

## **Problems and Prospects of Oil Palm Production in Isoko South Local Government Area of Delta State, Nigeria**

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**Abstract:** This research was carried out in Isoko Local Government Area of Delta State. The investigation was carried out in five villages in Isoko South Local Government Area of Delta State, Nigeria. Data's collected from respondents using well structured interview for the illiterate farmers and questionnaires for the literate farmers were analyzed using descriptive statistics. The data shows that 81.3% of the farmers involved in oil palm production sourced their palm from the wild grooves. This is in line with the international Potash Institute in 1957 that most of the palm oil and kernel is not derived from cultivated oil palm growing in the wild. The result also shows that lack of land, fund, lack of improved variety and information, labour intensive as well as seasonal variation were the major problems. Most of the producers sell their products in smaller quantity as well as in local markets hence, only realize little amount of income. Oil palm is used for food, soap making, brooms, local cream, sieve weaving, fish cage and leaf stalk used for pond construction. It was observed that despite the importance of oil palm and it's products in the study area, it's cultivation has not been well adopted by farmers in the study area. Therefore this study seeks to investigate the problems and prospects of oil palm production in Isoko south local Government Area of Delta State, Nigeria.

**Key words:** Oil palm • Kernel • Soap making • Brooms • Delta State and Isoko South

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### **INTRODUCTION**

Oil palm (*Elaeis guineensis*) is one of the major economic perennial agricultural crops grown in the tropics [1]. Oil palm is referred to as Ope in Yoruba, Nkwu in Igbo, Ibiedi in Delta and Kwakwa in Hausa.

Oil palm is an erect un-branched tree grown up to 15-30cm tall with a stout trunk covered with persistent leaf bases. Oil palm was initially regarded as tree crop. Due to its high yielding source of edible and technical oil, it is now grown as a plantation crop in most countries with high rainfall of about 1600mm 2500mm per annual in tropical climate within 10° of the equator. Oil palm thrives well in deep slightly acidic loamy soil with pH of 5-6. Oil palm bears fruit in bunches with weight of about 10kg to 40kg. It is mainly propagated by seed through pre-nursery and field nursery practices [2]. Recent research carried by bulletin of the Nigerian Institute for

Oil Palm Research [3], shows that oil palm can also be propagated by leaves though, it undergoes some processes which take longer time before sprouting.

Palm oil as one of the major products of oil palm is rich in carotenoids (Pigment found in plants and animals) from which it derived its deep red colour. Oil palm is the most important source of vegetable oil out of all the oil bearing fruits. This made the crop to be the leading crop in the export field. According to the International Potash Institute 1957, the principal product of oil palm fruit which is processed to obtain palm oil, Palm kernel and palm kernel cake. Traditionally, palm oil is used for cooking, soap making, lamp oil and metal planting while palm fronds and kernel meal are used for livestock feeds.

Since early 1970's which marked the inception of oil boom, oil palm and other cash crops such as cocoa, rubber etc. has suffered an irreparable neglect and progressively lost its pride in the international market.

Consequently, there has been a continuous decline in agricultural production and less effort has been shown to revive this terrible situation. Could this be a reason why there is reduction in oil palm production?

Despite the usefulness of oil palm, record has shown that only few people out of the Nigeria population actually engaged in oil palm production. Others take it as a part time business. Are there any predominant factors that prevent farmers from being fully involved in oil palm?

**Objectives of the Study:** The main objective of this research work was to evaluate the Specific objectives to problem and prospects of oil palm production in the study area.

- Determine the socio-economic characteristics of oil palm farmers in the study area.
- Determine the proportion of tree crop farmers involved in oil palm cultivation.
- To identify the problem inhibiting farmers from cultivating oil palm.
- To identify the various processing method of oil palm in the study area.
- To determine the various uses of oil palm in the study area.

## MATERIALS AND METHOD

This was mainly concerned with the procedure which were used to collect data, analyzed data as well as the interpretation of the data collected based on the problems and prospect of oil palm production in Isoko South local Government Area of Delta State, Nigeria.

**Study Area:** Isoko south is one of the twenty-five local government in Delta state. Isoko south is bounded by four local government. These include Patani Local Government towards Bayelsa State, Ughelli North Local Government towards Edo State, Ndokwa East Local Government towards Anambra State and Isoko North Local Government towards Kwale. Isoko South comprises of various communities and villages. Among whom are Oleh, Olomoro, Umeh, Igibide, Irri, Aviara, Ewhokpaka, Uzere, Oviri, Ivrogbo etc. Isoko South is known with one of the major resources in Nigeria which is crude oil. The major occupation of the people is farming. Isoko South people cultivate crops such as oil palm, groundnut, rubber, plantain, Banana, tomatoes, maize, pineapple, pepper etc. because of the swampy nature of

the place, they are also known with fishing. Although farming is their major occupation, they engage in other activities such as trading, civil service work etc. for a living.

**Sampling Technique:** In the course of this research work, a probability sampling techniques was used in the work. Five villages out of the oil palm producing communities were selected. The selected villages were:

- Olomoro
- Emede
- Uzere
- Irri
- Aviara

Using the Taro Yamani method of sample size formulation, a total number of one-hundred and twenty four farmers out of the hundred and eighty farmers in the area were selected using simple random sampling techniques.

$$n = \frac{N}{1 + N(e)^2}$$

where n = ?

N = 180

e = 5%

That is n = sample size

N = population sample

e = Error limit

I = Constant

$$N = \frac{180}{1 + (.05)^2}$$

$$n = \frac{180}{1 + (180 \times 0.0025)}$$

$$n = \frac{180}{1 + (.045)}$$

$$n = \frac{180}{1.45}$$

n = 124 oil palm farmers.

**Data Collection:** Data's were collected using primary source and secondary source of data collection. The primary source of data collection were taken from respondents using well structured interview for respondents who were illiterate and well structured questionnaire for the literate respondents based on the socio-economic characteristics of the farmers, factors inhibiting farmers from cultivating oil palm, various methods of oil palm production as well as the uses of oil palm while the source of secondary data's were journals, textbooks, internet, bulletins, library as well as articles.

**Data Analysis:** Data's collected from respondents using well structured interview and questionnaire were analyzed using descriptive statistical tools such as percentages as well as histogram.

Objectives 1, 2, 3 and 5 were analyzed using percentage while objective 4 was analyzed using histogram.

#### Socio-Economic Characteristics of Oil Palm Producers:

Table 1 above shows that majority of the oil palm producers in the area fall between the age range of 41-50 which is 44.4%, 30-40 years of age which is 21.8% whereas 19.4% falls between 51-60. However, 14.7% represent those farmers whose age was above 60 years of age. This shows that most farmers were in their active age (30-50) years which is represented by 66.2%.

Table 2 shows that 12.1% were single, 63.7% were married, 16.9% were divorced while 7.3% were widowed. This shows that most of oil palm producers in the area were married. This may be due to the fact that agriculture is mainly practiced by married people to cater for their family. This is also in line with Usero (1974) finding that oil palm in its nature requires a lot of human and material resources for its effectiveness and that men, women and children are employed in various aspects of the work.

The data shows that majority of oil producers in the area were males 92.7%. This is because; oil palm work is usually regarded as hard work for women to do hence, women are mainly involved in marketing of oil palm produces as well as cultivation of arable crops production. 7.3% represent females who engaged in oil palm by hiring labourers in the processing of their palm fruits while they market their product to care for their family. These are mainly widow or single parent.

Table 4 shows that 16.9% of the farmers had no formal education, 45.2% had primary education and 28.2% had secondary education, while 9.7% had tertiary education. It shows that most of the oil palm producers in the area had little or no scientific knowledge of oil palm.

Table 1: Distribution of respondents according to age

Age range (years)	Number of Respondents	Percentage (%)
30-40	27	21.8
41-50	55	44.4
51-60	24	19.4
Above 61	18	14.7
Total	124	100

Source: Field Survey, 2009

Table 2: Distribution of respondents according to marital status

Marital status	Number of Respondents	Percentage (%)
Single	15	12.1
Married	79	63.7
Divorced	21	16.9
Widowed	9	7.3
Total	124	100

Source: Field Survey, 2009

Table 3: Distribution of respondents according to gender

Gender	Number of Respondents	Percentage (%)
Male	115	92.7
Female	9	7.3
Total	124	100

Source: Field Survey, 2009

Table 4: Distribution of respondents according to educational level

Educational level	Number of Respondents	Percentage (%)
No formal education	21	16.9
Primary education	56	45.2
Secondary education	35	28.2
Tertiary education	12	9.7
Total	124	100

Source: Field Survey, 2009

#### Determining the Proportion of Tree Crop Farmers

**Involved in Oil Palm Production:** Table 5 shows that most of the respondents had 21 above farming experience 35.5%, while 25.8% had 16-20 years farming experience, 19.4% had 11-15 years experience whereas 14.5% had 6-10 years experience and 4.8% had 1-5 years experience. This shows that most of the oil palm producers in the area are those who had been in the system for years. It therefore, implies that only few of the Nigeria population go into oil palm production.

Table 6 shows that 83.9% of the respondents were involved in tree crop production while 16.1% were engaged in arable crop production. 61.3% of the respondents had a personal or family rubber plantation

Table 5: Distribution of respondents according to farming experience

Years in range	Number of Respondents	Percentage (%)
1-5	6	4.8
6-10	18	14.5
11-15	24	19.4
16-20	32	25.8
21 above	24	35.5
Total	124	100

Source: Field Survey, 2009

Table 6: Distribution of respondents according to types of tree crop grown

Crop	Number of Respondents	Percentage (%)
Rubber	76	61.3
Oil palm	28	22.6
Cocoa	0	0
Arable	20	16.1
Total	124	100

Source: Field Survey, 2009

Table 7: Problems inhibiting oil palm production

Problems	Number of Respondents	Percentage (%)
Land	113	91.1
Fund	85	68.5
Lack of improved varieties/information	82	66.1
Labour intensive	72	58.1
Time lag	30	24.2
Seasonal variations	62	50
Total	124	100

Source: Field Survey, 2009

while 22.6% had oil palm plantation whereas none of them had cocoa plantation. Most of the farmers here have a rubber plantation. This is as a result in price of rubber (*Havea barziliensis*) compared to oil palm at that time. The respondents claimed that this led to planting rubber in most of the family land by their grand-parents since there were available lands as a result of the reduced population as at then. This idea also confirmed that most men in the area are involved in other works such as Okada riding, fishing and handwork such as mechanic rather than arable crop production in most of the localities while the women major on arable crop production.

Table 7 reveals that land is the major limiting factor in the area. Most of the respondents 91.1% had land problem, 68.5% had problem of fund, 66.1% complained of lack of information as well as improved machinery/seed while 58.1% indicated that oil palm work is labour intensive. About 24.1% of the respondents said that oil palm tree takes a long period before maturity whereas 50% complained of seasonal variation. Their reasons are explained below:

**Land:** The respondents complained that the land tenure system practiced in the area impose threat to agriculture. They said that lands are owned by either family or community which usually results in fragmentation and does not encourage such cultivation. They stressed that part of the land in the area is swampy in nature which is usually use for fishing.

**Lack of Information Improved Processing Machinery and Seed:** The respondents said that they lack current information relating to oil palm as well as improved production techniques. This shows that extension services in the area is still at minimal level.

**Labor Intensive:** Most of the respondents revealed that oil palm production is elaborate as well as labour intensive. They stated that it can only be practice by family men or those with processing equipments.

**Long Period of Maturity:** Most of the respondents stated that oil palm cultivation cannot be practiced by beginners since it is a long time investment. According to them, the best option is to produces from those ones in the wild grooves why they are investing the money on other businesses.

**Seasonal Variation:** 50% of the respondents claimed that seasonal variation of harvesting period is the main reason why they engage in oil palm business as a part-time business. They said that those who fully depend on oil palm production go hungry after the peak period of harvest. This is in line with [4] research that in Nigeria, the peak harvest period time are March to April and September to October.

Table 8 shows that most of the oil palm producers in the area sell their produces as soon as they produce. Only 16.1% sells in bulks while a larger portion 83.9 sells per produces.

Table 9 indicates that 71.8% of the farmers sell in local markets, while 20.1% sells to neighbours and only 8.1% sells in big markets. This could also be attributed to one of the reasons why only few are engaged in oil palm production. It is certain that those who sell to neighbours and in local markets will only realize small amount of income hence, discourage them.

The table revealed that majority of the farmers (96 respondents) uses traditional local method of oil palm processing while 28 uses mechanical equipment (hand press), none of them uses improved techniques.

Table 8: Distribution of respondents according to mode of marketing

Sizes	Number of Respondents	Percentage (%)
Bulk	20	16.1
Per produces	104	83.9
Total	124	100

Source: Field Survey, 2009

Table 9: Distribution of respondents according to place of marketing

Place	Number of Respondents	Percentage (%)
Local market	89	71.8
Neighbours	25	20.1
Big markets	10	8.1
Total	124	100

Source: Field Survey, 2009

Table 10: Identify the various processing methods

Method	Number of respondents
Local	96
Mechanical	28
Improved	0
Total	124

Source: Field Survey, 2009

Table 11: Determining the various uses of oil palm

Uses	Number of Respondents	Percentage (%)
Food	124	100
Soap making	65	52.4
Brooms	30	24.2
Local cream	89	71.8
Others	62	50
Total	124	100

Source: Field Survey, 2009

This is supported by Nigeria Institute For Oil Palm Research (4) that about 250 tons of palm oil is lost annually due to the traditional processing method employed by majority of the farmers which account for over 70% of the producers.

Data collected from respondents shows that the products and by-products gotten from oil palm production are of great importance to the people in the area. They declared that palm products are use for food, soap making, broom-making, weaving of baskets, sieve, fire lighting, etc, while the byproduct such as cracked shells are used for road making and building/construction of building. They also said that edible maggots are gotten from decayed palm trunks.

### Summary, Conclusion and Recommendations

**Summary:** The project work was carried out in Isoko South Local Government Area, Delta State to investigate

the problems and prospects of oil palm. One hundred and twenty-four respondents were selected from five villages and data were collected based on socio-economic characteristics of oil palm producer, proportion of tree crops farming involved in oil palm cultivation, identifying the problems inhibiting farmers from cultivating oil palm, identifying the various processing methods of oil palm as well determining the uses of oil palm in the study area.

The data analyzed by the descriptive studies shows that majority of oil palm producers in the study area are male while only few than were female. Majority of the people uses local processing methods. It was also revealed that most of the oil palm producers in the study area sell their product in local market while everybody uses oil palm products in one way or the other.

The major problems identify as stated by respondents were land, fund lack of information, lack of improved variety, seasonal variation and lengthening period of maturity. The research also shows that majority of the oil palm producers were married and most of them has little knowledge of oil palm.

### CONCLUSION

Based on the findings, we concluded that farmers in the study area depend mainly on oil palm in the wild grooves. Most of the farmers were faced with inadequate information, lack of improved varieties, lack of fund and land as the major limiting factors oil palm cultivation.

Since most of the people are educated, it is obvious that if adequate materials and information is divulged to them they will do well in oil palm production thereby increasing the national economy.

**Recommendation:** We therefore recommend that:

- Government should make possible effort to provide loans specifically to oil palm producers in the area.
- Extension services should be intensified in the study area in order to divulge innovation relating to improved oil palm varieties and practices to farmers.
- Cooperative societies should also be encouraged to ensure easy farming.
- Adequate market information should be provided for profitable income.
- Adequate measure should be taken by the government to solve land problem in the area.

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