

Assessment of Diversification Strategies on Level of Living Among Soybean Farmers in Kaduna State, Nigeria



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Introduction:

- The 2022 UN report revealed setbacks due to the convergence of COVID-19, climate change, and conflicts, with 7.7% suffering from undernourishment.
- Rural areas in the global south, including Nigeria, continue to face poverty and food insecurity, with rural farmers experiencing challenges like limited resources, vulnerability to environmental factors, and gender inequality.
- Sustainable agricultural practices are explored, with soybean farming playing a crucial role.
- Nigeria's reliance on agriculture for subsistence and income generation has led to challenges, such as low soybean yields and limited diversification opportunities.

Research questions:

- What proportion of livelihood diversification is allocated to on-farm, off-farm, and non-farm income?
- What are the strategies employed by farming households to diversify their livelihoods? and
- What socioeconomic factors influence the diversification strategies adopted by farming households?

Methodology:

A multi-stage sampling approach was employed, selecting 20 villages from four communities in each LGA. A total of 336 farmers were sampled from a registered soybean farmers cooperative, representing 16% of the population. Livelihood Diversification Index (SID) was used to measure farmers' diversification. The study used a Multinomial Logit model to analyze socioeconomic factors influencing diversification strategies among agricultural households, represented by an explicit equation ($Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n + \epsilon_i$).

Result:

Distribution of respondents based on cropping patterns

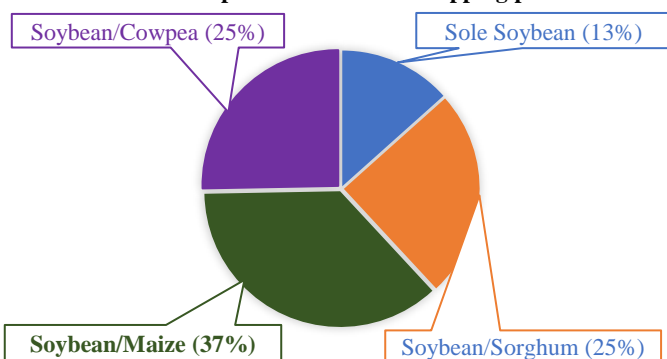


Fig. 2: Female Farmer in her soybean/Maize farm, Kaduna, Nigeria



Fig. 3: Farmer standing in his soybean/Sorghum farm, Kaduna, Nigeria

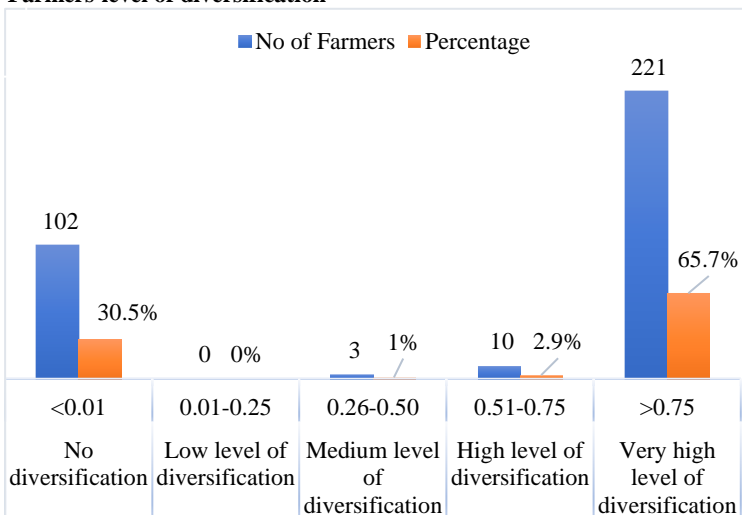
Table 7. Multinomial Logit Results for Factors Influencing Income Diversification

Variable	S	SA	SN	SAN
	Marginal effect	Marginal effect	Marginal effect	Marginal effect
Sex	-0.883**	-1.126**	0.978*	-1.454*
Marital Status	0.631**	0.522	0.678	-0.389
Education	-0.205	0.433**	0.406**	0.634*
Age	0.009	-0.014	0.008	0.065**
Household size	-0.006	-0.028	0.220***	-0.005
Farming experience	0	0.044**	0.040**	-0.017
Cooperative	-0.023	-0.047*	-0.111***	-0.07
Credit	-7.11E-07	3.24E-06	-8.96E-06*	-3.25E-07
Constant	0.599	1.892	-1.412	-0.546
No. of observations	336			
Pseudo likelihood	-181.241			
Wald chi2(348)	156.912			
Log Prob > chi ²	0			
Pseudo R ²	0.48			

Keys:

- S: Soybean income only
- SA: Soybean and other agricultural incomes
- SN: Soybean and non- agricultural incomes
- SAN: Soybean, other agricultural & non- agricultural incomes

Farmers level of diversification



Conclusion:

Government policy needs to focus on access to arable land and extension support targeted at rural households to promote diversification to on-farm activities. Since the production of soybean and its diversification is skewed towards male folk, paying attention to the creation of gender-sensitive opportunities and removal of gender bias and discrimination within communities to allow female households to diversify their income