



Tropentag, September 16-18, 2015, Berlin, Germany

“Management of land use systems for enhanced food security:
conflicts, controversies and resolutions”

Determining Factors for the Application of Climate Change Adaptation Strategies Among Farmers in Magwe District, Dry Zone Region of Myanmar

TUN OO AUNG, GUIDO VAN HUYLENBROECK, STIJN SPEELMAN

Ghent University, Dept. of Agricultural Economics, Belgium

Abstract

This study examined climate change adaptation strategies of farmers in the dry zone region of Myanmar. Farmers' adaptation strategies are influenced by many factors such as practical availability of the methods and socioeconomic conditions of farmers. They are moreover influenced by the perception of climate risk, and by farming difficulties. This research was carried out in Magwe district in the Dry Zone Region of Myanmar by randomly selecting 212 farmers in three Townships ((Magwe, Yenanchaung and Chauk). A Multinomial Logistics Regression (MLR) was applied to assess the factor affecting to the choice for adaptation strategies by the farmers. The study found that in the past farmers used to apply traditional climate adaptation strategies. However, recently most farmers seem to shift to introduced adaptation strategies; while some farmers still use traditional adaptation strategies. The majority of farmers agreed that there is an impact of climate change on farming, and they strongly agreed on the impact on yield. In terms of adaptation strategies, the majority of farmers adjusted the planting and system method (56.1 %). Only 1.9 % of farmers did not employ any adaptation strategy. The study further identified perceptions about risk related to a changing climate such as water scarcity, growing indebtedness, and post-harvest losses. Farmers identified the small farm size, the lack of farm laborers, and low fertility of soil as important limitation to adopt introduced adaptation methods. The MLR model showed that livestock asset, liquidity asset, access to credit, income, public extensions, and farmer to farmer extension affect the choice of introduced adaptation strategies. The practical availability of the adaptation strategies, socioeconomic status of the farmers, and risk and difficulties of farming have significant impact and limit to the choice of adaptation strategies.

Keywords: Adaptation strategies, climate change, introduced methods, risk perception, traditional methods