



# Rural Women's Contribution to Household Food Security in Kebbi State

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## Abstract

In this study, rural women's contributions to ensuring food security at the home level in the study area are examined. 120 rural women were chosen using a multi-stage sampling procedure. Data were collected with the aid structural questionnaire and analyzed using descriptive statistics and the Food security index. Results revealed that the majority of the rural women were married with an average age of 40 years and were into food production with less than 3 hectares of land having difficulty accessing credit facilities. The result revealed 63.3% of the rural women were food insecure despite their active engagement in farm and off-farm activities but their income is still low. Poor and low-income of rural women indicate a negative relationship with the status of food safety and food expenditure. Results showed that rural women's top priorities in ensuring food security for the household in the study area were decreasing child malnutrition, which had a mean score of 2.47, food processing and meal preparation, which had a mean score of 2.40, ensuring the wellbeing of the entire household, which had a mean score of 2.36, and purchasing a variety of food items for consumption, which had a mean score of 2.05. Additionally, the majority of rural women experienced difficulties ensuring the food security of their households. It suggested that the difficulties faced affect rural women's contribution to household food security.

**Keywords:** Rural women, Food Security and Kebbi State

## I. Introduction

The idea of food security has long been employed at the home level as a wellbeing

indicator. When enough food is always available and accessible and is safe and nutritious, people are said to be in a secure food situation. One of the key prerequisites for a person to be nutritionally secure and to sustain good health is the achievement of food security. According to availability, accessibility, and utilization, food security refers to the ability of the food supply to satisfy the demands of each individual consumer. FOA,(2006).

Rural women are essential in determining and ensuring the overall household's food security and well-being. In both farm and non-farm activities, women produce and process agricultural goods. Women still play a significant role in rural information dissemination and food distribution to urban areas. (Essilfie et al., 2020).

By region, women's contribution to food production varies. Women produce 80% of the family's food in Africa, 60% in Asia and the Pacific, and 40% in Latin America, according to estimates from the United Nations (UN) (Galiè et al., 2019).

The Nigerian government agrees that women are essential for both family stability and food security. Similar to this, measures have been developed to remove the disparities and limitations influencing women's productive participation in agriculture as well as the importance of women as agricultural workers and income earners. Agriculture could produce more if women had equal access to physical and natural resources as males (Agnes et al., 1995).

According to the Food and Agriculture Organization (FAO), "women have a very severe load of farm work in many developing countries, particularly in Africa, where they are the primary food producers" (Food and Agriculture



Organization, 1987). In particular, children, women, and the elderly are highlighted as vulnerable populations who experience a high level of household food insecurity.

Women's roles must be acknowledged, and they should be provided fair access to and ownership over the land, credit facilities, extension services, improved tools, membership in cooperatives, and other rural benefits in order to increase the capacity of rural women to satisfy their food demand. (Winrock, 2001).

Because women perform a variety of roles in the processes of food production, handling, and preparation throughout the sequence, which is referred to as "feeding the world," it is challenging to emphasize the significant contribution of women to agricultural productivity and household food security. Rural Women frequently play a hidden role in development, despite their contributions to food security. Rabinowick, (2002).

#### **Statement of the Research Problem**

Rural women's economic contributions are frequently undervalued, while the low-key nature of their job in agriculture contributes to this perception (Olumakaiye&Ajayi, 2006). However, this pattern is shifting as empirical data over time has highlighted the importance of women's empowerment and its benefits for household food security (Verhart, Van Den Wijngaart, Dhamankar, & Danielsen, 2016). Additionally, there is mounting proof that rural women's incomes have a greater impact than men's on enhancing household food security (Olumakaiye&Ajayi, 2006).

According to the research that are now available, most of the economic activities carried out by rural women in sub-Saharan Africa take place in the rural areas where they are most prevalent and are primarily related to agriculture. The household level, where more expertise is needed to assist develop interventions that would transform the unacceptable food and nutrition condition of rural women in Kebbi State, is not covered in the current knowledge of food and nutrition security in rural parts of Nigeria. The study aimed at examining rural women contribution to household food security. It is against this backdrop that the study hopes to provide answers to the following research questions.

1. What are the socio-economic characteristics of rural women in Kebbi State?
2. Are the rural women in Kebbi State food secured?

3. How do rural women contribute to household food security?
4. What are the challenges faced by rural women in ensuring household food security?

This study is justified by the need to fully address the issue of food security and the unique challenges faced by rural women in carrying out their roles as food suppliers in rural areas. An important indicator of rural women's contribution to household food security, the informal economy in cities, and consequently sustainable development in this field is the study.

The study's focus is on the level of food security in households, taking into account both the socioeconomic elements that contribute to this level of security and the connections between the circumstances of rural women and their level of food security.

## **II. Literature Review**

### **Women and agriculture in Sub Saharan Africa**

In Africa, women are primarily responsible for ensuring food security, yet development organizations have only invested a small amount of money in studying how their agricultural policies and innovative farming practices affect the welfare of women farmers there (World Bank. 2003). The pressing need for a gendered approach to agricultural policy in Africa is the time to push for a paradigm shift. The argument in favor of this claim is that rural women play a crucial role in the farming structure of Africa and that the dominant agricultural policies created for the continent, which were heavily influenced and involved external experts, ignored this gender dimension at a very real cost to African agriculture and gender equity within the region (Sreekumar, 2001).

African women have started to make significant demands for their inclusion and participation in the economic and policy processes that affect agriculture. Indeed, they have begun to create and disseminate regional authority resources in the area of agriculture (Sreekumar, 2001). We now know from existing research that there are gender differences of enormous magnitude within African agriculture through these materials, being those which develop out of interaction with women farmers on their needs and potential.

Women are actively involved in agricultural production to a greater extent than men in Nigeria, and this trend is not new in Africa. This was validated by a research funded by the UNDP, which found that, depending on the location,



women make up 60–90% of the agricultural labor force and that they produce two-thirds of food crops. Women in Africa have generally been known to play an important role in small-scale traditional agricultural production (Spiro, 2017).

### **Nigerian Women in Agriculture and National Development**

Even in the professional crowd that is predominately made up of men, the Nigerian woman has shown that she is more than just a "bench warming" observer. Women are capable of contributing to governance and making decisions when given the chance. They are capable of coping just as well as males do under really trying and stressful conditions.

The contribution of women to Nigeria's agricultural production cannot be minimized, according to the data and evidence that are now available. In the social and economic life of the community, they play important roles. Without taking care of this significant and vital part of society, rural and national development will be difficult to achieve (WOFAN, 2003). In recognition of the importance of women in national building, the Nigerian government, more than ever before, is keen on rural poverty alleviation as a way of improving the economy.

According to Afolabi (2008), who concentrated on the activities of rural women in Nigeria's Ondo State, women's agricultural activities underwent a comprehensive analytical investigation, and it was found that these activities are very powerful pillars of the state's economy. Groups of women in the State are organized and frequently involved in multiple forms of economic activity. Rural women in the state play a significant role in food production; they have successfully managed human and financial resources to provide the best outcomes; they have taken up employment, which has reduced unemployment; and the output from their farms has helped to ease the food shortage situation. By doing this, they significantly enhance the nation's agricultural production, environmental protection, family stability, and food security.

### **Women's Groups and Organization**

Many women's associations and organizations have arisen in Nigeria in an effort to close the gap between men and women farmers. These organizations and groups have made a significant contribution to the advancements made by women farmers and the voice they currently have in the broader national strategy on agricultural

development. One such organization is the Women Farmers' Advancement Network (WOFAN), a private initiative with its headquarters in Kano, Nigeria, that was established in the early 1990s. In five different northern Nigerian states, WOFAN collaborates with 250 women's groups to mobilize and educate rural women in information and communication management. WOFAN, (2003).

## **III. Materials and Methods**

### **Study Area and Location**

The study was carried out in Kebbi State, Nigeria. Kebbi State is located in the north-western part of Nigeria and occupies a land area of about 37,201 square kilometers with a population of about 4,440,000 in 2016 based upon projections from (NPC, 2006). The State lies between latitudes  $10^{\circ} 05'$  and  $13^{\circ} 27'N$  of the equator and between longitudes  $3^{\circ} 35'$  and  $6^{\circ} 03'W$  of the Greenwich.

The climate of the study area is Sudan savannah with two main distinct seasons: the wet and dry seasons. The vegetation in the state consists largely of a great expanse of arable land and rich fertile soil with crops like sorghum, millet, maize, cowpea, yam, cassava, sweet potato, rice, vegetables and fruits. Cash crops grown include soybeans, wheat, ginger, sugarcane, tobacco and gum-Arabic. The state has a high potential for livestock rearing especially goats, pigs, sheep and poultry. Kebbi State is essentially agrarian with about 80 percent of the population living in rural areas and more than 90% of the rural population engaged in farming.

### **Sampling Procedure and Sample Size**

A multistage sampling technique was used for the study. The first stage is the random selection of four local government areas (LGAs) from each of the Agricultural development zone of the state. The LGAs selected are Agrungu LGA, Gwandu LGA and Yauri LGA and Zuru LGA. In the second stage, three villages were selected at random from each of the local government areas, giving a total of twelve (12) villages. In the third stage, the purposive selection ten (10) rural women farmers were selected through a simple random sampling technique from each of the villages. Thus, the total sample size for the study was one hundred and twenty (120) respondents.

### **Data Collection**

Both Primary and secondary data were used for the study. The primary data was collected from rural households through the use of pre-tested and well-



trained ADP enumerators under the supervision of the researchers.

#### Model specification

Both descriptive statistics and the food security index was used for the study. Descriptive statistics such as mean frequency, percentage and weighted mean score were used.

A food-secured household is therefore one whose per capita monthly food expenditure fell above or is equal to two third of the mean per capita food expenditure. On the other hand, a food-insecure household is one whose per capita food expenditure fell below two-thirds of the mean monthly per capita food expenditure adopted by (Omonona et al., 2007).

$$Fi = \frac{\text{per capita food expenditure for the } i\text{th household}}{2/3 \text{ mean per capita food expenditure of all households}}$$

Where  $Fi$  = Food security index

$Fi \geq 1$  = food secure

$Fi < 1$  = food insecure

## IV. RESULTS AND DISCUSSION

### Socio-Economic Characteristics of Rural Women in Kebbi State

Table 1 provides a description of the traits of rural women in the research area. Based on the literature and a priori expectations for this kind of study, the explanatory factors for the study area's rural women's contribution to household food security were chosen. To forecast the socioeconomic aspects that would influence rural women's contribution to food security in the home, a number of variables have been taken into account. These include the age of the women in rural areas, their marital status, level of education, the size of their farms and households (how many

people live in each), their access to credit, their monthly income, and their method of obtaining food.

According to the whole sample's summary of results for socioeconomic characteristics, (35.8%) of the women polled are between the ages of 40 and 49, meaning they are still in their prime working years. This was comparable to the mean age of 42 years reported by Adepoju et al (2015). The majority of respondents (99%) are married, with the remaining 1% being single, divorced, or widowed. The majority of respondents (31.7%) had completed their education in Arabic, followed by 19.2% in primary education, 17.5 in post-secondary education, and 16.7 and 15.0 in secondary and adult education, respectively. The research also shows that the majority of women (79.2%) use less than 3 hectares of land for farming. Farmlands of 11 hectares or more only made up (1.7%) of the total. A household of 4-6 individuals makes for 40 of the respondents. Only (15%) of the respondents, however, live in households with 10 or more people. This finding resembles that which Alade and Eniola stated (2012).

The majority of respondents (54.2%) said they did not have access to credit, while (45.8%) said they did. This suggests that additional efforts are required to close the access gap for women to credit facilities. According to the results, only 2.5 percent of respondents earn between N40,000 and N50,000 per month, compared to (49.2%) who earn between N1,000 and N10,000. In this research, (47.5%) of respondents get their food from Gifts through friends/family, (19.2%) Bought their food at the market/farm, (13.3%) earn their food via kind payment for a day's job, (11.7%) grow their food on the farm and (8.3%) gather their food from the bush.

**Table 1** Socio-Economic Characteristics of Rural Women in Kebbi State

Age	Frequency	Percentages
20-29	14	11.7
30-39	39	32.5
40-49	43	35.8
50 and above	24	20.0
<b>Marital status</b>		
Married	99	82.5
Divorced	9	7.5
Single	10	8.3
Widow	2	1.7
<b>Educational status</b>		
Arabic	38	31.7
Adult	18	15.0



Primary	23	19.2
Secondary	20	16.7
Post-Secondary	21	17.5
<b>Farm size</b>		
Less than 3	95	79.2
4-6	19	15.8
7-10	4	3.3
11 and above	2	1.7
<b>Household Size</b>		
1-3	33	27.5
4-6	48	40
7-9	21	17.5
10 and above	18	15
<b>Access to Credit</b>		
Yes	55	45.8
No	65	54.2
<b>Monthly Income</b>		
₦1000 - ₦ 10,000	59	49.2
₦ 10,001- ₦ 20,000	28	23.3
₦ 20,001- ₦ 30,000	16	13.3
₦ 30,001- ₦ 40,000	10	8.3
₦ 40,001- ₦ 50,000	3	2.5
₦ 50,001 and above	4	3.3
<b>Method of food acquisition</b>		
Grown on the farm	14	11.7
Gathered in the bush	10	8.3
Gift from friends/family	57	47.5
In kind payment for day's job	16	13.3
Bought at market/farm	23	19.2

**Source:** Field Survey 2022

### Food Security Status of Rural Women

Table 2 shows the distribution of the monthly expenses for the rural women in the research area. The largest amount of monthly expenses is spent on food items, which may be explained by the rise in food costs, the size of the household, or changes in household member consumption patterns, according to Adepoju et. al., (2015). Rural women were categorized into food insecure and food secured based on 2/3 mean per capita food expenditure which has a relationship with Income as an essential requirement for sustainable food availability, accessibility and utilization.

The food security index indicates a significant association between rural women's household operations and household food security status. The result revealed 63.3% of the rural women were food insecure despite their active engagement in farm and off-farm activities but their income is still low, majority of rural women were housewives or family workers as unpaid labor which result in less income generation.

Blumberg (2005) points out that rural women's poverty and low income show a negative correlation with the state of food safety and food spending. According to Adebayo (2012), home size has a sizable yet detrimental impact on one's level of food security. Larger families put additional strain and stress on the financial resources of the household. At the household level, a one-unit increase in family size resulted in a decrease in per-person calorie intake.

Because of their education level and knowledge of how to prepare wholesome food, 36.7% of rural women were food secure, but the likelihood of being food secure is increased if women have household decision-making authority and control over the household's financial resources.

Compared to households with a single source of income, rural women who had multiple sources of income (including both farming and non-farming sources) had more food security. In addition to improving household food access, rural women's income also aids in enhancing and maintaining smooth food consumption and food expenditure within the household by avoiding impulsive food shortages.





**Table 2** Food Security Status of Rural Women in Kebbi State

Variables	Number of rural women	Percentage	Head count ratio
2/3 Mean per capita food expenditure is N 52,681.44			
Food Secure	44	36.7	0.37
Food Insecure	76	63.3	0.63
Total	120	100	

Source: Field Survey 2022

### Roles of Women in Household Food Security

Table 3 demonstrated the relationship between rural women's increased farming activity and their level of food security. Rural household women played a key role in providing food and were primarily responsible for food storage within the home to prevent an unanticipated shortage. The findings in Table 3 showed that rural women's top priorities in ensuring food security for the household in the study area included reducing child malnutrition, which had a mean score of (2.47), food processing and meal preparation, which had a mean score of (2.40), ensuring the wellbeing of the entire household, which had a mean score of (2.36), and purchasing a variety of food items for consumption, which had a mean score of (2.05). According to Adepoju et. al., (2015) Weight mean score and average weighted mean score, women who performed those roles in the ranked 1-6 were indicated to make more contributions in ensuring household food security than the women who performed the roles in the ranked 7-10 as indicated make a less significant contribution in ensuring household food security.

**Table 3** Roles of women in household food security

Roles of women in household food security	Frequently	Occasional	Never	Mean	Rank
Food processing and meal preparation	72 (60.0)	25 (20.8)	23 (19.1)	2.40	2 <sup>nd</sup>
Guarantee wellbeing of the entire household	59 (49.1)	46 (38.3)	15 (12.5)	2.36	3 <sup>rd</sup>
Buying of varieties of food items for consumption	20 (16.7)	86 (71.7)	14 (11.6)	2.05	4 <sup>th</sup>
Reduction of child malnutrition	67 (55.8)	43 (35.8)	10 (8.4)	2.47	1 <sup>st</sup>
Buying food for storage keeping	12 (10.0)	48 (40.0)	60 (50.0)	1.60	7 <sup>th</sup>
Food preservation	25 (20.8)	42 (35.0)	53 (44.2)	1.76	5 <sup>th</sup>
Food production	25 (20.8)	27 (22.5)	68 (56.7)	1.64	6 <sup>th</sup>

Source: Field Survey 2022

### Challenge Faced by Rural Women in Ensuring Household Food Security

The high cost of food items is a result poor income of rural women and its association with rural dweller's sittings, societal constraints, Cultural and religious taboos that constrain women's access to the source of food and insufficient food items by the rural women is due to Distance from the market due to lack of transportation and bad road network,

Rural women in the research area faced a variety of difficulties, including time limits brought on by their heavier domestic workloads and larger households. It may be assumed that the majority of rural women experienced challenges with household food security. This suggested that the difficulties faced had an impact on rural women's contribution to food security in the home.



**Table 4 Challenges faced by rural women in ensuring household food security**

Challenges faced by rural women in ensuring household food security	*Frequency	%
Cultural and religious taboos that constrain women's access to source of food	99	82.5
Distance from market	115	95.8
Time constraints due to domestic work load	90	75.0
Poor health status of rural women	78	65.0
Large family size	97	80.8
Poor income	85	70.8
Societal Constraints	95	79.1
Insufficient of food item	45	37.5
High cost of food items	92	76.6

**Source:** Field survey 2022

\*Multiple responses

## V. Conclusion and Recommendation

### Conclusion

The study's conclusion showed that women are crucial to ensuring the food security of the household. The need to ensure household food security is not only a function of the availability of food but also of rural women's demand for purchasing power, both of which are essential components in ensuring both national household food security. Rural women's income increases the ability of the household to maintain opulent consumption and expenditures during times of vulnerability and scarcity. Despite that rural women faces many constraints in achieving household food security they are involved in productive, income generating activities and engaged in household care and management activities.

## VI. Recommendations

Based on the finding, it is recommended that women should be provided with credit facilities to enable them to increase their production capacity, especially in rural areas where they make a significant contribution to food crop production and household food security. To increase the food security of their household, they should be urged to engage in income-generating activities.

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