

FACTORS AFFECTING PADDY FARMERS' CLIMATE CHANGE ADAPTATION RESPONSES: THE CASE OF PADDY FARMERS IN IBBAGAMUWA AREA

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Global climate change is increasing at an alarming rate and has created numerous uncertainties regarding the livelihoods of farming communities all over the world. Total paddy production of Sri Lanka in 2012 declined by 10.72% compared to the highest ever production of 4.30 million MT in 2010, mainly due to insufficient water for cultivation during the *Yala* season as a result of delay in the onset of monsoon rains and the consequent delay in release of water for cultivation. That is why, adapting adaptation measures to mitigate the impacts of adverse climate change conditions to maintain consistency of paddy production. Even though farmers do some adaptation practices for the mitigation of climate change impacts, factors affecting paddy farmers' climate change adaptation responses in *Ibbagamuwa* area is still questionable. Therefore the objective of this study was to identify the factors affecting paddy farmers' climate change adaptation responses.

The study was conducted in Ibbagamuwa Divisional Secretariat Division which is moderately vulnerable to droughts and is located in the Intermediate zone in Sri Lanka. Semi-structured questionnaire was used to collect primary data by using stratified random sampling method interviewing 60 paddy farmers in Ibbagamuwa. The regression analysis was used to identify factors that are affecting on climate change where the dependent variable was the climate change adaptation responses of farmers. Degree of orientation of farmers, age, education level, mode of irrigation, number of labour use, land extent were used as independent variables of the regression model. Data analysis was conducted using the Statistical Package for Social Sciences 20 version (SPSS 20).

The results indicate that, the factors affecting on climate change adaptation responses is a function of degree of orientation, age of the farmer, land extent of farmer and cultivated variety were significantly affecting on climate change responses at $p < 0.05$ level.

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Since, the climate change responses of farmers significantly affecting on yield performance, the required knowledge which is related to climate change responses should be provided by extension services and farmer training programmes. And also these factors can be considered positively when developing existing agricultural policy in Sri Lanka.