

## **SOCIO-ECONOMIC IMPACTS OF THE NSADOP OIL PALM PLANTATION IN BOKI LOCAL GOVERNMENT AREA, CROSS RIVER STATE, NIGERIA**

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### **ABSTRACT**

In recognition of the crucial role of Agriculture in an enduring democracy, politician of the first republic in Nigeria established tree crop plantations across the country. The NSADOP Oil Palm Plantation is one of these plantations. The plantations were aimed among other things at ensuring regular supply of raw materials for local consumption and for export; serving as demonstration to individuals and organizations involved in tree crop plantation and the provision of employment opportunities for the local populace. Nigeria was one of the world's largest exporters of palm produce. Today, she imports the same produce. An analysis of the socio-economic impacts of the plantation is thus, necessary. Primary data were obtained from 131 respondents, involved in both small-scale oil palm production and those who harvest the produce from wild palms. They were obtained randomly from 4 major villages that constitute the NSADOP clan. Secondary data were obtained from the estate office. Results showed that the small-scale oil palm plantation owners used improved production practices such as improved varieties, agro-chemicals, and the Malayan knife (for harvesting). Other impacts of the plantation include employment opportunities for the local populace, establishment of a primary school and health centre and the opening up of the neighbouring villages by access roads. It is recommended that the present government should continue to invest in direct agricultural production as a way of ensuring an enduring democracy.

**KEY WORDS: Impact ,Plantation Agriculture**

### **INTRODUCTION**

The decline in yield oil palm produce over the years has been attributed to the declining soil fertility and improper management of plantations and oil mills (Udom, 2002). Palm oil is used both locally in household to prepare meals and to make local soaps. Its unique composition makes it versatile in food manufacturing and chemical industries to make many products like soaps and detergents. The Nsadop oil palm plantation was established to ensure regular supply of raw materials for local consumption and for export; serve as demonstration to individuals and organizations involved in tree crop plantation and to provide employment opportunities for the local populace (Floyd, 1981).

There are both merits and demerits in government's direct involvement in agricultural production, especially for an enduring democracy. If properly managed, plantations, for instance, can meet the objectives for which they were established. Given the experiences of government in the past, this appears not to be so, especially for both the agricultural and non agricultural establishments, such as the National Electric Power Authority (NEPA), the Nigerian Airways, some cement manufacturing companies and tree crop plantations. There is corruption and mismanagement. That is why government is privatizing them .

In spite of this, some state government are still involved in direct production of crop such as cashew and pineapples. The question, therefore, is, what lessons have the present administration learnt from the past plantations? Are these new plantations likely to succeed? Only a critical survey of the impact of some plantations established in the past can give an insight to this.

The primary objective of this study was to evaluate the socio-economic impacts of NSADOP oil palm plantation on the local populace. Specifically, the study investigated the impacts of the plantation in

terms of the production practices, management techniques, income, occupations (for self and children), desirable infrastructure, labour supply, and land availability for food crop production.

## METHODOLOGY

### *Sources of Data*

Both primary and secondary data were used for the study. Primary data consisted of information obtained from respondents with the use of an interview schedule. This was administered on 131 respondents. Oral interviews were also used to collect primary data from the elders in the villages. Secondary data were obtained from the plantation's office, the Federal Office of Statistics and the headquarters of the Cross River State Oil Palm Estates, Calabar.

### *Sampling Procedure and Sample Size*

Simple random sampling was used to select the respondents for the study. A list of all the small-scale oil palm plantation owners was obtained from the office of the Local Government Headquarters of the State Agricultural Development Project (ADP). These farmers own between 2 hectares of oil palm to over 20 hectares. There were a total of 13 farmers across the 4 villages and they were all interviewed. A list of all other registered farmers, with the ADP who had farming as their major occupation was also obtained from the same office. Care was taken not to include the oil palm farmers. The table of random numbers was then used to select the respondents for the study. Some staff of the plantation were also interviewed. A total of 131 farmers from the 4 villages were interviewed.

### *Procedure for Data Collection*

Due to time constraints, the services of two enumerators were used. These were staff of the evaluation unit of the State ADP, and were judged competent to administer the interview schedule because they had the Ordinary National Diploma (OND) certificate in agriculture and also understood the local language in the study area.

## RESULTS AND DISCUSSIONS

### *Impact of the NSADOP Oil Palm Plantation on the Management Practices of Local Farmers*

#### (a) Source of Fruits

The respondents had three sources of palm fruits, as shown in Table 1 below

**Table 1 Distribution of Respondents by their Source of Fruits**

Source of fruits	Before plantation %	After plantation %
Communal Farmland/Forest	100	50
Individual plantations	0	40
Local markets	0	10

Source: Field Survey, 2003.

#### (i) Communal Farmlands and Forests

Before the establishment of the plantation, all the farmers obtained their palm fruits from the communal farms/forests. Harvest of palm fruits from the communal farmlands constituted the most distinguished and peculiar feature of the organization of palm oil production in NSADOP. Field observations showed that a village chief, in consultation with elders and family heads, would announce a date for "mass harvest", during which every taxable adult would participate in communal harvesting of the fruits.

Every individual was entitled to as many bunches as he/she could harvest, provided he/she paid the required fees. On the eve of the harvest, the villagers would be busy preparing for the harvest. They did this by surveying the communal land to determine the most strategic location where large quantities of ripe bunches of the wild palms were to be found.

The frequency of harvest would depend on the season, and it is normally higher during the dry season. During this period, the palm fruits would ripen more and have higher oil content than during the wet season. The cash requirements of the villagers also determined the timing of harvest of wild palms, hence it is usually in December and January when money would be required for the Christmas and New Year celebrations as well as for the payment of school fees for children and wards.

### (ii) Individual Farms

These are palm farms owned by individuals within the villages. Table 2 shows that before the establishment of the plantation, no individual across the 4 villages owned an oil palm plantation. But after the establishment, about 1% of the farmers (13 out of 131) owned private plantations of oil palms, ranging from 2 to 20 hectares per person. They obtained their palm fruits from here to meet their financial requirements.

### (iii) Local Markets

Some of the villagers had secondary occupations such as trading. These people, for lack of time to process the palm fruits obtained from mass harvest or individual farms often sell the fruits in the local markets to meet their immediate financial requirements. The establishment of the NSADOP oil palm plantation affected the sources of fruits in a number of ways. Firstly they now use to pioneer oil mill to process their palm fruits to palm oil and kernels. Secondly, there is now an over-reliance of the people on the palm produce from the plantation because they are cheaper, and of better quality than those processed traditionally. Hence, relatively fewer people now go to the communal land for the palm fruits. Thirdly, the harvest of the fruits from the communal land is now adversely affected by an acute labour shortage. People now prefer to go to the plantation to work, where returns are higher.

### (b) Varieties of Palms Grown

About 60% of the private oil palm farmers planted the pisifera, 35% planted the dura and 5%, crosses of these two. The pisifera has very little shell if at all. It gives high yield of palm oil but little or no kernel. The dura gives little oil but the yield of the kernel is high. The tenera, which is a cross of these two, combines the advantages of having both the oil and the kernel, since the 2 products are marketable. The use of latest high yielding and resource efficient planting materials have been recommended by Jalani et al (2002) in their study for improving productivity. The Tenera variety has been shown to improve yields from 6.3 to 11.2t/ha in Malaysia (Jalani et al, 2002).

**Table (1b) Distribution of respondents by the impact of plantation on their management practices**

S.No	Management Practice	Before Plantation		After Plantation	
		No	%	No	%
1	Improved Varieties				
	(a) Pisifera	0.00	0.00	79	60.00
	(b) Dura	131	100	46	35.00
	(c) Tenera	0.00	0.00	07	5.00
2	Fertilizer	0.00	0.00	13	10.00
3	Insecticides	0.00	0.00	1	1.0
4	Herbicides	0.00	0.00	1	1.0
5	Fungicides	0.00	0.00	1	1.0
6	Pruning	0.00	0.00	105	80.00

Source: Field Survey, 2003.

### (c) Fertilizer Application

Further investigation showed that only 10% of the private palm farmers used fertilizers in their farms (Table 1b). Majority of others complained of the high cost of the fertilizers and often, its non-availability. It is interesting to note that all of them had used fertilizers before, when the prices were relatively low.

### (d) Insecticides, Herbicides and Fungicides

Only 1% of the farmers used these inputs (Table 1b). Farmers reported that they all used the inputs when they were given at highly subsidized rates by that state government. But with the withdrawal of the subsidies on these inputs, very few farmers are now using them, the advantages of the inputs notwithstanding.

### (e) Pruning

About 80% of the private oil palm farmers pruned their palms regularly. According to them, pruning was necessary because it facilitates harvesting, the taping of palm wine and reduction of disease infection of the palms.

## The Impact on the Production Practices on the Local Populace

### (a) Type of Equipment used in Harvesting

Table 2 shows the distribution of respondents by the equipment used in oil palm production before and after the establishment of the plantation.

**Table 2: Distribution of Respondents According to Equipment used before and after the NSADOP Oil Palm Plantation**

Type of equipment	Pre-Estate		Post-Estate	
	No. of farmers Using it	% of farmers Using it	No. of farmers Using it	% of farmers Using it
1. Cutlass (Machete)	56	61.53	44	48.35
2. Climbing Ropes	69	75.28	50	54.94
3. Baskets	70	76.28	60	65.93
4. Chisel Blade	51	56.04	40	43.93
5. Malayan Knife	-	-	8	8.08
6. Weeding Knife	-	-	4	4.40
7. Tapping Knife	49	53.85	38	41.78

Source: Field Survey, 2003.

The table shows that the use of the equipment declined after the establishment of the estate except the weeding knife and the Malayan knife. The Malayan knife, for instance, was completely unknown in the area till the establishment of the plantation. It is now the principal equipment used in harvesting. It is easy to use and time-saving. The farmer simply stands on the ground and uses the Malayan knife in harvesting or pruning instead of climbing the palms as they used to do before.

### (b) Processing of Palm Fruits

Observations showed that 2 methods were used – the traditional method and the use of the pioneer oil mill. The traditional method has a number of setbacks. It is labour intensive; it results in a low extraction rate of the oil from the fruits and the palm oil is of low quality. That is why many farmers (who could afford it) used the pioneer oil mill, located in Kaizip village. Another oil mill was located in Okundi village some kilometers from NSADOP. The two mills were established by the former Eastern Nigeria Development Corporation (ENDC). The mills produced oil of high quality and the extraction rate is also high. The mills are also labour saving, when compared with the traditional method. It was observed that individuals had no private oil mill at the time of the survey. This was attributed to the high costs associated with the establishment.

**(c) Impact of the Plantation on Labour Availability**

The respondents were asked the sources of their labour before and after the establishment of the plantation. The results show that there were two sources of farm labour, namely, family labour and hired labour. Some, however, used both. The results (Table 3) further showed a decline in the labour available to the respondents after the establishment of the plantation.

**Table 3: Distribution of Respondents According the Labour Available to them (N = 91)**

Type of Labour	Pre-Estate		Post-Estate	
	No. of farmers Using it	% of farmers Using it	No. of farmers Using it	% of farmers Using it
1. Hired labour only	11	12.07	9	9.89
2. Hired and family labour	64	70.33	59	64.84
3. Family labour only	16	17.58	26	28.59

Source: Field Survey, 2003.

Further investigations showed that the plantation attracted more labour. It could pay higher rates compared with the rates paid by the local farmers and hence the increase in their use of family labour. This results in the use of unskilled labour hence in low yields (Jalani, et al. 2002). The labour came from neighbouring states, local government areas, and within the community.

**(d) Impacts on Land Availability**

The land acquired for the plantation consisted essentially of virgin forests owned by the community and donated to government. Relatively small proportions of residential areas and farmlands were, however, affected. Table 4 shows the distribution of the displaced farmers in the 4 villages in the establishment of the plantation.

**Table 4: Distribution of Farmers Displaced in the Establishment of the Estate (N = 91)**

Type of Labour	No. Displaced from Residential Area	% Displaced from Residential Area	No. Displaced from Farmlands	% Displaced from Farmlands
Bansan	-		14	15.38
Kaizip	2	2.19	13	14.29
Kashie	5	5.49	10	10.99
Kaku	3	3.30	5	5.49
<b>Total</b>	<b>10</b>	<b>10.98</b>	<b>42</b>	<b>46.15</b>

Source: Field Survey, 2003.

The Table shows that no one was displaced in Bansan village, whereas, 5 people were displaced from their residences in Kashie village. About 14 people were displaced from their farmlands in Bansan village while on 5 people were displaced in Kaku village. It is interesting to observe that more people were displaced from their farmlands, relative to those displaced from their residential areas.

Further investigation showed that some of the people who were displaced from their homes received compensation only on the economic trees (mainly coca). This gave rise to a number of problems. Some farmers considered the compensation as inadequate; others felt that the non-compensation for other economic trees such as wild oil palm, bush-mangoes and mangoes was unfair. Till date, not all affected farmers have been paid their compensation, and they are still making their demand for this.



**(e) Impact of the Estate on the Income of the Populace**

The respondents were asked if their annual income was higher or lower than it used to be before the estate was established. Table 5 shows that majority (57%) of the respondents felt that their income was higher after the establishment of the plantation for all the 4 villages. They were further asked if they felt that the increase in their income resulted from the establishment of the estate

**Table 5: Your Annual Income, Higher or Lower after Estate Was Established (N = 91)**

Village	Higher No.	Higher %	Lower. No	Lower %	Undecided No	Undecided %
Bansan	17	18.69	9	9.89	6	6.59
Kaizip	12	13.19	7	7.69	2	2.20
Kashie	15	16.48	4	4.40	2	2.20
Kaku	8	8.79	6	6.59	3	3.30
<b>Total</b>	<b>52</b>	<b>57.14</b>	<b>26</b>	<b>28.57</b>	<b>13</b>	<b>14.29</b>

**Source: Field Survey 2003**

Table 6 shows that 31 out of the 52 respondents that had an increase in their income felt that the increase resulted from the establishment of the estate.

**Table 6: Do you feel this Increase in your Income Results From the Establishment of the Estate (N = 52)**

Village	Response		
	Yes	No	Undecided
Bonsan	1	1	3
Kaizip	7	2	3
Kashie	8	4	3
Kaku	3	3	2
<b>Total</b>	<b>31</b>	<b>10</b>	<b>11</b>

**Source Filed Survey, 2000**

The figure is high compared with those who felt the increase in their income came from other sources and those who were undecided. It can therefore, be concluded that the estate brought about an increase in the income of some of the members of the community. Further investigations showed that the increase in the income of the people came from the manual labour they do in the NSADOP oil palm plantation, from the improved processing of their palm fruits in the mills and from the good roads which enabled them to transport their produce to urban markets instead of selling to exploitative middle-men in the farms or villages. Thus, the plantation can be said to have had a positive effect on the people.

**(f) Impact on Infrastructural Facilities**

The local people benefited from the infrastructural facilities provided by the estate. Such facilities include:

**Roads:** The estate was involved in the building and maintenance of the Okundi – Nsadop road. This included the bridges and culverts. The estate, thus, gave rise to the opening up of the villages with a good access road.

**Education:** A primary school was built in the estate for the staff children. The school was also open to the local populace, who sent their children there for quality education. The school is located in Kaku village.

**(g)Other Impacts:** Some of the villagers built houses, which they rented out to some staff of the estate. Thus, they had another source of income – rent from houses. Some of the villagers were now involved in operating restaurants to service the workers of the estate. They also became engaged in providing some services to the estate workers like repair of bicycles since some of them owned bicycles.

## **CONCLUSIONS**

The establishment of the estate brought about some desirable impacts on the local populace. Similar agricultural establishments in the state and other parts of the country will bring about desirable democratic dividends, as they would impact on the life of the citizenry directly or indirectly.

## **RECOMMENDATIONS**

The following recommendations may be made: Firstly, there are some negative effects of the establishment of estate. The inability of the government to pay compensation to the people who were displaced from the homes of residence is not proper. Worse still was the policy of paying compensation to those displaced from their farmlands on the basis of their economic trees (specifically cocoa) negates the fact that other trees are of even greater importance to the lives of the farmers. That some of these farmers have not been paid their compensation till date does not augur well for the community/government relationship.

It is therefore, recommended that those involved should be appropriately compensated, as justice delayed is justice denied. However, sine the plantation impacted positively on the populace, it is recommended that similar plantations be established in other part of the state and country at large.

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