

# The Role of Agricultural Extension Service in Poverty Alleviation Among Oil Palm Farmers in Ogun State

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## ABSTRACT

This study examined the major roles played by the government owned agricultural extension out fit in other to alleviate the poverty status of oil palm farmers in Ogun State. Multi stage sampling procedure was used to select 120 Oil palm farmers, who were interviewed in May 2003. The data were analyzed through descriptive statistical tools such as percentages, averages, ranking and charts. Two null hypotheses were also tested using the Chi Square Coefficient. The result revealed that oil palm farmers are elderly, married, males and females. They have no formal education and are members of farmers cooperative groups. It was also established that, more than half of the farmers are large-scale oil palm producers. They still use crude methods for palm fruit harvesting and processing. Furthermore, the study found significant relationship between group membership and frequency of extension agents' contacts ( $\chi^2_{cal} = 23.65$ ). The study concluded that, farmers are better assisted when they form strong groups through which intervention can take place. It also recommends that, other categories of farmers should be encouraged to organize themselves into viable groups so that they can benefit adequately from the services rendered by the extension service agency. Also, better working environment should be provided for the field level extension agents to better perform their roles in the rural areas.

## 1.0 INTRODUCTION

*Elaeis guineensis* farmers are farmers that are involved in the production of *Elaeis guineensis* popularly known as oil palm tree. Oil palm is a permanent tree crop grown by farmers in the Western and Eastern Zones of Nigeria. The oil palm tree has various uses and many products, which produces a lot of profit if well managed. The products obtained from the crop are the red palm oil, broom, palm wine, palm kernel, kernel oil, and leaves used as roofing materials. The fiber that remains after the palm oil extraction is also used as fuel for cooking purposes.

Agricultural extension according to Williams (1988) is defined as a voluntary out-of-school educational Programme of transferring research information in agriculture from its source (Research Stations) via agricultural extension agencies to affected target population (Farm families). The overall objective of these efforts is to enhance agricultural productivity and raise the living standards of farm families. Agricultural extension therefore, serves as a process through which the knowledge, and skill of the clientele are developed to solve their problems and make positive influences on their entire household, farms, income status, health and general welfare. In general terms, agricultural extension services wherever provided serves to change the knowledge, skills and attitudes of the rural people and assist them to develop a frame of mind and attitude conducive to acceptance of new technology (Adedoyin, 2002).

Poverty is a phenomenon, which has generated a lot of interest in recent times. However, poverty is a situation where one cannot generate sufficient income required for life sustenance (Adegbite and Ayinde, 1998). Sanyaolu (1991) in his own contribution saw poverty as either absolute or relative or both. Absolute poverty, wherein some goods and services essential to a family; or an individual welfare cannot be possessed due to lack of economic wherewithal; and relative poverty wherein the income earned by a person is significantly less than the average income of the population. According to the World Bank (1996), poverty is more epidemic in the rural areas of the world. Poverty has continued to be a phenomenon threatening the



survival of mankind and many views on how best to alleviate poverty have been widely discussed (Ekong, 1987; Atoloye, 1997 and Ayinde, 1999). Essentially, the most general view are; growth in agricultural production through positive technological changes availability and development of physical and human capital which can be achieved through the provision of extension services serving as a major tool to poverty alleviation among rural dwellers. Based on the foregoing, it is therefore important to investigate the roles played by the public extension agency in alleviating poverty among oil palm farmers in the state. This is because of the importance of the crop and its products most especially the red palm oil, which the bulk of the Nation depended on for cooking.

Specifically, the study intends to:

1. Describe the socio-economic characteristics of the farmers interviewed.
2. Describe the scale of production of the farmers.
3. Identify respondents' membership of farmers cooperative groups.
4. Investigate the roles of the agricultural extension agency in alleviating poverty among the farmers.
5. Recommend policy option for future improvement of the activities of the extension service agency in relation to alleviating poverty among the oil palm farmers in Ogun State.

## 2.0 METHODOLOGY

The study was carried out in Ogun State of Nigeria. The state has a land area of 164, 000km<sup>2</sup>. The state ranks sixth in the country in terms of available land area per farmer (Federal Ministry of Agriculture, 1989). Agriculture is the main traditional occupation of the people of the state. The climate favours the cultivation of a very wide range of food crops such as rice, maize, cassava, yam, cocoyam and cash crops such as kola nut, cocoa, rubber, citrus and oil palm. Administratively, Ogun State is divided into twenty local government areas and grouped into four (4) zones (Abeokuta, Ilaro, Ikenne and Ijebu-Ode) by the agricultural extension agency of the state. Each of these zones is divided into blocks and cells for the provision of extension services to farmers in the state. There are twenty blocks and one hundred and twenty six (126) cells in Ogun State (OGADEP, 2002).

Two extension blocks were purposively selected in each zone to reflect high concentration of oil palm farmers in the state. This is equivalent to 50%, 33%, 50% and 33% of the extension blocks in Ikenne, Abeokuta, Ilaro and Ijebu Ode Zones respectively. Furthermore, three extension cells were randomly selected from each of the chosen blocks. This sample gave a total of twenty- four (24) cells representing not less than two-thirds of the cells in each block. Five oil palm farmers were randomly selected from each cell, using a sampling frame obtained from the extension agent in charge of the cells. Thus, a total of 120 oil palm farmers were selected to serve as the respondents interviewed for this study. Descriptive statistical tools were used to analyze the data and presentations were made in tables and chart. The Chi-square ( $\chi^2$ ) test at 5% level of significance was also used to test two null hypotheses in the study. They are:

- There is no significant relationship between adoption of poverty alleviation services and any of the following: (i) the scale of production of the farmer, (ii) Farmers' group membership and (iii) frequency of extension agent contacts with farmers.
- There is no significant relationship between group membership and adoption of the poverty alleviation services.

## 3.0 RESULTS AND DISCUSSION

### Characteristics of Farmers

Data in table 1 revealed that majority of the farmers (91.67%) were males while only few (8.33 %) of them were female. On the other hand, majority (66.67%) of the respondents belonged to the age range 41 – 60 years (Table 1). These results suggest that the farmers involved in the study are still very active and desirous of improving their lives and farm works. Similar distribution of oil palm farmers was described by Nwamkwo and Eboh (1998), and Muda (2002). The conclusions of their works also agree with the results of the present study.



Concerning the educational background of respondents, 53.42 percent had no formal education, 26.11 percent attended primary school, and 14 percent had secondary education while 6.47 percent had post secondary education. This shows that, majority had no formal education. On the other hand, majority (97.63 percent) of the respondents were married. From these results, it could be concluded that most of the respondents were family men and women, who would likely be desirous of any assistance (including assistance from extension agents) that could be applied towards enhancing their standards of living. Though, majority of the respondents had no formal education, but they could be said to be relatively literate, which could also enhance their desire for productivity-oriented information.

**Table 1: Distribution of Respondents based on some Socio-Economic Characteristics (N = 120)**

Characteristics	Percentage	Mode/(Mean)
<b>Sex</b>		
Male	91.67	(Male)
Female	8.33	
<b>Age</b>		
Less than 21 years	0.000	53 years
21 – 30 years	8.36	
31 – 40 years	11.13	
41 – 60 years	66.67	
Above 60 years	13.84	
<b>Religion</b>		
Christianity	48.21	(Muslim)
Islam	51.16	
Traditional	0.63	
<b>Level of Education</b>		
No formal Education	53.42	(No formal education)
Primary Education	26.11	
Secondary Education	14.00	
Post Secondary Education	6.47	
<b>Farming Experience</b>		
Less than 10 years	1.66	29 Years
11 – 20 years	25.01	
Above 20 years	73.33	
<b>Marital Status</b>		
Single	0.000	(Married)
Married	97.63	
Widowed	2.37	
<b>Scale of Production</b>		
Large Scale	58.26	(Large Scale)
Small Scale	41.75	
<b>Household Size (Persons)</b>		
Less than 1	12.22	8 persons
4 – 9	50.28	
9 – 14	31.16	
Above 14	6.34	
<b>Total Income/month (₦)</b>		
Less than 10,000	40,000	₦17, 542
10,000 – 20,000	23.00	
20,000 – 30,000	11.00	
30,000 – 40,000	20,000	
Above 40,000	6.00	



<b>Source of Origin</b>		
Native	73.57	
Non Native	26.43	(Native)
<b>Membership of groups</b>		
Yes	69.13	
No	30.87	

Source: Field Survey (2003)

The respondents were asked to indicate their farm and non-farm incomes per year, i.e., income for both on and off farm periods. The responses were grouped at intervals of ₦10, 000.00. The result shown in table I depict that, 40 percent of the respondents had total income of less than ₦20, 000. However, the mean income for farmers in this study was found to be ₦17, 542.00. This is however below the poverty line of ₦65, 210.00 indicated by Agbamu and Idowu (2000). This shows that, majority of the farmers interviewed are poor, since they are making an income that is below the poverty line. Majority (73.33 percent) has farming experience of over 20 years. They are mainly large-scale farmers having farm holdings between 6.0 – 10.5 hectares. Also, majority of the respondents were natives of the selected villages; and also reside where their farms were located or near their farm locations having an average of 8 persons per household. However, those that are non-native were either those who took farming as their secondary occupation or the few affluent farmers. Furthermore, the farmers indicated that they belonged to farmers cooperative groups with about 69.13 percent of the respondents falling into this category.

#### Access to Extension Services

Table 2 shows that, 70 percent of the respondents sampled had regular access to direct extension services, while 23.33 percent claimed to occasionally avail themselves of such services. Only 6.67 percent of the respondents rarely have contacts with direct extension services. The respondents' access to extension services was identified to be connected to their membership of farmers cooperative groups. Studies of (Aihonsu, 1992 and Muda 2002) showed a direct relationship between group work and access to extension service.

**Table 2: Percentage Distribution Of Respondents Based On Frequency Of Contacts With Extension Agents (N = 120)**

Extension Contacts	Percentage
Regularly	70.00
Occasionally	23.33
Rarely	6.67
Total	100

Source: Field Survey (2003)

One of the services rendered by the Extension Agency is the introduction of mixed cropping system, where farmers were advised to intercrop food crops along with oil palm trees in other to make more income. Field survey showed that, majority of the respondents had adopted this mixed cropping system. The result is presented in figure 1.



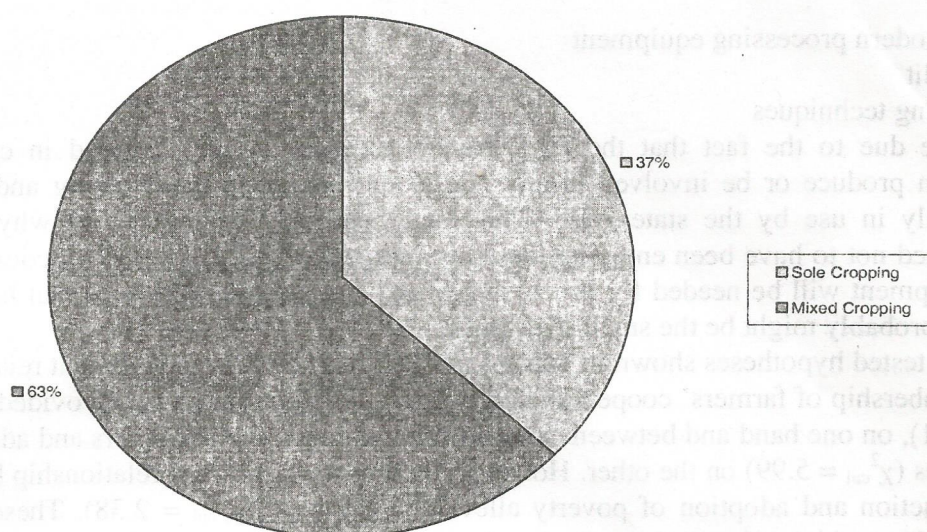


Figure 1: Crop Management System used by the Farmers.

Source: Field Survey, 2003

### Extension Service Roles in Poverty Alleviation

The study established that, majority of the respondents (93.33 percent) had regular contacts with the Extension Agents (EAS) of the Ogun State Agricultural Development Programme (OGADEP) either on a regular or on occasional basis, and only 6.67 percent rarely had contacts with the EAs. The respondents were then asked to indicate the various roles that the EAs have played and the services they have benefited from, as a result of such roles played by the EAS in an attempt to alleviate their poverty status.

Table 3: Distribution of Respondents according to the Poverty Alleviation Services benefited from the EAs

Services Provided by Eas	Percentage of benefited Respondents	
	YES	NO
Information about mixed cropping	76 (63)	44 (37)
Introduction and provision of improved seeds	67 (55.8)	53 (44.2)
Information on where and how to get fertilizer, Herbicides and pesticides	84 (70)	36 (30)
Information on storage techniques	81 (67.5)	39(32.5)
Education on group formation to facilitate;		
a. Credit access	42 (35)	78 (65)
b. Purchase modern processing equipment	51 (42.5)	69(57.5)
c. Good access roads for adequate transportation of farm produce	94 (78.3)	26 (21.67)
Better marketing techniques	55(45.83)	65(54.17)

Figure in parenthesis means percentage.

Source: Field Survey 2003



The results of the study (Table 3) indicate that, majority of the respondents have benefited from most of the services provided by the EAs. However, few of the respondents claimed not to have benefited from such services as:

- Purchase of modern processing equipment
- Access to credit
- Better marketing techniques

This could be due to the fact that the EAS are not expected to be involved in credit acquisition, marketing of farm produce or be involved in any non extension job in the Training and Visit system of Extension currently in use by the state ADP. This might probably be the reason why majority of the respondents claimed not to have been enjoying these services. Also, the scale of production also determines what type of equipment will be needed for processing of the end products. Farmers that have not benefited from this service probably might be the small scale ones.

The results of tested hypotheses shown in Table 4 indicate that, there is a significant relationship between respondents' membership of farmers' cooperative groups and adoption of services provided by the extension agents ( $\chi^2_{cal} = 7.81$ ), on one hand and between extension agents contact with farmers and adoption of poverty alleviation services ( $\chi^2_{cal} = 5.99$ ) on the other. However, there is no significant relationship between the scale of oil palm production and adoption of poverty alleviation services ( $\chi^2_{cal} = 2.38$ ). These results seem to imply that, the scale at which a farmer is producing does not determine whether the farmer is willing to adopt the services provided by the EAS to alleviate the poverty status of the farmers. However, studies have shown that, there is a positive relationship between membership of social groups and extension agents' contact with farmers and also, peer group influences positively affects the adoption of innovations by farmers.

**Table 4: Relationship between some Selected Variables and Adoption of Poverty Alleviation Services**

	df	$\chi^2_{cal}$	$\chi^2_{0.05}$	Decision
Scale of Production	1	2.38	9.49	Accept Ho
Membership of poverty Alleviation groups	1	7.81	2.85	Reject Ho
Extension contact	2	5.99	3.37	Reject Ho

The result in Table 5 also shows that, a significant relationship exists between membership of poverty alleviation groups and frequency of extension agents' contacts ( $\chi^2_{cal} = 23.65$ ).

**Table 5: Relationship between Farmers' Membership of Poverty Alleviation Group and Extension Contact**

Extension	df	$\chi^2_{cal}$	$\chi^2_{0.05}$	Decision
Contact	2	23.65	7.81	Reject Ho

This is to show that group work makes extension work easier to carry out and facilitates dissemination of information. The respondents were also asked to recommend ways by which the extension agents could further facilitate the group work. The following recommendations were suggested. The group work could be complemented with visits to individual members to know their specific needs. This will serve to improve EAs knowledge of the pressing needs of individual group members. This can then be properly integrated into the service provision Programme of the extension agency.



#### 4.0 CONCLUSION AND RECOMMENDATIONS

The result of the study indicates that the existing government owned (public) extension agency in Ogun State (OGADEP) is working fervently to revive the agricultural sector and assist farmers to improve their productivity. In pursuance of this objective, it had put in place various strategies and one of such strategy is the provision of services that could alleviate the poverty status of oil palm farmers in Ogun State. This is because there is a strong relationship between farmers' level of productivity and their poverty level and if efforts are made at increasing farmers' productivity, their level of poverty will ultimately be reduced (Akinbile, 1997). Based on the results of the study, the following recommendations are proposed:

1. Assisting and encouraging farmers to organize themselves into viable co-operative groups so as to enable them benefit adequately from the services rendered by the agencies.
2. The policy makers should always involve the rural farmers in planning and implementation of any programme designed for them (the farmers). By doing this, specific needs of the farmers could be met.
3. It has been established through this study that group work is an effective means of disseminating agricultural information among farmers. To make this more effective, other media such as radio, television and bulletins could be used to complement the group work approach.
4. The appraisal of agricultural extension services of Ogun State shows that its contribution to agricultural productivity is real and socially acceptable, therefore, government should make more provision for incentives that will motivate the extension agents to work.

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