjust demand in regards to water-pricing schemes to maximize benefits (Riegels et. al., 2013).

Full cost recovery is difficult due to lack of market info, spatial and temporal variations and scientific uncertainties in analysis (European Environment Agency, 2006). The European Environment Agency (2006) recognizes these challenges and suggests a “second-best approach:” that targets and water prices are politically set to achieve maximum social benefit. However, this approach does not guarantee an efficient outcome (European Environment Agency, 2006).

In accordance to the WFD, Member States may select among various market-based instruments in developing water pricing incentives including: taxes or charges; water trading rights or permits; tariffs; sewage and wastewater charges; water pollution charges; and water system charges (European Environment Agency, 2013).

Two-part tariffs are among the most common water-pricing mechanism (Elnaboulsi, 2009). This approach includes a fixed component that covers the cost to connect to the water infrastructure and a variable component that is correlated with consumption (Elnaboulsi, 2009). Volumetric pricing which correlates to a user's consumption can be fixed, mixed or increasing block tariffs. In the case of the fixed water-pricing policy, a user pays the same price for every additional unit of water regardless if it is from groundwater or surface water (Riegels et. al., 2013). Mixed pricing policy adjusts water pricing where groundwater costing is proportional to the price of energy used during the extraction of water while surface water is priced using traditional volumetric pricing (Riegels et. al., 2013). Lastly, increasing block tariffs charges increasing costs for increasing levels of consumption (European Environment Agency, 2013). In practice, this means that water is more expensive per unit as a user consumes an increasing unit of water. It is up to each Member State to determine proper pricing schemes while achieving full cost recovery.

## **4. Implementation of the Water Framework Directive**

In assessing the implementation of the WFD, the most recent data comes from the European Environment Agency (2013) and their report *Assessment of Cost Recovery through Water Pricing*. Due to the low level of compliance and self-reporting among Member States, little information is available with regard to the implementation of water pricing in accordance to Article 9. The proceeding section details England and Wales, Germany and Spain as the bulk of literature relates to these countries. In looking at implementation, the type of water utility management structure, cost recovery and water-pricing schemes are addressed (Table 4-1).

### **4.1 England & Wales**

In England and Wales, it is estimated that cost recovery is approaching 100% as a result of their pricing mechanisms (European Environment Agency, 2013). The Water Services Regulation Authority (OFWAT) is responsible for setting the price of water and regulating the water industry; however, private companies collect the taxes imposed in the water-pricing scheme and invest those monies into infrastructure, environmental remediation, etc. (European Environment Agency, 2013). This is because in the UK, all tasks, management and ownership is delegated from government to a private entity (European Environment Agency, 2013).

As of 2009, only 28% of households in England and Wales had water metering in place but that number is projected to increase to 80% by 2020 (European Environment Agency, 2013). Metering is an essential part in providing pricing incentives and in homes recently retrofitted with water meters in England, consumption decreased on average of 20% (European Environment Agency, 2013).

**Table 4-1.** Overview of Water Pricing in Select EU Countries  
(Source: European Environment Agency, 2013)

Location	Drinking Water	Sewage / Sanitation	Irrigation
<b>England &amp; Wales</b> Privately Managed Cost Recovery: ~100%	<b>Households:</b> fixed + volumetric *  <b>Industry:</b> fixed + volumetric*	<b>Households:</b> fixed + volumetric *  <b>Industry (Small):</b> volumetric*  <b>Industry (Large):</b> Fixed + Increasing Block Tariff	Abstraction charge + volumetric
<b>Germany</b> Delegated Public Management Cost Recovery: ~100%	<b>Household:</b> fixed + volumetric  <b>Industry:</b> fixed + volumetric	<b>Household:</b> fixed + volumetric (& runoff charge)  <b>Industry:</b> no info	No information provided
<b>Spain</b> Delegated Private Management Cost Recovery: 44 – 84%	<b>Households:</b> fixed + volumetric**  <b>Industry:</b> fixed + volumetric**	<b>Households:</b> fixed + volumetric  <b>Industry:</b> fixed + volumetric**	Decentralized management of irrigation → many pricing schemes  Most common: volumetric

\* Rateable based on size of home / industry if not metered

\*\* Sometimes increasing block tariff

England and Wales have implemented a two-part tariff for household and industry with a fixed price for connection and a variable volumetric (or rateable if unmetered) price for consumption (European Environment Agency, 2013). Moreover, water utilities charge an abstraction fee along with a fixed and volumetric fee for irrigation within the agricultural industry (European Environment Agency, 2013). While some studies show that England and Wales are achieving full cost recovery, it may be argued that this is overestimated due to the complexities of assessing environmental and resource costs, especially due to the lack of metering for water use and sewage discharge. Moreover, England and Wales charge a nominal pollution charge only dependent on the concentration of a pollutant instead of the impact on the receiving body of water (European Environment Agency, 2013).

## 4.2 Germany

Like England and Wales, studies predict that Germany is achieving nearly full cost recovery as a result of their water-pricing schemes (European Environment Agency, 2013). In Germany, water is governed through delegated public management, meaning the government appoints a public entity for the management of tasks associated with the water supply (European Environment Agency, 2013). Germany has a more complicated regulatory framework governing water pricing. Typically, municipalities regulate the water industry and set the prices for drinking water and wastewater (European Environment Agency,



2013). Water abstraction charges (WAC) are governed at the regional level and prevent funds from being earmarked for water projects (European Environment Agency, 2013). Only eleven of sixteen regions have WAC while only a portion of those also apply to groundwater (European Environment Agency, 2013). To further complicate things, national law sets the effluent charges for wastewater and industry (European Environment Agency, 2013).

In reporting compliance to the European Union, Germany provided incomplete data for water-pricing mechanisms in industry and agriculture as set forth by the WFD (European Environment Agency, 2013). This may be due to the complex regulatory structure overseeing the pricing of water. Typically for households, drinking water and sewage is charged using a two-part tariff (fixed + volumetric) (European Environment Agency, 2013). However, the sewage fees typically account for the treatment of rainwater and environmental damage due to run-off (European Environment Agency, 2013).

Germany has a special relationship with Article 9 of the WFD. Much effort has been undertaken by politicians to avoid compliance due to what Germany calls “unclear and unclarifiable” regulatory content (Gawel, 2014). Many in Germany feel that the traditional command and control approach at the regional and municipal level sufficiently meets environmental cost recovery (Gawel, 2014). Further, Germany has been berated for their narrow interpretation of “water service” to include only drinking water and wastewater (Gawel, 2014). Despite this, water pricing is still seen to be relatively effective within Germany (European Environment Agency, 2013).

### **4.3 Spain**

In Spain, full cost recovery is not being achieved where only 84% of wastewater and 44% of sanitation service costs are recovered (European Environment Agency, 2013). Water management in Spain operates under delegated private management meaning the government appoints a private company to manage the tasks associated with the water supply while retaining ownership of the infrastructure (European Environment Agency, 2013). Like Germany, Spain has a decentralized management structure where 8,116 municipalities have the legal right to manage their water supply (European Environment Agency, 2013). As a result, the pricing schemes vary between municipalities with no clear understanding of the implementation of the polluter pays principle or full cost recovery (European Environment Agency, 2013). Despite this, Spain has some unique characteristics associated with the regulation of their water.

Water used in agriculture makes up 68% of total water used in Spain (European Environment Agency, 2013). As a result, a comprehensive irrigation-pricing scheme has been developed, typically on a municipal basis (European Environment Agency, 2013). Further, Spain is one of the few countries within the EU to have a national water market (European Environment Agency, 2013). This market allows for the trading of water rights and water allotments (European Environment Agency, 2013). Unfortunately, many issues plague the market including lack of transparency and public information (European Environment Agency, 2013). Water pricing for irrigation has become a controversial issue as industry feels it leads to decreased economic profitability, decreased social benefits with only marginal improvements in environment (Gallego-Ayala et. al., 2011).

While full cost recovery may not be met in accordance to WFD, water pricing, metering, and increased environmental awareness has led to a decrease in water demand from 171 to 149 liters of water per person per day between 2004 – 2009 (European Environment Agency, 2013).

## **5. Compliance & Evaluation**

Evaluation is essential to determine the effectiveness of a given policy or market-based instrument. While the WFD was passed in 2000, Article 9 stipulating an incentive-based water-pricing scheme achieving full cost recovery was not enforced until 2010 (European Commission, 2000). Evaluation of recently introduced policy instruments (such as water pricing under the WFD) is essential to determine if the policy is working properly and allows changes to be made while it is still easy to do so (Mickwitz, 2003).

Unfortunately, it is difficult to evaluate the various water-pricing mechanisms due to the impact problem: the difficulty in attributing a successful economic or environmental impact to any particular policy instrument (Mickwitz, 2003). In the case of water, it is particularly difficult due to changing consumer behaviour, climatic and hydrologic forcing of water availability, technology changes, etc. (François et. al., 2010). Furthermore, the recent economic downturn has prevented movement among Member States to introduce or change water-pricing mechanisms (European Environment Agency, 2013).

In evaluating Article 9 of the WFD, empirical evidence demonstrates the water-saving effectiveness and environmental effectiveness of the water-pricing schemes implemented within the EU. Further, one can point to Member State compliance as a proxy for effectiveness in achieving the objectives set forth by the Directive. In understanding reasons for compliance (or lack of compliance), this paper will further evaluate Article 9 of the WFD on the basis of political acceptability / feasibility.

The WFD sets out to achieve good status in all territorial waters within the EU by 2015 (European Commission, 2012). However, only 53% of these waters are projected to be deemed good status (European Commission, 2012). Just ten Member States are in compliance with Article 9 of the WFD while many more lack adequate pricing policies (European Environment Agency, 2013; Elnaboulsi, 2009). Member States, in reporting to the European Commission, show total cost recovery between 70-100% and only 1-40% cost recovery within agriculture and industry; more than half of Member States provided incomplete or no info at all (François et. al., 2010). Moreover, standard VAT rates are only applied to drinking water in ten Member States (European Environment Agency, 2013).

The lack of compliance among Member States is in part due to the narrow interpretation of water services only focusing on drinking water and wastewater (European Environment Agency, 2013). The European Union has begun infringement proceedings at the Court of Justice against nine Member States including Germany (European Environment Agency, 2013). Investigation has begun of seven more Member States – including Sweden – due to an inadequate definition of water services and, as a result, a lack of adequate water-pricing mechanisms (European Environment Agency, 2013). The outlook is not improved. Only half of water-management districts plan to implement water-pricing mechanisms to encourage more efficient use while 60% do not plan to make improvements to water metering infrastructure (European Commission, 2012).

## **5.1 Political Acceptability / Feasibility**

A particular policy instrument is typically considered politically acceptable if it meets certain criteria: efficient, cost-effective and equitable (Bardach, 2005). Above these criteria, it could be argued that a given policy instrument must be clear and understandable in order to be politically acceptable. In analysing the WFD, it appears that the Directive, in particular Article 9, fails to meet some of these criteria. To begin, global cost recovery in the water sector is about 78% for public water supply and 28% for sewage / sanitation (François et. al., 2010). Politicians may believe the Directive places a disproportionate responsibility on Member States to safeguard and protect global freshwater.

The European Commission (2012) suggests reasons for the lack of implementation of water pricing and full cost recovery among member states: insufficient use of market-based instruments; lack of support; and poor governance and knowledge gaps within Member States. Meanwhile, Member States retort that Article 9 is inconsistent and its meaning is debateable (Gawel, 2014; Unnerstall, 2007). Germany argues that the terms “water-services,” “water-use,” “principle of recovery of the costs” and “have regard” are vague and need further defining before it will take action (Gawel, 2014).

In the drafting of Article 9 in the WFD, the European Council and Parliament could not agree on a common text (Unnerstall, 2007). The premise of cost recovery and polluter pays principle was highly contested and, in the end, the two proposed texts were merged leading to overlapping normative language (Unnerstall, 2007). For instance, in analysing Article 9, one sees a contradiction in the scope of the Article pertaining to who bears the full cost recovery: the individual user or more broadly the consumer group as

a whole. To this end, Article 9 demonstrates a lack of clarity needed for the instrument to be widely implemented by politicians.

In addressing efficiency and cost-effectiveness, it is difficult to assess any environmental policy or market-based instrument given the difficult nature in calculating environmental and resource costs. As Mickwitz (2003) points out, any economic evaluation is difficult due to the limitations with environmental valuation methods and the lack of available data. This difficulty is delegated to the Member States in determining the environmental and resource costs along with the overall efficiency and effectiveness of the chosen pricing mechanism (Gawel, 2014). Member States have struggled to do so due to the lack of knowledge and monetary resources needed. Moreover, transaction costs associated with determining environmental and resource costs can be elevated due to the complexity in calculating these costs (François et. al., 2010). It appears this has contributed to the lack of water-pricing implementation and compliance.

Politicians consider equity and distributional effects in determining a policy's acceptability. Industry and agriculture have argued that water-pricing instruments perniciously impact the industry unfairly. In a study looking at distributional impacts of cost recovery water pricing, Giannoccaro et. al. (2010) demonstrate there seems to be no undue impacts on overall income distribution for agriculture as it impacts all farms equally. However, the study finds water-pricing instruments negatively impacts temporary or low-skilled workers in their ability to find work in industrial sectors and their influence in shaping water policy decisions (Giannoccaro et. al., 2010). Equity and distributional effects can be overcome should a particular water-pricing scheme include increasing block tariffs or reduced VAT for low income families (European Environment Agency, 2013); however, politicians still may consider the distributional effects and the complexities to ensure equity as barriers for political acceptability of Article 9.

## 6. Conclusion

The WFD aims at achieving good status amongst all surface, transitional, and groundwater bodies within the European Union by 2015. A critical and divisive component of the Directive includes Article 9, which stipulates member states must implement water-pricing incentives to recover the principle costs of water, including environmental and resource costs using the polluter pays principle. As discussed, many different pricing schemes exist for full cost recovery and the Directive leaves it up to the Member States to determine the necessary pricing scheme. Despite the well-intentioned Directive, only ten Member States are in compliance with the WFD. Many reasons exist for this: lack of political acceptability; difficulty in calculating environmental and resource costs; distributional equity; unclear interpretation of the Directive; and high transaction and administrative costs.

In looking at implementation of Article 9 of the WFD across Member States, a few key features exist in the successful implementation of a water-pricing scheme. These features are derived from analysis and adapted from the European Environment Agency (2013).

Key Features to a Successful Water-Pricing System:

- Variable water bill (volumetric or increasing block tariff)
- Pricing scheme developed in a transparent and equitable way
- Fees account for infrastructure investment and innovation
- Ensure affordability for low-income families (decreased VAT, favourable increasing block tariff)
- Demand and scarcity reflected in price
- All water users treated equally and reflect total demand (no favourable tariffs for agriculture, etc.)
- Removal of environmentally-harmful subsidies

Empirical evidence suggests that increasing block tariffs most appropriately capture full resource recovery while weighing social benefits. This may be the most effective way for Member States to implement water-pricing mechanisms in order to be in compliance with Article 9 of the WFD. This pricing

mechanism allows affordability of water for drinking, showering, sanitation and necessary industrial processes while charging more for the consumption of “luxury water” – water used for pools, car-washing, gardening, heavy or inefficient agriculture and industrial processes (European Environment Agency, 2013). A successful water-pricing scheme achieving full cost recovery also needs to be supplemented with other support measures such as water quotas, monitoring and metering along with demand forecast models (European Environment Agency, 2013).

The WFD has many positive environmental outcomes associated with its implementation. However, economic and environmental risks also exist. Such an effective charge may undermine the function of a water-pricing scheme. For example, demand may decrease drastically to the point where revenues decrease and water utilities cannot cover the cost of infrastructure and maintenance (European Environment Agency, 2013). Further, if the price of water becomes too high, private individuals or industry may drill their own well illegally, further contributing to greater environmental harm (European Environment Agency, 2013).

The European Commission recognizes some of the shortcomings associated with Article 9. In *A Blueprint to Safeguard Europe's Water Resources*, the Commission (2012) outlines the necessary steps to ensure compliance with the WFD. By 2015, the European Commission will distribute Common Implementation Strategy (CIS) guidance to provide a framework for proposed pricing mechanisms including the potential for a water permit-trading scheme (European Environment Agency, 2013; European Commission, 2012).

Water pricing is not the only mechanism relied upon in the WFD and should not be seen as a panacea to protect and provision our freshwater supply. Regional governance at the level of the river basin, technological improvements, education and informational campaigns and a potential water permit trading schemes where appropriate all contribute to the successful implementation of the WFD. With proper support from the European Commission and increased political willingness, marginal cost pricing will contribute to a more efficient management of water.

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## Appendixes

### **Appendix I: Cost Recovery**

Cost recovery as an economic tool is relatively new in European environmental law (Unnerstall, 2007). Cost recovery addresses to what extent the collected revenues match the production or supply costs of a particular good and may be achieved through a tax, charge or levy (Unnerstall, 2007). Cost recovery pricing provides consumers with information while steering consumer behaviour and financing full costs of providing good or service, in this instance water (Unnerstall, 2007). Individual Member States have seen success in full cost recovery set by legislation; for example, Germany's wastewater charge and Denmark and Sweden's pesticide charge provides full cost recovery (Gawel, 2014).

Cost recovery looks to develop pricing mechanisms that recover environmental and resource costs (as suggested in the WFD) and capital and investment costs (European Environment Agency, 2013). Traditionally, tariffs and taxes provide the bulk of cost recovery for capital and investment costs (European Environment Agency, 2013). The WFD looks to recover these costs at the water utility level, incentivizing utilities to manage, improve and innovate existing infrastructure (François et. al., 2010). Environmental and resource costs are more difficult to recover due to the complexity in calculating full cost (Gawel, 2014). Environmental costs look at the damage due to water use in environment, ecosystem and those benefiting from its services (Unnerstall, 2007). On the other hand, resource costs address the missed opportunities due to use of water resources beyond their sustainable capacity (Unnerstall, 2007). In assessing these costs, the contingent valuation method, in particular willingness-to-pay, is among the most common tools but requires difficult calculations and intensive data collection (Gawel, 2014). While water pricing is a way to recover environment and resource costs, in Member States, regulatory limits are more widely used to prevent pollution in the first place (European Environment Agency, 2013). The WFD has greater implications in that it looks to consider the costs on employment and other societal costs as a part of full cost recovery (Unnerstall, 2007).

There are a variety of obstacles preventing full cost recovery. Infrastructure in many Member States do not include proper metering, a cornerstone to providing an effective and efficient water-pricing scheme. As a result, the proper incentive does not exist in regulating demand of water (European Environment Agency, 2013). Moreover, stakeholders, in particular those in agriculture and industry, resent the increase of water prices and wield significant power to influence public agencies to prevent cost increases (European Environment Agency, 2013). To that end, current water subsidies for industry and agriculture are counterproductive in achieving full cost recovery (European Environment Agency, 2013). The European Commission (2012) in its *A Blueprint to Safeguard Europe's Water Resources* stresses the importance of pricing water at its full cost and suggests that any instance where this is not done is considered an environmentally-harmful subsidy.