

Gender Participation in Oil Palm Fruits Processing In Rural Communities of Ogba/Egbema/Ndoni Local Government Area of Rivers State, Nigeria

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Abstract

The study analyzed the level of involvement of both men and women in oil palm fruits processing activities in the rural communities of Ogba/Egbema/Ndoni Local Government Area of Rivers State. The study combined a review of secondary materials, interviews with key stakeholders through surveys and focused group discussions to collect qualitative data for the study. The research survey was carried out using multi-stage sampling procedure. Data were analyzed using descriptive statistics such as frequency counts, percentages, and mean and inferential statistics such as ANOVA. The study revealed that women dominated in some activities such as de-fruiting, loading into the boiler, boiling, carrying boiled palm fruits to machines, carrying to frying pan and frying of oil while their male counterparts dominated in pounding and squeezing. There was a significant difference between gender and their level of involvement in oil palm fruits processing i.e. t -cal. of 383.5 is greater than t -tab of 3.01 at 5% alpha level. The study further revealed that proliferation of adulterated seeds seedlings, inadequate capital, lack of proper scaling of mills, under-capacity utilization, poor repair and maintenance of mills were limiting factors to the rural actors in oil palm fruits processing..

Keywords: Gender, Participation, Processing, Oil palm.

1.0. Introduction

Oil palm (*Elaeis guineensis*) is one of the most important economic oil crops grown in the Eastern and South-South geopolitical region of Nigeria. The cultivation of oil palm serves as a means of livelihood for many rural families and indeed the farming culture of millions of people in the country. Oil palm is made of essential components, namely; the fronds, the leaves, the trunk and the roots, which are used for several purposes ranging from palm oil, palm kernel oil, palm wine, broom, and palm kernel cake. Gender analysis of oil palm production and processing entails the study of male and female issues concerning the parts they play in processing of oil palm produce and if properly conceived, refers to male and female concerns and needs and it stands for value equity and equality (USAID, 2005). It deals with the social relationship between men and women and how these relationships are negotiated in the production of goods and services (Ironkwe, 2011). Gender as defined by Mutua *et al.*, (2014) citing Njuki *et al.*, (2011) is 'the socially constructed roles and status of women and men, girls and boys. It is a set of culturally specific characteristics defining the social behaviour of women and men and the relationship between them. Gender roles, status and relations vary according to place (countries, regions, and villages), groups (class, ethnic, religious, and caste), generations and stages of the lifecycle of individuals. The participation of women in any

economic activity is of great importance in all aspects of agricultural related endeavour including processing of oil palm fresh fruit bunches (FFB). According to Uwaka *et al.* (1993), rural women participate significantly in all aspects of food production in most African countries. The author further observed that women are directly involved in pre and post-harvest handling of agricultural produce from the point of initial production to urban centres where most consumption take place.

Within the oil palm growing States, women in the Southern and Middle-belt regions of Nigeria have defined roles in agriculture and constitute a major component of the workforce (Omoti, 2003; Chukwu, and Nwaiwu 2012). In most areas, women manage grove palms owned by individual families. They organize labour for harvesting fresh fruit bunches, picking loose fruit and processing bunches for oil extraction. Women constitute the majority of the farming population in rural areas. They participate actively in agricultural activities but their contributions in relation to men's are not objectively assessed, commensurate, appreciated and documented given rise to stereotype assumption on the contributions of men and women in agricultural production (Abiola and Omabugau, 2001; Rahman, 2005). In spite of the roles carried out by women in the agricultural sector, they are constrained by access to agricultural inputs (Ogunlela & Mukhtar, 2009). In recognition of this, Sarku (2016) quoting FAO, (2011) observed that this is largely attributed

to their gender in the society. But for the fact that both men and women contribute immensely to the socio-economic development of the rural areas with less authority and opportunity to their female counterpart implies that the socio-economic constraints to their efficient resource management must be fully understood. This would suggest possible solutions to their efficient performance in key areas of oil palm processing.

Theoretical framework of the study

The theoretical framework of this study is based on Gender and Development (GAD) framework. GAD framework seeks to understand men and women's roles as constructed by society and how their activities actualise definitions ascribed to them by society (Razavi & Miller, 1995; Sarku, 2016). The theory focuses mainly on the division of labour and power relationship encapsulated in social institutions (Reeves & Baden, 2000). Gender roles refer to expectations resulting from masculinity, feminism and social identities in households (Razavi & Miller, 1995; Sarku, 2016). Social relation aspect of GAD analyses social dimensions of hierarchical power relations in social institutions. It also determines the influences men and women have over each other as a result of the relative positions held by them in society (Razavi & Miller, 1995). This position is perceived to discriminate against women (Reeves & Baden, 2000). The authors further stated that the GAD approach is not concerned specifically with women, but it seeks to understand how people ascribe roles, duties and expectations to women and men. GAD explains the ways in which men and women work together, and it aims at explaining results in unbiased terms of economics and efficiency. GAD policies aim to redefine traditional gendered role expectations and participation.

The main purpose of the study was to analyse gender participation in oil palm fruit processing in the study area. The specific objectives include to:

1. examine the socioeconomic characteristics of the respondents;
2. determine the level of participation of the male and female genders in oil palm processing in the study area
3. determine the factors inhibiting the effective participation of the male and female gender in oil palm processing in the study area.

Hypothesis of the Study

Ho: There is no significant difference between the participation of both male and female genders in oil palm processing.

2.0. Methodology

The study was conducted in Ogba/Egbema/Ndoni Local Government Area (ONELGA) of Rivers State. ONELGA has a land mass of 1,621 sq. km and is made up of ninety-seven communities and it lies between latitude 55, 25N and longitude 60, 40-60, 50E and is located at the extreme North-West fringe of Rivers State. Ogba/Egbema/Ndoni is located in the extreme North-West fringe of Rivers State. ONELGA is bound in the North by Anambra State; in the North –East, by Imo State; in the West by Bayelsa and Delta States respectively. Ogba/Egbema/Ndoni Local Government Area is located in the Eastern bank of River Niger and in the Niger Delta region. It has a plain topography netted with webs of River Niger, Sombreiro, Orashi. ONELGA has three major ethnic groups-Ogba, Egbema and Ndoni with distinct but familiar languages. By political delineation, ONELGA has six political zones namely: Omoku, Egi, Egbema, Ndoni, Usomini, and Igburu. The good climatic condition, vast arable land, fertile soil, creeks and rivers make the inhabitants predominately farmers, food processors and fisher men with a few traders to balance her economy. The study combined a review of secondary materials, interviews with key stakeholders through surveys and focus group discussions to collect qualitative data from the key stakeholders. The research survey was carried out using multi-stage sampling procedure. First, four zones were randomly selected from the six geopolitical zones that makes up the LGA. Secondly, a list of the oil palm processors in each of the selected zones was obtained for the study. Thirdly, seven respondents from the lists were randomly selected from each of the four zones; hence a total number of twenty (28) oil palm processors were interviewed for the study. Data were analyzed using descriptive and inferential statistics such as percentages, mean and analysis of variance (ANOVA)

3.0. Results and Discussion

3.1. Socioeconomic characteristics of the respondents

Information relating to the socio-economic characteristics of the respondents was captured in Table 1. It was revealed that 42.9% of the respondents were within the age bracket of 41-50 years which recorded the highest percentage in age distribution of the respondents. This result shows that majority of the respondents were active and are willing to indulge in rural development projects. The result is also in corroboration with the findings of Oladejo, *et al.*, (2011) who also observed in their

study that same age range simply means that the respondents are within the active and productive age.

Also, 71.5 per cent of the respondents were married, 42.9 per cent of the respondents had no formal education. This implies that extension packages for these targeted audience should be in simple language to suit their level of education. Majority (89.3%) of the respondents were Christians while the remaining 10.7% practiced the African traditional religion. A majority of the respondents (67.9%) indicated that their household size was within the range of 5-9 persons which indicates a mean

household size of 7. This calls for family planning considering the economic meltdown of the country. It also implies that most of the participating households had responsibilities to shoulder either as heads of households or as members with obligations to other members of the households. Majority (39.3%) of the respondents indicated that they receive the sum of 41 to 50 Thousand Naira as their monthly income from oil palm processing business. Table 1 further revealed that 78.6 per cent of the respondents engaged in oil palm processing for the purposes of home consumption and sales to their customers in order to generate income.

Table 1: Distribution of respondents by socio-economic characteristics

Variables	Frequency	Percentage (%)
Age in years		
< 20	1	3.6
20-30	2	7.1
31-40	5	17.8
41-50	4	14.3
51-60	12	42.9
61 and above	4	14.3
Marital status		
Single	4	14.3
Married	20	71.5
Divorced/separated	2	7.1
Widowed	2	7.1
Educational level		
No formal education	12	42.9
Primary	4	14.3
Secondary	7	25.0
Adult literacy	3	10.7
Tertiary	2	7.1
Religion		
Christianity	25	89.3
Muslim	Nil	----
Traditionalists	3	10.7
Household size		
1-4	3	10.7
5-9	19	67.9
10-14	2	7.1
15 and above	4	14.3
Monthly income (N)		
< 10,000	Nil	----
10,000-20,000	2	7.1
21,000-30,000	3	10.7
31,000- 40,000	5	17.9
41,000- 50,000	11	39.3
51,000 and above	7	25.0
Purpose of processing		
Home consumption	Nil	----
Sales	6	21.4
Both	22	78.6

Source: Field survey, 2016.

3.3 Level of participation by gender

A four point Likert scale type of very high involvement (4), high involvement (3) low involvement (2) and very low involvement (1) were adopted to determine the level of participation by gender in oil palm processing. Rating scale of 1-1.49 were considered to be very low, 1.50-2.49 were considered to be low involvement while 2.5-3.49 were considered to be high involvement and 3.5 to 4.00 were considered to be very high involvement.

The study revealed that women were involved in the activities such as de-fruiting (3.45), loading into boiler (3.55), boiling (3.35), carrying boiled palm fruits to machines (3.35), carrying to frying pan and frying of oil (3.48) while their male counterparts indicated they were in charge of pounding (3.50) and squeezing (3.56). This result corroborates with the findings of Chukwu and Nwaiwu (2012).

Table 2: Mean score on the level of gender involvement in oil palm fruit processing activities in the study area

Processing activities	Mean	Remarks
De-fruiting	3.45	Female specific (high involvement)
Loading into boiler	3.55	Female specific (very high involvement)
Pounding	3.50	Male specific (very high involvement)
Squeezing	3.56	Male specific (very high involvement)
Boiling	3.35	Female specific (high involvement)
Carrying boiled palm fruits to machine	3.35	Female specific (high involvement)
Carrying to frying pan and frying of oil	3.48	Female specific (high involvement)

Source: Field survey, 2016

During the focus group discussion in one of the participating communities, it was recorded that women participated actively in oil palm fruit processing activities more than their male counterparts. Specifically, the discussants stated that; "oil palm processing activities were mostly carried out by women in the area except activities characterized by vigorous exertion such as pounding

and squeezing". They further reported that "despite these roles played by women, their voice are not being recognized in the scheme of things especially in decision making which are dominated by their male counterpart". On the other hand, the male respondents confirmed that they participate actively in pounding, squeezing and harvesting activities (FGD, 2018).

Table 3: ANOVA result on the level of participation in oil palm fruit processing

SOV	SOS	df	MS	f-cal.	f-tab	Remarks
Between groups	1.03	3	11.34	283.5	3.01	Significant
Within group	34.02	24	0.04			
Total	35.05	27				f-cal. > f-tab. @ 5% level

From Table 3, f-cal. (283.5) is greater than the f-tab (3.01) @ 0.05 probability level. Thus, the null hypothesis which states that there is no significant difference between gender and their level of participation in oil palm fruit processing in the study

area was rejected. Rejecting the hypothesis implies that there was a significant difference in the level of participation between gender and among the participating selected zones under study

3.5 Limiting factors facing oil palm processors

Results in Table 4 revealed the mean response of the respondents on the limiting factors facing oil palm fruit processors in the study area. A four point Likert-type scale of strongly agree (4), agree (3), disagree (2) and strongly disagree (1) was adopted

to determine the level of acceptance or disagreement on the inhibiting factors facing oil palm fruit processors in the study area. Specifically, it was strongly agreed that proliferation of adulterated seed seedlings (3.50) was among the limiting factors facing oil palm fruit processors in the study area.

Table 4: Mean response on the inhibiting factor to oil palm fruit processing in the study area

Factors	Mean	Remarks
Proliferation of adulterated seeds seedlings	3.50	Strongly agree
Inadequate capital	3.70	Strongly agree
Lack of proper scaling of mills	3.80	Strongly agree
Under-capacity utilization	3.90	Strongly agree
Poor repair and maintenance of mills	3.30	Agree
Poor extension contact	3.20	Agree
Use of local processing machines	3.60	Strongly agree
Social problems such as kidnapping and robbery	3.90	Strongly agree
Instability of market price	3.60	Strongly agree

Source: Field survey, 2016

Others included inadequate capital (3.70), lack of proper scaling of mills (3.80), under capacity utilization (3.90), poor repair and maintenance of mills (3.30), poor extension contact (3.20), use of local processing machines (3.60), social problems (3.90), and instability of market price (3.60). . During the focus group discussion, most of the discussants affirmed that the above factors constituted the limiting factors to effective oil palm fruit processing in the study area. Quoting the statement of one of the discussants, he said “we are wallowing in poverty while in this business, no government support, we lack information on new processing methods that are available, most of our processing equipment are old and can no longer function effectively, you hear of kidnapping and armed robbery case every day in the area”. According to the discussants, the issue of kidnapping activities in the area is at the alarming stage and most of the key actors in the oil business have relocated to other areas and palm oil marketers are now afraid to come to the area to buy market from us. This scenario, according to them calls for government intervention to curb the security challenges bedeviling the area (FGD, 2016).

4.0. Conclusion And Recomendations

The study concluded that the level of involvement in the identified oil palm processing activities differs significantly among gender. Activities dominated by women includes de-fruiting, loading into the boiler, boiling, carrying boiled palm fruits to machines, carrying to frying pan and frying of oil while their male counterparts were primarily involved in pounding and squeezing of oil palm fruits. There was a significant difference between gender and their level of involvement in oil palm fruits processing. Some of the limiting factors to oil palm fruit processing include the proliferation of adulterated seed seedlings, inadequate capital, lack of proper scaling of mills, under-capacity utilization, poor repair and maintenance of mills. In line with the foregoing, the study recommends the following:

- The Government should support oil palm processors in terms of loans and extension services.
- Oil palm processors should be encouraged to form groups for social interaction and to access credit facilities easily.
- The issue of security should be vigorously tackled by all concerned including government and other private sectors.

References

Abiola, R.O and Omoabugan, O.B (2001) *Women Involvement in food Crop Production, processing and marketing in Nigeria. Industrialization in Nigeria*. Bullion Publication of the Central Bank of Nigeria 25(3) 39-43

Chukwu, A.O and Nwaiwu., J.C (2012). Evaluation of gender participation in palm oil processing in Ohaji Egbema Local Government Area of Imo

State. *International Journal of Agriculture. and Rural Development*. Volume 15 (2): 972 – 975, 2012

Food Agriculture Organisation. (2011).. Discourse. Occasional paper 1. Retrieved from pogar.org/Local/User/pogarp/other/unrisd/op1.pdf
The State of Food and Agriculture Report 2010-2011. Women in agriculture: Closing the gender gap for development. Retrieved from www.fao.org/docrep/013/i2050e/i2050e.pdf

Ironkwe., A.G (2001) Gender Involvement in yam minisett technology development, transfer and utilization in South-East agro-ecological zone of Nigeria. *Unpublished PhD Dissertation*, Department of Rural Sociology and Extension. Michael Okpara University of Agriculture, Umudike, Umuahia, Abia State, Nigeria 186Pp

Mutua, E., Njuki, J. and Waithanji, E. (2014). *Review of gender and value chain analysis, development and evaluation toolkits*. Nairobi, Kenya: International Livestock Research Institute (ILRI).

Njuki, J., Kaaria, S., Chamunorwa, A. and Chiuri, W. (2011). Linking smallholder farmers to markets, gender and intra-household dynamics: Does the choice of commodity matter? *European Journal of Development Research* 23(3):426.

Ogunela, Y. 7 Mukhtar, A. (2009). Gender issues in agriculture and rural development in Nigeria: The role of women. *Humanity & Social Sciences Journal* 4(1), 19-30. Retrieved from [http://www.idosi.org/hssj/hssj4\(1\)09/3.pdf](http://www.idosi.org/hssj/hssj4(1)09/3.pdf)

Oladejo, J. A., Olawuyi, S. O. and Anjorin, T.D (2011). Analysis of Women Participation in Agricultural Production in Egbedore Local Government Area of Osun State, Nigeria. *International Journal of Agricultural Economics and Rural Development* Vol. 4 (1): 1-11

Omoti, U. (2003). Oil Palm in Africa Evolution during the last decade, trends and new challenges,

invited paper, xiv International Conference: Palm Oil: the alternative in oils and fats in Latin America Cartagena Colombia, 23 - 26 September.

Rahman, S.A (2005) Gender – based Analysis of labour productivity in crop production in the Nasarawa State of Nigeria. In Orhamatta, A.M, Nwokoro, S.O, Ajaji, M.T. Adekule, A.J and Asumugha, G.N (eds) *Agricultural, Rebirth for improved production Nigeria*. Proceedings of the 39th Annual Conference of Agricultural Society of Nigeria, held at University of Benin City, Nigeria, Oct. 9,13 Pp 388-390

Razavi, S. & Miller, C. (1995). From WID to GAD: Conceptual Shifts in the Women and Development

Reeves, H. & Baden, S. (2000). *Gender and Development: Concepts and Definitions*. Brighton, Report 55

Sarku., R (2016). Analyses of gender roles in the oil palm industry in Kwaebibirem District, Ghana. *International Journal for Humanity and Social Science*. Vol.6 No3. Pp.187-198

United States Aid for International Development (2005). Gender assessment for USAID Nigeria, Dev. Tech. System, Inc.

Uwaka, C. T., Uwaegbwe, G. Madukwe, B. (1993). Role of rural women as farmers in Eastern Nigeria. *Issues in African Development*, 992: Summaries, USA, Winrock International Inst. for Agriculture Development 35 - 36.