EXTENT AND DETERMINANTS OF CROP DIVERSIFICATION AMONG PADDY FARMERS IN DIMBULAGALA DIVISIONAL SECRETARIAT DIVISION IN POLONNARUWA DISTRICT, SRI LANKA

P.P.U.P. Victor and L.P. Rupasena

Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura

Crop diversification on paddy field especially in *Yala* season has been one of the thrust areas of the government development programs in this decade in order to increase farm income, increase rural employment, to meet diverse food demand and to conserve water and soils. Although successive governments have been promoting crop diversification since the mid-1960s, the progress is slow. This study was carried out to examine the extent of crop diversification, demographic and socio-economic characteristics of diversifiers and non-diversifiers and major determinants that influence farmers' decisions to diversify paddy lands in *Yala* season. Data were collected using structured questionnaire survey from 100 farmers selected from Dimbulagala Divisional Secretariat Division by employing multi-stage stratified random sampling method. The Crop Diversification Index (CDI) was used to measure the extent of diversification while the Tobit model was used to analyze the determinants of diversification. Bivariate statistical analysis and mean comparisons were used to compare socio-economic characteristics of diversifiers against their non-diversifying counterparts. Percentage of farming households who diversified was 58% of them 63% had a CDI less than 0.5 but greater than zero. It shows evidences of limited extent of crop diversification among the paddy farmers during *Yala* season. A comparison of socio economic characteristics between two groups reveals that socio economic factors determine the level of crop diversification. The results of Tobit regression shows that availability of family labor and support from Farmer Organizations (FOs) positively affect on crop diversification while the availability of off-farm income and own livestock negatively affect on crop diversification. The study concludes that crop diversification among paddy farmers is limited in *Yala* season and family labor and support from FOs are key drivers in enhancing crop diversification. Based on the study findings it is recommended that mechanization of non-rice crops farming is required due to a shortage of family labor. In this regard, more research should be focused on mechanization of non-rice crops. In addition, efforts should be done to strengthen the FOs by providing machinery, linking farmer organizations with banks and developing marketing linkages. Further, promotion campaign should be implemented among dairy farmers to encourage cultivation of non-rice crops using animal residuals.

Keywords: Crop diversification, Dimbulagala DS Division, Tobit model