

Distributional impact of agricultural technology adoption on rice farmers' expenditure: Case of Nerica in Benin

Didier ALIA*

Graduate Student, d.alia@uky.edu
Department of Agricultural Economics
University of Kentucky, Lexington, Kentucky

Aliou DIAGNE

Africa Rice Center, Cotonou, Benin, a.diagne@cgiar.org

In this paper, we examine the link with agricultural technology adoption, inequality and poverty reduction by assessing the distributional impact of NERICA, a high rice yielding variety developed by AfricaRice center, on rice farmer expenditure in BENIN. Using data collected in 2010 within NERICA dissemination project funded by the African Development Bank, we use instrumental base methods to estimate conditional endogenous quantile treatment effect of NERICA adoption on household total expenditure and daily per capita expenditure. The results suggest that NERICA adoption impact, in absolute values, is higher as much as farmers are in high tail of expenditure distribution but no significant evidence for the 90% quantile. However the proportional effect is high in the lower at the lower tail and less important in the middle distribution. These suggest that promoting such technology would not only raise farmer income and then reduce poverty, but will also contribute to income inequality reduction.

Key Words: QTE, NERICA adoption, impact, Expenditure, Benin