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Effects of Insecurity on Rural Household Livelihoods in Kwara State, Nigeria

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Abstract

This study assessed the effects of insecurity on rural household livelihood security in Kwara State, Nigeria. A multistage sampling procedure was used to select 150 respondents from rural communities. Data were collected through a structured questionnaire and analysed using percentages, Livelihood Security Index (LSI), and ordinary least squares regression. Kidnapping and abduction (36.62%) and killing of persons (23.34%) were the most prevalent forms of insecurity experienced by rural households. Among the livelihood outcomes assessed, the composite Livelihood Security Index showed moderate livelihood security, with Patigi Local Government Area recording the highest value (0.46) and Kaiama the lowest (0.39). Regression results showed livelihood security was negatively influenced by age (β = -0.002), household size (β = -0.009), and insecurity exposure (β = -0.041), while education (β = 0.015), farming experience (β = 0.023), monthly income (β = 0.003), and membership of associations (β = 0.025) had positive effects. Households adopted livelihood diversification, temporary migration, and informal support networks as coping strategies. Despite these activities, insecurity continues to undermine livelihood security and increase household vulnerability. The study recommends strengthened rural security measures and improved institutional support to stabilize rural livelihoods.

Keywords: *Insecurity, livelihood security status,*

Introduction

Nigeria is endowed with vast agricultural resources and remains largely agrarian, with a significant proportion of its population residing in rural areas where farming and related activities constitute the main source of livelihood (Adeagbo & Adeyemo, 2024). Agriculture plays a central role in employment generation, income creation, and food supply, making rural households indispensable to national food security and economic stability. Despite this importance, rural development in Nigeria has increasingly been constrained by rising insecurity across different parts of the country (Oduehie, et al., 2023)

In recent years, insecurity has emerged as one of the most pressing challenges affecting many parts of Nigeria, particularly rural areas (Emmanuel, 2025). The proliferation of violent conflicts and criminal activities has disrupted agricultural production systems, weakened rural economies, and threatened the survival of

households whose livelihoods depend heavily on farming (Shemyakina, 2022). Rural communities, traditionally responsible for food production, are now increasingly exposed to violence and instability, thereby undermining both agricultural output and livelihood sustainability.

The major forms of insecurity affecting rural Nigeria include banditry, farmer–herder conflicts, kidnapping, and forced displacement. Banditry involves organized armed groups that engage in cattle rustling, destruction of farmlands, kidnapping, and organised violent attacks on rural settlements (Thaddaeus & Albert, 2025). Farmer–herder conflicts are largely driven by competition over land and water resources, often resulting in crop destruction, livestock losses, and strained relations between farming and pastoral communities. Kidnapping has also intensified, particularly in rural areas with weak security presence, where farmers and rural dwellers are increasingly targeted for ransom. Collectively, these forms of insecurity have created an atmosphere of fear and uncertainty that discourages agricultural activities and reduces rural productivity.

The spread of insecurity has become more pronounced across Nigeria, including the North Central zone, where Kwara State is located. Empirical evidence indicates a rising trend in violent incidents and fatalities linked to non-state armed groups (European Union Agency for Asylum, 2024). In Kwara State, reported incidents increased significantly from 8 in 2019 to 84 in 2021, with fatalities rising from 5 to 45 within the same period (Armed Conflict Location and Event Data Project .2025). Although a slight decline was observed in subsequent years, insecurity remains persistently high, indicating a sustained threat to rural livelihoods and agricultural activities.

In this context, Livelihood can be described as the various ways through which individuals and households obtain the resources required for survival and daily living. It involves the use of available assets, skills, knowledge, and income-generating activities to meet essential needs such as food, shelter, clothing, water, and financial security (Olutegbe, 2021). Livelihood also reflects the range of social and economic efforts undertaken by households to maintain and improve their standard of living over time. The nature of livelihoods varies considerably between rural and urban areas due to differences in resource availability, infrastructure, and employment opportunities. These assets include land, labour, livestock, natural resources, and access to income-generating opportunities. In rural settings, agriculture remains the dominant livelihood activity, making household well-being highly dependent on farm productivity and related enterprises. Livelihood security, therefore, goes beyond the existence of livelihood activities to emphasise stability, reliability, and adequacy of access to resources over time. It depicts households' ability to consistently meet their basic needs while withstanding shocks and stresses, and is considered sustainable when it can maintain or enhance its asset base without undermining long-term productivity.

According to Natarajan et al., (2022), sustainable livelihoods comprise the capabilities, assets, and activities required for a means of living that can withstand and recover from shocks. However, insecurity undermines these livelihood systems by disrupting production, reducing income, and weakening household resilience. As a result, rural households become increasingly vulnerable to poverty, food insecurity, and unstable livelihoods. In Kwara State in particular, rising insecurity has led to farm abandonment, reduced agricultural output, loss of assets, and restricted access to

farmland. These challenges extend beyond agriculture to non-farm activities such as petty trading and livestock production, thereby limiting income diversification and worsening household welfare. Consequently, rural households face declining income, food insecurity, and reduced capacity to cope with shocks, creating a cycle of vulnerability and poverty.

However, while studies across some Nigerian states such as Borno, Kaduna, Zamfara, Niger, and Benue have examined insecurity and its implications for agricultural and rural livelihoods (Agyo & Wake, 2025; Saad, 2024; Kantiyok et al., 2022), little is known about its specific impact on rural household livelihood security in Kwara State. The absence of sufficient empirical evidence at the household level limits a clear understanding of how insecurity affects livelihood stability, income security, and coping capacity in the study area. This study therefore examines the effects of insecurity on the livelihood security of rural households in Kwara State, Nigeria. Specifically, it identified the types of insecurity experienced by rural households, determined their livelihood security status, analysed the effects of insecurity on livelihood outcomes, and determined the coping strategies adopted by households in response to insecurity. By filling this gap, the study provides empirical evidence on the nature and extent of livelihood disruptions caused by insecurity and contributes to a better understanding of household vulnerability in rural agrarian settings. The findings are expected to guide policy interventions aimed at strengthening rural resilience, improving livelihood stability, and enhancing food and income security among affected households.

Methodology

The study was conducted in Kwara State. The state spans a geographical area of about 36,835 square kilometres and lies between latitudes 8°30′N and 10°08′N, and longitudes 5°00′E and 6°12′E. Ecologically, the state falls within a transitional vegetation belt between the forest and savannah zones. The northern areas are largely characterized by derived guinea savannah, while the southern parts exhibit features of the rainforest zone. The climate is typically tropical, marked by distinct wet and dry seasons

A multistage sampling procedure was employed to select respondents. In the first stage, Kwara North Senatorial District was purposively selected due to the high prevalence of insecurity in the area. In the second stage, three local government areas (Kaiama, Edu, and Patigi) were selected from the zone based on the intensity of insecurity. In the third stage, two rural communities were purposively selected from each of the selected LGAs based on insecurity incidents, resulting in a total of six communities. In the final stage, twenty-five (25) households were selected from each community using simple random sampling techniques, giving a total sample size of 150 households. However, 142 questionnaires were properly completed and returned, due to non-response and incomplete entries.

Primary data were collected using structured questionnaires administered to rural households in the study area. The information collected covered respondents' socioeconomic characteristics, experiences of insecurity, livelihood activities, and coping strategies.

Data collected for the study were analysed using frequencies, percentages, means, and standard deviations to summarise the socioeconomic characteristics of

respondents, livelihood activities, and types of insecurity experienced in the study area.

Rural household livelihood security was proxied by a constructed Livelihood Security Index (LSI), adapted from Mishra et al. (2024). The LSI captures the multidimensional nature of household welfare by incorporating five key dimensions: education security, economic security, food security, health security, and empowerment security. Education security was assessed based on respondents' level of education, access to educational facilities, and affordability of schooling. Economic security was measured using indicators relating to household income, ownership of productive assets, and access to savings or credit facilities. Food security measured households' ability to meet their food requirements. Health security was assessed based on access to healthcare services and affordability of healthcare. Empowerment security captured households' participation in planning and decision making processes, social participation, and access to support systems.

The computation of the Livelihood Security Index involved four stages. First, the selected indicators were standardised using the min-max normalisation technique to place all variables on a common scale. Second, the standardised indicators within each livelihood security dimension were aggregated using the arithmetic mean to obtain the respective dimension-specific sub-indices. Third, the composite LSI for each household was computed as the arithmetic mean of the five dimension sub-indices, where values closer to 0 indicate lower livelihood security and values closer to 1 indicate higher livelihood security. Finally, households were classified into low (0.00 to 0.33), moderate (0.34 to 0.66), and high (0.67 to 1.00) livelihood security categories based on their composite LSI scores. Household-level indices were subsequently averaged to obtain the local government area livelihood security indices reported in the study. The standardisation and aggregation procedures employed in the computation of the LSI are expressed as follows:

$$Z_{indj} = \frac{Xij - Xminj}{Xmaxj - Xminj} \quad \ldots\ldots\ldots\

D_i = livelihood security dimension specific sub-index.

Ordinary Least Squares (OLS) regression analysis was employed to analyze the effects of insecurity on rural household livelihood security. The explicit functional form of the model is specified as;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_{10} X_{10} + \mu \ldots\ldots\ldots\

Livelihood Security Status of Rural Households

The results in Table 1 show variation in livelihood security across the study areas. Patigi recorded the highest education (0.46), economic (0.43), and health (0.51) security indices, indicating relatively better human capital, income stability, and access to health services. Kaiama recorded the lowest values in education (0.30), economic (0.33), and overall livelihood security (0.39), suggesting greater vulnerability due to weaker access to resources and livelihood constraints. For food security, Edu recorded the highest index (0.44), while Kaiama recorded the lowest (0.39), indicating differences in household access to food and dietary diversity. In terms of empowerment security, Kaiama recorded the highest value (0.50), suggesting stronger social participation and support networks, while Edu recorded the lowest (0.46). At the composite level, the Livelihood Security Index shows that Patigi recorded the highest livelihood security (0.46), followed by Edu (0.43), while Kaiama recorded the lowest (0.39). This indicates generally moderate livelihood security across the study area, with noticeable differences among the local government areas, likely due to variations in access to livelihood resources and the effects of insecurity related disruptions.

Table 1: Livelihood security status of the respondents

Livelihood indicators	Kaiama	Edu	Patigi
Education security	0.30	0.42	0.46
Economic security	0.33	0.36	0.43
Food security	0.39	0.44	0.40
Health security	0.42	0.49	0.51
Empowerment security	0.50	0.46	0.48
Overall livelihood security	**0.39**	**0.43**	**0.46**

Source: Field Survey, 2025

Effects of Insecurity on Rural Household Livelihood

Table 2 shows the determinants of rural household livelihood security. The coefficient of determination (R^2) of 0.68 indicates that about 68% of the variation in livelihood security is explained by the explanatory variables, with the remaining 32% attributable to factors outside the model. The F-statistic value of 18.45 confirms that the model is statistically significant and provides a good fit. At the 5% significance level, education, household size, monthly income, and exposure to insecurity significantly influenced rural households' livelihood security. Education had a positive and significant effect ($\beta = 0.015$), suggesting that higher educational attainment facilitates the adoption of improved livelihood strategies and increases households' capacity to cope with insecurity-related challenges (Oruonye et al., 2024). Household size had a negative and significant effect ($\beta = -0.009$), implying that larger households face higher dependency pressure, which weakens livelihood stability under insecure conditions. Monthly income had a positive and significant effect ($\beta = 0.003$), indicating that higher income improves households' capacity to meet basic needs and withstand insecurity-related shocks. Insecurity exposure had a negative

and significant effect (β = -0.041), indicating that increased insecurity significantly reduces livelihood security by disrupting farming activities, limiting access to markets, and reducing income opportunities. At 10% significance level, age, farming experience, and membership of association also showed weaker but notable effects on livelihood security. Age had a negative effect (β = -0.002), indicating that livelihood security tends to decline with increasing age, possibly due to reduced labour capacity and productivity. Farming experience had a positive effect (β = 0.023), suggesting that more experienced farmers are somewhat better able to manage risks and adapt to livelihood shocks, corroborating findings that experienced farmers manage risks through improved planting decisions and crop diversification (Bamigboye et al., 2026). Membership of association had a positive effect (β = 0.025), suggesting that social networks may enhance access to support, information, and coping mechanisms that improve household resilience (Wegmann et al., 2023).

Table 2: Effect of insecurity on rural household livelihoods

Variable	Coefficient	S.E	t-value
Constant	0.412	0.085	4.85
Age	-0.002	0.001	-1.80*
Gender	0.026	0.018	1.11
Education	0.015	0.005	3.00***
Household size	-0.009	0.004	-2.25**
Farming experience	0.023	0.008	1.95*
Monthly income	0.003	0.001	3.20***
Farm size	0.018	0.057	1.47
Insecurity exposure	-0.041	0.033	-4.10***
Extension access	0.029	0.018	1.61
Membership of association	0.025	0.015	1.67*
Access to credit	0.012	0.010	1.20
Distance to farm	-0.007	0.006	-1.17

R^2 = 0.68 F-statistic = 18.45***
Significance levels:
*P≤ 5%

Source: Field Survey, 2025

Coping Strategies Adopted by the Respondents

Table 3 presents the coping strategies adopted by rural households in response to insecurity in the study area. Land abandonment emerged as the most commonly adopted strategy, reported by 54.93% of the respondents. This implies that a percentage of households withdraw from farming activities due to fear of attacks or threats to life (Amare, et al., 2025). Reduction in household consumption was the second most prevalent strategy adopted by 45.77% of respondents. This implies that households adjust to declining income and limited access to food by reducing meal size, frequency, or overall consumption expenditure. This is in line with the study of Bernaschi et al. (2023), which found that economic hardship often compels households to reduce food expenditure, thereby affecting both the quantity and quality of food consumed. Diversification into non-farm activities, reported by 38.03% of respondents, indicates an attempt by households to reduce dependence on agriculture by engaging in alternative income-generating activities such as petty

trading and wage labour. This strategy suggests a shift towards income diversification as a means of mitigating the risks associated with farming under insecure conditions (Olajide & Ogundele, 2022). Temporary relocation was adopted by 33.10% of the respondents, showing that a considerable number of households are forced to relocate to safer areas to protect their lives. Utilization of local vigilante groups was reported by 28.17% of respondents, indicating reliance on community based security arrangements to safeguard lives and property.

Table 3: Coping strategies adopted

Strategy	Percentage (%)
Land abandonment	54.93
Temporary relocation	33.10
Diversification into non-farm activities	38.03
Reduction in Household Consumption	45.77
Utilization of local vigilante groups	28.17

Source: Field Survey, 2025
Multiple responses included

Conclusion and Recommendations

Insecurity constitutes a major constraint to rural livelihood security and the rural development in the study area, thereby increasing household vulnerability and altering livelihood outcomes. Government and security agencies should strengthen security presence in rural areas, particularly in high risk areas, to reduce cases of kidnapping, banditry, and violent attacks.

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