

NUDGING URBAN WATER CONSERVATION: EVIDENCE FROM INDIA ON THE EFFECT OF BEHAVIOR ECONOMICS ON WATER CONSUMPTION

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ABSTRACT

Urban water conservation is a major challenge for policy makers and researchers. Water managers have relied on coercive regulation, pecuniary action and awareness campaigns for conserving water, with mediocre outcomes. Consumers aver empathy but display a sizeable knowledge –action gap between professed awareness of water scarcity and actual action. The present empirical field study investigates the application of behavioral interventions on the water consumption practices of residents of Chennai City India, using randomized controlled trials. Drawing critical insights from behavioral economics a “Nudge” – ‘Shut the Tap’ was employed. The Nudge was designed to address behavior bottlenecks, identified in consumer discussions, underlying the knowledge–action gap. The intervention involved modifying the “choice architecture” around behavioral dimensions of social norms, status quo bias and encouragement. These intervention tools were delivered to individual households through reminder Stickers at consumption points, resource Warnings, Cards reiterating social virtue of conserving water, modified default options in a how to conserve Tool Kit and consumption Comparison with best in class. In the study area, treatment households were administered the nudge (n=615) whereas the control group (n=150) received only a generic conservation message. This intervention resulted in the treatment group recording an average monthly energy savings of 23.61 kwh, and a 10.3 percent water saving, equivalent to a 9689 liters reduction in monthly water consumption. The control group recorded a saving of only 1.8 percent. This indicates that the Nudge intervention outperformed business as usual by nearly 470 percent. The study results indicate that Behavioral Nudges can provide policy makers an inexpensive and effective intervention to address the urban water conservation challenge.

Keywords: Behavior Economics, Nudge, Household Behavior, Choice Architecture, Water Conservation.