



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

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

Intensity of Technology Adoption and its Determinants in the Gambia: The Case of New Rice for Africa (NERICA)

EDWIN REYES, LAMIN DIBBA, KHALID SIDDIG

University of Hohenheim, Agricultural Economics, Germany

Abstract

The New Rice for Africa (NERICA) varieties have been disseminated in all the rice production regions of The Gambia. However, a review of the available literature on the adoption rate of such varieties shows no studies assessing their adoption intensity in The Gambia. Hence, this study focuses on bridging such a gap by estimating the adoption intensity of NERICA and its determinants in The Gambia based on a country-wide panel data from 515 randomly selected rice farming households. Tobit regression model is used to identify the factors influencing adoption intensity. The results of our analysis show that 41 % of the total rice area in the country is under NERICA cultivation. The findings on factors influencing adoption intensity suggest that farmer's residence in villages which have been part of initial dissemination of NERICA varieties, contact with the National Agricultural Research Institute, practice of upland rice farming, household size, and access to credit in kind impact positively the farmers' allocation of land to NERICA varieties. On the contrary, being female decreases the likelihood of allocating land to NERICA. Based on these findings, this study recommends that decision makers should focus on improving farmers' access to NERICA seeds via further involvement of local agricultural institutions. This makes use of the closeness of such institutions to farmers in rice growing villages and can further allow identifying key local farmers, who can be labelled as certified NERICA seed producers. This will go a long way in assisting the country to be self-sufficient in rice production.

Keywords: Adoption determinants, adoption intensity, NERICA, Rice, The Gambia