

Adoption of Crop Insurance as a Risk Management Tool in Smallholder Farming: A Case Study of Central Province of Sri Lanka

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Abstract

Agricultural insurance is a critical risk management tool designed to mitigate the adverse impacts of climate change on farmers. However, its adoption in Sri Lanka remains limited due to several systemic and operational challenges. This study aimed to investigate the key challenges and vulnerabilities in the current agricultural insurance schemes faced by smallholder farmers in the Central Province. Primary data were collected from 241 farmers selected from the Kandy, Nuwara Eliya, and Matale districts based on stratified random sampling approach. A structured pre-tested questionnaire was used for data collection. Descriptive statistics and Binary Logistic Regression were employed to analyse the data. The findings revealed that a majority of farmers were part-time cultivators (69.7%), primarily growing paddy, vegetables, and spices on smallholder land plots. Around 67.2% of the respondents were receiving a monthly income >100,000 LKR. The financial capacity of the insurance provider ($p<0.001$; OR=9.10), perceptions of farmers on environmental vulnerability ($p=0.03$; OR=4.44), and the operational mechanisms of the insurance scheme ($p<0.001$) were recognised as key factors that influence the farmers' intention to purchase crop insurance schemes. Crop type was a strong predictor of insurance adoption. Compared to paddy farmers, those cultivating vegetables ($p<0.001$; OR=4.10), spices ($p=0.040$; OR=3.27), and more than one crop ($p=0.030$; OR=3.16) denoted significantly higher likelihoods to purchase crop insurance schemes. Notably, the complexity of the claim application process (mean=4.71) and delays in compensation (mean=2.08) were perceived as the major constraints, followed by inadequacies in insurance coverage (mean=1.33) and high premium costs (mean=4.19). Farmers preferred simplified claim processes, transparent assessments, and greater awareness of coverage and compensation procedures. The findings highlight the need to improve the efficiency and credibility of crop insurance programmes while expanding targeted awareness efforts.

Keywords: agricultural insurance, climate change, farmer willingness, smallholder farmers, risk management