



**Full Length Article**

# Assessment of the Impact of Palm Oil Processing on the Livelihood of Rural Women in Ika Local Government Area, Akwa Ibom State, Nigeria

I.E. Nwosu<sup>1</sup> and D.P. Okon<sup>2\*</sup>

<sup>1</sup>Department of Rural Sociology and Extension, Michael Okpara University of Agriculture, Umudike, Nigeria

<sup>2</sup>Department of Vocational Education (Agricultural Science Unit), University of Uyo, Akwa Ibom State, Nigeria

\*For correspondence: nwosu.ihuanvi@yahoo.com; urgentcybercafe@gmail.com

## Abstract

The study examined the extent to which palm oil processing had impacted on the livelihood of rural women in Ika Local Government Area of Akwa Ibom State, Nigeria. A total of 120 rural women engaged in palm oil processing were selected through multistage, purposive and random sampling techniques. The t-test statistical model was used in analyzing the extent to which palm oil processing impacted on the livelihood of the rural women in the study area. Of all the respondents, 85% were literate having a mean age of 38 years and majority (58.3%) of them married. There was a significant difference between income of women engaged in palm oil processing and income of women engaged in other businesses; implying an improvement in the living conditions of rural women engaged in palm oil, processing, compared with the living conditions of women in other businesses. Some constraints militating against palm oil processing among the rural women farmers in the study area included lack of access to credit, lack of modern farm processing technologies, denial of ownership over palm oil trees and farm lands, high cost of palm oil fruits as well as scarcity of labour and fluctuation in price of palm oil produce. It was recommended that government should assist the women to secure adequate funds/capital, provide the women with modern processing machinery as well as improve the infrastructural facilities in rural areas such as water electricity, good road network and recreational facilities among others, to facilitate palm oil processing and to stem the tide of rural-urban migration of young people; potential labour for palm oil processing. © 2013 Friends Science Publishers

**Keywords:** Impact; Palm oil processing livelihood; Rural women

## Introduction

Rural women constitute a dominant place in the socio-economic life of Nigeria. According to Ekong (2010), the Nigerian rural economy and its urban food security are largely sustained by rural women. Although women constitute a significant proportion of Nigeria's population and contribute effectively to the Nigerian economy especially in agriculture, the Nigerian women especially the poor rural women have remained the most economically and socially deprived in the society. Rural women not only make up a disproportionate number of rural poor which would account for 60% of the Nigerian population, but are most vulnerable than the rural men to economic dwindling, deterioration of natural resources and general neglect in the area of development efforts (Nnadozie and Ibe, 2000; Ani, 2004; Nwosu and Nwawii, 2010). According to Dauda (2002), in Nigeria, like in any other developing country, poverty has a predominantly female face and women in rural

areas not only suffer the harshest deprivation but are vulnerable to poverty.

In order to mitigate the adverse effects of poverty and contribute to the care and upkeep of members of their families, the Nigerian rural women are engaged in a variety of livelihood activities including crop farming, trading, weaving, pottery, selling of food, hair plating and even the male-dominated job of machine, where they play the role of 'helpers', especially during the slack and off season periods of the crop year.

Essentially, however palm oil processing is a major source of livelihood among the rural women of Ika Local Government Area of Akwa Ibom State, Nigeria. The women are known to be major actors in the palm produce industry, notably palm oil, processing storage and marketing. In a related research study in Imo State, Nwonkwo and Eboh (1998), observed that women played a significant role in palm oil process and that women took part in 82.9% of all the palm oil processing operations identified.

Palm oil processing has played a vital role in the social and economic life of the people in the study area, especially the rural women. It has enabled the women to contribute to rural development in terms of payment of appropriate levies for and contribution to such rural community development projects as school buildings, health centres and market stalls. Palm oil processing has also provided a major support for the rural women and their children in the areas of shelter, health care, feeding, education and clothings. Furthermore, palm oil processing provides the rural women with a psychological feeling of financial self autonomy and reduced dependence on their husbands or male folk.

The objectives of the present study were to:

- i) assess the extent to which palm oil processing had impacted on the livelihood of rural women in the study area,
- ii) examine the socio-economic characteristics of the respondents and
- iii) determine the constraints of palm oil processing in the study area. The hypothesis of the study was. "There is no significant difference between income of women in palm oil processing and income of women in other businesses".

## Materials and Methods

The study was carried out in Ika Local Government Area of Akwa Ibom State, Nigeria. Ike Local Government Area was purposively chosen because, relative to women in other Local Government Areas of the State, most of women in Ika Local Government Area are predominantly involved in palm oil processing. Data for the study was collected with the aid of structured questionnaire. Eight communities were randomly selected from each of the three clans that make up the Local Government Area, making a total of 24 communities. From each of the 24 communities, five respondents were randomly selected, making a total of 120 respondents. Descriptive statistics such as frequency distribution, percentages and means as well as t-test inferential statistics were used to analyze the data generated from the study.

The t-test model was specified as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_1}}}$$

$$n = 30 - 1 = 29 \text{ (to find df)}$$

Where

$\bar{X}_1$  is the mean income of women involved in oil palm processing

$\bar{X}_2$  is the mean income of women involved in other businesses

$S_1^2$  is the total sum of income of women in palm oil processing

$S_2^2$  is the total sum of income of women in other businesses.

$n_1$  is number women in palm oil processing

$n_2$  is number of women in other businesses.

## Results and Discussion

### Socio-Economic Characteristics

Women working in the industries contribute greatly to the Nigerian economy, but they are confronted with quite a few socio-economic issues (Nwosu, 2010). The socio-economic characteristics of respondents, which were considered of interest in the study, as shown in Table 1, were age, marital status, household size, education and years of experience in palm oil processing.

A greater proportion of the respondents, (70%) were aged between 26 and 45 years representing the most vibrant and physically active group. Similarly, a dominant proportion of the respondents (58. 3%) were married. Again, 31.7% of the respondents, representing the highest group, have the highest household size of 7-9 persons. This is considered an obvious advantage to the rural women farmers considering the labour intensive nature of palm oil processing. A high proportion (85.8%) of the respondents was educated. This implies that most of the rural women farmers would be receptive to new technological innovations in the palm oil processing business. Similarly, a dominant proportion of the respondents, (89.2%), had many years of experience ranging from 6 to 35 years.

The results in Table 2 show that 45% of the respondents raised their working capital through personal savings, while 33.30% of them resorted to money lenders for capital. The implication of these results is that a greater number of the women used their personal savings for the palm oil processing business, at the expense of providing household needs. It also implies that a good number of the women were at the mercy of money lenders for their working capital, with the attendant high repayment interest rate. Admittedly, the results give the impression that the rural women did not have access to credit facilities from the government and other external agencies.

Table 3 indicates the eight major constraints militating against women in palm oil processing in the study area. The highest proportion of the respondents, (86.6%) implicated the issue of customary land right and inheritance. This means that a greater number of the rural women did not have access to land to establish palm plantations. At best, these women only had access to land through their husbands. Lack of

access to new palm oil processing technologies was also confirmed as a major constraint in the palm oil processing business by a significant proportion (75.83%) of the respondents. Another significant proportion, (66.7%), of the respondents reported water scarcity especially during dry season as a serious constraint. The study further revealed, from 62.5% of the respondents, that lack of access to credit facilities was a major constraint, which often constrained the women from embarking on large scale production. Scarcity of labour with the attendant high cost of palm oil processing was also reported by 41.1% of the respondents. In an earlier study, Nnadozie and Ibe (2000) had similarly observed that only a minimal percentage of farm women have their labour needs met.

As far as hypothesis is concerned, the study analyzed the data obtained, using the t-test to ascertain the extent to which palm oil processing improved the living conditions of the rural women in the study area. Essentially, the analysis involved a comparison and determination of the difference between income of women involved in palm oil processing and income of women involved in other business. The result of the t-test showed thus:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_1}}}$$

$$t_{cal} = 2.638$$

$$t_{tab} = 2.045 \text{ at } 5\% \text{ df } 29.$$

Since  $t_{cal}$  is greater than  $t_{tab}$  ( $t_{cal} > t_{tab}$ ), we reject the null hypothesis and conclude that there is significant difference between income of women in palm oil processing and income of women in other businesses. In other words, there is a relationship between the socio-economic conditions of the rural women and income derived from palm processing.

## Conclusion

The research study has confirmed that palm oil processing occupies a central place among the rural women in Ika Local Government Area of Akwa Ibom State, Nigeria, as a livelihood activity. The study also confirmed that palm oil processing provides a potential and reliable source of high income and employment generations, as well as economic empowerment among the rural women in the study area.

Furthermore, the study identified some serious constraints of palm oil processing that required urgent attention. These include lack of access to modern palm oil processing technology, lack of access to credit, water scarcity particularly in dry season and scarcity of labour, with its attendant high cost. Others include

**Table 1:** Distribution of respondents by socio-economic characteristics

Socio-Economic Characteristics	Frequency	Percentage
<b>Age</b>		
16-25	11	9.2
26-35	40	33.3
36-45	44	36.7
46-55	23	19.1
56-65	2	1.7
Total	120	100.00
<b>Marital Status</b>		
Single	26	21.7
Married	70	58.3
Separated	8	6.7
Widow	14	11.7
Divorce	2	1.6
Total	120	100.00
<b>Household size</b>		
1-3	28	23.3
4-6	34	28.3
7-9	38	31.7
10-12	20	16.7
Total	120	100.00
<b>Education</b>		
Information Education	17	14.2
First School Leaving Certificate	36	30
WAEC/SSCE/GCE	54	45
Tertiary Education	13	10.8
Total	120	100.00
<b>Years of experiences</b>		
1-5	13	10.8
6-10	36	30
11 – 15	23	19.2
16-20	27	22.5
21-25	9	7.5
36-35	9	7.5
31-35	3	2.5
Total	120	100.00

**Table 2:** Distribution of respondents according to sources of capital

Sources of Capital	Frequency	Percentage
Personal saving	54	45.00
Money lender	40	33.3
Friends and relations	26	21.7
Total	120	21.7

**Table 3:** Constraints of palm oil processing among the rural women

Variables	Frequency	Percentage
Lack of access to new processing technologies	91	75.83
Denial/lack of access to credit facilities	75	62.5
Denial of right over ownership of palm oil trees	64	53.33
Denial of land right and inheritance	104	86.66
High cost of palm oil processing	35	29.66
Water scarcity during dry season	80	66.66
Fluctuation in price of palm oil	48	40
Scarcity of labour	50	41.66

**Source:** Field Survey Data, 2006

obnoxious and unpopular cultural practices such as denial of land right and inheritance against women as

well as denial of right of ownership of palm trees by women. From this study, it is recommend that:

1. Government should assist the women in the study area to secure adequate capital/credit, to enable them expand their businesses and save them from the ordeals of money lenders.
2. Government should build modern palm oil processing mills for the women and train them effectively, to improve their productivity in terms of quantity and quality.
3. Government should embark on appropriate land reforms in the study area, to ensure the women have unrestricted access to land.
4. Government, through legislation, should change those obnoxious cultural taboos and practices which pose as obstacles to the productive activities of rural women in the study area.
5. Government should also provide the rural people in the study area with the necessary infrastructures such as pipe borne water supply, good road network, health centers, electricity among others, as a means of promoting income generating activities and stemming the tide of rural-urban migration.

## References

- Ani, O.A., 2004. *Women in Agricultural and Rural Development*. Published by 'Quilla, Maiduguri, Nigeria
- Ekong, E.E., 2010. *Rural Sociology*. Dove Educational Publishers, Uyo, Nigeria
- Nwosu, I.E. and O.M. Nwawill, 2010. Assessment of Perceived Effectiveness of Adult Educational Programme as Poverty Alleviation Strategy among Rural Women in Njikoka Local Government Area. *J. Agric. Biol. Food Sys.*, 1: 57–64
- Nwosu, E.L., 2010. Gender issues and socio-cultural factors in women participation in agricultural extension in Nigeria: Service challenges and policy implications. *J. Agric. Biol. Food Sys.*, 1: 116–121
- Nwankwo, O.O. and E.O. Eboh, 1998. Women Empowerment and Sustainable Agricultural Investment in Palm Oil Processing in Imo State. In: *Sustainable Agricultural Investment in Nigeria*. Nwosu, A.C.N. and J.A. Mbanasor (eds.). Alhabet Nigeria Publishers, Owerri, Nigeria
- Nnadozie, R. and I. Ibe, 2000. Women in Agriculture: Problems and Prospects. In: *Agricultural Transformation in Nigeria, Novelty*. Nwosu, A.C., C.U. Nwajiuba and J.A. Mbanasor (eds.). Industrial Enterprises Ltd., Owerri, Nigeria
- Dauda, R.O.S., 2002. Rural Poverty in Nigeria: Characteristics, dimensions and trends. *Niger. J. Rural Sociol.*, 4: 1

(Received 10 February 2012; Accepted 29 April 2012)