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An environmental economic valuation approach for valuation of harvested roof rainwater

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Rain water is considered as a free good and the benefits are often ignored thus creating an external impact. The study is therefore sought to estimate the willingness to pay values for rain water harvesting, its wise use as well as conservation of water for future generation. A contingent valuation survey model with dichotomous choice question format was carried out in three locations (Colombo, Kekirawa and Yatigammana) which belong to three different provinces, Western, North central and central of Sri Lanka. These locations represented both wet and dry zones, rural and urban communities and rain water harvesting and non harvesting groups.

In all survey locations majority of respondents have clearly highlighted and accepted the value of rainwater. According to the results of the survey Mean Willingness To Pay (MWTP) values in the dry, wet and urban areas were Rs 59.06, 85.96 and 89.03 respectively. The proposed contribution is equivalent to their net monthly income as a percentage of 0.98% in rural, 1.01% in rural wet and 0.39% in urban areas.

Some differences existed in the degree of support of the two sub-samples of rural dwellers. The sub-samples of rural respondents chosen from the villages within the dry and wet or water shortage areas with certain difficulties to fetch day to day water requirement showed relatively similar support for the proposed trust fund than the respondents chosen from the urban zone. However, it seems that urban contribution as a percentage it is smaller but in comparison to their income it is larger in rupee values.

The results revealed that estimated public support (both of rural and urban dwellers) could generate funds in excess of the financial requirements of the funding assistance scheme proposed in this study The implication of the results in developing appropriation mechanisms for correcting market failures in the rain water harvesting is also discussed.

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