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ABSTRACT

Solid wastes are considered to be the most visible forms of environmental bad in this globalised age. With changes in the level of income facilitated by economic reforms and globalization along with the availability of numerous consumer products, changes in consumer tastes and preferences, easier flow of product information and role of aggressive advertisements, generation of solid wastes across the developing country mega-cities are in the verge of rapid increase. Large-scale migration, poor institutional mechanism, weak planning and implementation, lapse in enforcement mechanism and lack of awareness among urban masses about the need for waste management have aggravated overall waste management situation in most of these fast growing cities like Delhi. It is understood that despite Delhi being the capital of an emerging economic power and one of the largest mega-cities in the world, its overall waste management situation remained quite unsatisfactory. Delhi currently spends quite a substantive amount of money for its solid waste services, while participation of private sector players has also been ensured to improve the situation. Despite that waste management in Delhi continues to be one of the serious most urban challenges.

In spite of policy statements, court directions and resources spent municipal solid waste management services are far from satisfactory. It is of course a daunting task for MCD to manage its solid wastes with limited financial resources and technological know-how. People's participation and involvement in resource mobilization is thus assumed key to the success of waste management. It is premised under the present study that there is a need to assess residents' preferences and willingness to pay for improved solid waste management for Delhi. A contingent valuation (CV) study was designed and executed by randomly selecting a ward of Delhi for the collection of household-level data. This required conducting two surveys on two different groups

of respondent households: *control group* and *intervention group*. Logit Regression Model was applied to estimate the determinants of people's WTP for improved solid waste management. Probit Model was used to estimate the MWTP.

The major findings of the study were:

- (a) Estimated results for the '*control group respondents*' suggested that mean willingness to pay (MWTP) is positive. It worked out to Rs.285.13/ month/household.
- (b) A monthly mean willingness to pay of Rs.483.73 per-household for the intervened households indicates that there is a positive impact on WTP if relevant information about costs of inefficient solid waste management services and benefits from improved services is made available.
- (c) Assuming our sample a representative sample for entire Delhi (by extrapolating the sample residents for entire Delhi and keeping all other factors constant), an amount of Rs.11,429.85 to Rs.19,391.02 million/ year as additional resources can be generated for undertaking improvements in solid waste management services.
- (d) Higher bid (i.e. imposition of a high monthly solid waste management service charge) significantly reduces the possibility of positive responses from the residents.
- (e) Level of satisfaction derived from the existing solid waste management services significantly affects residents' willingness to pay decisions for any possible improvement initiative.
- (f) Residents' active involvement in waste management turned out to be an important determinant of their willingness to pay responses.
- (g) Age of respondents was found to be an important determining factor (negatively related) in residents' decisions on improved solid waste management services through service charges.
- (h) Monthly family income emerged an important determinant for any family's willingness to pay behavior. It was also found that the highest income earning residents of Delhi, just like the poorest ones, are not much interested in improved solid waste management services.
- (i) Ward-level solid waste management committee can be a viable option for involving residents of a ward in its waste management decisions and their execution.