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Severity of Food Insecurity among Female-headed Households in Oredo Local Government Area of Edo State, Nigeria

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Abstract: *This study assessed the severity of food insecurity among female-headed households in Oredo local government area of Edo State. The objectives of the study were to describe the socio-economic characteristics of female-headed households, identify the causes of food insecurity among female-headed household, ascertain food accessibility among female-headed households and determine the severity of food insecurity among female-headed households in the study area. Total sample size of 100 respondents was randomly selected from 5 communities selected out of 33 communities that make up Oredo local government. This involved a simple random selection of 20 respondents from each village. The instrument used to obtain data from the respondent was a structured questionnaire validated by the researchers. Data were analyzed using mean, frequency and percentages. The result revealed that, high cost of food items (mean = 3.75), inadequate funds for food purchase (mean = 3.71), pests and diseases of field crops, livestock and other agricultural produce (mean = 3.62) are the major causes of food insecurity in the study area. Though food accessibility indicated that 51.60% of female-headed households in the study area eat less preferred food, 50.60% eat just a few kinds of food while 46.50% reduces quantity of food eaten by all household members; however, majority of the households (62.67%) were found to be moderately food insecure. Therefore it is recommended that Government in Nigeria through its agricultural support agencies should embark on target-oriented supply of improved agricultural inputs/incentives to women small-scale farmers on a sustainable basis to enhance food production at the household level.*

Keywords: *Sustainability, Non-farm livelihood activities, rural families*

INTRODUCTION

Food insecurity has remained a global challenge over the years. This has led to several debates and discussions at the United Nations leading to the historic Millennium Development Goals (MDGS), one of which was to eradicate hunger and poverty. Hence to enjoy a healthy life, there is need for unimpeded access to nutritionally balanced diet, which comprises all essential ingredients for growth, energy and for longevity in line with the food culture in a given society, a situation that has remained unattainable in many developing nations.

According to Food and Agriculture Organization (FAO, 2010), about 870 million people are estimated to have been undernourished (in terms of dietary energy supply) in the period of 2010-2012. In more

recent years, this situation may have worsened especially in many developing countries. In order to eradicate this prevailing hunger and undernourishment especially among vulnerable groups in society, led to its inclusion as one of the targets in the Millennium Development Goals (MDG) (to reduce by half, the amount of people who suffer from acute starvation and who earn less than \$1 per day by the year 2015) (FAO, 2006). Despite the global resolution to curb the food insecurity menace, recent report on world food insecurity highlighted that the number of people suffering from hunger has increased every year since 1996. Also, about 925 million people worldwide still suffer from chronic hunger, in which 235 million hunger cases are from Sub-Sahara Africa (FAO, 2010). Consequently, global food insecurity, coupled with the sharp increases in world food prices, the financial crisis and the economic depression, is a concept that can no longer be ignored. Thus, it was again a topic of discussion at the World Food Summit (FAO, 2010). Hunger on a global scale however, remains serious. For instance, among the world's regions, South Asia and sub-Saharan Africa continue to have the highest levels of hunger. According to Global Hunger Index (GHI) ranking, Nigeria, was ranked 40 among 79 food insecure countries in 2012, together with rising food prices, malnutrition and deaths as a result of wide-spread poverty is an indication of the prevalence of food insecurity in the country. It is also a sign of extreme suffering for millions of poor people (Global Hunger Index Report, 2012). Although, successive governments in Nigeria have made efforts to achieve food security in the country through setting up a number of agricultural development agencies, and special programmes and projects which include: the National Agricultural Development Fund, NADF (2002); National Special Programme on Food Security, NSPFS (2002); National Food Crisis Response program (NFCRP), Food Security Thematic Group (FSTG) in 2009 among others, an overwhelmingly large proportion of Nigerians are still food insecure. This situation may be more critical, especially among female-headed house-holds considering the various forms of social and cultural factors surrounding women emancipation in Nigeria. Besides, many of these women may have lost their male-breadwinners to such vicissitudes as wars, communal and political clashes as well as natural calamities, which are rampant in Nigeria.

The Nigerian nation, face the challenges of meeting the basic food needs of her population. For instance, between 1990 and 2001, there was an increase in the share of food imports in Nigeria's budget from 9 percent to 19 percent. It reached its peak in 1995 at 55 percent. Similarly, relative to total imports, the share of food imports increased from about 8 percent to 22 percent over the same period (Okolo, 2004). Recently, food imports were estimated at US\$3.99 billion a year, which amounts to about 18 per cent of total foreign exchange disbursement (CBN, 2009). In addition, Nigeria was listed among the 42 countries tagged low-income food deficit countries (Okunmadewa, 2003). Available evidence indicates that on almost every indicator such as deficit in per calories intake, export earnings, per capita income and food imports, Nigeria exhibits high levels of food insecurity (Akpan, 2009).

With majority of Nigerians residing in rural areas and about two-thirds engaged in subsistence crop and livestock production, food and nutrition security is closely tied to agricultural productivity. This is because higher production in one's own farm or from one's livestock is expected to improve the food security status of the household and vice versa. However, malnutrition is pervasive in the entire country especially across people of similar age and other categories of individuals in the rural areas. This situation persists despite various approaches addressing these challenges (Isaac, 2009). From the foregoing, it is evident that Nigeria could not achieve the Millennium Development Goals especially those related to hunger and poverty, poor primary education, poor women empowerment, gender inequality, child mortality and poor maternal health. Thus in the area of food insecurity especially among rural households appear not to have been adequately addressed.

Food trend especially among agrarian rural households in Nigeria indicate that during harvest season, most rural households may seem to be food secure because they have enough food from their own farms but relapse into food deficit during the off-farm (hungry) period. This situation may arise owing to inadequate processing and storage facilities and sales of excess farm produce at low prices during the harvesting period to meet other household needs. Most times, they rely on market purchases which their meager and inadequate farm income cannot support the year round. This leads to inconsistent food availability thus contributing to food insecurity during the off-farm season. There is a consensus that in matters pertaining to food insecurity, food insecure households should be properly identified and the reasons for their food insecurity investigated. In addition, changes in food security status of households over time need to be closely monitored with explanations given for the changes. Thus, since more than half of Nigeria's population are currently employed in the agricultural sector (Manyong *et al.*, 2005), and with the vast majority of these individuals living in rural areas, an examination of the factors associated with food insecurity status during the post-planting season in Nigeria is pertinent if progress is to be made at reducing food insecurity. Also, an investigation of the factors that influence the food insecurity status among rural households during the post-planting season will provide clear information about what needs to be done to ensure food security among rural households. The above background raises the need to describe the socio-economic characteristics of female-headed households, identify the causes of food insecurity in female-headed households, ascertain food accessibility among female-headed households and assess the severity of food insecurity among female-headed households in the study area.

Methodology

The study was conducted in Oredo Local Government Area (L.G.A) of Edo State Nigeria, made up of 33 communities. Oredo Local Government Area is bounded on the north by Ovia North-west Local Government Area, on the south by Ikpoba Okha Local Government Area, on the east by Ughmwonde Local Government Area and on the west by Ovia South-west Local Government Area. It lies on a total land area of about 249 kilometer square kilometers with a population of about 374,671 (National Population Census (NPC), 2006). Oredo Local Government Area is located on latitude 6.29° north and longitude 5.64° east on the map. The administrative headquarters of Oredo L.G.A is at Benin City which is also the capital city of Edo State. Major occupation includes brass and bronze making, trading and farming. The population of the study comprises of all female-headed household-heads in the study area. Simple random sampling technique was used to select 5 communities out of the 33 communities and a sample size of 100 female household-heads from the 5 selected communities in the study area. Data for this study was collected with the aid of questionnaire designed and validated by the researchers. The instrument was designed in two sections. Section A sought for responses on the socio-economic characteristics of the respondents. Section B was divided in two parts, Part 1 contained a cluster of items on the causes of food insecurity, while Part 2 contained a cluster of items on household food accessibility. The items on Section B were measured using 4 point Likert-type summated rating scale of agreement. Data collected were analyzed using descriptive statistical tools such as mean, frequency, percentage.

Results and Discussion

Socio-economic characteristics of the female headed households in the study area.

Results in the Table 1 reveal that majority (55.0%) of the respondent falls between 40-49years and 50-59years. This implies that majority of the respondent are relatively active and young, hence they are able to engage in income generating activities to combat food insecurity in their households. Also

it was found that 91.0% the household-heads are married, widowed or divorced. In other words, they have some members of the family they cater for. The implication is that there are a lot of responsibilities in combating food insecurity in the households. It was further revealed that majority (60.0%) of the respondent had formal education at either the primary or secondary school level. It is obvious that most of the respondents have average educational qualifications and ultimately, a considerable level of literacy among the females in the study area. This implies that the respondents stand a better chance of accessing agricultural information needed for increased farm productivity to combat food insecurity, which is in agreement with Akpan (2010) who noted that education will likely enhance the adoption of modern farm technology by women and thereby increase agricultural productivity. Also majority (72.0%) of the women headed households are engaged in farming either as crop or livestock/fish farming, which may likely provide some of the staple foods in their households. The result revealed that 73.0% of the households have a family size of 1-3 persons and 4-6 persons. In food producing areas, small households engaged in farming may have the advantage of having fewer mouths to feed and so may not be vulnerable to food insecurity. This corroborates the view of CBN (2009) that high population growth rates in the country increases the food insecurity. The result also indicates that majority of respondents (55.0%) earn ₦8,000-15,000 per month. This implies that majority of the household studied lives below poverty line in terms of income level. However, they may likely subsist especially when food sources rely on their farm harvests.

Table 1: Socio-economic characteristics of the female headed households in the study area.

Variables	Frequency	Percentage
Age		
20-29 years	13	13.0
30-39 years	18	18.0
40-49 years	23	23.0
50-59 years	32	32.0
60-69 years	12	12.0
70 years and above	2	2.0
Marital Status		
Married	50	50.0
Single	9	9.0
Divorced	15	15.0
Widow	26	26.0
Educational level		
No Formal Education	22	22.0
Primary education	37	37.0
Secondary education	30	30.0
Tertiary education	11	11.0
Occupation		
Fishing	4	4.0
Farming	68	68.0
Civil servant	23	23.0
Trading	47	47.0
Household size		
1-3 persons	31	31.0
4-6 persons	42	42.0
7-9 persons	24	24.0
10 persons and above	3	3.0
Income level		

8,000-15,000	55	55.0
16,000-23,000	20	20.0
24,000-31,000	9	9.0
32,000-39,000	4	4.0
40,000-47,000	8	8.0
48,000-55,000	4	4.0

Source: Field Survey, 2019.

Causes of Food Insecurity in Female-headed Households in the Study Area

Results on the causes of food insecurity in female-headed households in the study area are presented on Table 2. High cost of food items (mean = 3.75) and inadequate funds for food purchase (mean =3.71) are found to cause food insecurity among female-headed households in the study area. This becomes more critical in view of the dwindling income in rural households. This finding is in line with the view of Isaac (2009) that high food prices are causing hardship particularly among the poorest family households who spend a huge proportion of their income on food. The result further reveals that pest and diseases of crops, livestock and other agricultural produce (mean= 3.62) causes food insecurity in the study area. The outbreak of pest, disease on field crops and livestock will reduce agricultural yield thereby resulting in food scarcity. The result also shows that dependence on food purchase (mean =3.41) causes food insecurity. This implies that when households exhaust their perishable farm harvest during the bumper period and available income on food purchase, food insecurity may become inevitable. It was indicated that poor Storage and other post-harvest losses (mean =3.21) cause food insecurity in the study area. This implies that inadequate or poor storage facility for farm harvests leads to total or partial loses of agricultural produce. The result shows that climate change (mean =3.17) causes food insecurity. This implies that a change in the normal climate condition reduces crop and livestock yields, which households depend on as their main source of food. The finding is in line with FAO (2010) that climate change due to global warming has influenced world household food insecurity. The findings reveals that Poor and inadequate arable farmland (mean =3.12) enhances food insecurity. This implies that women may find it difficult to access farmland because of their gender status, inadequacy of arable land, high cost and insufficient income to lease farmland where available. It was found that illness among family members (mean =3.12) could lead to food insecurity. Illness as an emergency gulps significant amount of the family income due to the purchase of drugs and settling hospital bills instead of using such funds to hire labourers, purchase farm inputs for farm investment and direct food purchases. Besides, the time and attention invested in on the sick and dying member could serve as a distraction from productive ventures to put food on the table. The result shows that poor and emergency planning at the household level (mean =2.97) causes food insecurity. It is obvious that poor planning could result in unnecessary spending in which households divert limited finances meant for purchase of food and agricultural inputs to unforeseen exigencies. Also, general crop failure during farming season (mean =2.90) as well as government embargo on food importation (mean =2.79) heightens food insecurity. Recent government ban on the importation of most food items in Nigeria such as rice, corn, livestock products etc is worsening the food crises in the country. Though Abdullahi (2010) noted that massive food importation leads to the drainage of the nation's scarce foreign reserves, frequent show-down between the federal government and workers for wage increases to meet up with the rising cost of basic necessities of life. It was found that instability and conflict in the household (mean =2.76) contribute to food insecurity in the study area. When households members are not in good terms with each other due to conflicts, their involvement in farm activities to secure food in the family will be hampered because productivity could be enhanced under peaceful living environment.

Table 2: Causes of Food Insecurity among Female-headed households in the Study Area as perceived by the Respondents.

Causes of food insecurity	Mean	Remark
High cost of food items.	3.75	Accept
Inadequate funds for food purchase.	3.71	Accept
Pests and diseases of field crops, livestock and other agricultural produce.	3.62	Accept
Household dependence on food purchase.	3.41	Accept
Storage and other post-harvest losses.	3.21	Accept
Climate changes.	3.17	Accept
Poor and inadequate arable farmland	3.12	Accept
Illness among family members	3.12	Accept
Poor and emergency planning at the household level.	2.97	Accept
General crop failure during farming season.	2.90	Accept
Government embargo on food importation.	2.79	Accept
Instability and conflicts in the household.	2.76	Accept

Source: Field survey, 2019.

Note: mean ≥ 2.50 implies acceptance while mean ≤ 2.50 implies rejection.

Food accessibility among female-headed Households in the Study Area.

Results on food accessibility among female-headed households in the study area are presented on Table 3. Result show that majority of the households covered in the study eat less preferred food (51.6%), which implies that the households lack what it entails to access other types of food other than the produce from their subsistence farming. Furthermore, 50.6% of them eat just a few kinds of food. Also 46.5% of the households reduce quantity of food eaten by all household members. This may likely be a measure to ensure that the available food is rationed to every member no matter how small instead of some members being starved out. Furthermore, it was revealed that 44.80% of the households covered in the study eat fewer meals per day: This is evident that members of the household do not have a complete square meal per day but may rather eat at random depending on when food is made available by the household-head. Also 35.1% of the households indicated that they had no food of any kind while 31.5% go to sleep hungry at night. However, 27.6% of the households go a whole day and night without food while 33.1% borrow food and food condiments from neighbors. This may likely be a measure to cope with food insecurity in such households. It was also found that 39.5% of the households practice food rationing. This may have been adopted by the households as a coping strategy against food insecurity.

Table 3: Food accessibility among Female-headed Households in the Study Area.

Indication of household food accessibility	%
Eat less preferred food	51.60
Eat just a few kinds of food	50.60
Reduces quantity of food eaten by all household members	46.50
Eat fewer meals in a day	44.80
No food of any kind in household	35.10
Go to sleep hungry at night	31.50
Go a whole day and night without food	27.60
Borrow food and food condiments from neighbours	33.10
Practices food rationing	39.50

Source: Field survey, 2019.

Severity of Food Insecurity in the Study Area.

Results on the severity of food insecurity among female headed households are presented on figure 1. To reach a decision on severity status, food insecurity scores were categorized into two and designated severely Food insecure (SFI) and Moderately Food Insecure (MFI). Scores within the range of 9 and 22 represented severely food insecurity while 23 and 36 represented moderately food insecure. As indicated in Fig.1, 37.33% of the female headed households in the study area are severely food insecure while 62.67% are moderately food insecure.

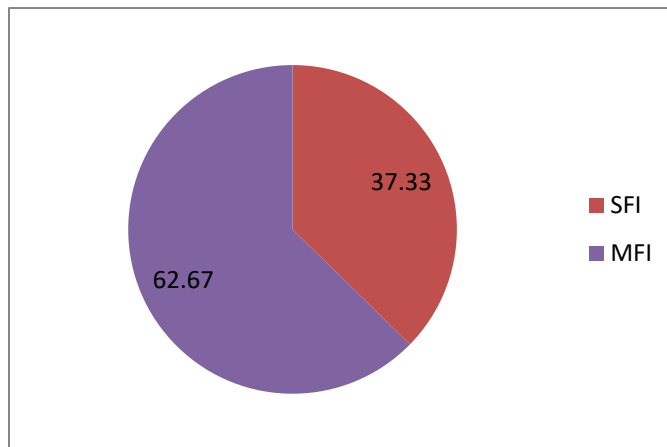


Figure 1: Severity of Food Insecurity as Perceived by the Respondents.

Source: Field Survey, 2019

NOTE:

SFI: Severely food Insecure

MFI: Moderately food Insecure

Conclusion

The study therefore concludes that female-headed households in the study area are moderately food insecure. However, several factors contribute to food insecurity among female-headed households in the study area.

Recommendations

Based on the findings, the following recommendations are made to alleviate food insecurity in the study area.

- Government in Nigeria through its agricultural support agencies should embark on target-oriented supply of improved agricultural inputs/incentives to women small-scale farmers on a sustainable basis to enhance food production at the household level.
- All the various tiers of government should pay more attention on the provision of infrastructural facilities including storage and processing facilities to ensure that food supplies are available in different places at all times.
- Adequate agricultural extension services through Women in Agriculture (WIA) should intensify the dissemination of appropriate agricultural innovations adaptable in the farming systems.

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