IJAAAR 11 (1&2): 130-136, 2015 *International Journal of Applied Agricultural and Apicultural Research*

Effects of Different Strategies Adopted by Rural Women on their Food Security in Oyo State

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Abstract

The study assessed the effects of different strategies adopted by rural women on their food securityin Oyo State. Multistage sampling procedure was adopted for this research work. Data collected were analyzed using descriptive statistics and binomial logit model. Majority (93.5 percent) of the sampled women were married, while 6.5 percent of them were widowed. The mean age was 49 years. Backyard farming (β= -1.000333343) had a negative but significant relationship to household food insecurity while reduction of meals (β= 1.312270792) had a positive and significant relationship to household food insecurity. It was recommended that, program aimed at reducing poverty should be implemented in other to ensure that households were able to afford adequate mealsalso; backyard farming should be encouraged among rural women.

Keywords: *Backyard farming, food security strategies, food security constraints and reduction of meals.*

Introduction

Rural women play crucial role in determining and guaranteeing food security and well-being for the entire household. Not only do women produce and process agricultural products but they are also responsible for much of the trade in these and other goods in many parts of the third world. In many parts of the world, women continue to play an important role as rural information sources and providers of food to urban areas. This may involve food from the sea as well as from the land. Although women rarely work as fisher people, they are often involved in net making, processing and sale of the catch. Women's roles and status over the world are determined by social institutions, norms, religious ideologies, ecosystems and by class positions. It is needful to emphasize on the significant contribution of women to agricultural production and household food security because in the processes of production, handling and preparation of food, women play multiple roles throughout the sequence, said to be "feeding the world" (Rabinowick, 2002).

Rural women account for 70% agricultural workers, 80% of food producers, 100% of those who process basic food stuffs and undertake 60-90% of marketing (Fresco 1998). Despite their contributions to food security, women tend to be invisible actors in development. All too often, their work is not recorded in statistics or mentioned in reports (Ndiyo & Urassa, 2002). Therefore, the need to carry out a study on the different strategies adopted by them in relation to food security.The objectives of the study therefore were to: (1) Examine the socio-economic characteristics of therespondents in the study area. (2) Identify means of food acquisition of

the respondents. (3) Determine the effect of different strategies adopted by the respondents on their food security. (4) Examine the constraints faced in ensuring food security by the respondents and (5) Determine the food security status in the respondents household.

Methodology

The study was carried out in Oyo State of Nigeria. The state is bounded on the west byOsun state and the republic of Benin, and in the North and South by Kwara and Ogun Statesrespectively.

A multistage sampling technique was employed for the study. The first stage involved selection of seventy five percent of the agricultural zones in Oyo state. Followed by the random selection of twenty percent of the local governments in each sampled agricultural zone. Then the consideration of one percent (1 percent) number of villages from the list of registered villages in each of the selected LGA. After whichrandom selection of twenty percent of the registered farming households in the selected villages was conducted to make up a sample size of one hundred and twenty-seven (127) respondents.

Table 1 below shows the LGAs, villages, estimated number of registered women farmers with OYSADEP and total number of respondents of the study.

Table 1: Distribution of respondents by sampling selection

LGAs	***S/N***	***Villages***	***No of registered women Farmers***	***No of respondents (20 percent)***
Oriire	1	Ajinapa	86	17
	2	Oloke	57	11
	3	Aje	74	14
	4	Oko Ile	80	16
	5	Ayekale	116	24
Subtotal				**84**
Olorunsogo	1	TesiGaruba	27	5
	2	ApataAlaje	41	8
	3	Budo Alhaji	82	16
Sub total				**29**
Afijio	1	Iware	39	6
	2	Imini	40	6
	3	Elesu	21	4
Sub total				**14**
Sum Total	**11**		**663**	**127**

Source: OYSADEP, 2001.

The data collected was analyzed using both descriptive and inferential statistical tools. Descriptive statistics such as mean, percentages, and frequency distribution were employed to elucidate the independent objectives while binomial logit was the inferential tool used to analyze the strategies of the food security of the respondents; (only 124 out of the 127 interview schedule administered were found analyzable.

Results and Discussion

Data in Table 2 show the distribution of respondents by socio-economic charact-eristics. The result shows that the majority (93.5 percent) of the sampled women were married,

while 6.5 percent of them were widowed.The fact that many of the respondents are married is expected to influence their level of contribution to household food security in the area. This study is in conformity with Akintonde (2009) that marital status may suggest a high degree of level headedness and great capability for sound decisions among the farmers. About 42.7 percent of the respondents were between the age limit of 41-50 years, 20.2 percent were in the range of 20-39 years, while 8.9 percent of them were 61 years and above. The mean age was found to be 49 years, this implies that all the sampled women were matured and it was expected that they would have some form of influence in the area of contributing to food security and household welfare in the area.

About 64.5 percent of the respondents had primary school certificates, 16.1 percent and 3.2 percent of them hold junior and senior school certificates respectively while 16.1 percent have non-formal education. Women farmers' understanding in the area of being prudent and eating balanced diet so as to guide against food insecurity level might be influenced by their literacy level.

The many (61.3 percent) of the respondents had household size of 4-6 members, 25.8 percent had within 0-3 members and 12.9 percent of them had within 6 members and above for their household size.

The mean household size was found to be 4 people. Household size tends to influence the supply of family labour forfarmandnon-farm activities. This is in line with the study of Awudu and Richard (2001) that large families appeared to be more efficient than small families.About 61.3 percent of the respondents claimed they have 16-25years work experience, 25 percent have 26-35 years, 8.9 percent had 34-45 years while 4.8 percent claimed that they have below 15 years work experience. The mean work experience was 25 years. Many (60.5 percent) of the respondents have between 2-3.2 hectares of farm land, 28.2 percent have between 1-4 while 11.3 percent have above 3.6 hectares of farm land respectively, the mean farm size being 2.4 hectares.This implies that the rural women are involved in farming, and this is expected to contribute to and encourage food availability for their various families in the study area. This is in line with Ingevall *et al* (2002), who said women are taking on an increasing responsibility in agricultural production.

Table 2: Distribution of respondents by socio-economic characteristics

Socio-Economic Characteristics	*Frequency*	*Percentage (Percent)*	*Mean*
Marital Status:			
Married-	116	93.5	
Widowed-	8	6.5	
Age(years):			
41-50-	53	42.7	49
51-60-	35	28.2	
Less than/equal to 40-	25	20.2	
61 and above-	11	8.9	
Qualification obtained:			
Primary School Certificate-	80	64.5	
JSS Certificate-	20	16.1	
Non-formal Education-	20	16.1	
SSS Certificate-	4	3.2	
Household Size:			
4-6	32	61.3	4
0-3	76	25.8	
Above 6	16	12.9	
Working Experience			
16-25	76	61.3	25
26-35	31	25.0	
35-45	11	8.9	
≤ 15	6	4.8	
Farm size (hectare)			
2.0-3.2	75	60.5	2.4
0.4-16	35	28.2	
3.6 and above	14	11.3	

Source: ***Field Survey, 2009***

The result in Table 3 shows the distribution of respondents by meansof foodacquisition.

A hundred percent each of the respondents grow food on their own farm and also gather food from the bush. About 79 percent collect food from friends and families, 53.2 percent had their food from in-kind payment for the day's job while 41.9 percent depend on open market or farm gate for their food supply.

Table 3: Distribution of respondents by means of food acquisition

Method of food acquisition	**Frequency**	**Percentage**
Grown on the farm	124	100.0
Gathered in the bush	124	100.0
Gift from friends/family	98	79.0
In kind payment for day's job	66	53.2
Bought at market/farm	52	41.9

Source: Field Survey, 2009. *: Multiple responses n= 124

The result in Table 4 shows the distribution of respondents by strategies adopted in ensuring food availability

A hundred percent each of the respondents claimed to employ strategies of good management and storage of excess food respectively. 69.4 percent practice backyard farming, 50 percent skip meals, 45.2 percent purchase food item at surplus period while 41.1 percent reduced quality/quantity of food intake.

Table 4: Distribution of respondents by strategies adopted to ensure food availability.

Strategies adopted to ensure food availability	Frequency	Percentage
Good management of available food	124	100
Storage of excess food	124	100
Backyard farming/gardening	86	69.4
Skipping of meals	62	50
Purchase of food item at surplus period	56	45.2
Reduction in quality/quantity of food intake	51	41.1

Source: Field Survey, 2009. *: Multiple responses n=124

The result in Table 5 shows the distribution of respondents byconstraints faced in ensuring food security

A hundred percent of the respondent claimed to be faced with financial and also marketing constraints. About 46.8 percent are faced with occupational constraints, 44.4 percent tend to depend on other people while 21.8 percent experience societal constraints. Unavailability of finance and marketing constraints has seen in fluctuating commodity price limit the strategies that can be employed to ensure food security hence, the cycle of hunger and malnutrition continues.

Table 5: Distribution of respondents by constraints faced in ensuring food security

Types of constraints	Frequency	Percentage
Market Constraints	124	100.0
Financial constraints	124	100.0
Occupational constraints	58	46.8
Dependence on others	55	44.4
Societal Constraints	27	21.8

Source: Field survey, 2000 *Multiple Responses

The result in Table 6 shows the categorization of respondents based on food security.

The responses to the items on the household food security scale was summed together to derive the food insecurity index (FANTA 2007, measures household food security by using household food insecurity access scale. Hence the inverse gives food security), with mean value of 10.09. The index was categorized into above and below the mean criterion with those below the mean being food secured and those above it, food insecure.

Table 6: Categorization of respondents by food security index n=124

Category	Frequency	Percentage	Cumulative percent
Food Secure	68	54.8	54.8
Food insecure	56	45.2	45.2
Total	124	100.0	100.0

Source: Field Survey, 2009

Test of Hypothesis

The binomial logit analysis revealed a negative but significant relationship exists between backyard farming and household food insecurity while reduction of meals had a positive and significant relationship with household food insecurity.The implication of the significance of the strategy of backyard farming to household food security is that the more backyard farming is adopted, the more food secure the household is. This conforms to (Ojo, 2009) which reported that "backyard farming was profitable and improve consumption of essential nutrients at the family level. Adekoya (2009) also mentioned backyard farming as one of the income generating activities engaged by household in ensuring food security.

The implication of the negative significance of the reduction of the quality and quantity of food as regards household food security is that the affected household tends to eat less of what is required to supply their body the needed nourishment and energy thus exposing the affectedhousehold to sickness and weakness, which further reduces their strength for work and the circle of insufficiency continues. This is in line with (Adekoya, 2009) who said "Examples of negative coping strategies are: severe reduction in food consumption, selling productive assets, reducing expenditures on basic services such as health and education, and abnormal migration".

Attah (2012) stated that "it has been well established in the copious literature on economic development that the problem of hunger and malnutrition is closely linked with poverty and lack of jobs because access to food is contingent on having the means to acquire it"

Table 3: Relationship between the Strategies Adopted by Women and Household Food insecurity

Strategies	**Coefficient (β)**	**t-value**	**p-value**	**Mean of X**
Constant	0.2423029697	0.512	0.508	
Keep Surplus	-0.3004894963	-0.712	0.4766	0.4516129
Backyard Farming	-1.000333343	-2.262	*0.0237	0.6935483
Reduction of Meals	1.312270792	3.131	**0.001	0.4112904
Skipping Meals	-0.3215397357	-0.833	0.4222	0.5000

**level of significance is 0.01 Binomial Logit Model

*level of significance is 0.05 Log Likelihood Function -75.00366

Conclusions and Recommendations

Majority of the sampled women were married. Therefore, married women should be encouraged to engage in food production and other food security activities.Women that reduce meals tend to be food insecuretherefore, program aimed at reducing poverty should be implemented in other to ensure that households were able to afford adequate meals. Backyard farming should be emphasized as a key strategy in enhancing household food security

References

Adekoya E.A., (2009): Food insecurity and coping strategies among rural households in Oyo State, Nigeria, *Journal of Food, Agriculture Environment Vol. 7* (3&4): 187 – 191.

Akintonde, J. O. (2009): Effect of Extension Information on the Technical Efficiency of Maize Farmers, *Unpublished M.Tech Thesis, Ladoke Akintola University of Technology, Ogbomoso.*

Attah, A. W. (2012): Food Security in Nigeria: The Role of Peasant Farmers in Nigeria. *An International Multidisciplinary Journal, Ethiopia Vol. 6 (4), Serial No. 27*.ISSN 1994-9057 (Print) ISSN 2070-0083 (Online) DOI: http://dx.doi.org/10.4314/afrrev.v6i4.12

Awudu, A. and Richard, E. (2001): Technical Efficiency During Economic Reform in Nicaragua; Evidence from Households Survey Data. Economic Systems, 25: 113 – 125.

Food and Agricultural Organization (FAO) (1996): Rome Declaration on World Food Security and World Food, World Food Summit, Rome, Italy.

Ingevall A. Campen E. and Roem W. (2002): *Women Managing Change "Low External Input and sustainable Agriculture* Leusadan, Netherlands.

Ojo S.O. (2009): Backyard Farming. *A panacea for Food Security in Nigeria*.

Olayemi, J.K. (1995): "Agricultural Policies for Sustainable Development" In IKPI, A and Olayemi J.K. (ed). *Sustainable Agriculture and Economic Development in Nigeria*. Arlington. Winrock International Institute for Agricultural Development African Rural Social Science Research network, Nigeria.

Rabinowick, J. (2002): Urban Food Security and Potential for Urban Agriculture. *The gender perspectives* Accessed august 2004http://www.fao.org/DOCREP/0031x291904.htm