

## Gender Roles in Cassava Processing Activities among Processors in Ogo-Oluwa Local Government Area of Oyo State

\*Ogunleye, K.Y., R.G. Adeola and I. O. Ibigbami

Department of Agricultural Economics and Extension,  
Ladoke Akintola University of Technology, Ogbomoso, Nigeria.

\*Corresponding author.

e-mail: kennygd2001@yahoo.com

**Abstract:** This study examined the male and female roles in cassava processing activities in Ogo-Oluwa local government area of Oyo state Nigeria. A multi-stage random sampling technique was used to select 40 males and 40 females to make a total 80 respondents. Interview schedule was the main tool used for data collection while frequency counts, percentages, Chi-square and t-test were used in analyzing the data. The results show that 65% of the respondents are within the age range of 31-50 years, and that 82.5 % are married. Significant relationship exist between sex ( $\chi^2 = 5.00$   $P < 0.05$ ), educational status ( $\chi^2 = 38.375$ ,  $P < 0.05$ ) marital status ( $\chi^2 = 144.100$ ,  $P < 0.05$ ) and occupation ( $\chi^2 = 77.304$   $P < 0.05$ ). However, there is a significant difference between males and females participation in cassava processing activities ( $t = -4.269$  and  $P < 0.05$ ). The difference indicate that women are more involved in cassava processing than men and women are likely to gain proportionally more if the investment and development efforts are shifted in their favour.

**Keyword:** Gender, Cassava processing activities, Cassava Processors.

### INTRODUCTION

Food is one of the basic needs of man but its provision is not always adequate for all nations especially in developing countries. This insufficiency of food had led man to better ways of producing it. Thus, agriculture, the art and science of the cultivation of land and livestock production is a major occupation of both males and females in developing countries including Nigeria (Ajayi, 1995). Nigeria is now diversifying its economic resources and efforts are being intensified to revamp the agricultural sector once again in order to achieve sustainable

economic development of which part of government policies aimed at stimulating the production of cassava products for both local use and export trade. (RMRDC, 2004)

Cassava has been neglected for a long time in Nigeria, but has now become a key food security crop with many comparative advantages over cereals. It is highly adaptable to marginal soils and erratic rainfall conditions, it is rich in carbohydrate allowing for multiplicity of use, it is highly resistant to pests and diseases and it can maintain constant supply throughout the year.

Cassava also became popular with the introduction and implementation of SAP since 1986 with increasing output. This policy made those imported cereals to be more costly, making cassava a relatively cheap source of energy. This increasing trend in output has continued to make Nigeria, the world leading producer of cassava since the beginning of 1990s with an estimated contribution of 40 million metric tonnes per annum and an average yield of 10.2 tonnes per hectare (National report, 2006).

Over the years, it is believed that some crops are designated as “women crops” for planting and processing. These include vegetables, groundnuts and cassava while yam and tree crops such as cocoa and palm produce are said to be men’s (Ajayi, 1995). Adegeye *et al* (1999) also asserted that women are active in the cassava industry and that they are more predominant in the processing and marketing than men folk who dominate the production of cassava roots. He further stated that women activities in root production have increased due to men’s off farm employment or part-time work off the farm therefore women are involved in weeding, harvesting, transportation, storage, processing and marketing.

Gender is a term often associated with roles and responsibility of males and females in the society as a social classification of sex. It is the socio-cultural differences between males and females as against the biological differences (Sinkaiye, 2005). The interrelations of these roles produce a mutual understanding of each other’s capabilities and constraints at different stages of life.

“Gender” is a concept used in social science analysis to look at roles and activities of men and women (IITA, 1996). Thus, the focus of gender analysis is not biological differences between men and women but rather on their experiences as members of society. Gender roles give us insight into issue affecting women and it is focused mainly on the relationship of both men and women to the social and economic structure of a society.

#### **Objectives of the Study**

The general objective of the study is to determine roles of men and women in cassava processing activities. The specific objectives of the study are to:

- i. examine the personal characteristics of cassava processors in the study area.
- ii. identify forms into which cassava is processed.
- iii. ascertain various activities performed by male and female in cassava processing in the study area.
- iv. identify constraints militating against processors in processing cassava.

#### **Hypotheses of the Study**

- i. There is no significant relationship between selected personal characteristics (sex, marital status, level of education) of the respondents and the problems faced in processing their produce.
- ii. There is no significant difference between male and female participation in cassava processing activities.

**METHODOLOGY**

The study was carried out in Ogo-Oluwa Local Government Area of Oyo state with the local government headquarters at Ajaawa. Ogo-Oluwa local government area is approximately located between the longitude of 3°51.18' and 3°58.9' East of Greenwich meridian and the Latitude 7°30.3' and 7°40.2' North of the equator with rainfall between 1500 and 2000mm and temperature between 23°C and 27°C Isotherms in January. It is situated at 233.2meters above sea level and the general elevation is between 178m and 220m above sea level (OYSADEP, 2001). The vegetation of the zone is derived savannah. The climatic and soil conditions of the study area favour the extensive production of food crops like cassava, yam, maize, vegetables, tomatoes, and cash crop like cocoa and cashew.

**Sampling procedure and Sample size**

Ogo Oluwa local government area is an extension block of the Oyo State Agricultural Development Programme (OYSADEP). The block is made up of eight cells from which the sample for this study was taken. A multistage random sampling technique was used in selecting the respondents for this study. Four cells were randomly selected from the block. From each selected cell, two villages were then randomly chosen. Thereafter, ten cassava processors were purposively selected from the chosen villages with equal number of male and female processors to arrive at a total sample of 80 respondents. A structured interview schedule was developed based on the objectives of the study to collect information from the

respondents. Frequency distribution, percentages, Chi-square and T-tests were used to analyse the data.

**RESULTS AND DISCUSSION**

**Personal Characteristics**

Table 1 shows that majority (65 %) of the respondents are within the age range of 31-50 years with 16.3% in age range of 21-30 years and 18.7 percent in age range of 51 years and above . This indicates that majority of the respondents are still in their productive years. This finding agrees with Amao *et al* (2005) who noted that most processors are within the age of 45 years and below. Majority (88.7%), of the respondents had one form of education or another with 42.5% of them having primary education, 26.2 % had secondary education while 11.3% had no formal education. The result further showed that 82.5 % of the processors were married and 13.8 percent were single while a handful were either divorced (1.3 %) or widowed (2.5 %). Christianity and Islam were religion practiced by 47.5 % and 52.5% of the respondents respectively.

Table 1: Personal Characteristics of the respondents

Characteristics	Frequency	Percentage (%)
<b>Age (years)</b>		
21-30	13	16.3
31-40	28	35.0
41-50	24	30.0
51 and above	15	18.7
<b>Educational Level</b>		
Primary	34	42.5
Secondary	21	26.3
Adult Education	16	20.0
No formal education	9	11.3
<b>Marital Status</b>		

Single	11	13.8
Married	66	82.5
Divorced	1	1.30
Widowed	2	2.50
<b>Religion</b>		
Christian	38	47.5
Muslim	42	52.5
<b>Membership of Association</b>		
Yes	69	86.3
No	11	13.8
<b>Total</b>	<b>80</b>	<b>100.0</b>

Source: Field Survey, 2006

\* Multiple Responses

### Cassava Products by Gender

Table 2 reveals that all the females (100%) were involved in processing cassava to *gari* and *lafun* while very few males were involved in *gari* (90%) and *fufu* (20%). Majority (87.5%) of the females' process to *lafun* while 12.5% of males process to cassava flakes.

Table 2: Gender Distribution of respondents according to cassava products produced

Forms	Female		Male	
	*Freq	%	*Freq.	%
Gari	40	100.0	36	90.0
Fufu	40	100.0	8	20.0
Lafun	35	87.5	10	12.5
Others	21	52.5	2	5.0

Source: Field Survey, 2006

\*Multiple responses

### Sources of Information

The result from Table 3 below shows that 26.2 % of the respondents got their information from OYSADEP through the extension agents. More than half (56.3%) of the respondents got information about processing activities from radio while 73.8% obtained information related to their processing from the existing processors. This implies that few of the processors got their information from the

extension agents while about equal proportions of them got it from those who have been into processing of the cassava products before and radio

Table 3: Distribution of Respondents by Sources of Information.

Sources	* Frequency	Percentage (%)
Extension agent	21	26.2
Existing processors	59	73.8
Radio	45	56.3

Source: Field Survey, 2006.

\*Multiple Responses

### Sources of cassava for Processing

Table 4 indicates that some farmers own the land on which they farm, while others rent. Some obtain their cassava from their personal farm; some buy it from others. The result showed that majority (72.5%) of the processor got cassava for processing from their personal farm. RMRDC (2004) had earlier validated this finding when they reported that most processors have cassava farms from which a great proportion of their roots are obtained. Also 47.5 percent got cassava from family plot while very few either purchase (6.3%) or get from friends.

Table 4: Distribution of respondents by sources of cassava tubers for processing

Sources	Frequency	Percentage (%)
Personal Farm	58 *	72.5
Purchased	5	6.3
Family farm	38	47.5
Friend	2	2.5

Source: Field Survey, 2006.

\*Multiple Responses

**Processing Activities Performed by Respondents.**

Table 5 reveals that, 30.0 percent female and 85.0 percent male are involved in grating. All (100.0%) female and 20 percent male are involved in peeling while 70.0 percent and 87.5 percent are involved in pressing. Also, 100.0 percent female and 27.5 percent male are involved in frying, 70.0 percent female and 35.0 percent of male are involved in crushing .For sorting into various particle size, 70.0 percent female and 2.5 percent male are involved .In drying, 87.5 percent female and 22.5 percent male are involved in drying. This implies that both men and women play different but complimentary role in cassava processing. This may be due to the fact that some activities are very strenuous and require male participation.

Table 5: Distribution of cassava processing tasks of respondents' by gender

Tasks	Female		Male	
	Freq.	%	Freq.	%
Grating	12	30.0	34	85.0
Peeling	4	100.0	8	20.0
Pressing	28	70.0	35	87.5
Frying	40	100.0	11	27.5
Crushing	28	70.0	14	35.0
Sorting	28	70.0	1	2.5
Drying	35	87.5	9	22.5
Other tasks	38	95.0	5	12.5

Source: Field Survey, 2006

**Constraints faced by respondents in cassava processing**

Table 6 shows the constraints faced by respondents as either serious, mild or not a constraint. Spoilage during processing was a serious constraint to 46.3% while 38.8% claimed it to be a mild constraint and 15.0% said it was not a constraint. Spoilage in store was considered a serious constraint with 31.3% of the

respondents while 38.8% agreed that it is mild constraint and 30.0% did not see it as a constraint. The result also shows that 45.0% of the respondents were seriously affected by inadequate or lack of storage facilities while 32.5% agree that it is mild constraint and 22.5% said it is not a constraint. It can be inferred that cassava products could not be stored for a long time due to non-availability of storage facilities which compel them to produce on a small scale in order to maintain its quality and meet the consumer's satisfaction. Time spent on processing is a serious constraint for 81.3% of the respondents while 11.3% considered it as a mild constraint and 7.5% of the sampled respondents claimed that the time spent on processing is not a constraint. Cost of labour is a serious constraint for 10.0% of the respondents while 52.5% agreed that it is a mild constraint and 37.5% said it is not a constraint. Cost of labour was not a major constraint to the processors probably due to the use of family labour

The result further explained that 8.8% of the respondents said that availability of transport to processing site is a serious constraint while 40.0% see it as a mild constraint and 51.2% of them are of the opinion that it is not a constraint. This may be due to nearness of their farms to the processing sites. Availability of improved technology was shown in the Table to be a serious constraint by 41.3% of the respondents while a similar proportion of them see it as a mild constraint and 17.5% agreed that it was not a constraint. This is an indication that the respondents feel more comfortable using the traditional methods of processing rather than the

expensive improved technologies since lack of storage facilities have limited them to produce on small scale.

Table 6: Distribution of respondents according to constraints faced in cassava processing

Constraints	Serious Problem		Mild Problem		Not a Problem	
	Freq	%	Freq	%	Freq	%
Availability of capital	20	25	57	3.8	3	71.2
Spoilage during processing	37	46.3	31	38.8	12	15.0
Spoilage in store	25	31.3	31	38.8	24	30.0
Availability of storage facilities	36	45.0	26	32.5	18	22.5
Cost of labour	8	10.0	42	52.5	30	37.5
Transporting to processing site	7	8.8	32	40.0	41	51.3
Improved processing implement	33	41.3	33	41.3	14	17.5
Time spent on processing	65	81.3	9	11.3	6	7.5

Source: Field Survey, 2006

### Test of Hypothesis

#### Results of Chi-Square tests showing relationship between some selected personal characteristics of the respondents and the problems faced in processing cassava

Result of Chi-square analysis showed that age ( $\chi^2=20.626$   $P>0.05$ ) and religion ( $\chi^2=0.200$   $P>0.05$ ) of the respondents were not significantly related with the problem faced in cassava processing. This implies that the problem encountered during processing is not created or increased by a person's age and religion therefore this could be due to the importance of cassava in Nigerian diets. However, sex ( $\chi^2=5.00$   $P<0.05$ ), educational

status ( $\chi^2=38.375$ ,  $P<0.05$ ) marital status ( $\chi^2=144.100$ ,  $P<0.05$ ) and occupation ( $\chi^2=77.304$   $P<0.05$ ) showed significant relationship with problem faced in cassava processing. However, the result showed that processors encounter problems during processing because they are either male or females since some tasks are strenuous for females. For example, water expressing and some tasks are easy for males to do because they are considered women's task. Also men do not have time for processing because they still go in search of other work that could earn more income for the family but women are being involved in household chores and food processing. This finding also agrees with that of Ilevbaoje (2002) that both men and women spend about an average of 8 hours working on the field but women, on the other hand, under-take other activities.

Educational status showed positive significant relationship. Education increases exposure to useful information and this will likely enhance their level of knowledge and adoption of improved processing techniques that makes processing easier.

Marital status was found to be significant. The implication is that married respondent will have access to family labour and thus reducing the labour related constraints in cassava processing. It is clear that the number of families that rely on cassava as major source of carbohydrate in Africa is considerably high.

Table 7: Chi-square analysis of cassava processors' personal characteristics and problem faced during processing

Personal Characteristics	X <sup>2</sup> value	df	p-value	Remark
Age	20.625	34	0.966	Not significant
Sex	5.000	1	0.025	Significant
Educational	38.375	4	0.000	Significant
Marital Status	144.100	3	0.000	Significant
Religion	.200	1	0.655	Not Significant
Occupation	77.304	3	0.000	Significant
Transportation from processing Site	63.519	2	0.000	Significant

Source: Field Survey, 2006

### Result of T-test for cassava processing activities

Table 8 showed significant difference (t – test = -4.269; p < 0.05) in processing activities of cassava between males and females. The data also revealed that there was a significant difference between the mean scores of females X= 8.3673 and males X=6.6333. It implies that the processing activities which females performed were different from that of males.

**Table 8: Results of T- tests showing differences in cassava processing activities by gender**

Activities	Sex	N	Mean	Standard Deviation
Processing Activities	Male	40	6.6333	1.5196
	Female	40	8.3673	1.8785

  

t- test for Equality of Means			
	t	df	p-value (2- tailed)
Use of Equal Variances	-4.492	71.17	0.000
Not assumed			

Source Field Survey, 2006

## CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it is evident that more females participate in cassava processing and whenever males are involved, they play complementary roles. Cassava granules (Gari), cassava paste (fufu) and cassava flakes (lafun) were the common products into which cassava is processed into with *gari* being the most common amongst the products. Information on processing was obtained mostly from other processors while the fresh tubers were sourced from personal farms and family farms. Water expressing was the only task in which males' outnumbered females.

Inadequate capital and storage facility, cost of labour, lack of improved processing equipments and time spent on processing were problems faced by processors at varying degrees of either serious or mild. However, transporting of cassava was not a problem to processors. This could possibly be due to nearness of the farms to processing sites. It is therefore recommended that agricultural extension agencies should intensify efforts in disseminating improved processing technologies to processors especially women so as to reduce problems faced during the processing.

## REFERENCES

- Adegeye A. J. , B. T. Omonona and T.T Awoyemi :Issues and options in expanding the cassava industry (production, processing and marketing) in Nigeria prepared for FADU, LFN and NIRADO. Department of

- Agricultural Economics University of Ibadan, Ibadan, Nigeria
- Ajayi S. (1995): Gender roles in subsistence crop production in Kwara State , `Nigeria. *Agrosearch* vol. 1, No.2 Pp 145-151
- Amao, J. O., I.B.Oluwatayo and T. O. Ladipo (2005):"Influence of Organizational innovations on Gari Processing in Nigeria". *Nigerian Journal of Rural Sociology*. Vol. 5 Pp74-79
- Ilevbaoje, B. (2002): "Gender analysis of farmers from perspective of food security :A case study of Owan West Local Government Area of Edo State, Nigeria". *Journal of Agricultural Extension* .vol. 6 .pp12-20
- Nigeria National Report (2006). A report presented at International Conference on Agrarian Reform and Rural Development. Porto Alegre, 7 – 10th March.
- Raw Material Research and Development Council (RMRDC), (2004): Report on Survey of Selected Agricultural Raw Materials In Nigeria. Abuja. Pp 9&74.
- Sinkaiye T. And A.A. Jibowo (2005): Gender needs for participating in poverty alleviation programme in selected villages of Kwara State, Nigeria. *Journal of Agricultural Extension*. Vol. 8.Pp22-31