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Smallholder Farmers’ Perspective on Sustainable Agriculture Intensification in the Guinea Savannah Agro-Ecological Zone of Ghana

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Abstract

Sustainable agriculture intensification (SAI) has emerged as an important concept worth considering while attempting to achieve food security with minimal environmental impact. Several studies have focused on the conceptualisation, and developing indicators and drivers of SAI. However, the perspective of impoverished Sub-Saharan Africa smallholder farmers on SAI has not been considered. Therefore, this study was conducted within the Guinea Savannah Agro-Ecological Zone of Ghana and aimed at assessing smallholder farmers’ perspectives on sustainable agriculture intensification. Within the study area, 698 smallholder farmers were interviewed from 25 communities. The data gathered was analysed using exploratory factor analysis, Kendall coefficient and logistic regression. The results showed that there is a high internal consistency of the Likert scale used in assessing SAI. However, it was identified that the respondents are practising a weak SAI because the environmental dimension was less prioritised. In addition, variables such as community, marital status, religion, level of education, income, household size and farm size were identified as significant (between 90% to 99% confidence level) predictors of SAI. In order of importance, the study found that drivers such as inadequate capital, low soil nutrients, farm size, limited access to modern farming technologies, and population growth hinder SAI. To enhance SAI, smallholder farmers need to be encouraged and supported to protect the environment. Together with non-governmental organisations dedicated to SAI, Ministry for Food and Agriculture and other stakeholders such as the Environmental Protection Agency (EPA) could strengthen efforts to educate smallholder farmers on the importance of SAI and its contribution to the broad SDGs.

Keywords: Ghana, Guinea savannah, smallholder farmers, sustainable agriculture intensification