

Farmer Attitude and Adaptation to Climate Change Resilient Approaches: A Study from *Ihalapalukandewa* GN Division.

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One of the biggest challenges to increasing or even maintaining food production by small-holder farming groups in a nation is climate change. Climate change is one of the biggest issues in Sri Lanka because the country is heavily dependent on agriculture, which is the foundation of rural livelihoods and is based on natural resources. Scientists have suggested that Sri Lanka's overall rainfall, its known patterns, and the distribution looks to be changing. Adaptation to climate change resilient strategies increase agricultural productivity and build farmers' resilience simultaneously. In this study, I investigate how smallholder farmers in the *Ihalapalukandewa* GN division, adapt to climate change. Primary data was collected and analyzed using a multivariate probit model. To measure the attitude of farmers, a Likert scale was used to obtain an average score and a deviation from the average to measure attitude. To identify constraints, a Likert scale was used to construct a Problem Confrontation Index where ranking was done. According to the results, some adaptation strategies (using organic fertilizer and rainwater harvesting) are interdependent. The use of organic fertilizer and rainwater harvesting allows farmers to increase productivity while building resilience to climate change. The likelihood of farmers' adaptation to climate change resilient approaches depends on the education of farmers, land size, access to extension services, and credit services, and membership in farmer organizations. Although most of the farmers have a favorable attitude towards climate change and resilient approaches, lack of available water, shortage of farm inputs, lack of credit or money, and inadequate extension officers are the major problems in adapting climate resilient strategies. According to the findings of this study, governments should concentrate on supporting relevant infrastructure development, empowering access to extension services, and enabling cost-effective access to agricultural supplies either directly or through credit market interventions.

Key words: Climate change resilient approaches, Multivariate probit model, Problem confrontation index

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