

Willingness to Pay of Rice Farmers for an Improved Weather and Seasonal Climate Information: The Case of Calapan City, Oriental Mindoro, Philippines

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Abstract

This study aims to measure the value of a nonmarketed public good, the improvement of weather and seasonal climate information, using the contingent valuation method. It also determined the factors affecting willingness-to-pay (WTP) of farmers for improved weather and seasonal climate information and drew policy implications and identified strategies to improve weather and seasonal climate information for better risk management in agricultural production. The study applied both parametric and nonparametric methods to estimate the mean WTP of farmers. The payment is in terms of crop harvest, but a monetary equivalent value was computed. Results of the logistic regression showed a WTP of PhP 633 per ha per cropping for an improvement of weather and seasonal climate forecast or a total value of PhP 5,141,745 per cropping. Meanwhile, Turnbull estimation results suggest a lower bound value of PhP 420 per ha per cropping and an upper bound value of PhP 1,086 per ha per cropping or a total value of PhP 3,409,495 to PhP 8,809,200. Farmers' WTP are significantly influenced by the bid price and socioeconomic variables such as size of the household, attendance in trainings, farm area, and percent of harvest sold in the market. Overall, there is a high value placed by rice farmers in the quality of information received regarding weather and seasonal climate. By estimating the value of a nonmarketed good such as an improvement in weather and seasonal forecast, it can serve as basis for formulating climate-related policies and strategies to improve the resilience of the agricultural sector.