

Associated Risk Factors of Food Insecurity in Rural Households in Selected Districts of East Gojjam Zone, Northern Ethiopia: Partial Proportional Odds Model

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Abstract

Currently, food insecurity is a critical social issue that requires immediate attention for policy and decision makers. Food insecurity is a pressing social and public health issue that varies in degree and in its effect on individuals and social groups. This study was conducted to identify the risk factors of food insecurity in rural households of East Gojjam zone particularly in Shebel Berenta and Machakel district. In order to realize this objective demographic, socioeconomic, agricultural practice and environmentally related data were collected from 504 randomly selected rural households through cross sectional survey. The response variable for this study was food insecurity status of households which categorize as highly food secure, moderately food secure, low food secure, and severely food insecure determined by using an 18-item core food security module (CFSM) question series, which is the standard measure of food insecurity globally. The response variable has a natural ordering pattern and the degree of severity increases. Descriptive statistics and partial proportional odds model (PPOM) were employed to identify the risk factors of food insecurity in rural households. The result of this study showed that district, marital status, family size, education status, ecological zone, agricultural land size (hec.), slope of agricultural land, source lighting (electricity access), soil fertility, loan access, toilet access, irrigation practice and TLU had a statistically significant impact on the food insecurity status of households. Regardless of their expected importance average monthly income, use of improved seed and training from agricultural profession had no a significant impact on food insecurity of households. The empirical result suggests that further study should be conducted for identifying coping mechanisms for food insecurity in the study area that will be adopted for rural households.

Key words: East Gojjam Zone, Food insecurity, Partial Proportional Odds Model

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