

Addressing Food Insecurity in Nigeria: A Practical Guide to Disbursing Government Cash Transfers and Food Aid to Vulnerable Citizens

Bamidele N. Faniyi

Project Solutions Academic and Research Centre, Ibadan, Oyo State, Nigeria

Wasiu Adekunle

Department of Economics, University of Ibadan, Oyo State, Nigeria



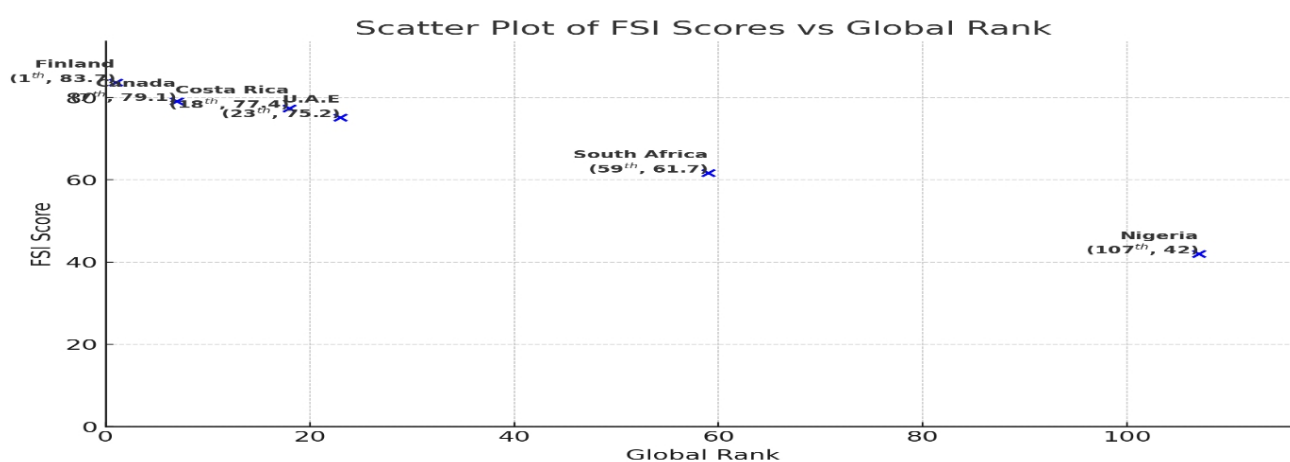
Abstract

Due to many Nigerians' deteriorating food security status, this study provides a practical guide to assist the government in identifying highly food-insecure households across the country. Using Maxwell and Caldwell's coping strategies index approach, this study found that food insecurity is more concentrated in rural areas than in urban areas. It was also found that the coping strategies employed by households in both communities include eating less preferred food, limiting meal consumption and buying food on credit. Based on the findings, the study proposes an effective and accountable approach for targeting highly food-insecure households across Nigeria's 774 local government areas.

Introduction

Food insecurity is a big challenge that has plagued Nigeria for years and a significant impediment to its achievement of the United Nations' Sustainable Development Goals (UNSDGs) 1 and 2. The Food and Agriculture Organisation (FAO, 2015) defined food insecurity as a situation whereby people lack nutritious food intake for vitality and supplements against starvation. Food insecurity compels households to adopt a range of dangerous and severe coping strategies, which may negatively impact their well-being (Maxwell & Caldwell, 2008; Sassi, 2021). Climate change, the COVID-19 pandemic, regional conflicts and poor government policy drive the incidence of food insecurity in Nigeria (FAO, 2024; Mukhtar, 2019).

Figure 1: Comparative FSI ranking of Nigeria and regional top countries in food security, 2022[†]



[†]Note: Top regional FSI countries according to The Economist's 2022 data include Finland (Europe), Canada (North America), Costa Rica (Latin America), South Africa (Sub-Saharan Africa), U. A. E (Middle East & North Africa), and Japan (Asia & Pacific).

Source: Data from The Economist (2022)

Nigeria's Food Security Index (FSI) performance, relative to that of other countries across various world regions, is alarming (**Figure 1**). In 2022, Nigeria ranked the 6th most food-insecure country in the world along with Burkina Faso and Madagascar (5th), Sierra Leone (4th), Yemen (3rd), Haiti (2nd), and Syria (1st) [The Economist, 2022]. Nigeria's food security ranking took a turn for the worse globally in 2024, moving up to the second position behind the Democratic Republic of the Congo (FAO, 2024). Regional conflicts and insecurity, including farmer-herder conflicts, kidnapping, Boko Haram insurgency, and banditry, have led to mass displacement of rural farmers (Azad & Kaila, 2018). This displacement has resulted in low agricultural output, food shortages, food inflation and, consequently, food insecurity in Nigeria (FEWS NET, 2024; Dooshima et al., 2023).

Studies (Azad & Kaila, 2018; FEWS NET, 2024) have shown that states in northern Nigeria fare worse in food insecurity compared to those in the southern part of the country - with a higher share of households who cannot afford a healthy diet concentrated more in the north than in the south. For 2022, FAO (2024) estimated US\$3.83 as the cost of a healthy diet per person per day in Nigeria. By the end of that year, 172 million Nigerian citizens were unable to afford a healthy diet (FAO, 2024). The government would have been required to spend approximately \$659 million to provide for these individuals.

Following the hardship caused by food insecurity in Nigeria and the government's unsuccessful attempts to identify and support its food-insecure citizens, the country has experienced protests on numerous occasions. This includes the August 2024 10-day nationwide hunger protest (THISDAY, 2024). The government faces several challenges, including the inability to identify deserving food-insecure citizens due to insufficient data on vulnerable households. Additionally, the government struggles with ineffective means of reaching food-insecure citizens and ensuring accountability in support programmes.

If not addressed, food insecurity can put the country's human capital at risk while denying millions of citizens' access to education and other capital investments that make living worthwhile, particularly as food inflation continues to take a toll on households' income (NBS, 2024). According to Brinkman et al. (2010), the persistence of food insecurity implies that it will be challenging for poorer households to afford healthy diets without severely cutting back on investments in education and health. This, in turn, can further exacerbate poverty among this household group.

This study serves as a pilot scheme for identifying food-insecure households in Nigeria. The outcome of this research will assist the government in profiling vulnerable families deserving of palliative programmes, such as cash transfers and food aid, as a short-term solution to address food insecurity and hunger in the country. The study also proposes an effective and accountable approach to implementing aid and support programmes for food-insecure citizens, which can be replicated in all the states in Nigeria.

Methodology and Data

The study was conducted in two local government areas in Ibadan, Oyo state, Nigeria. The two local government areas included Ibadan North-West and Ido local government areas. The sample selected from the two local government areas was split equally between rural and urban households (HH), comprising 100 adult female respondents. Female respondents were chosen because women usually know more about HH consumption needs and patterns than men (Maxwell & Caldwell, 2008).

HH's food security status was computed using information about the severity of the coping strategies they used to provide food for themselves in the past seven days (**Appendix A1**). For instance, a high coping strategies score (or index) is associated with high food insecurity and vice versa. This approach to measuring food (in)security was developed by Maxwell and Caldwell (2008).

The Coping Strategies Index (CSI) approach (**Appendix A1**) utilises a series of questions to calculate the severity of shortfalls in HH food consumption and to help determine whether the HH food security status is declining or improving over time. This approach is handy and is widely adopted among contemporary researchers (e.g. Azad & Kaila, 2018; Sassi, 2021). Besides, the CSI approach enables users to identify vulnerable HH experiencing severe food insecurity accurately, pinpointing those needing assistance.

To determine HH's food security status empirically based on the data collection procedures described above, the i^{th} respondent's food security status (FSS) in the study was defined by the following equation:

$$FSS_i = f(CSI_i) = \sum_{k=1}^n B_{i,k} W_k \quad (1)$$

Equation 1 implies that the FSS of the i^{th} respondent is a function of the severity of their CSI, defined as the summation of the product of the various specific coping behaviours ($B_{i,k}$) and the corresponding weight attached to them (W_k). W measures the severity of specific (k) coping behaviour, ranging from least severe (1) to very severe (4) coping behaviours (see **Appendix A1**). The value computed for the i^{th} respondent in equation 1 was then used to identify vulnerable HH, where the sample or group mean CSI (GMCSI) score is the threshold CSI. CSI above the threshold means high food insecurity (see **Table 1**).

Table 1: Grouping HH's FSS based on the severity of their CSI scores

	Group 1 (Least food-insecure)	Group 2 (Moderately food-insecure)	Group 3 (Highly food-insecure)
FSS	CSI_i < GMCSI_i	CSI_i = GMCSI_i	CSI_i > GMCSI_i
CSI score	Least severe	Moderately severe	Very severe

Results

Description of Respondents' Characteristics

The modal observations for the socio-economic and demographic distribution of the sample reveal that the majority of the HH, for both rural and urban respondents, were headed by males aged between 41-50 years (see **Table 2**). The majority of the HH heads in rural areas lacked tertiary educational qualifications. However, they worked as salary earners, similar to their urban counterparts. Notably, the modal educational qualification for urban HH heads was a diploma from a college of education or polytechnic.

More than half of the HH in the sample were landlords. Their spouses primarily worked as traders in rural areas and as teachers in urban areas. The average income of the HH heads in urban areas was approximately twice that of their rural counterparts. Notably, a significant percentage of rural HH heads earned less than 70,000 per month. More than half of the HH in rural areas had a family size of five, while in urban areas, the majority had a family size of three. The HH in both areas also ate at least twice a day.

Table 2: Summary statistics

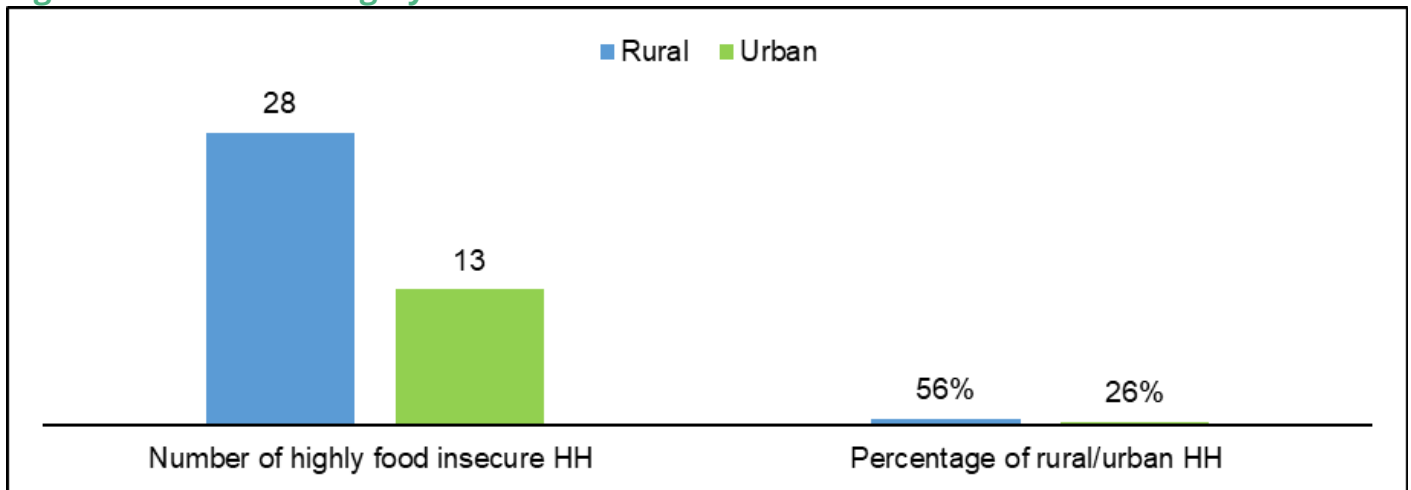
HH head variables	Modal observation		Modal observation	
	Rural	Frequency of total	Urban	Frequency of total
Gender	Male	40 (50)	Male	36 (50)
Age	41-50 years	15 (50)	41-50 years	17 (50)
Education	Primary/Secondary	36 (50)	College/Polytechnic	27 (50)
Occupation	Salary earner	27 (50)	Salary earner	31 (50)
Spouse income	Has income source	47 (50)	Has income source	36 (50)
Land ownership	Landlord	26 (50)	Landlord	25 (50)
Average mealtime	At least twice a day	33 (50)	At least twice a day	37 (50)
Average income	Less than N70,000	35 (50)	Less than N150,00	38 (50)
HH size	5	27 (50)	Less than N150,00	24 (50)

Source: Field survey (Author, 2024)

Number and Distribution of Highly Food-insecure HH

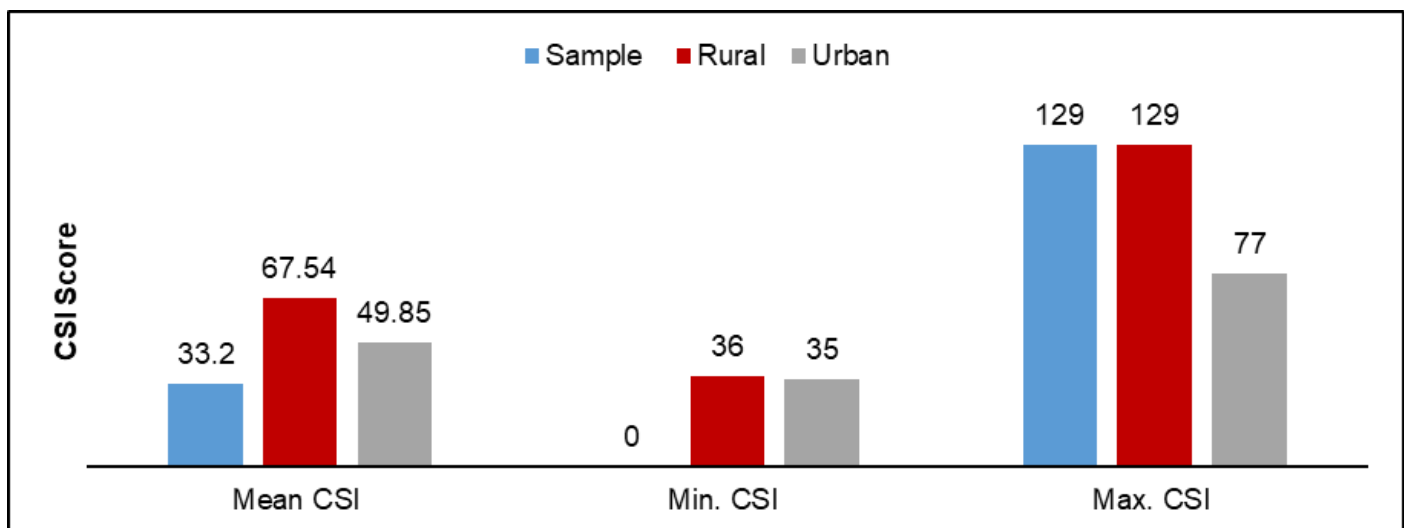
The GMCSI score (33.2) from the sample (see **Figure 3**), which provides the threshold for HH FSS, indicates that 41 HH were highly food-insecure, with 28 HH and 13 HH in the rural and urban communities, respectively. The highly food-insecure HH in the rural area were more than twice the urban dwellers, accounting for about 56 percent of the sample (see **Figure 2**).

Figure 2: Number of highly food-insecure HH



Source: Author (2024)

Figure 3: CSI score of highly food-insecure HH vs. GMCSI score

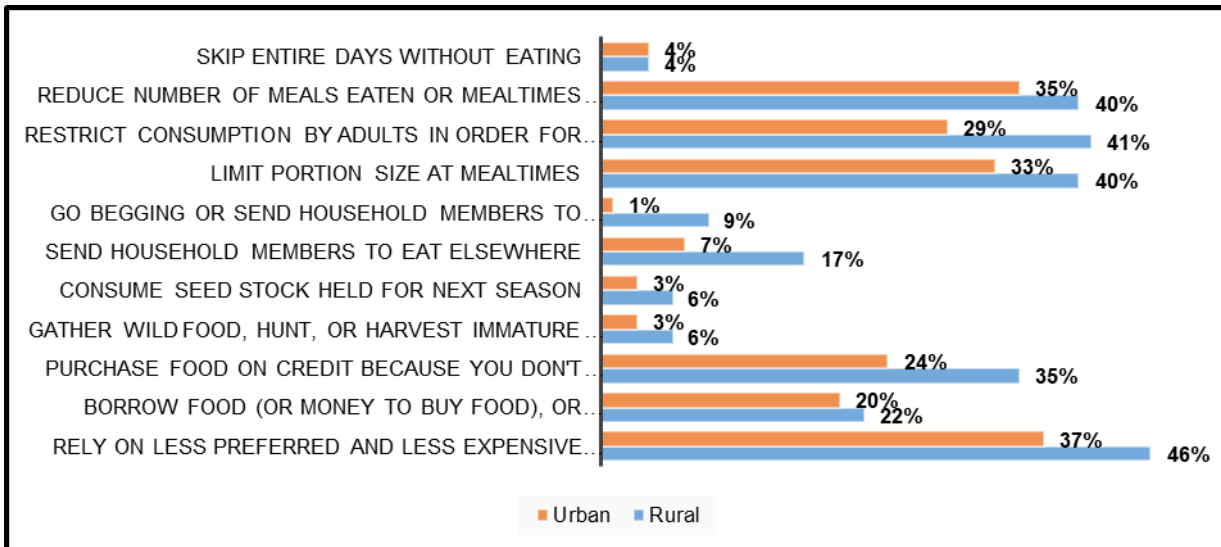


Source: Author (2024)

Coping Behaviours/Strategies Used by HH in the Sample in the Past Seven Days

The coping strategies employed by HH, in their order of frequency, include reliance on less preferred food, practised by 83 percent of the sample; reduction in the number of meals or mealtime per day (75 percent); limit in the portions of meals (73 percent); restrictions in adults' meal consumption (70 percent); and purchase of food on credit (69 percent). As seen in **Figure 4**, these coping behaviours were practised more in rural than urban areas.

Figure 4: HH coping strategies and percentage of the sample that has used them at least once in the past seven days

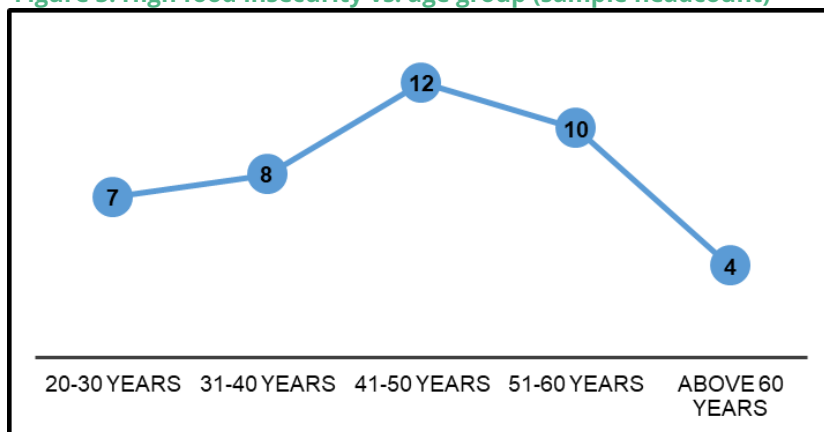


Source: Author (2024)

Food Insecurity across Different Social, Economic and Demographic Contexts

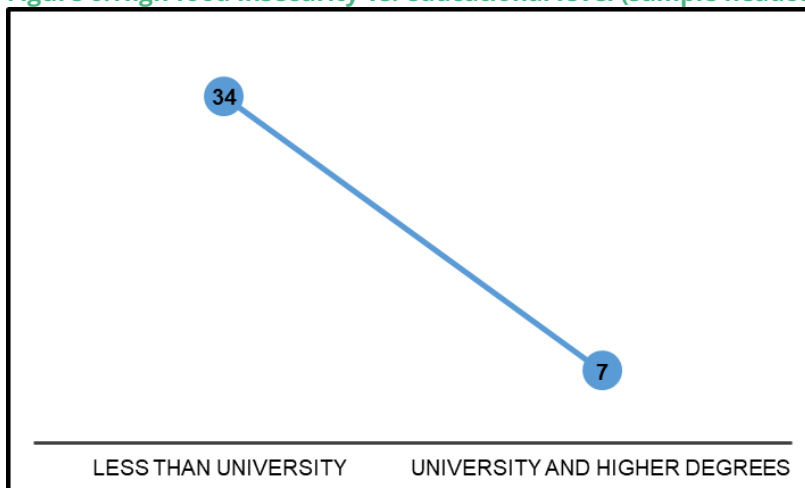
The FSS of the 41 highly food-insecure HH identified in the sample are compared in four contexts: across age group, educational level, average monthly income, and asset ownership. As seen in **Figure 5**, food insecurity tends to rise with age and is more pronounced among the age groups 41-50 and 51-60 years. Above these age groups, HH FSS improved. This is evident as the HH heads in the sample, predominantly aged between 41 and 50, often restricted and limited their own food consumption to ensure that younger HH members received adequate nutrition.

Figure 5: High food insecurity vs. age group (sample headcount)



Source: Author (2024)

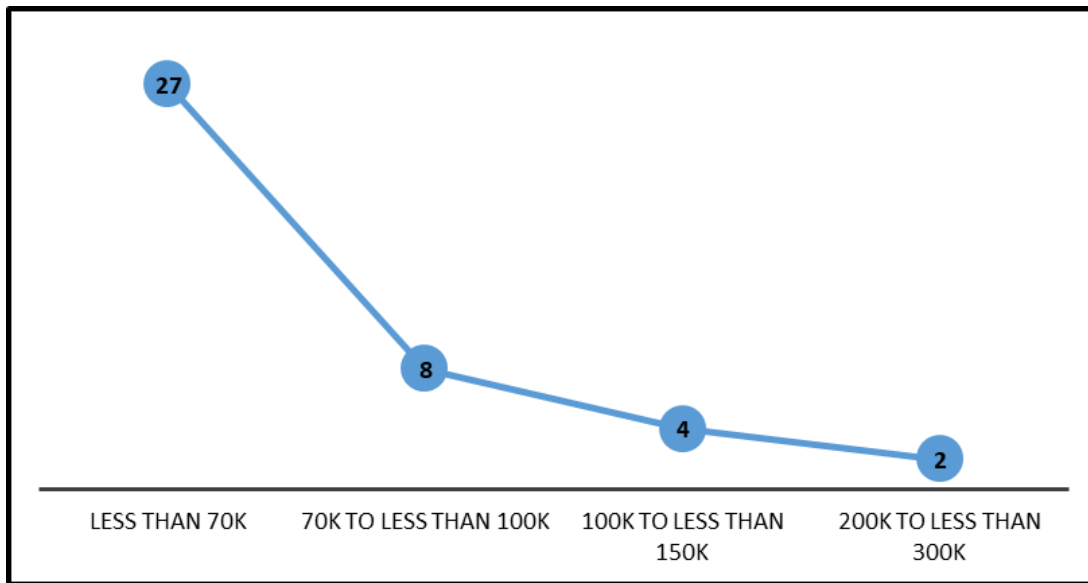
Figure 6: High food insecurity vs. educational level (sample headcount)



Source: Author (2024)

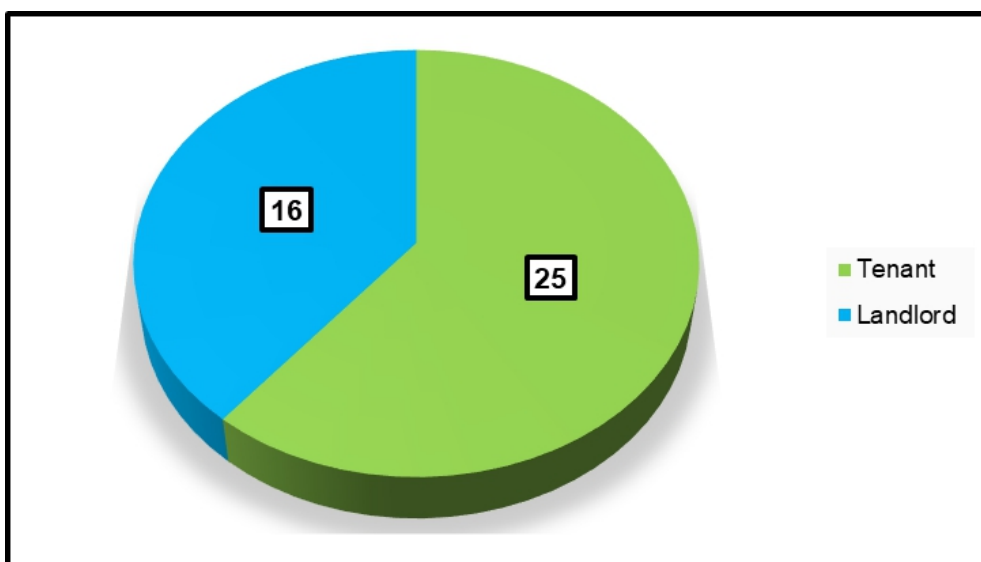
Data from the sample also reveals that HH food insecurity decreases as the educational attainment of the HH head increases. This is attributed to better job opportunities and higher average HH incomes (see **Figures 6 and 7**). Similarly, landlord respondents experienced declining food insecurity as they could generate sufficient income and savings to meet their HH's food needs. Notably, only 16 landlord respondents were highly food-insecure, compared to 25 highly food-insecure tenant respondents (see **Figure 8**).

Figure 7: High food insecurity vs. average monthly income (sample headcount)



Source: Author (2024)

Figure 8: High food insecurity vs. land ownership (sample headcount)



Source: Author (2024)

Conclusion and Policy Implications

This study showed that food insecurity is a significant challenge among rural and urban households in Nigeria, with members of the rural communities bearing a higher brunt of food insecurity than their urban counterparts. While coping strategies such as buying food on credit, limiting portions of meals, and food consumption restrictions for adult members of households were considered culturally normal by

respondents, consistently eating less preferred food and limiting portions of food at mealtime could mean that these household are not eating healthy and nutritious diets or getting sufficient calorie intake per day.

Empirical evidence from this study suggests that an average household requires at least ₦200,000 per month to meet their feeding obligations. It was found that food insecurity intensifies when average monthly income falls below ₦70,000 and subsides when income reaches ₦200,000 to less than ₦300,000. To mitigate food insecurity, the government may consider providing highly food-insecure households with a minimum of ₦200,000 per month in the form of cash transfers or food assistance.

While this study acknowledges the existence of the Conditional Cash Transfer (CCT) programme, an initiative by the Federal Government to provide financial support to targeted poor and vulnerable Nigerian households (NASSCO, 2024), previous studies (e.g., Paul, 2023) have identified several challenges with the CCT program, including the misallocation of funds by beneficiaries, poorly defined exit and entry periods, arbitrary beneficiary selection, and inadequate monitoring and evaluation mechanisms.

Moreover, data evidence from this study indicates that the ₦70,000 national minimum wage in Nigeria is lower than the ₦200,000 per month estimated in this current study. The findings of this study also suggest that it is high time the government of Nigeria considered the implementation of a living wage to enable Nigerian workers and their dependents to reach a basic and decent standard of living. Unlike the legislated minimum wage, a living wage helps lift the working poor out of poverty (Swaffield et al., 2018).

To identify vulnerable households that are highly food-insecure, the government should conduct a prototype of this survey across all the 774 local government areas (LGAs) in Nigeria on a quarterly basis. This will help the government to determine whether households' food security status across these LGAs is improving or deteriorating. Moreover, to ensure transparency and accountability in the identification process, the government should target vulnerable households whose monthly bank statements are less than ₦200,000 and have valid National Identification Numbers (NINs). These households should be identified using the quarterly coping strategy index reports from the 774 local government areas (LGAs).

Although international organisations like the Famine Early Warning System Network (FEWS NET) provide monthly reports on current and projected food insecurity, leveraging data on weather conditions, agricultural outputs, and market prices to inform policymakers worldwide, including Nigeria, their reports primarily focus on early warning and analysis rather than offering pragmatic solutions for identifying and supporting food-insecure households in the short term, which this study specifically addressed.

Lastly, to address food insecurity in Nigeria in the long term, the government is advised to invest in security and infrastructure, particularly in rural areas. This investment will incentivise farmers displaced from their farmland to return and resume agricultural production rather than seek employment opportunities in cities.

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Appendices

Appendix A1: Household coping behaviours (strategies) and severity weights*

Coping behaviours (B)	0	1	2	3	4	5	6	7	NA	Weight (W)
In the past 7 days counting backwards from today, if there have been times when you did not have enough food or money to buy food, how many days has your household had to:										
Rely on less preferred/less expensive foods										1
Borrow food (or money to buy food), rely on help from a friend, colleague or relative										3
Purchase food on credit because you don't have money to pay immediately										2
Gather wild food, hunt, or harvest immature crops										3
Consume seed stock held for next season										3
Send household members to eat elsewhere, e.g. with neighbours										3
Go begging or send household members to beg for what to eat										4
Limit portion size at mealtimes										1
Restrict consumption by adults for small children to eat										2
Reduce the number of meals eaten or mealtimes in a day										2
Skip entire days without eating										4

*Note, 0=None in those past 7 days, 1=once in those past 7 days, 2=twice in those past 7 days, 3=three times in those past 7 days, 4=four times in those past 7 days, 5=five times in those past 7 days, 6=six times in those past 7 days,