



Technology adoption for paddy and productivity among farmers. (In Anuradhapura District)

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Abstract

The increasing population also increases the demand for food crops especially rice in Sri Lanka. But, while comparing with the increase in demand for rice, the production of rice in Sri Lanka is not satisfactory. Therefore, modern agricultural technology was introduced for paddy. This study analyzed factors affecting modern agricultural technology adoption by farmers and the impact of technology adoption decisions on productivity in the study area. The data used for the study were obtained from 50 randomly selected sample households in the study area. Data collected were analyzed using the logit regression model and Cobb-Douglas production function. The binary logit model was employed to analyze the determinants of farmers' decisions to adopt modern technologies. The result of the logistic regression showed that household heads' education level, farm size, credit accessibility, perception of farmers about the cost of the inputs and off-farm income positively and significantly affected the farm households' adoption decision; while family size affected their decision negatively and significantly. The result of the Cobb-Douglas production estimation showed that the average productivity of adopters is greater than that of non-adopters. Based on these findings it is recommended policymakers have to plan in such a way that the farm households in the study area will obtain sufficient education, credit accessibilities and also have to train farmers to make them understand the benefits obtained from adopting the new technologies. These bodies have also to arrange policy issues that improve farm labor participation of household members and also to arrange how farmers obtain means of income outside farming activities

Keywords: Agriculture, Farm household, Technology Adoption, Logit Model