Socioeconomic Determinants of Poverty Reduction among Irrigating Farmers in Mberengwa District, Zimbabwe

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Abstract

Sustainable Development Goal 1 aims to end extreme poverty everywhere by the year 2030. Smallholder irrigation development is arguably a vital strategy to reduce rural poverty. The authors assessed the socioeconomic determinants of poverty reduction in Mberengwa district, Zimbabwe. Data were collected from 444 randomly selected households. Data were analyzed using SPSS version 27 and Microsoft Excel 2019 software packages. Chi-square tests, t-tests, and Foster–Greer– Thorbecke (FGT) poverty index and binary logistic regression model tests were performed. The chi-square test results show an association between access to irrigation and farmer's level of education ($p < 0.01$). The t-test results show significant differences between irrigators and non-irrigators for household size ($p < 0.01$), household labor ($p < 0.05$), and rainfed plot size ($p < 0.05$). FGT indices show that the poverty incidence, depth, and severity were lesser for irrigators than non-irrigators. The binary logistic regression model results show that age, household size, access to irrigation and household income significantly influence household poverty status. In conclusion, access to irrigation reduces poverty in rural areas. However, access to irrigation is not a panacea for poverty reduction in rural areas. Smallholder irrigation development policies should consider socioeconomic determinants of poverty reduction to properly target and tailor interventions, and increase the relevance and effectiveness of poverty reduction efforts.