LEVEL OF PARTICIPATION OF RURAL WOMEN IN RICE PROCESSING IN EDU LOCAL GOVERNMENT AREA OF KWARA STATE

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ABSTRACT

The study assesses the level of participation of rural women in rice processing in Edu Local Government Area of Kwara State. To achieve the study objectives, multi – stage random sampling technique was used to select 125 respondents from five communities of Edu local government area. Descriptive statistics and Net Farm Income were used to analyze the data collected. The result showed that 67.2% of the women processors were in the active age range of 30 – 50 years. The result also revealed that 78.4%, 64.0% and56.0% of women processors did not participate in harvesting, threshing and winnowing of rice in the study area. The result further revealed that 66.4%, 96.0%, 93.6% and 87.2% of the women processors were involved in storing, parboiling, drying and milling. The Net Farm Income gave an estimate of ***₦24,697.37****/processor which confirms the profitability of rice processing in the study area. The major problems encountered by the women rice processors were; lack of credit facilities, inadequate capital, bad storage facilities, inadequate means of transportation, poor electricity supply and inadequate technical advice on processing. In order to give the rural women in the study area a better comparative advantage and more profit, policy considerations should focus on the provision of support services through provision of incentives for better processing techniques that will facilitate the process of rice processing and better product with high market value and profit. Women rice processors should form local group memberships to have a sound voice that will effectively champion there cause to have better access to farm inputs, credits and address other barriers to enhance their role in rice processing.*

Key words*: Women, processing, participation and income*

INTRODUCTION

Agriculture plays a vital role in the economy of developing countries in different ways. Local farmers produce most of the food consumed in a country. In West Africa for example, peasant farmers with their small farm holding produce rice, yam and other foodstuffs consumed by the

people (Ajake, 2003). The sustainable production of food is the first pillar of food security and dream of every nation.

Women are the back bone of rural economy accounting for seventy percent of food production and processing (Eboh and Ogbazi, 1990). Women work in rural areas as farmers, food processors and distributors, in developing countries like Nigeria they are responsible for seventy percent of food production, 50% of domestic food storage, 100% of food processing, 50% of animal husbandry and 60% of agricultural marketing (Akingbule, 1992). Women add value to rice by preparing them into products for sale and consumption. NPC and UNICEF (2001) reported that despite woman's important contribution in agricultural sector, women are mainly involved in arduous manual risk in farming and food processing using low levels of technology with low yield and productivity and high wastage rates. They have limited access to agricultural input and extension service. Amaechina (2002) reported that despite the significance of women's role in agricultural production, evidence throughout developing country show that women's farming productivity and efficiency levels often remain very low. Among the key reasons for this is the lack of technical advice for production, processing and marketing, cultural practices, skills and techniques.

Women's farming role are usually gender differentiated, that is, certain task or responsibilities are handled only or mostly by the women. The men traditionally undertake land clearing and preparation. Women's involvement in the processing, distribution and retailing of milled rice must be recognized and it is important that women have better, cheaper and reliable access to credit, agricultural inputs, extension information and other resources. For food produced in the farm to be available to individual household, there must be efficient processing, marketing and distribution system. 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). But it is sad to note that many women have difficulties in rice processing. Food security cannot be assured without acknowledging the level of participation of rural women in rice production and processing to ensure stable supplies of rice and more income generation. It is based on this that the following research objectives are put forward to:

1. identify the socio economic characteristics of women in rice processing in the study area.
2. Examine the level of participation of women in rice processing in the study area.
3. evaluate the cost and returns from the processing of rice in the study area.
4. identify the problems encountered by the women rice processors in the study area.

METHODOLOGY

The study was carried out in Edu Local government area of Kwara state, Nigeria. The study area falls in guinea savannah zone with an annual rainfall of between 1000mm – 1200mm and has an average temperature of 27^{o}C to 34^{o}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 maize, sorghum, millet and rice. A multi-stage sampling technique was used in which Edu Local Government was purposefully chosen for the study because of the preponderance of rice processors in the area. The second stage involved random selection of five communities namely: Lafiagi, Tsonga, Bachita, Tsaragi and Gbugbu. Simple random sampling technique was used to select twenty five rice processors from each of the selected communities, hence, a total of 125 respondents were used for the study. 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 collected were analyzed using descriptive statistics, the level of participation of rural women in rice processing were assessed by using three point continuum namely: "Full participation", "Partial participation", "None participation", after which the frequency of the three columns were determined (Luqman *et al*., 2006). Net Farm Income was used to determine the profitability of rice processing.

NFI = GI – TC…… (1)

Net Farm Income (NFI) = Gross Income (GI) – Total Cost (TC), Where TC = TVC +TFC

Gross Margin Analysis- this is the difference between the Gross Farm Income (GFI) and the total variable cost (TVC). It is a useful planning tool in situations where fixed capital is a negligible of the enterprise in the case of small scale agriculture, but in these case fixed cost is substantial and therefore Net farm Income (NFI) was estimated

RESULT AND DISCUSSION

Socio- economic characteristic is used to classify rural population into targetable groups and this may influence rice processing in the study area. The major socio-economic characteristics analyzed in the study include age, level of education and years of rice processing experience.

Table 1: Socio-economic characteristics of respondents in the study area (n = 125)

Characteristics	Frequency	Percentage
Age (years)		
Less than 20	6	4.8
21 – 30	22	17.6
31 – 40	44	35.2
41 – 50	40	32.0
Greater than 50	13	10.4
Educational Status		
No formal education	73	58.4
Primary	39	31.2
Secondary	10	8.0
Tertiary	3	2.4
Years of processing experience		
1 – 5	13	10.4
6 – 10	24	19.2
10 – 15	47	37.6
>20	41	32.8

Source: Field survey, 2010.

Age is a major determinant that shows the level of performance in every human activity that needs to be productive. The result in Table 1 shows that majority (52.8%) of women rice processors were within the active age range of 21 – 40 years who are young adults who are still strong capable of undertaking rigorous activities in rice processing. This means that, the farmers are in their active age, have the ability to supply the labor required in processing activities and if adequate input is supplied to them, their processing activity can be boosted and improved. The result of educational

status revealed that 31.20% and 19.20% had primary and secondary education respectively while 58.4% had no formal education and only 2.40% had tertiary education. The trend of the results revealed that the educational level of the respondents was relatively low in the study area which may lead to low acceptance and adoption of improved technology. Agwu (2004) reported that an increase in the level of formal education positively and significantly influences the level of adoption of improved technologies. Education is not only an important determinant of adoption of new technology but also an instrument for successful implementation of new technology. The Table 1 also revealed that 37.60% and 32.20% had processing experience of 11 – 15 years and above 20 years. This implies that women processors in the study area have fairly long period of processing experience which will in no doubt lead to increase in specialization of skills and knowledge required in facilitating their processing ability.

Rural women's participation in different rice processing activities

Level of participation of rural women in rice processing outlines detail information about the extent of their involvement in different stages of rice processing such as harvesting, threshing, winnowing, storing, parboiling, drying, milling and bagging. The table below shows the level of frequency of participation of the respondents in different activities of rice processing in the study area.

Table 2: Level of Participation of Women in Rice Processing (n = 125)

	Full participation		**Partial participation**		**None participation**	
Activities	**Frequency***	**%**	**Frequency***	**%**	**Frequency***	**%**
Harvesting	**0**	**0.0**	**27**	**21.6**	**98**	**78.4**
Threshing	**6**	**4.8**	**21.6**	**31.2**	**80**	**64.0**

Winnowing	**8**	**6.4**	**43**	**37.6**	**70**	**56.0**
Storing	**83**	**66.4**	**32**	**25.6**	**10**	**8.0**
Parboiling	**120**	**96.0**	**0**	**0.0**	**05**	**4.0**
Drying	**117**	**93.6**	**08**	**6.4**	**0**	**0.0**
Milling	**109**	**87.2**	**13**	**10.4**	**3**	**2.4**
Bagging	**46**	**36.8**	**16**	**12.8**	**63**	**50.4**

***Multiple responses.**

Source: Field survey, 2010.

The result in Table 2 indicated that 78.4%, 64.0% and56.0% of women processors did not participate in harvesting, threshing and winnowing of rice in the study area. This may be because these activities are mostly performed by their males. The result further revealed that 66.4%, 96.0%, 93.6% and 87.2% of the women processors were involved in storing, parboiling, drying and milling of rice in the study area. The result from Table2 shows that women rice processors participate in almost all the activities but more in parboiling, drying and milling. This finding agree with that of Mowbay (1995) who reported that women perform most of the work associated with harvest and post harvest activities of rice. Women constituted an integral of the rice industry; they are engaged in every aspect of paddy harvesting up to marketing (Aina, 2003).

Table 3: Estimated Cost and Returns for Rice Processing in the Study Area (n = 125).

Cost of Items and Revenue	Cost(₦/processor	Percentage of total cost
Average variable Cost		
Cost of bagging	220.50	0.42
Cost of transportation	820.64	1.57
Cost of milling	2,328.56	4.46
Cost of paddy rice	36, 239.69	69.46
Cost of water	175.32	0.34
Cost of fire wood	1,793.83	3.44
Average total variable cost	**41,578.53**	**79.70**
Average fixed cost (Depreciated)		
Cost of sacks	239.12	0.46

Cost of big pot	3283.35	6.29
Cost of small pot	2,656.81	5.09
Cost of drum	526.10	1.01
Cost of sieve	404.39	0.78
Cost of big basin	2,303.48	4.42
Cost of small bowl	803	1.54
Cost of tray	219.06	0.42
Cost of tripod stand	156.42	0.30
Average total fixed cost	**10,591.73**	**20.30**
Average total cost	**52,170.26**	
Gross income	**76,867.63**	
Net farm income	**24,697.37**	
Return on investment	**1.47**	

Source: Field survey, 2010.

The result from Table 3 shows the estimated cost and returns analysis of rice processors in the study area;

The table showed that average variable cost constituted 79.70% of the total cost while the average fixed cost constituted 20.30% of the total cost. A confirmation of profitability of rice processing is shown by net farm income of ₦24, 697.37 per processor with return on investment of 1.47, which implies that for each naira invested ₦1.47 was obtained. Rice processing is a profitable venture for rural women in the study area. In order to give the rural women in the study area a better comparative advantage and more profit, policy considerations should focus on the provision of support services through provision of incentives for better

processing techniques that will facilitate the process of rice processing and better product with high market value and profit.

Problems encountered by women rice processors

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 agricultural production. This situation hampers the contribution of women to agriculture and other sectors of the economy. Elizabeth (2006) reported that inadequacy of inputs especially in rural areas, and the high costs wherever these are available limits the participation of women in agricultural activities. Rural women mostly suffer from limited access to productive resources thereby perpetuating drudgery in their farming efforts and have been marginalized by distant and poor marketing facilities (Wilberforce, 2001).

Table 4: Problems Encountered by Women Rice Processors in the Study Area (n = 125).

PROBLEMS	FREQUENCY*	PERCENTAGE
Inadequate capital	101	80.8

Bad storage facilities	64	51.2
Inadequate means of transportation	67	53.6
Poor market demand	49	39.2
Inadequate contact with extension agents	55	44.0
Unavailability of harvested products	42	33.6
Low quantity of output	36	28.8
High cost of energy for parboiling	72	57.6
Poor electricity supply	90	72.0
Poor access to information	49	39.2
Deterioration of farm products	41	32.8
Lack of credit facilities	82	65.6
No technical advice on rice processing	60	48.0

Source: Field survey, 2010.

*__Multiple responses__

The result from Table 4 depicts that 80.8% and 65.6% of the respondents had inadequate capital and credits facilities respectively and this determines the quantity of rice processed. Similarly, 72% were faced with the problem of inadequate electricity, thus, limiting the quantity of paddy rice to be milled. 51.2% registered that storage facilities was the most militating problem to them. Paddy rice, if not properly stored and dried, may crack during milling and may be attacked by rodents. Some 53.6% and 57.6% of the respondents also indicated that inadequate means of

transportation and high cost of energy for parboiling rice were their most contending problems respectively. In addition, 48% and 44% of the respondents hinted that there was no technical advice on processing and no contact with extension agents respectively. This implies that rice processors in the study area encounter series of problems that inhibit their contribution to the supply of rice which is one of the major staple foods in Nigeria. The inadequacy of agricultural inputs, credit facilities, extension services and poor marketing services will have a negative impact on the processing 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 practices of rice processing and expansion of quantity processed. Increase number of extension contact with rice processors will provide them 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. Efficient linkages contribute to value addition through best processing practices, increase in market value of local rice and increase profit (Atala, 2002).

CONCLUSION AND RECOMMEENDATION

This study has revealed that majority of the women rice processors in the study area are middle aged which results in an active participation in almost all the activities involved in rice processing. Rice processing in the study area was reasonably profitable. The rice processors in the study area encountered several problems that hinder the extent of their participation in agricultural production and their contribution to social and economic development of rural areas. In order to give the rural women in the study area a better comparative advantage and more profit, policy considerations should focus on the provision of support services through provision of incentives for better processing techniques that will facilitate the process of rice processing and better product with

high market value and profit. Women rice processors should form local group memberships to have a sound voice that will effectively champion there cause to have better access to farm inputs, credits and address other barriers to enhance their role in rice processing.

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