



Clearer bills could help reduce demand for water

Confusing water bills and complex water tariffs could be making it more difficult for consumers to monitor and manage their own water use, according to a survey of householders on the Portuguese island of Madeira.

Population growth and environmental change are increasing pressure on water resources around the world. As a result, policymakers are seeking ways to reduce water use. To reduce demand for water one option is to use tariff schemes, which charge more per cubic metre of water, the more that consumers use. However, this will only be effective if consumers receive clear information about water use and pricing. Water bills are the main source of this information, yet complicated tariffs can make bills harder to understand.

To explore whether consumers do fully understand the information on their water bills, and whether this encourages them to use water in an environmentally friendly way, a team of Portuguese researchers conducted a survey of domestic water users on the island of Madeira. They also examined the water pricing structures for each of the island's ten municipalities.

They found that each of the municipalities used a different tariff structure. For instance, six of the municipalities applied their cheapest volume-based rate to the first five cubic metres of water used, two municipalities applied it to the first ten cubic metres, and the final two municipalities charged their cheapest rate for the first 20 cubic metres. The price per cubic metre varied from €0.12 to €0.50 for these cheap rates. Each tariff also had a different fixed monthly charge.

When the researchers looked at the 386 responses to the survey, the majority of participants claimed the information in their water bills was quite clear. However, 28.2% did not know which organisation provided their water, and around 20% thought they were charged the same amount for each cubic metre they used, rather than the stepped tariff system actually in use. 15% did not know that their bills also included other components, such as sanitation charges, and only 14% said they knew how many cubic metres they used each month.

The findings of this study also suggest that consumers with a better understanding of their bills also tend to adopt more environmentally sustainable water use practices, such as taking shorter showers and re-using water. Clearer information in water bills may therefore help others to do the same, reducing demand and helping manage scarce water resources more effectively.

This conclusion was based on an investigation into a sub-sample of 50 respondents (from 50 households) who were aware of both how much water they used and the price they paid for it. Saving water for environmental reasons was more important for this group than for the general group, whereas the general group were more likely to say that paying less was most important. More people in the sub-sample also re-used their water, used water saving equipment and took shorter showers, indicating that the more informed consumers were more concerned about the environmental impact of their water use.

The researchers call on policymakers to simplify water tariffs to make bills easier to understand. Without this, the environmental and water use messages that policymakers hope to communicate through water pricing will continue to be lost.

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