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Rational Pricing of Water as an Instrument of Improving Water Use Efficiency in the Agricultural Sector: A Case Study in Gujarat, India

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Abstract

The agricultural sector in India accounts for over 85% of the total water used for various purposes in the country. However, the efficiency of water use in agriculture is very low, approximately 40% for surface irrigation and 60% for groundwater irrigation. Part of the reason for the low efficiency is the highly subsidized price of irrigation water that encourages the excessive application of water to crops. This paper is based on a case study conducted in the command area of a public irrigation canal in the state of Gujarat, India. It attempts to explore the role of the rational pricing of canal irrigation water in motivating farmers to use water judiciously and thereby enhance the water use efficiency in irrigated agriculture. The paper contends that farmers are sensitive to an increase in irrigation water charges, but unless the administered price is increased

to the level that would prevail in a free market, it will not have its intended effect on irrigators.

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