World Academy of Science, Engineering and Technology
International Journal of Agricultural and Biosystems Engineering
Vol:8, No:3, 2014

Using the Nerlovian Adjustment Model to Assess the Response of Farmers to Price and Other Related Factors: Evidence from Sierra Leone Rice Cultivation

Authors : Alhaji M. H. Conteh, Xiangbin Yan, Alfred V. Gborie

Abstract : The goal of this study was to increase the awareness of the description and assessments of rice acreage response and to offer mechanisms for agricultural policy scrutiny. The Ordinary Least Square (OLS) technique was utilized to determine the coefficients of acreage response models for the rice varieties. The magnitudes of the coefficients (λ) of both the ROK lagged and NERICA lagged acreages were found positive and highly significant, which indicates that farmers' adjustment rate was very low. Regarding lagged actual price for both the ROK and NERICE rice varieties, the short-run price elasticities were lower than long-run, which is suggesting a long-term adjustment of the acreage, is under the crop. However, the apparent recommendations for policy transformation are to open farm gate prices and to decrease government's involvement in agricultural sector especially in the acquisition of agricultural inputs. Impending research have to be centred on how this might be better realized. Necessary conditions should be made available to the private sector by means of minimizing price volatility. In accordance with structural reforms, it is necessary to convey output prices to farmers with minimum distortion. There is a need to eradicate price subsidies and control, which generate distortion in the market in addition to huge financial costs.

Keywords : acreage response, rate of adjustment, rice varieties, Sierra Leone
Conference Title : ICABES 2014 : International Conference on Agricultural, Biological and Ecosystems Sciences
Conference Location : Miami, USA
Conference Dates : March 10-11, 2014

Open Science Index, Agricultural and Biosystems Engineering Vol:8, No:3, 2014 waset.org/abstracts/1930