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“Solidarity in a competing world —
fair use of resources”

Assessment of Household Food Security through Crop Diversification in Natmauk Township, Magway Region, Myanmar

CHO AME, TUN OO AUNG, STIJN SPEELMAN

Ghent University, Department of Agricultural Economics, Belgium

Abstract

This study examines the crop diversification levels and determinants of crop diversification and assesses food security status of the farm households in Natmauk Township, Magway region, Myanmar. The study was carried out in March 2015 and data were collected by using structured questionnaires. A total of 80 farm households were randomly selected from four villages in Natmauk Township. The study uses Simpson's index of diversification (SID) to measure the extent of crop diversification among the farmers in the study area while censored Tobit regression model was used to determine the factors affecting crop diversification. The study revealed that mean computed crop diversification index was 0.54. High crop diversification indexes were found among 32.5 % of the sampled farm households. About 5 % of households practised very low crop diversification while the same proportion diversified their crops very highly in their farms. The study further revealed that farming experience, education level of household heads, farm size, access to irrigation and access to credit positively and significantly affected crop diversification while age of household heads, non-farm/off-farm income and distance to market negatively and significantly affected crop diversification among the farmers. Majority of the households reported that market purchase is the main source of foods for them. Based on the Household Food Insecurity Access Scale (HFAS) categories, 31 % of the households were food secure while 35 % mildly food insecure, 25 % moderately food insecure and 8 % were severely food insecure. According to correlation analysis, it was observed that HFAS score is negatively correlated with Household Dietary Diversity Score (HDDS) and crop diversification. Correlation was significant at 0.01 level and the strength of the correlation is strong. The findings clearly indicate that better food security is associated with crop diversification in the study area. Therefore, the study recommended that the farmers should be encouraged to improve the right selection and cultivation of different crop types on their farms, which will eventually lead to increase in crop outputs and otherwise, improve food security.

Keywords: Crop diversification, food security, Simpson's index of diversification, Tobit regression