ABSTRACT

Whereas maize is a primary staple food in Kenya, production volumes have not kept pace with local demand and consumption over time. This has constrained the achievement of the Kenyan government's stated objective of food access, diversity, and nutritional status. Using secondary data from FAOSTAT from 1963 to 2016 and applying the error correction version of the autoregressive distributed lag model, we estimate Kenya's maize subsector's price supply and demand responsiveness. We find that maize supply responds significantly to producer price, the area under maize cultivation, and fertilizer use both in the short and long run. However, the supply elasticity of maize with respect to producer price is inelastic, suggesting that maize supply does not respond well to price incentives. On the demand side, we find that maize demand significantly responds to the production and price of substitutes both in the short and long run. The findings suggest that support price is a necessary but not sufficient condition for improving maize productivity, food security, and income for maize consumers and producers. Therefore, there is a need for enhanced efficient and effective use of the land resource through productivity-enhancing inputs, considering that land expansion is a limited option.

Keywords:

- Supply response
- demand response
- cointegration
- autoregressive distributed lag approach
- price
- maize productivity

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