Societal Preference and PreferenceHeterogeneity in Water Service Improvements: Case Study in Sri Lanka

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Elicitingsocietal preferences for the improvements of public utility like waterprovisionis importantfor public policy making.This is particularly the case in developing countries where the current water service is not up to an acceptable standard, water related health impacts are significant andfinancing for water service improvements is insufficient to meet societal demand.

With this background, this study employed achoice experiment to estimate the social benefits of water service improvements. In order to estimate the associated welfare effects of such improvements and subsequently to identify the distributional effects, this study initially estimated astandard Multinomial Logit (MNL) and aMNL with interaction effects. The standard model preference specifications were further developed estimating more advanced models within thebroader framework of the logit family; semi parametric Latent Segmentation (LS) and fully parametric Random Parameter Logit (RPL) model. This allowed us to explore preferenceheterogeneity in different segments of the society as well as individual level preference heterogeneity in relation to water service improvements.

This study found that the public indicate positive and significance preference for water service improvements and hence willing to pay (WTP) towards the cost of improved water supply. Furthermore, WTP estimations made in the current study are comparable to the World Bank benchmark of affordability level of 4 % of the rural household's income and also accounts less than 4% of the household expenditures. The LS and RPL models revealed that there is significance preference heterogeneity among the public in relation to the water service improvements and provide the insightful information about the distributional effects of thebenefits of such improvements.

The findings of this study should assist the policy makers in prioritizing the public funds,giving much more attention to the water sector enhancement, promoting new investment and formulating the cost recovery tariff structure in order to manage the scare water resources more economically and in a sustainable manner.

Keywords:Water Service Improvements, CE, Multinomial Logit Model, Latent Segmentation Model, Random Parameter Logit Model.