► INFO FOR POLICY AND PRACTICE





Key Points and Policy Recommendations



Farmers are willing to pay higher prices for irrigation water, if the additional money is used to provide non-water related social services, such as maintenance of local schools and health centers, training programs and microcredits.



Bundling water fees with other social services can be used as an efficient tool to increase awareness and acceptance of water pricing, while the payments should be administered in a transparent way and benefit the entire community.

The introduction of water pricing, has been subject to debate for a long time. While seen as a powerful tool to enhance water use efficiency and decrease overuse, water pricing has been opposed and proven inefficient in many cases for various reasons. One major obstacle to introduce or raise prices for irrigation water is the concern that pricing irrigation water could increase inequality and turn small farms unprofitable. In other cases water users are simply not willing to pay (more) for water because unlimited access to water is seen as a basic right.

To overcome this dilemma and increase farmers' willingness to pay it has been proposed to bundle charges for water with social services that benefit the entire community. These services can include supporting local schools and health centers, offering educational programs and microcredits or infrastructure development.

In this study, Bhaduri and Kloos propose to increase farmers' willingness to pay by bundling water services with additional non-water related services, in this case by providing community training programs, investing in local schools, health centers, and microcredits. To assess the effectiveness of this approach the authors conducted a

choice experiment coupled with a questionnaire with more than 100 farmers from the Khorezm region in Uzbekistan. The current price for irrigation water in the region is very low (1US\$ per 1000 m³) and comprises only a small fraction of a farmer's income (Figure 1).

The results of the study show that farmers are willing to pay higher prices for irrigation water, if the additional money is used to provide non-water related social services, such as maintenance of local schools and health centers, training programs and microcredits. This indicates that individual benefits, such as access to additional irrigation water, are not the main driver to increase farmers' willingness to pay regarding irrigation water, but social and communal benefits are a more powerful incentive to increase payments for water use.

The authors conclude that bundling water fees with other social services can be used as an efficient tool to increase awareness and acceptance of water pricing, while the payments should be administered in a transparent way and benefit the entire community.

However, in this case study the price for water is not based on the actual water consumption by a farmer, but on the size of the farm. To efficiently

Current Situation

Fee: 1.00 \$/1000m³

WUA spending: 3.6 \$/ha

Option A

Fee: 7.75 \$/1000m³

WUA spending: 39.6 \$/ha

Community training programs

Option B

Fee: 7.75 \$/1000m³

WUA spending: 50.2 \$/ha

Schools

Provision of Microcredits

Option C

Fee: 8.83 \$/1000m3

WUA spending: 12 \$/ha

Health Centers

Provision of Microcredits

Figure 1: Options of the choice experiment; WUA spending refers to the spending of the Water User's Association for provision and maintenance of the irrigation system

reduce water withdrawal, fees need to be charged per volume of water consumed. The authors point out that, despite efforts by the Uzbek government to implement meters, the local circumstances in many parts of the country make it very difficult to control and measure the amount of

water abstracted by individual farmers and the cost to implement these devices is very high, but could be recovered by the increased fees.

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References

Bhaduri, A, Kloos, J, 2013, Getting the Water Prices Right Using an Incentive-Based Approach: An Application of a Choice Experiment in Khorezm, Uzbekistan, The European Journal of Development Research 25: 680-694

Johansson, RC, Tsurb, Y, Roec, TL, Doukkalid, R, Dinare, A, 2002, Pricing irrigation water: a review of theory and practice, Water Policy 4: 173-199

Rogers, R, de Silva, R, Bhatiac, R, 2002, Water is an economic good: How to use prices to promote equity, efficiency, and sustainability, Water Policy 4: 1-17





IMPRESSUM

Summary by Anna Schürkmann

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The Global Water System Project seeks to answer the fundamental and multi-faceted question:

How are humans changing the global water cycle, the associated biogeochemical cycles, and the biological components of the global water system and what are the social feedbacks arising from these changes?

GWSP is a joint project of the four Global Environmental Change Programmes: DIVERSITAS, the international programme of biodiversity science, the International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Environmental Change (IHDP) and the World Climate Research Programme (WCRP).