

Abstract

Productivity gaps among groundnut farmers in Kenya and Uganda: A stochastic production frontier analysis

Asekenye Cresenia, Bravo-Ureta Boris E., Deom Mike, Kidula Nelson, Okello David Kalule, Okoko, Nasambu, and, Puppala, Naveen

Productivity gaps for 321 groundnut farmers from Uganda and Kenya were analysed using data from the 2009 growing seasons. Farmers who planted improved varieties enjoyed output advantages of 143% in Uganda and 58.6% in Kenya over those who planted only local varieties. Farmers had a mean technical efficiency of 54.6% in Uganda and 54.4% in Kenya. No significant differences were found in the mean technical efficiencies of research and non-research farmers, and between male and female-managed plots. Productivity therefore could be enhanced if high-efficiency households invest more in improved varieties and if low-efficiency households make better use of their existing technology. Continued development of improved varieties will further shift the production frontier outward. The apparent spill-over effect of the technical support received by research and non-research farmers suggests that farmer education has a multiplier effect. An improvement in extension service delivery could help to enhance the managerial skills of both farmer categories.

Keywords: stochastic production frontiers, productivity gaps, groundnut,; Kenya, Uganda