



Tropentag, September 9-11, 2020, virtual conference

“Food and nutrition security and its resilience  
to global crises”

## Livelihood Strategies and the Role of Baobab (*Adansonia digitata* L.) Fruits in Poverty Alleviation in the Dry Lands of Sudan

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### Abstract

This study aims to (i) assess the contribution of baobab fruits to rural income and poverty alleviation; (ii) analyse the livelihood strategies pursued by rural households, and (iii) identify the factors that influenced households' choice of livelihood strategies in rural Sudan. Data from 374 households surveyed in West Kordofan, North Kordofan, and Blue Nile was collected in 2017 and 2018. We employed a class cluster analysis to determine the optimal number of livelihood clusters and assigned individual households to particular clusters. Regression models were used to examine the factors influencing the livelihood strategy choices. The results showed that baobab fruits contribute from 7% to 18.5% of the total annual household income in the study areas. This additional income from baobab fruits contributes to the reduction of both the poverty headcount index and income inequality in the study area. The results also revealed a high diversity index through the livelihood strategies in the study areas. This study provides evidence that households' asset endowments and contextual factors have an important influence on the choice of household livelihood strategy. The results of regression indicated that the gender of the household head, primary and secondary level of education, tropical livestock units, and land size were positively significantly associated with the selection of the livelihood strategies. However, age of household head, household size, and distance to market were negatively correlated with the livelihood strategies selection. This study concluded that baobab fruit play an important role in supporting livelihoods, and therefore provide an important strategy against income inequality and promoting poverty reduction for households. This study highly recommends that policies should focus on enhancing the productivity of agricultural land plots owned by households rather than increasing households' access to common property resources. In addition, effective pro-poor policies should be targeted towards assisting the poor to shift to higher-return activities, such as wage employment and non-farm (business) by investing in education and improving the road infrastructure in rural areas.

**Keywords:** Diversification, environmental income, livelihood assets, poverty alleviation, Sudan