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Female Headed Households' Coping Strategies for Food Insecurity in Ivo Local Government Area of Ebonyi State, Nigeria

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ABSTRACT

The study focused on the analysis of food insecurity and coping strategies among female headed households in Ivo Local Government Area of Ebonyi state, Nigeria with the specific objectives to; describe socio-economic characteristics; assess food insecurity; identify coping strategies adopted; determine the factors influencing food security and identify contributing factors to food insecurity. A Purposive and multistage random sampling technique was used to select eighty (80) female-headed farm households. The result showed that 36.25% belong to the age bracket of 25-34 years with household size of 1-5 persons. The result also showed that 28.75% of the respondents were single while a good proportion (75.25%) were into farming as most of them had farming experience of 1-15 years. Result on the food insecurity showed that 96.25% were concerned about what to eat, 78.75% ration their meals and eat the same food repeatedly, 76.25% go to bed hungry and 48.75% eat food they do not like. Coping strategies showed that 26.25% of respondents eat smaller rations (portions) of food while 18.75% of the respondents' resort to consumption of cheaper alternatives of food. Probit analysis showed that household size, marital status, level of education, access to credit facilities and land ownership were the factors that influence food security status of respondents. The factors that contribute to food insecurity among female headed household showed that 91.25% of the respondents affirm that farmer/herders clash is the major factor influencing incidence of food insecurity. The study thereby recommends that government policies should be enacted to protect the female headed households from food insecurity, discrimination and segregation towards females should be tackled in areas of land tenure and education.

INTRODUCTION

Food security and insecurity are terms used to describe whether or not households have access to sufficient quality and quantity of food. The terms emerged following the 1974 world food conference and shift in food policy debate from food supply to food demand and the emergence of new emphasis on food entitlement, sustainability, vulnerability, risk and access (Nwaneri, *et al*.,2022). Internationally, food security has been defined as the access by all people at all times to enough food for an active healthy life (Maxwell and Slater, 2003 and Nwaneri, 2018). During the World Food Summit organized in Rome in 1996, food security was agreed to exists when all people, at all times, have physical and economic access to sufficient, safe, nutritious food to meet their dietary needs and food preferences for an active life. Food security at national level refers to a condition where a nation is able to produce, import, retain and sustain food needed to support its population at minimum per capita nutritional standard (FAO,2019). At community level, food

security is defined as the condition where residents in the community can obtain safe, culturally accepted, nutritionally adequate diets through a sustainable system that maximizes community self-reliance (Anyanwu, 2010). At farm household level, food security refers to the availability of culturally acceptable nutritious food in adequate quantities to which everyone in the home has unhindered access to (FAO, 2019). A farm household is regarded as food secure when members of the family do not live in hunger or fear of starvation. Nwaneri (2018) asserted that food is useful for maintaining political stability, and insuring peace among people while food insecurity can result in poor health and reduced performance of children. Nwaneri., *et al* (2021) found that many countries experience food insecurity with food supplies being inadequate to maintain their citizens' per capita consumption. Among Nigeria households, farm households are the most affected in terms of food insecurity even though the rest of the population depend mostly on their production for food supply (Ekekwe, 2014) Attainment of food security is therefore a core problem confronting most male and female headed farm households in Nigeria. According to Ugo (2020) several factors such as migration of male spouses for economic reason, widowhood and changing social norms have led to reduced marriage rates among women: All these factors have made women de jure (no spouse due to widowhood, divorce or non-marriage) or de facto (spouse physically absent for many reasons) heads of farm households. The headship of a household is usually identified with the person who has the greater authority in the household including decision-making concerning economic, social and political interactions, among others. In food insecurity discourse, women represent a disproportionate share of the food insecure in Nigeria (Simpa, 2020). Although a household's food security status may be the result of factors other than the gender of household head; its incidence is, however, greater among female than male headed households (Simpa. 2020). Women's disadvantaged position, early entry into motherhood and low educational level fuel the incidence of food insecurity amongst female headed households.

METHODOLOGY

The study was conducted in Ivo Local Government Area of Ebonyi State, Nigeria. Ivo LGA lies between Latitudes 5^0 43' and 5^0 5' North of the Equator and Longitudes 7^0 29' and 7^0 35' East of the Greenwich Meridian. Ivo is characterized by minimum precipitation of about 2500mm per annum with annual mean temperature of between 27^0C -30^0C and a relative humidity of between 65% - 75%. The vegetation is typically rainforest made up of thick and varied combination of different plant groups ranging from shrubs to bigger trees. The people are predominantly Igbos and speak Ivo dialect and central Igbo language. The people are mostly farmers who take advantage of the rich and abundant farm land to cultivate okro, maize, yam, cocoyam, potatoes, rice, cassava, oil palm, cereals and vegetables, among others. The Local government area has its' headquarter at Isiaka and is made up of five autonomous communities namely; Ishiagu, Ihie, Okue, Ovunte and Akaeze and comprises 32 villages. The population of Ivo LGA is about 1,213,63 (NPC, 2006). The State has a land area of 245km^2 most of which are fertile and arable (Wikipedia, 2021).

The population of this study was female headed households in Ivo LGA. A Purposive and multistage random sampling technique was employed in selecting the respondents. First stage, five (5) autonomous communities that make up Ivo LGA was selected. Secondly, two (2) villages were randomly selected from each of the communities making it ten (10) villages. Thirdly, eight (8) female-headed farm households were chosen at random to give a total of eighty (80) female-headed farm households. A semi-structured questionnaire was used in soliciting information from the respondents and the objectives i, ii, iii and v were analysed using descriptive statistics while objective iv was analyzed with the aid of probit regression technique. The explicit form of the model is represented thus;

Pi [y=1] = [Fzi]

Where:

$Zi = \beta 0 + \beta_1 X_1 + e$

$Yi = \beta_1 + \beta_2 X_2 + \ldots\ldots + \beta_k X_{ki} + \mu$

Yi^* is unobserved but $Yi = 0$ if $y_i^* < 0$, 1 if $Y_i^* \geq 0$

$P(Yi = 1) = P(Yi^* \geq 0)$

$P(\mu i \geq -\beta_1 + \beta_2 X_{2i} \ldots\ldots\ldots\ldots -B_k X_{ki}$

Where i = 1,2 ……80

Where Yi = Food insecurity indices of female-headed farm households (highly food insecure = 1, moderately food insecure = 0)

β_1 = Unknown coefficients value of factors
X_1 = Age of household head (years)
X_2 = Household size (Number)
X_3 = Marital status of household head (years)
X_4 = Farm income (Naira)
X_5 = Level of education (years)
X_6 = Primary occupation of household head (l if farming; 0 if otherwise)
X_7 = Credit access (1 if yes; 0 if otherwise)
X_8 = Farm size (Hectare)
X_9 = Household asset endowment (Total asset value) (Naira)
X_{10} = Dependency ratio (ratio of workers to non-workers in each household)
X_{11} = Membership of farmers' association (Member I; otherwise = 0)

RESULTS AND DISCUSSION

Socio Economic Characteristics of the Respondents

Table 1 showed the socio-economic characteristics of the Female headed households. The results showed that most of the respondents (36.25%) belong to the age bracket of 25-34 years. This is in line with the findings of Nwaneri (2018) which states that most respondents are early youths who are active and possess the strength to go about their daily economic activities. The table also revealed that 28.75% were single while 75.25% were into farming. This is in line with the study by Omototesho and Muhammad-Lawal (2013). The result further showed that 37.50% had a household size of 1-5 people, this shows that the respondents had a moderate household size. This is in disagreement with a study by Onweremmadu and Asiabaka (2013) which states that most female headed households have a high family size while 57.5% had a farming experience of 1-15 years. This implies that the respondents are agrarians and have been into farming for a long time. The result on farm size showed that 33.75% have farm size of 0.1 – 0.9 hectares. This implies that majority of the respondents have moderate farm sizes. The result also revealed that majority (61.25%) did not belong to any cooperative society while the result on educational qualification revealed that 56.25% of the respondents had one form of educational qualification or the other as 43.75% had no formal education.

Table 1: Characteristics of Respondents in Ivo North L.G.A, Ebonyi State (N= 80)

Characteristics	Frequency	Percentage
Age (years)		
25 – 34	29	36.25
35 - 44	17	21.25
45 – 54	19	23.75
55 - 64	15	18.75
Marital Status		
Single	23	21.25
Married	17	28.75
Divorced	21	26.25
Widow	19	23.75
Household Size		
1 – 5	30	37.5
6 – 10	26	32.5
15-Nov	15	18.75
16 – 20	9	11.25
Level of Education		
No formal education	35	43.75
Primary school	17	21.25
Secondary school	19	23.75
Tertiary school	9	11.25
Farm size(ha)		
0.1 – 0.9	56	33.75
1.0 – 1.9	17	31.25
2.0 – 2.9	4	18.75
3.0 – 3.9	3	16.25
Farming Experience		
5-Jan	23	28.75
10-Jun	21	26.25
11 – 15	23	28.75
16 - 20	13	16.25
Cooperative Society		
Yes	31	38.75
No	49	61.25
Primary Occupation		
Farming	55	75.25
Non-farming	25	26.25
Source: Field Survey,2023		

Food Insecurity among Female Headed Households

Table 2 showed food insecurity parameter of the female headed households. The result revealed that 96.25% were concerned about what to eat, while 78.75% of them ration their meals (small portions) and eat the same food repeatedly as 76.25% go to bed hungry and 48.75% eat food they do not like. This implies that food unavailability and insecurity is evident in the lifestyle of the respondents used for this study. The results are in line with a study by Ugo (2020) which stated that majority of the respondents in rural area go to bed not knowing what to eat the next day.

Table 2: Food Insecurity among Female Headed Households

Food insecurity parameters	*Frequency	Percentage (%)
Concerned about what to eat	77	96.25
Eating undesired food	39	48.75
Rationing meals	63	78.75
Going to bed hungry	51	63.75
Skipping meals regularly	61	76.25
Eating the same food over again	63	78.75

Source; Field survey, 2023, *Multiple responses recorded.

Coping Strategies By Female Headed Household Against Food Insecurity

Table 3 showed the various coping strategies used by the FHH. The result showed that 26.25% had the perception that they consumed smaller rations (portions) of food in order to cope while 18.75% resort to consumption of cheaper alternatives of food as 32.5% had the perception that they coped through the encouragement of farming culture amongst households and made changes in their diets based on the available funds. The result further revealed that 22.5% had the perception that they coped through avoidance in food wastages and adjusting their meal times.

Table 3: Coping Strategies by Female Headed Household against Food Insecurity

Coping techniques	*Frequency	Percentage
Limiting food wastage	9	11.25
Consumption of cheaper alternatives of food	15	18.75
Eating smaller rations of food	21	26.25
Encouraging farming culture amongst household	13	16.25
Change of diet to suit availability of fund	13	16.25
Adjusting meal times	9	11.25

Source; Field survey, 2023, *Multiple Responses Recorded

Table 4 showed factors influencing food security status of female headed households. The likelihood ratio test showed a significant value of -19.023168, implying that the estimated model is statistically significant. Hence the model is considered to be good fit. R^2 implies that about 64% of the food security statuses of the female headed households were due to the variables included in the model. This implied that the model consists of most of the factors responsible for food security. Therefore, among the variables regressed, the coefficient of household size was negative and statistically significant at 10% level of probability, which implies that as the number of the dependants of a female headed household increases, the more food insecure the household. Similarly, the coefficient of marital status was negative and statistically significant at 1% level of probability implying that as the female headed households that are married increased, without the male support, the level of food insecurity increases. However, the coefficient of level of education was positive and statistically significant at 1% level of probability. This implies that as level of

education of the female household heads increased, their food security status increases. In the same way the coefficient of the access to credit was positive and statistically significant at 5% level of probability, implying that as the female headed households gets more access to credit, their food security status increases. Finally, the coefficient of farm ownership was positive and statistically significant at 1% level of probability. This implies that as the female headed households owns their own farms, their level of food security status increases.

Table 4: Probit Regression on the Factors Influencing Female Headed Household Food Security in Ivo Local Government Area of Ebonyi State, Nigeria.

Variables	Coefficient	T-value
Constant	14.71968	1.98**
Age of household head	0.1681812	0.59
Household size	-0.395482	-2.19*
Marital status	-1.282916	-2.98***
Non-farm income	-0.1458168	-1.05
Level of education	1.837418	3.94***
Credit access	0.3662273	2.71**
Farm ownership	0.4535624	2.92***
Farmers association	0.240938	0.54
Farming experience	0.4630921	1.25

LR chi^2 (9) = 66.73*** Pseudo R^2 =0.6369 Log likelihood = -19.023168

Source: Field survey, 2023.

Factors Contributing to Food Insecurity.

Table 5 showed the result of factors contributing to food insecurity of female headed households. The result revealed that 91.25% of the respondents perceived farmer/herders clash as the major factor contributing to incidence of food insecurity while 86.25% perceived inflation on food prices as the contributing factor. The result also revealed that 76.25% perceived insecurity and COVID-19 as factors that contributes to food insecurity while 66.25% identified the deteriorating environmental state as a factor as 63.75% and 48.75% perceived climate change and lack of food preferences in markets as factors contributing to food insecurity respectively.

Table 5: Factors Contributing to Food Insecurity among the Respondents

Influencing factors	*Frequency	Percentage
Climate change	51	63.75
Farmers/herders clash	73	91.25
Insecurity on the road	61	76.25
Inflation on food prices	69	86.25
COVID-19	61	76.25
Deteriorating environmental factors	50	66.25
Lack of food preference in markets	39	48.75

Source; Field survey, 2023, *Multiple responses recorded.

CONCLUSION AND RECOMMENDATION

The study focused on the analysis of food insecurity and coping strategies among female headed households in Ivo Local Government Area of Ebonyi state, Nigeria, with the specific objectives to; describe socio-economic characteristics; assess food insecurity; identify coping strategies adopted;

determine the factors influencing food security and identify contributing factors to food insecurity. A Purposive and multistage random sampling technique was used to select eighty (80) female-headed farm households. Results on the food insecurity revealed that 96.25% were concerned about what to eat, while 78.75% of them ration their meals (small portions) and eat the same food repeatedly as 76.25% go to bed hungry and 48.75% eat food they do not like. This implies that food unavailability and insecurity is evident in the lifestyle of the respondents while coping strategies they applied included: consuming smaller rations (portions) of food, consumption of cheaper alternatives of food, encouragement of farming culture, changes in their diets based on the available funds and avoidance in food wastages and adjusting their meal times. The identified factors that influenced FHH food security were; household size, marital status, level of education, access to credit and farm ownership while factors that contributed to food insecurity include; farmer/herders clash, inflation on food prices, insecurity and outbreak of diseases like COVID-19, deteriorating environmental state, climate change and lack of food preferences in markets. Based on the findings of this study the following recommendations were made: government policies should be enacted to protect the female headed household from food insecurity, discrimination and segregation amongst females should be tackled in areas of land tenure and education and to increase awareness targeting the females to belong to cooperative societies.

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