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Coping with Unreliable Water Supplies and Willingness to Pay for Improved Water Supplies in Kathmandu, Nepal

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Intermittent, insufficient and unreliable supply of drinking water is a major problem in developing countries. Nepal is no exception to this. Water is not supplied round the clock, pressure is insufficient to pump it to the tap, and whatever is the amount of water made available to the public, it is not directly potable. To combat these problems, households engage in a variety of coping behaviors, such as collecting and storing water in underground tanks, pumping stored water to roof-tanks, treating tap water before drinking, and purchasing water from water tankers at the time of shortages. This paper estimates both the households' costs of coping with the problem of unreliable public water supplies and their willingness to pay (WTP) for improved water supplies in Kathmandu valley. Coping costs are calculated from respondents' answers on averting behavior, market price and value of time. The willingness to pay for improved water supply is calculated using stated preference method, which is then compared with the value obtained from revealed preference method. This paper also discusses the effects of a household's socio-economic characteristics on its coping costs and WTP for improved water supply.

Our results show that the demand for water and WTP are significantly high in Kathmandu. Coping costs are statistically correlated with water tariffs and many household characteristics. It may be inferred from the results that consumers are eager to improve the quality of water service and that water utility levies can be increased to improve water service in Kathmandu. The two methods – coping costs and WTP – offer similar but statistically different results.

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