

## **Coping with Household Food Insecurity: A Perspective of Female Headed Household in Esan West Lga of Edo State, Nigeria**

**Idiake-Ochei Osediamen\* and Igwe Chidinma**

*Department of Agricultural Economics and Extension Management, Ambrose Alli University, Nigeria*

**\*Corresponding Author:** Idiake-Ochei Osediamen, Department of Agricultural Economics and Extension Management, Ambrose Alli

**ORCID ID:** 0009-0004-370-527X.

**Received:** June 07, 2025; **Published:** December 04, 2025

### **Abstract**

The study was carried out to determine the coping strategies employed by female headed households with food insecurity in Esan West Local Government Area, Edo State, Nigeria. The objective of this study was to analyze the socioeconomic characteristics of the respondents, estimate the average expenditure on certain food products, identify the coping strategies implemented by women in the study area, and identify the main constraints hindering their access to food security. A sample of 50 female respondents was randomly selected using a set of well-structured questionnaires. The data collected were analyzed using descriptive statistics and regression. SPSS was used to analyze the data. The results from the study revealed that majority (34.0%) of the female respondent were between the ages of 41-50 years, (48.0%) were married. Most (48.0%) of the female respondents were traders while the 36% of the respondents were educated by completed at secondary school, 50.0% of the respondents have an average household size of 6 persons, with most (36%) earning between ₦ 50,000 - ₦ 100,000. Reduction in food waste (94%), providing casual labour to get money to buy food (86%), eating food that are less preferred (84%), reduction in the quantity and quality of food (78%) and engaging in other jobs just to increase income (78%) are some of the coping strategies of food security adopted by the respondents. The study revealed that monthly income (coefficient -0.286) significantly influences the coping strategies of the female headed households while low income/remuneration (mean = 2.16), lack of employment (mean = 2.24), insufficiency of food (mean = 2.12) were the major constraints affecting them in achieving food security. Therefore, the study concluded by making recommendation to mitigate the stated constraints which are; providing targeted micro finance initiatives for women to help them generate additional income, offer vocational training programs that focus on agricultural skills, agribusiness, and food processing, advocate for policies that promote gender equality and women's empowerment in the agricultural sector.

**Keywords:** Food Insecurity; Coping Strategies; Female Headed Households

### **Introduction**

Food insecurity, characterized by insufficient food intake and poor diet quality, remains a major global challenge. It contributes to widespread hunger, malnutrition, and mortality (FAO, 2023). Hunger is driven not only by low levels of food production but also by limited access caused by weak purchasing power, especially among vulnerable populations (FAO, 2008). Adolescents and women, in particular, are disproportionately affected by food insecurity due to existing social and economic inequalities (UN Women, 2022).

---

**Citation:** Idiake-Ochei Osediamen and Igwe Chidinma. "Coping with Household Food Insecurity: A Perspective of Female Headed Household in Esan West Lga of Edo State, Nigeria". *EC Nutrition* 21.1 (2026): 01-08.

Malnutrition, resulting from inadequate food consumption, has devastating consequences such as stunted growth, delayed maturation, impaired cognitive development, poor resistance to infections, low birth weight, increased maternal mortality, and reduced life expectancy (UNICEF, 2023). According to the World Bank (2025), nearly one in ten people worldwide live below the international poverty line, a situation that further limits household access to adequate and nutritious food. Importantly, food security at the national level does not necessarily translate into household food security, since distribution and purchasing power are critical factors (FAO, 2008).

The gender gap in food and nutrition security is significant. Women and girls-particularly those who are poorer, less educated, or unemployed-face unique challenges in food access, affordability, and consumption (UN Women, 2022). During food crises, women are often the most affected, despite playing critical roles in food production, processing, and household nutrition. Women are actively engaged in seed selection, subsistence farming, and food distribution at the household level (FAO, 2011).

In developing countries, women constitute 20-50% of the agricultural labour force, with the highest participation rates in Sub-Saharan Africa (FAO, 2011). Moreover, 79% of economically active women in least developed countries report agriculture as their main occupation [1]. Evidence further shows that women tend to spend a higher proportion of their income on food and child health, directly improving household welfare [2]. Despite these contributions, women remain disadvantaged in access to land, credit, and other productive resources. Female-headed households often manage smaller farms and face reduced productivity due to lack of land rights and insecure tenure (FAO, 2011).

Finally, women in agriculture-particularly those in rural areas-remain highly vulnerable to food and nutrition deficiencies. Unless addressed, this challenge will pose a significant hurdle to achieving sustainable development. Despite existing research, there remains a knowledge gap regarding household food insecurity from the perspective of female-headed households, particularly in Esan West Local Government Area. Therefore, this study seeks to provide answers to the following research questions:

- i. What are the socio-economic characteristics of respondents in the study area?
- ii. What are the coping strategies utilized by women in the study area?
- iii. What are the constraints faced by the women in achieving food security in the study area?

### Hypothesis of the study

$H_0$ : There is no significant relationship between the socio-economic characteristics of respondents and their coping strategies.

### Objectives of the Study

The main objective of this study was to determine the coping strategies of food insecurity: a perspective of female headed households in Esan West Local Government Area. Other specific objectives are to:

1. Examine the socio-economic characteristics of the respondents in the study area.
2. Determine the coping strategies utilized by women in the study area.
3. Examine the constraints faced by women in achieving food security in the study area.

### Methodology

The study was conducted in Esan West Local Government Area, Edo State, covering ten wards and twenty-one communities, with a population of about 125,542. The major occupation of the inhabitants of the study area outside the civil service is agriculture. Agricultural practices carried out in the area include arable and tree crops production, poultry and livestock rearing. Data collection took place between March and May 2024, during the farming and early harvest season to ensure accurate information on food consumption and coping strategies.

A survey method using a multi-stage sampling technique was adopted. Esan West was purposively selected, five wards were randomly chosen, and ten respondents were selected from each ward through snowball sampling, giving a total of 50 households. The sample size was deemed sufficient considering resource limitations and community homogeneity.

Data were analyzed using descriptive statistics (frequency and mean) and Pearson Product Moment Correlation (PPMC) to test relationships between socio-economic factors and coping strategies, with all analyses done using SPSS version 23.

The level of seriousness of each constraint faced by women in achieving food security was determined using a three-point Likert scale, where 3 = Very Serious, 2 = Serious, and 1 = Not Serious. The mean scores were computed for each constraint, and the results were interpreted as follows:

- Mean score  $\geq 2.00$  = Serious constraint
- Mean score  $< 2.00$  = Not serious constraint.

## Results and Discussion

### Socio economic characteristics of the respondents

The results presented in table 1 reveal key demographic and socio-economic characteristics of respondents in the study area.

A greater proportion (34.0%) of respondents fall within the age range of 41-50 years, with an average age of 45 years. This suggests that most respondents are in their productive years and can actively contribute to household food and nutritional security. This finding aligns with the observation of Adebo and Falowo [3] who also reported that respondents within this age category are economically active and play vital roles in sustaining their families.

In terms of marital status, 48.0% of respondents are married, while 16.0% are single. The predominance of married individuals indicates a high level of family responsibility and stability within the community, which may positively influence household welfare and decision-making.

Regarding occupation, nearly half (48.0%) of the respondents are traders, followed by 28.0% who are civil/public servants and 24.0% who are farmers. This suggests that trading is the dominant livelihood activity, reflecting the entrepreneurial nature of women in the study area.

Educationally, 12.0% of the respondents had no formal education, 18.0% completed primary school, 36.0% had secondary education, and 34.0% attained tertiary education. Although most respondents have at least basic education, the results indicate a generally low educational attainment, which could limit access to higher-income employment. This finding corroborates Ume., *et al.* [4] who noted that low educational levels among women often restrict access to well-paying government jobs.

In terms of household size, 50.0% of the respondents have 1-4 members, 34.0% have 5-8 members, and 16.0% have 9 or more. The average household size of six members suggests a moderately large family structure, which may contribute to increased household consumption, particularly when some members are not gainfully employed.

Finally, the analysis of monthly income shows that 36.0% of respondents earn between ₦50,000 and ₦100,000, 32.0% earn between ₦100,001 and ₦200,000, 14.0% earn below ₦50,000, and 18.0% earn above ₦200,000. This indicates that while most respondents earn slightly above the national minimum wage, income levels remain modest and may limit their ability to meet rising household demands.

	Frequency	%
<b>Age Range</b>		
31-40 years	12	24.0
41-50 years	17	34.0
Above 50 years	10	20.0
Mean age		45
<b>Occupation</b>		
Farming	12	24.0
Trading	24	48.0
Civil/Public Servant	14	28.0
<b>Educational level</b>		
No formal education	6	12.0
Primary	9	18.0
Secondary	18	36.0
Tertiary	17	34.0
<b>Household size</b>		
1-4	25	50.0
5-8	17	34.0
9-12	8	16.0
Mean		6
<b>Monthly income (Naira)</b>		
Below 50,000	7	14.0
50,000-100,000	18	36.0
100,001-200,000	16	32.0
200,001-300,000	9	18.0

**Table 1:** Socioeconomic characteristics of respondents.

Source: Field Survey, 2024 (Researchers' Computation, 2024).

Types of food and average amount spent on various food items weekly by respondents

The result revealed that the respondents spend an average of ₦19,538.6 on different food items weekly as shown in table 2. This indicates that their average household size of six members, as shown in table 1, will not be properly nourished using the United Nations [5] scale of \$1.90 per day. The finding that food availability and procurement alone do not guarantee food security aligns with existing literature emphasizing that food security encompasses availability, access, utilization, and stability [6]. Studies have shown that households may have access to food but still experience insecurity due to inadequate income, poor nutrition, or low dietary diversity. Sen [7] similarly argued that food insecurity often arises from inequality in access rather than a shortage of food itself. In Nigeria, Arene and Anyaeji [8] and Omonona and Agoi [9] found that economic access and purchasing power, rather than mere food supply, are the main determinants of food security. Therefore, improving household income, affordability, and nutritional awareness is essential for achieving sustainable food security.

Food Items	Mean (₦)
Garri/Akpu/Semo/Pounded yam	3404.00
Beans	1884.00
Rice	3294.00
Groundnut Oil/Palm Oil	1154.00
Pepper/Tomatoes	857.20
Yam/Potatoes/Cocoyam	866.00
Snacks/Soft Drinks	480.00
Cooking Ingredients	1195.00
Noodles/Pasta (Macaroni/Spaghetti)	1004.00
Bread	375.00
Beverages/Milk and Milk Products	595.00
Plantain/Nuts/Seeds	614.40
Vegetables/Fruits	870.00
Fish/Meat/Egg	2150.00
Miscellaneous Food	796.00
Total	19,538.6

**Table 2:** Average amount spent on food weekly by respondents.

Source: Field Survey, 2024 (Researchers’ Computation, 2024).

Coping strategies

The result in table 3 indicates that households in the study area employ multiple coping strategies to mitigate the effects of food insecurity. The most common strategy (94%) was the reduction of food waste and loss, showing households’ effort to maximize the limited food resources available to them. A large proportion (86%) engaged in casual labour or opted for less preferred foods, reflecting an adaptive response to income shortfalls and limited food access. Similarly, 78% reduced the quality and quantity of food consumed or diversified their income sources through farming and other jobs, highlighting the economic pressures influencing food consumption patterns. Moreover, 74% relied on social support systems such as friends, churches, NGOs, and donor agencies, emphasizing the importance of social networks in buffering food crises. Finally, 70% practiced home gardening, suggesting a growing trend toward self-sufficiency and sustainable household food supply.

These findings are consistent with previous studies [10,11] which identified food rationing, income diversification, and reliance on social networks as common coping mechanisms among food-insecure households in developing countries.

Strategies	Yes	
	Frequency	%
Reduction in Quality and quantity of food consumed	39	78.00
Provide casual Labour to get money to buy food	43	86.00
Buying food item on credit	23	46.00
Burrowing money to buy food	16	32.00
Engaging in other jobs to increase income like farming	39	78.00
Saving for the period of food price inflation	28	56.00
Mortgaging and selling of asset	12	24.00
Reduction in food waste and food loss	47	94.00
Eating food that are less preferred	42	84.00
Burrowing food from friends and relatives	14	28.00
Receiving food from friends, donor agencies, church NGOs	37	74.00
Practicing mixed cropping i.e. crop diversification	17	34.00
Adoption of home gardening	35	70.00
Adoption of improve varieties on household farm	17	34.00

Table 3: Coping strategies by respondents in the study area.

Source: Field Survey, 2024 (Researchers’ Computation, 2024).

Constraints faced by women in achieving food security

The study also identified some constraints faced by women in achieving food security this is presented in table 4. From the table, it shows that low income/remuneration (mean = 2.16), lack of employment (mean = 2.24), insufficiency of food (mean = 2.12) were the most serious constraints faced my women in achieving food security. This corresponds with the finding of Ume., *et al.* [4] were they determine the causes of food insecurity among female headed in rural areas of south east Nigeria and find out similar constraints.

Constraints	Mean	Remark
Low Income/Remunerations	2.16	Serious
Poor access to credit	1.68	Not Serious
Lack of employment	2.24	Serious
Insufficiency of food	2.12	Serious
Blockages and disruption in food transport routes	1.72	Not Serious
Poor farm harvest	1.74	Not Serious

Table 4: Constraints faced by women in achieving food security.

Factors that influence the coping strategies of the respondents

The correlation analysis (Table 5) revealed that monthly income significantly influenced the coping strategies adopted by respondents, with a negative coefficient (-0.286). This implies that a decrease in income leads to the adoption of more coping strategies to manage food insecurity. This finding agrees with Arene and Anyaeji [8] and Obayelu., *et al.* [11], who reported that low-income households tend to rely

on short-term measures such as reducing meal size and eating less preferred foods. Other socio-economic factors like age, marital status, occupation, and household size showed no significant relationship, indicating that income remains the most critical determinant of food insecurity coping behavior in the study area.

Independent variables	Coping strategies (total)		Decision
	Correlation coefficient (r)	Prob. Level	
Age	-0.112	0.439	Not Significant
Marital Status	0.172	0.233	Not Significant
Occupation	-0.048	0.739	Not Significant
Education	-0.050	0.729	Not Significant
Household size	0.044	0.763	Not Significant
Monthly Income	-0.286*	0.044	Significant
Access to loan	0.065	0.656	Not Significant
Husband Support	0.034	0.813	Not Significant
Cooperative membership	-0.029	0.843	Not Significant
Source: Field Survey, 2024.			
Note: Values marked with an asterisk (*) indicate correlation significant at the 0.05 level (2-tailed).			

Table 5: Factors that influence the coping strategies of the respondents.

Conclusion

The findings from the study conclude that the majority of the female-headed households in Esan West are middle-income earners, spending an average of ₦19,538.60 weekly on food. Reduction in food waste (94%), providing casual labour to get money to buy food (86%), eating food that are less preferred (84%), reduction in the quantity and quality of food (78%) and engaging in additional income-generating activities (78%) are some of the coping strategies adopted by female-headed households to manage food insecurity. The study further revealed that monthly income significantly influences the coping strategies of the respondents, underscoring the need to strengthen income-generating opportunities for women to enhance household food security [12].

Recommendation

Based on the constraints identified in the study, the following was recommended:

1. Provide targeted micro finance initiatives for women to help them generate additional income.
2. Offer vocational training programs that focus on agricultural skills, agribusiness, and food processing.
3. Advocate for policies that promote gender equality and women’s empowerment in the agricultural sector. This could involve improving access to land ownership, credit facilities, and training programs specifically designed for women.
4. Provide training on food preservation techniques, such as drying, canning, and pickling, to help women extend the shelf life of perishable foods.
5. Enhance access to markets and value chains by creating linkages between women farmers and buyers. This can improve their income by eliminating intermediaries and ensuring fair prices for their produce.

## Bibliography

1. Doss C. "If Women Hold up Half the Sky, How Much of the World's Food do they Produce?" Background paper prepared for the State of Food and Agriculture (2010).
2. World Bank, FAO & IFAD. "Gender in Agriculture Sourcebook". The World Bank, Washington D.C (2009).
3. Adebo GM and Falowo OO. "Rural household food security and coping strategies in South West, Nigeria. A gender differentials perspective". *Food Science and Quality Management* 41 (2015): 44-49.
4. Ume SI., *et al.* "Resource use and technical efficiency of okra production among female headed household: implication for poverty alleviation in rural areas of South East, Nigeria". *International Journal of Advanced Research and Development* 3.2 (2018): 1028-1040.
5. United Nations. "The Millennium Development Goals Report 2015". United Nations Publications (2015).
6. FAO. "The State of Food Insecurity in the World". Food and Agriculture Organization of the United Nations, Rome (2013).
7. Sen A. "Poverty and Famines: An Essay on Entitlement and Deprivation". Oxford University Press (1981).
8. Arene CJ and Anyaeji RC. "Determinants of food security among households in Nsukka Metropolis of Enugu State, Nigeria". *Pakistan Journal of Social Sciences* 30.1 (2010): 9-16.
9. Omonona BT and Agoi GA. "An analysis of food security situation among Nigerian urban households: Evidence from Lagos State, Nigeria". *Journal of Central European Agriculture* 8.3 (2007): 397-406.
10. Maxwell D and Caldwell R. "The Coping Strategies Index: Field Methods Manual". CARE International (2008).
11. Obayelu AE. "Households' food security status and coping strategies in urban and rural areas of Oyo State, Nigeria". *Food and Nutrition Sciences* 3.5 (2012): 763-770.
12. FAO/GSO/MoP. "National Gender Profile of Agricultural Households, 2010". Report based on the 2008 Cambodia Socio-Economic Survey. Food and Agriculture Organization of the United Nations, Rome and General Statistics Office and Ministry of Planning, Phnom Penh. FAO/MAF (2010).

**Volume 21 Issue 1 January 2026**

**©All rights reserved by Idiake-Ochei Osediamen  
and Igwe Chidinma.**