Urban Water Pricing: Equity, Efficiency and Sustainability
An Empirical Evidence from an Industrial City
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Is the current water pricing structure creating inequities and inefficiencies in water allocation?

• Water and sustainable development goals
• The role of effective water management in socioeconomic development
• Growing population and water management problems in urban areas
• Water supply and equity issues
• Access to clean drinking water is a major issue in urban areas of Pakistan
• Prevalence of water supply inefficiencies
• The water market and its existing pricing structure
How I explored the research question...

Motivation:
• Rapid population growth in cities
• Faisalabad, the third largest metropolis of Pakistan
• More than half of the population stills uses unfiltered water

Objectives:
• To estimate demand and income elasticities
• To investigate equity, efficiency and sustainability issues

Methods:
• Interviews with focused groups
• Econometric estimation

Data:
• Field survey: 1200 households
What I found...

Pricing Policies:
- Inelastic price elasticity for filtered and un-filtered water
- Income elasticity differentials are indicative of switching effects
- Pricing policies may have limited scope to drive the household consumption
- Water-related diseases play a dominant role in determining households willingness to pay

Equity perspective:
- Safe drinking water infrastructure barriers to low socioeconomic groups
- Availability of filtered water to planned vs. unplanned dwellings
- Low income socioeconomic areas residents travel more to obtain safe drinking
- About 43 percent of the population relies on canal-side pumped water
- Income inequality and social disparities appear to be the main barriers for having access to safe drinking water
The ‘global change’ aspect of my water research

This growth in population is putting enormous pressure on existing public services and infrastructure in developing economies. The rising trend of urbanization in Pakistan is increasing population pressure in cities.

The findings on WTP altogether imply that water-related diseases play a dominant role in determining household preferences for the provision of clean water. There may be opportunities for international development donor interface given the newly launched UN Sustainable Development Goals where SDG6 is focused on water and sanitation delivery for all.

• Policies should focus on ensuring water accessibility of the low income communities
• Regulation of private supply for filtered water compatible with consumer’s willingness to pay
• The introduction of non-pricing instruments to promote water savings habits
• Ensuring efficient and equitable distribution of safe water
• Awareness about water conservation and efficient use (Demand management policies)
References: