

# Water: Charging full cost can encourage more efficient use

**Flat-fee water charges are still common in parts of Europe. Such schemes, where users pay a fee regardless of the volume used, do not encourage efficient behaviour, either in households or agriculture, according to a new report from the European Environment Agency (EEA).**



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The EEA study, 'Assessment of cost recovery through water pricing', considers water pricing in several EU countries: Croatia, England and Wales, France, Germany, the Netherlands, Scotland, Serbia, Slovenia and Spain.

Water is under stress in many parts of Europe. Even in regions which usually experience a high level of rainfall, abstracting and cleaning water can have a high economic and environmental cost. This means that Europe needs to redouble efforts in using water more efficiently to avoid undermining its economy. Inefficient water use impacts hard on the resources needed by ecosystems and people.

In response to these problems, the report states that water should be priced at a level which both encourages efficient use and properly reflects its cost. This should include all costs of purifying and transporting the water. In addition, environmental and resource costs of water use, such as pollution and the depletion of resources, should also be internalised into water prices, the report says. Such charges should factor in lost 'ecosystem services' which also require water, for example wetlands carry out valuable services such as water purification and flood prevention.

Hans Bruyninckx, EEA Executive Director, said: "In many parts of Europe, profligate water use is a real

problem. However, there is a lot of potential for Europe to cut water use by improving efficiency. Charging water users for the volume of water they actually use, at a price reflecting the true cost, sends an important signal – freshwater is a limited and precious resource.”

The EU Water Framework Directive called for Member States to create incentives for efficient water use by 2010. However, it is unclear whether this has in fact resulted in any change in national policies.

## Key findings

- Households use around a third less water when they are charged for the actual amount they use. However, flat-rate charging structures are still common in many countries, even though such tariffs are more expensive for most water users and do not incentivise efficient water use.
- Some water uses, such as drinking water, are not significantly influenced by changes in price. However, studies show that other uses are much more responsive, including water for gardening or swimming pools.
- The report lists some examples of water use responding to pricing. Urban water prices in Denmark increased by 54 % between 1993 and 2004 along with infrastructure investments. Over a decade water use per person per day fell by almost 20 % to 125 liters, one of the lowest levels of any OECD country. Water prices in the Czech Republic increased in real terms since 1990, resulting in a 40 % decrease in domestic water use.
- In most countries, farmers are also allowed to use unlimited water for a flat charge. Charging for the volume of water used reduces the amount of water used by agriculture by 10 -20 %, according to some studies. Switching to volumetric charging is most successful when combined with more modern irrigation technology and work to fix leaks, the report says.
- In most countries, household water tariffs are designed to recover the financial costs. In contrast, agricultural water use is often heavily subsidised, so the price covers as little as 20 % of costs in some cases. In Spain, where some regions are severely water-stressed, agricultural water prices recover less than half of the cost. This may encourage inefficient water use, the report says.
- When the price of using water does not recover the full cost, some of the cost may be inadvertently passed on to others. For example, if industry pollutes water and fails to pay for it to be cleaned, these costs are imposed on society.
- Low-income households must also have access to affordable water services, but keeping prices artificially low for all users is not the best method, the report says, as it may lead to a vicious cycle of underfunded service providers with poor infrastructure.
- The public seems to support being charged according to the volume of water they use – 84 % of EU citizens agree with this principle to some extent, according to a 2012 Eurobarometer survey.

## Related content



Water management in Europe faces rising challenges as ecosystems weaken. Water pollution and excessive water use are still harming ecosystems, which are indispensable to Europe's food, energy, and water supplies. To maintain water ecosystems, farming, planning, energy and transport sectors need to actively engage in managing water within sustainable limits.



Assessment of cost recovery through pricing of water The main objective of this study is to provide practical knowledge on the current status of the implementation of key principles of Article 9 of the Water Framework Directive (WFD), and in particular on the cost-recovery principle.

**Don't start a washing machine unless it is fully loaded with laundry or dishes.**

Its energy and water consumption will be the same whether it's full or empty so you might as well optimise its cycle. More green tips