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PARTICIPATION OF WOMEN FARMERS IN RICE PRODUCTION IN BENDE LOCAL GOVERNMENT AREA, ABIA STATE

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ABSTRACT: *This study examined the level of participation of women farmers in rice production in Bende L.G.A, Abia State, Nigeria. Data for the study were obtained from 90 respondents and summarized using frequency distribution, percentages and logistic regression. The respondents were young, energetic and enterprising with large household sizes and majority were married small-scaled farmers, with much experience in rice production. The farmers had access to credit and each farmer made a profit of ₦30,508.03. This indicates that rice production was profitable in the study area. The clustered mean (cx) of 3.687 indicates that majority of the respondents participate in rice production. Household size, access to credit, output, total cost and membership of cooperatives were significant variables influencing the participation of women farmers in rice production. Inadequate land, inadequate finance, shortage of farm inputs, low level of infrastructure and climate change were the major problems facing women in rice production. Government should provide access to improved and disease resistant varieties of rice. Women should be allowed to own land in the Nigeria society.*

KEYWORDS: Participation, Women farmers, Rice production, Technologies and Bende L.G.A.

INTRODUCTION

For years, women farmers have been the pillars of rice production among rice farming communities in Nigeria, producing over 90 percent of total rice output, (Ijere, 1992). Throughout the world, rural women historically have contributed and played important role in rice farming system. Their roles and those of men are contributed by several interrelated socioeconomic (including class, ethnicity, age, religion), political and environmental factors and are known as "gender roles". However, these are dynamic and can change over time depending on changes in other factors, (Hovio, 2007). The different responsibilities of women farmers in agricultural production system include the farming systems, (Rahman, 2008). (Hovio, 2007) pointed that in West Africa women's involvement in rice farming varies from region to region, and even with regions. The percentage of labour supplied by women for rice cultivation varies from 3% for floating rice cultivation (using animal traction) in Mali, to 80-100% mangrove swamp rice cultivation in the Gambia and Liberia. In the latter case, women participation in most of the activities is usually undertaken in post-harvesting processing of the crop (Ogbe, 2009). In almost all rice growing areas in Nigeria, men traditionally undertake

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such activities as land preparation, ploughing, irrigation and field-leveling. Women on the other hand are responsible for sowing, transplanting, weeding and crop processing (FAO, 2005).

Objective of the Study

The main objective of this study was to examine the level of participation of women farmers in rice production in Bende Local Government Area of Abia State.

The specific objectives were to determine the:

i. socioeconomic characteristics of women farmers involved in rice production.

ii. varieties of rice cultivated by women in the study area.

iii. level of participation of women in rice production.

iv. profitability of rice production in the study area.

v. factors influencing the participation of women in rice production.

vi. constraints faced by women in rice production

Hypothesis

Ho: There is no significant difference between socio-economic characteristics and rice production by women in the study area.

METHODOLOGY

Bende Local Government Area was purposively selected for the study based on their records with respect to Rice Production in Abia State, Nigeria. The area is noted for both low land and up land rice production. Five communities producing rice were randomly selected for the study, two villages were selected from each of the selected rice communities. Seven households were then randomly selected from each of the selected villages. Structured questionnaire was used for data collection from the respondents. Data collected were those on socio-economic characteristics of the respondent such as age, household sizes, educational background, farming experience etc. Others were on farm inputs like fertilizers, labour use, farm size capital assets, credit and extension services.

Data analysis

Statistical tools such as percentages and frequency distributions were used to analyze objectives 1, 2, 3 and 5. Objective 4 was analyzed using a formula for profitability expressed as; TI = TR - TC, where TI - profit, TR - Total Revenue, TC = Total Cost. Objective five was analyzed using the logistic regression model.

Results and Discussion

Socio-economic characteristics of respondents.

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Table 1: Distribution of respondents based on age

Age	Frequency	Percentage
30 – 39	15	1 8.57
40 – 49	20	28.57
50 – 59	25	35.71
60 – 69	12	17.14
Total	**70**	**100**

Source: Field Survey, 2010.

Table 1 shows that 81.43% of the respondents were at least 40 years old. This indicates that majority of the respondents are young, energetic and enterprising. Rahman, (2008) reported that farmers in the age bracket of 40 years were still energetic and have a lot of positive implications for the production of rice as a crop.

Table 2: Distribution of respondents based on household size

Household Size	Frequency	Percentage
1-3	6	8.57
4-6	41	58.57
7-9	19	27.14
10-12	4	5.71
Total	**70**	**100**

Source: Field Survey, 2010

Table 2 shows that 59.57 percent of the respondents had households ranging between 4-6 members. This indicates that majority of the respondents had large household size. This is consistent, desirable and of great importance in farm production as rural households rely more on members than hired workers for labour on their farms (Rahman, 2008). Most household members were females, while the males migrated in search of white collar jobs.

Table 3: Distribution of respondents based on marital status

Marital Status	Frequency	Percentage
Single	16	22.86
Married	54	77.14
Total	**70**	**100**

Source: Field Survey, 2010.

Table 3 shows that 77.1 4 percent of the respondents were married while 22.86 percent were single. This indicates that majority of the respondents were married. This result according to WARDA (2003) implies that majority of the respondents are stable and could command societal respect. Being married could mean that the respondents are responsible.

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Table 4: Distribution of respondents based on access to credit

Access to Credit	Frequency	Percentage
Access to credit	58	82.9
Non access to credit	12	17.1
Total	**70**	**100**

Source: Field Survey, 2010.

Table 4 shows that 82.9 percent of the respondents had access to credit while 17.1 percent had no access to credit. Thus majority of the respondents had access to credit. Access to credit could enable farmers purchase farm inputs and enjoy economies of scale.

Table 5: Distribution of respondents based on Membership of cooperative Society

Access to Credit	Frequency	Percentage
Membership of cooperative	42	60
Non membership of Cooperative	28	40
Total	**70**	**100**

Source: Field Survey, 2010.

Table 5 shows that 60 percent of the respondents belonged to cooperatives while 40 percent were not membership of cooperatives. According to Hovio (2007) co-operative is very important in farming as it often serves as a source of loan/credit and labour for members in farm activities.

Table 6: Distribution of respondents based on farm size

Farm Size	Frequency	Percentage
-0.9	32	45.71
-1.9	25	35.71
-2.9	10	14.29
-3.9	2	2.86
-4.9	1	1.43
Total	**70**	**100**

Source: Field Survey, 2010.

Table 6 reveals that 54.29 percent of the respondents had at least 1.0 hectare of farmland. This implies that majority of the respondents are small scale rice farmers and conforms to a priori knowledge that farms in Nigeria are largely small scaled and generally less than 5 hectares. These farms are usually small-sized, fragmented and scattered and not continuous land holdings and posses a great challenge to the much desired agricultural modernization / mechanization and commercialization in Nigeria (WARDA, 2002).

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Table 7: Distribution of respondents based on years of farming experience

Years of Farming Experience	Frequency	Percentage
1-9	20	28.57
10-19	27	38.57
20-29	10	14.29
30-39	8	11.43
40-49	5	7.14
Total	**70**	**100**

Source: Field Survey, 2010

Table 7 reveals that 71.43 percent of the respondents have at least 10 years of farming experience. This indicates that majority of the respondents are well experienced rice farmers and according to Nwoye (2007) this has some positive implications for increased production.

Table 8: Distribution based on involvement in Rice Production.

Involvement in Rice Production	Frequency	Percentage
Women involved in rice production	50	71.43
Women not involved in rice production	20	28.57
Total	**70**	**100**

Source: Field Survey, 2010

Table 8 shows that 71.43 of the respondents were women involved in rice production while 28.57 percent were women not involved in rice production. Involvement of women in rice production could be due to choice made by the women. (Lancon, 2002).

Table 9: Distribution of respondents based on rice varieties grown in the study area.

Varieties	Frequency	Percentage
R-box	30	42.86
Faro 23, 24-27	15	21.42
B12	15	21.42
Faro 44-47	10	14.29
Total	**70**	**100.00**

Source: Field Survey, 2010.

Table 9 shows that 42.86% used R- box, 21.42% used Faro 23 and 24-27, 21.42% used B12 and 14.29% used Faro 44-47 rice production varieties.

However, the R-box variety was mainly cultivated by rice farmers in the study. This could be due to its availability to women and strong resistance of this variety to pests and diseases, (Imolehin, 2000).

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Table 10: Level of women participation in rice production

S/No	Item	Total Response	Mean(x)	Remark
1	Being involved in rice production is profitable	285	4.07	Agreed
2.	Restricted access to land affects your participation	295	4.21	Agreed
3.	Limited capacity to expand your rice production enterprise affects your participation in rice production.	306	4.37	Agreed
4.	Access to improved technologies promote your participation in rice production.	2.38	3.4	Agreed
5.	Poor access to extension service limits your participation in rice production.	289	4.13	Agreed
6.	Farming systems you adopted has influenced your participation in rice production.	291	4.16	Agreed
7.	Source of labour supply affects your participation in rice production negatively.	103	1 .47	Disagreed
	Total	**1807**	**25.81**	
	Clustered mean (Cx)		**3.687**	**Agreed**

Source: Field Survey, 2010.

Table 10 shows factors influencing women participation in rice production which include profitability (x = 4.07), restricted access to land (x = 4.21), limited capacity to expand rice production enterprise (x = 4.37), access to improved technologies (x = 3.4), farming system adopted

(x = 4.16) and source of labour (x = 1 .47). Most respondents considered labour to have little effect on their participation because labour is supplied mainly from their household/family (WARDA, 2003).

Table 11: Profitability of rice production

Item	Value (Naira)
Total Revenue	5997463
Total Cost	3861901
Total Profit	2,1 35,562
Profit Per Farmer	30,508.03

Source: Field Survey, 2010

Table 11 shows that the total value of profit made from rice production was ₦2,135,562 while profit per farmer was ₦30,508.03. This indicates that rice production was profitable in the area.

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Table 12: Factors influencing women participation in rice production

Parameter	Estimate	Std. Error	Zvalue
Age	0.003	0.005	0.605
Household Size	0.089	0.024	3.657***
Access to Credit	0.515	0.129	4.005***
Output	0.000	0.000	-6.543***
Total Cost	0.000	0.000	-2.227***
Membership of Cooperative	0.217	0.108	2.006**
Intercept	-8.419	0.229	-28.159

*Source: Field Survey, 201 0. NOTE***significant at 1%, **significant at 5% Chi-square Df = 60.*

Table 12 shows that household size, access to credit, output of rice and membership of cooperative societies were significant and positively related to participation in rice production. While total cost was significant and negatively related to participation in rice production, household size was significant at 1% and positively related to participation in rice production. This indicates that as household size increased, participation in rice production also increased (WARDA, 1999). Large household size could predispose members to varied sources of agricultural information on production (rice). Thus, in a family where each member is a potential source of information on agricultural technologies especially on rice production, objective reasoning could be arrived at for decision making based on superior argument, (Imolehin, 2000). Most households in the study area were predominantly female members.

Table 13: Constraints faced by women rice farmers in the study area

Varieties	Frequency	Percentage
Inadequate Land	57	81 .43
Inadequate Finance	60	85.71
Shortage of Farm Inputs	49	70
High Cost of Pesticides and Fertilizers	24	34.29
Low Patronage	52	74.29
Low Level of Infrastructure	57	81.43
Climate Change Related Problems	56	80
High Cost of Labour	45	64.29
Low Government Participation In Rice	42	60
Scarcity/shortage of Improved Rice Variety	24	34.29
Low Level of Extension Visits	50	71.42

Source: Field Survey, 2010.

Table 13 shows that women farmers considered inadequate land, inadequate finance, shortage of farm inputs, low patronage, low level of infrastructure, climate change and low level extension visits as major constraints to their production (WARDA, 2002). However, inadequate finance (85.71%) was identified by majority of the respondents as the major constraints facing women rice farmers in the study area.

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CONCLUSION

The result of the study showed that the respondents were young, energetic and enterprising with large household sizes, experiences in rice production and access to credit. In addition, majority of respondents cultivated the R-box variety of rice. The profit made from the production was ₦2,135,562 while profit per farmer was ₦30,508.03. This indicates that rice production was profitable in the study area.

RECOMMENDATIONS

1. Government should improve on the supply and access to improved and disease resistant rice varieties among women farmers in the study area.

2. Women should be allowed to have access to land through the help of the government and land reform commission to encourage their efforts and ability to participate in food crop production

3. Government should provide adequate finance to farmers. This will ensure their ability to purchase necessary farm inputs for increase productivity.

4. Women should participate in agricultural production (rice faming).

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