Tropentag, September 16-18, 2015, Berlin, Germany

"Management of land use systems for enhanced food security: conflicts, controversies and resolutions"

Actual and Potential Impacts of Improved Cassava Varieties in Sub-Saharan Africa

Shiferaw Feleke[1], Victor Manyong[2], Tahirou Abdoulaye[1], Arega Alene[3]

[1] *International Institute of Tropical Agriculture (IITA), Nigeria*
[2] *International Institute of Tropical Agriculture (IITA), Tanzania*
[3] *International Institute of Tropical Agriculture (IITA), Malawi*

Abstract

In its 2012–2020 strategy IITA is committed to contributing to lifting 11 million Africans out of poverty. In an attempt to measure progress towards this goal, the team of social scientists has chosen to analyse impact of a number of IITA's projects and programs. One of these case studies is presented here. The study assesses the actual and potential poverty impacts of the adoption of improved cassava varieties. Propensity score matching and endogenous switching regression model were applied to data on a sample of 2060 households that came from four major cassava producing countries, namely Tanzania, Democratic Republic of Congo, Sierra Leone and Zambia. Findings are consistent across the two estimation methods, revealing negative realised and potential impacts on poverty. It was established that a 1 % increase in per capita consumption expenditure due to adoption of improved cassava varieties has resulted in a 0.8 % poverty reduction among the current adopters compared to 1.25 % among potential adopters. This implies that if concerted efforts are made to enhance adoption of improved cassava varieties among the current non-adopters, the payoff in terms of poverty reduction would be even more than what had actually been realised among the current adopters. Potential adopters would also fare better than the actual adopters in terms of income shortfall or depth of poverty. A 1 % increase in per capita consumption expenditure due to adoption would reduce the depth of poverty by 1.31 % among potential adopters compared to 1.03 % among the current adopters. This implies that the minimum cost required to lift a potential adopter out of poverty is much smaller than what was needed to lift the actual adopter. While both actual and potential adopters face less inequality due to adoption, the impact of adoption in reducing severity of poverty was higher among the current adopters than would be case among the potential adopters. These findings imply that the cassava research programme had already benefited cassava growing population and would benefit potential adopters even more. Therefore, it is important to strengthen the extension services to enhance adoption by the current non-adopters for greater impacts of the improved cassava varieties.

Keywords: Impact, improved cassava, poverty, Sub-Saharan Africa

Contact Address: Shiferaw Feleke, International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria, e-mail: S.Feleke@cgiar.org