

**Estimating Household Water Demand Responses: An Empirical Study of
WASA Administered Towns of Lahore**

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Abstract

By 2025 the water-stressed regions across the globe will be housing two thirds of the world's population. (UNEP, 2000). To cater to the needs of this ever-increasing population there is an additional burden on the countries to provide sustainable and adequate water supply for agricultural, industrial, commercial and domestic uses. The existing research on residential water demand is extremely limited and the literature is mostly focused on water demand studies in developed countries. This study econometrically assesses the impact of pricing policies of WASA on household water demand in Lahore, along with other major determinants of water demand. Furthermore, the extent to which water consumption, water use behaviors and attitudes vary across households with metered and unmetered connections is explored. The findings of the study reveal that price is an important determinant of water consumption and unmetered households use water relentlessly. The study also depicts an increased consumption of water in households whose water bill is based on area of the house as compared to the one with metered water connections. This shows the absence of an optimal and effective water pricing policy of WASA which gives rise to the dilemma of moral hazard. Unmetered households use water relentlessly because they are not bearing the full-cost of the water they are using.

Keywords: Household Water Demand, Water Pricing, Water Consumption, Water Use Behaviours and Practices