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NON-FARM WORK, INCOME, AND FOOD SECURITY AMONG FARMING HOUSEHOLDS IN NIGERIA

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Non-farm Work, Income, and Food Security among Farming Households in Nigeria

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Introduction

Poverty is the leading cause of food insecurity in sub-Saharan Africa. In Nigeria, poverty is especially widespread in rural areas - 80% of the rural population survive on less than US\$1.90 per day and 49.4% are food insecure (Adepoju & Adejare, 2013).

Eradication of extreme hunger and poverty is one of Nigeria's Millennium Development Goals. In light of achieving this goal, a number of solutions have been proposed including participation in non-farm income generating activities. Income generating activities are broadly categorized into three: agriculture, wage employment, and non-farm enterprise.

The objective of this study was to examine the effect of participation in non-farm enterprises on household income and food security status of farming households in Nigeria.

Methods

We analyzed the effect of participation in non-farm enterprises on the following variables of interest: monthly household income, food insecurity, and weekly food expenditures using the correlated random effects approach (Wooldridge, 2018).

We estimated linear and non-linear effects models for each variable of interest. The linear effects model was estimated by regressing the dependent variable on the explanatory variables without any transformation. The non-linear effects model was estimated by transforming any continuous variables into natural logs before estimation.

Model

The general specification of the model is as follows:

$$y_{it} = e_{it}\delta + x_{it}\beta + z_i\gamma + c_i + \mu_{it}, \quad t = 1, \dots, 4$$

where i denotes a household, $t = 1, 2, 3, 4$ corresponds to each household visit during the survey period, y_{it} corresponds to our three outcomes of interest - household income, food insecurity, and food expenditure, e_{it} represents participation in non-farm enterprise, x_{it} is a vector of observed covariates, c_i represents the fixed effects, and the variables in z_i includes a constant and other time-constant variables.

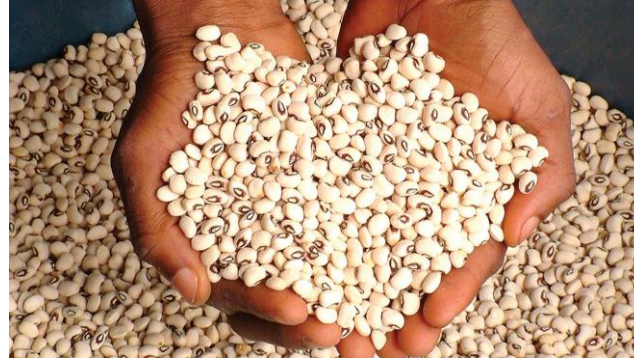


Figure 1. A handful of cowpea (beans), a very rich source of protein and calories commonly consumed by Nigerian households (top). A female entrepreneur weaving cloth for sale (bottom).

Data

We used panel data obtained from the Nigeria General Household Survey Panel (NBS, 2016). The data is for the years 2010/11, 2012/13, and 2014/15. The survey contains information on household's income generating activities and its role on household welfare over time. The final sample used in this study was 3,013 households.

Results

Our results indicate that:

- Approximately 37% of households in the sample participated in a non-farm enterprise.
- The most common income generating activity is retail trade (51.49%).
- Households mostly operated an income generating activity inside the household's residence.
- Participation in a non-farm enterprise increased household monthly income by ₦68,707(US\$190.97) on average.
- Households participating in a non-farm enterprise were 3.9% less likely to be food insecure.
- As a result of the additional income earned from participating in a non-farm enterprise, household weekly food expenditures increased by ₦391(US\$1.09).

This study suggests that participation in a non-farm enterprise increases household income and improves household food security status.

We conclude that participation in non-farm work could be a pathway out of poverty for the rural poor and serve to improve household food security status.

Policy implications

Education is important to improving household income and food security. Government efforts should be geared towards making education more affordable for households through various educational loans, scholarships, work-study programs, and grants.

Furthermore, regulations that support the growth of small and medium-sized enterprises should be encouraged.

Future directions

We would like to investigate how participation in non-farm wage employment affects household income and food security.

Key references

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