

# Adoption of Improved Maize Varieties and its Determinants in Mahiyangana

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This study aims to identify the impact of demographic factors, economic status and farming characteristics on low adoption of improved maize varieties among farmers in Mahiyangana division. Mainly three types of predominant maize varieties such as Jet 999, Pacific 984 and C888 were cultivated by the maize farmers in the above division and thus choices of these varieties were taken as the dependent variable in the study. A multistage sampling technique was employed to select 25 respondents from each of the four villages in the Mahiyangana Division. The data related to maize varieties, demographic – economic status and farming characteristics were collected from the total sample of 100 maize farmers by using a farm household survey questionnaire during the period of December - May 2020. The collected data were analysed using frequency tests, multinomial probit model and its marginal effect in the study. Frequency analysis showed that 51% of the maize farmers adopted the Jet 999 variety followed by 29% and 20% of them growing the varieties, Pacific 984 and C888 respectively. The Multinomial probit analysis was employed to identify the impact of demographic, economic status and farming characteristics on the adoption of the above improved maize varieties among the maize farmers. Results revealed that, farming characteristics were mostly influenced on their adoption preferences than demographic and economic characters in the study. Family size and monthly income were the main demographic and economic characters, whereas types of labour and extension services are the key farming characters which determine the choices of maize varieties in the study.

**Keywords:** Adoption of improved maize varieties, Multinomial probit model, multistage sampling technique.