

**ASSESSMENT OF EXTENT OF PARTICIPATION OF  
RURAL WOMEN IN FARMING ACTIVITIES IN  
SHIRORO COMMUNITY OF NIGER STATE, NIGERIA**

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*Abstract*

*Despite the significant role of women in farming activities to ensure sustainable national agricultural production, individual household's food security and in improving the quality of life in rural areas, their roles in food production, processing, marketing and distribution is grossly under acknowledged due to social barrier and gender bias. It is against this back drop, the study was conducted to assess the extent of participation of rural women in farming activities in Shiroro Community of Niger State, Nigeria. One hundred and twenty respondents were randomly selected and interviewed in line with the objective of the study. Descriptive statistics and inferential statistical tools were used for data analysis. The findings indicate that young adult women (61.17%) within the age range of 20-40 years are the majority that participated in agricultural activities and majority (60.83%) of the respondents are married. The study revealed that all (100%) of the respondents participated in threshing and harvesting. The farming activities 'mostly' participated by respondents are threshing (77.50%), harvesting (75.00%) and seed preparation (70.80%). Inadequacy of agricultural inputs, credit facilities, extension services and poor marketing services limits the extent of participation of rural women in farming*

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activities. The result of probit regression analysis revealed that Socio – economic factors such as age, level of income and years of farming experience has positively influence the extent of participation of rural women in farming activities in the study area. All efforts directed at empowerment of rural women in all field of activity can best be achieved through improvement in access to agricultural inputs, extension advisory services and provision of efficient marketing system.

## INTRODUCTION

Women play an indispensable role in farming and in improving the quality of life in rural areas. However, their contributions often remain concealed due to some social barriers and gender bias. Even government programmes often fail to focus on women in agriculture. This undermines the potential benefits from programmes, especially those related to food production, household income improvements, nutrition, literacy and poverty alleviation (Prakash, 2003). Women play a pivotal role in agriculture. Particularly striking, however, is the fact that rural women, more than their male counterparts, take the lead in agricultural activities, making up to 60-80 percent of labour force (Ogunlela and Muktar, 2009). The role played by women and their contribution in meeting the challenges of agricultural production in achieving food security, alleviating poverty and rural development are quite dominant and prominent. Their relevance and significance, therefore, cannot be overemphasized (Ogunlela and Muktar, 2009). The study financed by the United Nations Development Programme (UNDP) revealed that women make up to 60-80 percent of agricultural labour force in Nigeria and depending on the region, produce two-thirds of the food crops in most parts of the rural areas where agriculture is the dominant means of livelihood (World Bank, 2003).

Despite the contribution of rural women in increasing food security and the country's food production, they are still among the voiceless, their contribution tends to be underestimated and totally ignored especially with respect to agricultural policies which are aimed at increasing food security and food production (Ogunlela and Muktar, 2009). Studies have revealed that the primary responsibility for food security in Africa is mostly shouldered by women; however, development agencies have devoted minimal resources to researching the impact of their agricultural policies and new techniques on the wellbeing of Africa's women farmers (Grieco and Apt, 1998).

Ogunlela and Muktar (2009) emphasized that the productive role of rural women in agriculture continues to be underestimated in many countries as unpaid workers are frequently excluded from national statistics and/or farm women are considered housewives in agricultural statistics, hence, such underestimation must be addressed in order to clearly demonstrate the importance of rural women-in-agricultural production. The role of women in the household economy and their contribution towards food production and food security need to be acknowledged in any policy, programme and project aimed at promoting food security, rural and agricultural development (Kotze, 2003).

The study conducted by Jamali (2009) on the role of rural women in agriculture and its allied fields in Pakistan revealed that rural women play a significant role in farming. Traditionally, cotton picking is exclusively female activity and 89% of women are engaged in it. Their work ranges from crop production, livestock production to cottage industry. From household and family maintenance activities, to transporting water, fuel and fodder. He concluded that rural women are major contributors in agriculture and its allied fields. Despite such a huge involvement, her role and dignity has yet not been recognized. Women's status is low by all

social, economic, and political indicators. The role of women in fighting current food crisis cannot be underestimated; subsistence agriculture still dominates the working lives of more than half the world's women. In Africa, women produce 78 percent of the continent's food, including meat and staple grains, on subsistence and small land holdings with very limited access to production resources, land inclusive (Wilberforce, 2001).

Conducting a study on the participation of rural women in agricultural activities in the family opens a gate to know their status and performance in society since family economic, social and cultural conditions play a significant role to direct household women's efficiency (Anjali, 2008). The contribution made by rural women to agricultural production and rural development in Nigeria is grossly underappreciated in spite of the dominant role women play in the sector (Ogunlela and Muktar, 2009). Despite the significant role of women in farming activities to ensure sustainable national agricultural production and individual household food security, their roles in food production, processing, marketing and distribution is yet to be acknowledged in the study area. It is in the light of this, the following research objective was raised to assess the extent of participation of rural women in farming activities in Shiroro community of Niger state, Nigeria. The specific objectives of the study are to: describe the socio economic characteristics of the rural women in the study area, determine the extent of participation of rural women in farming activities in the study area, identify the constraints that limit the participation of rural women in farming activities in the study area and determine the socio-economic factors that influence extent of participation of rural women in farming activities in the study area.

#### METHODOLOGY

The study was conducted in Shiroro local Government area of Niger State, Nigeria. The study area lies between latitudes 820°N and 1130°N and longitudes 330°E and 720°E. The study area

has a population of about 159,626 people (NPC, 2006). The study area has a Guinea Savannah type of vegetation with an annual rainfall range of between 110mm to 1600mm and temperature range of 25°C to 35° C. The major occupation of the people is farming; the climatic and vegetation pattern coupled with the large expanse of arable fertile soil makes the area suitable for cultivation of wide variety of major crops such as yam, maize, sorghum, millet, rice, cowpea and groundnut. For this study, multi stage sampling technique was employed to purposively select Shiroro Local Government area for the study based on the prior knowledge of high proportion of farmers in the area. The second stage involved random selection of six communities namely: Erena, Gussoro, Zumba, Gwada, Manta and Kuta for the study. Similarly, random sampling technique was also employed to select 120 respondents based on the proportionality of the population of the selected communities in the study area. A well structured interview schedule comprising of open and close questions was used as a primary source of data collection from the sampled respondents to meet up with the objectives of the study. Data analysis was done using descriptive statistics such as frequency distribution and percentages to determine the objectives of the study while probit regression analysis was used to achieve the formulated hypothesis. The extent of participation of rural women in farming activities were assessed by using a three point continuum namely 'Mostly', 'Occasionally' and 'Not at all' (Luqman *et al.*, 2006). The regression model is specified in its implicit form as follows,

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, + e) \dots\dots\dots (1)$$

Where

- Y = level of participation in farming activity (Y=1 for those that participated in a farming activity and 0 for otherwise)
- X<sub>1</sub> = Age of farmer: (years)
- X<sub>2</sub> = Marital status: (married =1, other = 0)
- X<sub>3</sub> = Farm size (ha)

- $X_4$  = Educational status (years).  
 $X_5$  = Income (naira)  
 $X_6$  = Years of farming experience  
E = Error Term

### Results and Discussion

Age is one of the demographic characteristic that is used to classify rural population into targetable groups. From Table 1 the result shows that the majority of the women who participated in agricultural activities are concentrated within the age range of 20 - 40 years who are young adults capable of undertaking farming activities representing 61.17% of the respondents interviewed. This indicates that the majority of the women is young and within the work force age, has the ability to bear risk, they are also venturesome and this tends to influence their level of participation positively because farmers within this age are always opportunity seekers. The table also revealed that majority (60.83%) of the respondents is married. This means that women participation in agriculture activities are enhanced by the presence of their family members and the higher proportion being married may be associated with the religion and culture of the respondents as Islam allowed early marriage and so does the Hausa tradition as most of the women are Muslim. Table 1 indicated that 25.8% had primary education, 31.70% had secondary education while only 3.30% had tertiary education. On the contrary 39.20% had no formal education. The trend of the results revealed that the educational level of the respondents was relatively low in the study area. This may lead to low level of knowledge about new agricultural practices and could be a hindrance in the decision making process to accept new agricultural packages. This is because knowledgeable farmers have better information about new practices and are more willing to bear risk and less obliged to other

responsibilities and also more responsive to new agricultural packages (Clark and Akinbode, 1998).

**Table 1: Socio – economic Characteristics of Respondents in the Study Area (n =120)**

Age (Years)	Frequency	Percentage
<20	15	12.50
20 – 40	74	61.17
>40	31	25.80
<b>Total</b>	<b>120</b>	<b>100</b>
<b>Marital Status</b>		
Single	12	10.00
Married	73	60.83
Widowed	26	21.67
Divorced	9	7.50
<b>Total</b>	<b>120</b>	<b>100</b>
<b>Level of Education</b>		
No formal education	47	39.20
Primary education	31	25.80
Secondary education	38	31.70
Tertiary education	4	3.30
<b>Total</b>	<b>120</b>	<b>100</b>

Source: Field survey, 2012.

The result presented in Table 2 revealed that all (100%) of the respondents participated in threshing and harvesting. This finding can be confirmed by the study of Luqman *et al.*, (2006) that majority of women participated in harvesting and threshing activities in the farm. Similarly, this can further be confirmed by the study of Hussain and Hussain (2011) that revealed that

90% and 82% of rural women perform harvesting and threshing activity in the farm especially in maize cultivation. Other major farming activities participated by women in the study area include seed preparation (90.00), storage of agricultural produce (80.00%), sowing/planting (70.00%), beans picking (60.83%), selling of agricultural produce (60.00%), while the least activities participated by the respondents are weeding (20.00%) and washing of melon (10.00%) respectively. The low level of participation of respondents in this activity could be due to cultural, social norms and values as well as religious perspective (Anjali, 2008).

**Table2: Distribution of Farming Activities Participated by Respondents (n = 120)**

Farming activities	Frequency	Percentage	Rank
Seed preparation	108	90.00	2 <sup>nd</sup>
Sowing/planting	84	70.00	4 <sup>th</sup>
Weeding	24	20.00	7 <sup>th</sup>
Harvesting	120	100.00	1 <sup>st</sup>
Threshing	120	100.00	1 <sup>st</sup>
Storage of agricultural produce	96	80.00	3 <sup>rd</sup>
Selling of agricultural produce	72	60.00	6 <sup>th</sup>
Beans picking	73	60.83	5 <sup>th</sup>
Washing of melon	12	10.00	8 <sup>th</sup>

**Source: Field survey, 2012.**

The result in Table 3 depicts that the activities 'mostly' participated by respondents include threshing (77.50%), harvesting (75.00%) and seed preparation (70.80%). The major farming activity 'occasionally' participated by the respondents is sowing / planting (45.00%), while washing of melon and weeding was respectively 'not at all' performed by 84.38% and 80.00% of the respondents in the study area.



**Table3: Distribution of Respondents' Extent of Participation in Farming Activities (n = 120)**

Farming activities	Mostly		Occasionally		Not at all	
	Freq.	%	Freq.	%	Freq.	%
Seed preparation	85	70.80	23	19.17	12	10.00
Sowing/planting	30	25.00	54	45.00	36	30.00
Weeding	5	4.20	19	15.83	96	80.00
Harvesting	90	75.00	30	25	-	-
Threshing	93	77.50	27	22.50	-	-
Storage of agricultural produce	60	46.88	36	30.00	24	20.00
Selling of agricultural produce	37	30.83	35	29.17	48	40.00
Beans picking	53	44.17	20	16.67	55	45.83
Washing of melon	-	-	12	10.00	108	84.38

Source: Field survey, 2012.

Despite the significant role played by the rural women in the social and economic development of rural areas, many rural women encountered several problems that hinder the extent of their participation in farming activities. This situation hampers the contribution of women to agriculture and other sectors of the economy. The result in Table 4 shows that major problems encountered by respondents participating in farming activities in the study area include inadequate agricultural inputs (70.00%). Elizabeth (2006) previously reported that inadequacy of inputs (e.g., farm tools, fertilizers, agrochemicals) especially in rural areas, and the high costs wherever these are available limits the participation of women in agricultural activities. Other constraint that limits participation of rural women in farming activities include inadequate credit facilities (50.00%), inadequate extension services (30.00%) and poor marketing services (30.00%). Agricultural extension activities which have been male dominated, continues to target

and benefit males than women in most developing countries. Absence of collateral and limited scale of enterprise, rural women have long been disadvantaged in accessing loan and credit facilities. They suffer limited access to productive resources thereby perpetuating drudgery in their farming efforts and have been marginalized by distant and poor marketing facilities (Wilberforce, 2001). The inadequacy of agricultural inputs, credit facilities, extension services and poor marketing services will have a negative impact on the farming activities of the rural women (Prakash, 2003). This is because availability of credit facilities would provide adequate capital to take care of the expenses involved in carrying out the new practice especially the purchase of agricultural inputs like fertilizer, improved seeds, herbicides and expansion of production land. Increase number of extension contact with farmers will provide the farmers the forum to be advised and sensitized on the various marketing strategies and advantages associated to new agricultural packages that will boost their income and improve their standard of living.

**Table 4: Distribution of Respondents According to the Constraints that Hinder their Full Participation in Farming Activities**

Constraints	Frequency	Percentage
Inadequate credit facilities	60	50.00
Inadequate agricultural inputs	84	70.00
Inadequate extension services	36	30.00
Poor marketing services	36	30.00
<b>Total</b>	<b>120</b>	<b>180*</b>

Source: Field survey, 2012.

\*The percentage added to more than 100 as result of multiple responses.

The results in Table 4 revealed that the some socio – economic factors that influence the extent of participation of rural women in farming activities in the study area include age, level of income and years of farming experience. Age of the respondent was observed to be positive and significant at 5% significant level. This implies that as the respondents' age increases the tendency to participate in farming activities increases. This could be explained by the fact that as the age of the rural women increases there is tendency of them to gain more knowledge and become more specialized in the farming activities and willingness to participate in activities that will essentially increase their productivity and cash income. The level of income of rural women was observed to be positive and significant at 5% significant level. This implies that as the income of rural women increases the tendency of them to participate more in farming activities or activities that will boost their sources of income also increases. This could be explained by the fact that more income would provide adequate capital to take care of the expenses involved in carrying out the new practice especially the purchase of agricultural inputs like fertilizer, improved seeds, herbicides and expansion of production land. The level of years of farming experience of rural women was observed to be positive and significant at 5% significant level. The years of farming experience is expected to increase individuals' experience of better farm management practices and efficient use of resources to increase farm output.

**Table 5: Results of Probit regression Analysis on the Socio-economic Factors that Influence Extent of Participation of Rural Women in Farming Activities in the Study Area**

Variables	Coefficient	Standard error	T-ratio
Intercepts	.111	.066	1.690*
Age(X <sub>1</sub> )	.002	.001	2.016**
Marital status (X <sub>2</sub> )	-010	.042	-234 <sup>NS</sup>

Farm size ( $X_3$ )	-006	.017	-353 <sup>NS</sup>
Level of education ( $X_4$ )	.004	.004	-1.038 <sup>NS</sup>
Income ( $X_5$ )	.002	.000	11.022**
Years of farming experience( $X_6$ )	.009	.001	6.433**

**Pearson Goodness of Fit = 6008.501\***

**Note: \*\*\*, \*\* and\* implies statistical significant at 1%, 5% and 10% levels, respectively.**

**Source: Computed from Field Survey Data, 2012.**

### CONCLUSION AND RECOMMENDATION

The study revealed that all the respondents participated in threshing and harvesting, the farming activities 'mostly' participated by rural women in the study area are threshing, harvesting and seed preparation. Socio – economic factors such as age, level of income and years of farming experience has positively influence the extent of participation of rural women in farming activities in the study area. Inadequacy of agricultural inputs, credit facilities, extension services and poor marketing services limits the extent of participation of rural women in farming activities. All efforts directed at empowerment of rural women in all field of activity can best be achieved through improvement in access to agricultural inputs, extension advisory services and provision of efficient marketing system; this will help in boosting their agricultural productivity. Channeling of credit facilities through rural organizations will help in overcoming the obstacle of inability to purchase farming inputs such as fertilizer, improved seeds, and practicing improved technology.

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