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“Solidarity in a competing world —
fair use of resources”

Exploring Gender Differential in Adoption of Sustainable Intensification Practices in Northern Ghana

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Abstract

Women contribute greatly towards most farming activities and family food security in Africa. Nevertheless, they are faced with many challenges such as lack of institutional support (*e.g.* extension services), lack of access to credit, lack of access to land, lack of education, and multiple family burden including domestic chores. Moreover, studies show that women have lower access to inputs and improved technologies which have placed them in a lower position as compared to men in terms of productivity and income. Therefore, improving women’s livelihood requires a clear understanding of the situation of women in terms of these challenges and their potential to use existing opportunities. This study aims to explore gender differential in adoption of sustainable intensification practices thereby explaining income differential. We use the data collected for the purpose of monitoring adoption of sustainable intensification practices promoted by a research for development project known as “Africa Research in Sustainable Intensification for the Next Generation” (Africa RISING) in northern Ghana. Data were collected on application inputs and improved technologies, farming practices and output, socioeconomic characteristics, land and output allocation, and access to market and institutional services. We compare and contrast the adoption of sustainable intensification practices such as soil fertility management, cropping system diversification, and improved seeds between male and female plot managers and its effect on maize yields and income. A multinomial endogenous treatment effects model is used to explain adoption of SIPs, while Ordinary Least Square (OLS) and Instrumental Variable (IV) approaches are used to determine the impact of SIPs on maize yields and net income. Understanding plot level adoption decision pattern between men and women opens up new understanding about gender-technology gaps and offers an opportunity to both researchers and policy makers to identify key challenges associated with adoption of SIPs. This helps to develop specific extension strategies targeted to specific needs of both male and female farmers instead of just recommendation a single package for them.

Keywords: Gender, Ghana, multinomial endogenous treatment effects model, sustainable intensification practices