

CONTRIBUTION OF WOMEN TO HOUSEHOLD FOOD SECURITY: A CASE STUDY OF MAKURDI METROPOLIS BENUE STATE NIGERIA

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ABSTRACT

This study focused on contribution of women to household food security in Makurdi Metropolis of Benue State, Nigeria. Data were collected using interview schedule administered to one hundred (100) respondents randomly selected from five (5) wards in the study area using multi stage random sampling techniques. Result on level of participation in household food security of women showed that 59.0% of respondents fully participate in household food security indicating that women account for more than half of the labour required to produce food consumed in the study area. Logistic regression model was used to determine factors influencing women participation in household food security. The result showed that the coefficient of annual income was positive and statistically significant (Wald test 3.354; $P < 0.10$). This implies that annual income can influence the probability of women's full participation in household food security in the study area. Government policies should be designed and implemented to create programs that will enable women to use and benefit from their own resources and capabilities.

Keywords: contribution, women, household, food security

INTRODUCTION

The end result of agriculture and agricultural development in developing countries of Sub-Sahara Africa is rural development without which all effort in agricultural development is futile. Women play a significant role in the domestic and socio-economic life of the society such that national development is not possible without considering developing this important and substantial segment of the society (Quisumbing and Meinzen-Dick, 2001 and Chauhan and Vinaya 2016).

The Nigerian woman has proved to be more than a mere "bench-warming" spectator, even in the midst of the male-dominated professional congregation. If given the opportunity, women can effectively participate in policy-making and governance. They can hold their own in very difficult and stressful circumstances and can do as well, if not better, than men. The steady advancement of women in contributing to the nation's economic development and their progressive prominence in the national scheme of affairs have, to a large extent, impacted on the Federal government and government has responded positively in diverse ways (Ogunlela and Mukhtar, 2009).

Food security refers to the availability of food and one's access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation (FAO 2001). Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Idachaba, 2006). Food security for a household means access by all members at all times to enough food for an active, healthy life (Otaha, 2013).

The position and capability of women meeting the challenges of agricultural development cannot be overemphasized (Rahman, 2008). Women make significant contribution to food production and processing, but men seem to take more of the farm decisions and control the productive resources. In Nigeria, women play a dominant role in agricultural production; their active participation in African agriculture is also not new. This was confirmed by a study financed by the UNDP, which revealed that women make-up 60-90% of the agricultural labour, depending on the region 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 (Ogunlela and Mukhtar, 2009).

Food production is the major activity of women and their responsibilities and labour input often exceed those of men in most areas of Africa. These women also provide much of labour for the cultivation of export crops from which they derive little direct benefit; they perform all domestic tasks and carry out other farm work. They also take care of the children, the sick and elderly in addition to performing essential social function within their community. Women farmers have proved to be extremely resourceful and hard working in ensuring food security (Ezem, 2004).

Women make essential contributions to the agricultural and rural economies in all developing countries. Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies. Their activities typically include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes. Many of these activities are not defined as “economically active employment” in national accounts but they are essential to the well-being of rural households (Sofa and Doss 2011).

Women, by the design of God at creation are supposed to be “helpers” to meet the needs of the man [Genesis 2 verse 18; *Living Bible Translation (TLB, 1971)*] and not be major contributor to the household food security as it is obtainable in our world today.

Women are responsible for generating food security for their families in many developing countries, particularly in Africa. Women do not only process, purchase and prepare food; they also play a significant role in national agricultural production, producing both cash crops (Quisumbing and Meinzen-Dick, 2001).

Brown (1995) stated that women act as the “gate keepers” of their households’ food security through the allocation of their own time and income. His studies founded that positive effect on the probability that a child will survive in urban Nigeria is almost 20 times greater when certain income source is accrued to women rather than men.

However, growing number of studies now suggest that it is not simply the level of household income but who earns that income that influence food security. Evidence suggests that men spend a higher proportion of their incremental income on goods for their children and general household consumption. By contrast, women are more likely

to purchase goods for their children and for general household consumption (Ezem, 2004).

Women play important roles as producers of food, managers of natural resources, income earners, and caretakers of household food and nutrition security. Giving women the same access to physical and human resources as men would increase agricultural productivity, just as increases in women’s education and improvements in women’s status over the past quarter century have contributed to more than half of the reduction in the rate of child malnutrition (Quisumbing and Meinzen-Dick, 2001).

In a developing economy like Nigeria, ensuring food security is important for improving and maintaining the quality of life. It is no longer news that Benue State is the “*food basket of the nation*” but it is the women who are carrying the basket.

Despite the enormous contributions of women to food security, they tend to be invisible actors in development although often their work is recorded in statistics or mentioned in reports; as a result their contribution is poorly understood and often under estimated.

It is as a result of these and other social cultural and economic constraints that the contribution of women to household food security in Makurdi Metropolis needs to be investigated with the following specific objectives:

OBJECTIVES

- (1) to describe the socio economic characteristics of women
- (2) to determine the level of women’s participation in household food security
- (3) to determine the factors influencing women participation in household food security.

METHODOLOGY

(a) Study Area

The study area was Makurdi, the capital of Benue State; created in 1970 out of the Tiv native authority, Makurdi is situated in the Southern Guinea Savannah zone in the middle belt region of Nigeria between latitude 7° 44’0¹¹ N and longitude 8°32’0¹¹. It covers a total land mass of 80.4km² Makurdi Local Government is called greater Makurdi as provided for in the greater Benue edict of 1984.

The Local Government has 11 (eleven) council wards with a total population of 300,377 people having over 120,000 women (National Population Commission, 2006). It is made up of two constituencies, Makurdi North,

(comprising of Agan, Mbalagh, North bank1 and North Bank 2, Clerk, Market and Central South Mission) and Makurdi South (comprising Ankpa/Wadata, Bar, Modern Market, Fiidi and Wailomayo wards).

(b) Sampling Procedures and Respondent Selection

The sampling population included women in various household across Makurdi Metropolis. Data were collected using multistage random techniques. Five (5) wards noted for major economic activities in the study area were selected. From the five (5) wards, twenty (20) women each were selected randomly, given a sample size of one hundred (100) respondents. Through face to face contact, the interview schedule was used as a tool for collection of requisite information. The wards selected were; Wadata, High Level, North bank, Kanshio, and Wurukum.

(d) Method of Data Collection

In the study area, primary data were the source of information. The primary data were obtained by means of administering interview schedule randomly to one hundred (100) respondents chosen from the five (5) wards in the study area. The research instrument was designed to provide answers related to the objectives of the study and consequently respond to research questions and explain the relationship among variables. The design of the interview schedule was also meant to analyse the factors influencing women participation in household food security in the study area. The research instrument was divided into three (3) sections. The first studied respondents socio economic characteristics (age, annual income, monthly expenditure on food, number of children, education, occupation, and marital status). Secondly, find out respondents level of participation in household food security and various household food security activities performed. Finally determine the factors influencing women participation in household food security in the study area.

(e) Analytical Techniques

Objective one (1) and two (2), were analysed using descriptive statistics such as frequency and percentage while objective three (3) was analysed using stepwise logistic regression model.

Logistic Regression Model

Logit regression model is a binary choice a regression model in which dichotomous regression variables is considered as the dependent variable. The logit model was used to determine the factors influencing women participation in household food security objective 3. Logit

model is expressed explicitly as

$$P_i =$$

Where:

B_1 = The probability that women participation in household food security can be influenced.

B_0 = Constant term

B_k = Coefficient to be estimated

X_k = For $K = 4$ which are independent variable

$$J = Z_i = B_0 + \sum B_k X_{ik}$$

Then $P_i =$

The logit of the unknown binomial probabilities i.e the logarithms of the odds are modeled as a linear function of the X_i . In estimable form, the model is expressed as

$$(P_1) = \ln = B_0 + B_1 X_n + \dots + B_k X_k + U_i$$

The unknown parameters B_1 are usually estimate by maximum likelihood. Thus the model is explicitly expressed as.

$$Z_i = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + U_i$$

Where

$Z_i =$ Level of influence which is the cumulative logistic distribution obtained through the dichotomous response variable $Y =$ one (1) for full participation and zero (0) for partial participation.

B = Constant term

X_1 = Age (years)

X_2 = Annual Income (Naira:₦)

X_3 = Householdsize (in numbers)

X_4 = Number of children (in numbers)

U_i = Error term

RESULTS AND DICUSSION

Distribution of socio economic characteristic of woman

(1) Age:

The age range of the respondents was 20-61 years. The data in Table 1 showed that more than half of the

respondents 69.0% fell between the age class internal of 21-40 years; 29.0% were 41-60 years old; 1.0% were 20years old while 1.0% were above 60 years old. This is an indication that most of the respondents were in their prime age and are capable of participating in household food security.

(2) Annual Income

The result on annual income of respondents showed that 48% earned above N300, 000; 26 % earned below and equal to N100, 000; 15.0% earned between N100, 001 to N200, 000 while 11.0% earned between N200001 to N300, 000. This result suggests that respondents in the study area earned higher income annually capable of ensuring household food security.

(3) Monthly Expenditure on Food

The data in Table 1 also showed that 55.0% of respondents spent between N10,001 to N30, 000 on food; 32.0% spent less than and equal to N10, 000; 10% spent N30, 001 to N50, 000; while 3.0% spent above N50, 000 monthly on food. This result is consistent with Brown (1995) and Ezem (2004) who stated that women act as the “gate keepers” of their households’ food security through the allocation of their own time and income. Their studies founded that positive effect on the probability that a child will survive in urban Nigeria is almost 20 times greater when certain income source is accrue to women rather than men.

(4) Number of Children

The data in Table 1 showed that 51.0% of respondents had between 5- 9 children; 34.0% had less than 5 children; 9.0% had above 15 children; while 6.0% had between 10 – 14 children. This result reveals that respondents in the study area are having a large number of dependents in their households’.

(5) Education

The result on educational status of respondents as shown in Table 1 revealed that half of the respondents had obtained HND/University certificate (50.0%); followed by NCE/OND 24.0%; 11. 0% and 13.0% had obtained primary and secondary school education respectively while 2.0% had no formal education. The high educational status of respondents could be attributed to presence of different tertiary institutions in and around the study area. Previous studies such as that of Quisumbing *et al.*, (1995), Smith *et al.*, (2000) established that; increasing women’s education is a key ingredient for women’s empowerment which invariably would affect household food security. Those who lack access to basic education are not likely to accept new programmes such that will enhance food security within the households.

(6) Occupation

The result on occupation of respondent showed that 40.0% were civil servants; 20.0% were business women/traders; 19.0% were farmers; 8.0% were involved in vocational handwork such as tailoring and hair making; while 13.0% does any other work such as teaching, nursing, and NGOs. This is an indication that all the respondents were employed and had access to regular source of income. Women also engage in various forms of income generating activities which is basically to ensure household food security and good economic stability.

(7) Marital Status

The data in Table 1 also showed that 67.0% of the respondents were married; 19.0% were single; 11. 0% were widows and 3.0% were divorced. Since majority, 67.0% were still married; they are responsible to provide for their household even if their husbands made money needed available. They are known to determine the type of food, quality and quantity to prepare.

Table 1: Ddistribution of socio-economic characteristics of women n=100

Variables	Frequency	Percent
AGE		
20	1	1.0
21 – 40	69	69.0
41 – 60	29	29.0
> 61	1	1.0
Annual income (₹ 000)		
<= 100	26	26.0
100.001 – 200.00	15	15.0
200.001- 300.00	11	11.0
> 300.001	48	48.0
Expenditure of food (₹ 000)		
<= 10	32	32.0
10.001 –30.00	55	55.0
30.001 – 50.00	10	10.0
>50.001	3	3.0
Number of children		
<5	34	34.0
5-9	51	51.0
10-14	6	6.0
>15	9	9.0
Education		
No formal Education	2	2.0
Primary Education	11	11.0
Secondary Education	13	13.0
NCE/OND	24	24.0
HND/University	50	50.0

Occupation		
Farming	19	19.0
Trading/Business	20	20.0
Civil Service	40	40.0
Vocational handwork	8	8.0
Any other	13	13.0
Marital status		
Single	19	19.0
Married	67	67.0
Divorced	3	3.0
Widow	11	11.0

Distribution of level of participation in household food security of women

Table 2: Distribution of Level of Participation of Women in Household Food Security n=100

Variables	Frequency	Percent
Full participation	59	59.0
Partial participation	41	41.0

Source: Field Survey

Women play enormous role in ensuring that food is available at home at all times for household members. The data in Table 2 showed that 59.0% of respondents fully participate in household food security while 41.0% partially participate in household food security reason been that they get support from their husband. This result is consistent with the finding of the FAO (2005) and Ogunlela, Mukhtar (2009),

Table 3: Logistic regression of factors influencing women participation in household food security

Variables	B	SE	Wald	df	Sig.	Exp (B)
Age	-0.009	0.028	0.103	1	0.749	0.991
Annual income	0.0001*	0.0001	3.354	1	0.067	1.000
Household size	0.0001	0.130	0.0001	1	0.999	1.000
Number of children	-0.172	0.153	1.266	1	0.261	0.842
Constant	1.541	1.294	1.419	1	0.234	4.670

Source: Data Analysis

* Wald test significant at 10% level

CONCLUSION

Result on level of participation in household food security of women showed that 59.0% of respondents fully participate in household food security indicating that women account for more than half of the labour required to produce food consumed in the study area. Logistic regression model was used to determine factors influencing women participation in household food security. The result showed that the coefficient of annual income was positive and statistically significant (Wald test 3.354; P <0.10). This

Soni et al. (2017), and Patel et al. (2017) that women account for more than half of the labour required to produce food consumed in the developing world.

Logistic regression of factors influencing women participation in household food security

The stepwise binary logistic regression model was used to determine factors influencing women participation in household food security. The result further shows that the coefficient of annual income was positive and statistically significant (Wald test 3.354: p<0.10). This implies that annual income is influencing the probability of women’s full participation in household food security. It also means increase in annual income can increase the probability of women’s full participation in household food security.

However, the coefficient of age (-0.009), household size (0.0001), number of children (0.172), were not significant (p>0.10) at all conventional level. The result is consistent with the findings of Brown (1995), IFAD (2008) who stated that positive effect on the probability that a child will survive in urban Nigeria is almost 20 times greater when certain income source is accrued to women rather than men. Studies had also found out that for many women, food security is as good as cash income and promoting women’s on or off-farm productive activities can make a direct contribution to household food security.

implies that annual income is influencing the probability of women’s full participation in household food security. Increase in annual income can increase the probability of women’s full participation in household food security. Government policies should be designed and implemented to create programs that will enable women to use and benefit from their own resources and capabilities.

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