# Roles of Non-Governmental Organisations in Production, Processing and Marketing of Oil Palm in Kailahun District, Eastern Sierra Leone

# **Bockarie Jimmy**<sup>\*a</sup> and Mohamed P. Ngegba<sup>b</sup>

<sup>a</sup>Department of Agriculture and Forestry, Eastern Polytechnic, Kenema, Sierra Leone <sup>b</sup>Department of Extension and Rural Sociology, School of Agriculture, Njala University, Sierra Leone.

Abstract: Reputable Non-Governmental Organization (NGOs) are involved in the production, processing and marketing of oil palm in Kailahun District. The study investigated the support programmes NGOs offer to farmers in the production, processing and marketing of oil palm. The study further determined the appropriateness of the NGOs support programmes and identified problems farmers encounter in the production, processing and marketing of oil palm. The research design is descriptive and was carried in six chiefdom in Kailahun District Eastern Sierra Leone. Data were collected using structured questionnaire to eighty (80) oil palm farmers. The findings revealed that eight main support programmes were implemented by NGO's in the district. Based on the finding, it was concluded that various support programmes were implemented. All programmes implemented were rated appropriate, although more other programmes would have been appropriate if they were implemented. Oil palm producers encountered varieties of problems ranging from low quality of harvesting equipment, bad road network, improved seeds, chemicals, extension services to unavailability of loans. To improve on the roles of the NGOs in oil palm production processing and marketing the researcher made the following recommendations: NGO's should emphasize more on agricultural training and extension services. NGO's and other donors should provide adequate storage and processing facilities and good health services to motivate oil palm farmers to improve on quantity and quality of production. Rehabilitate or construct roads and bridges leading to oil palm production areas in Kailahun District. Involve oil palm farmers in planning, implementation and evaluation processes of their programmes.

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## Introduction

Sierra Leone covers 7.23 million hectares of which 5.4 million hectares are potentially cultivable. There are five ecosystems where farming is practiced in the country. These are upland, inland valley swamp, mangrove swamps, bolilands and riverine grassland. Land tenure system in Sierra Leone is of communal ownership and authority for allocation is vested with the traditional local authorities. Sierra Leone's climate provides two distinct seasons: a dry season from December to March and a wet season from April to November. Rainfall is abundant, ranging from over 4000mm in the West to about 200mm in the north

given an annual average of about 300mm for the country. Average mean monthly temperatures range from 23-29°C. The country has nine major and three minor perennial rivers that can be used for irrigation but are currently not utilized. The economy is largely based on agriculture and mining.

Sierra Leone is an agrarian economy with an estimated 75% of the active labour force engaged in agriculture and agricultural related activities. Farming is largely subsistence although some few large scale tree and cash crops such as cocoa, coffee, oil palm and recently cashew are evident in some parts of the country. Apart from cashew which has been recently introduced in the Northern province of the country, the bulk of the other commercially cultivated tree crops are predominantly in the Eastern and Southern parts of the country.

Food crops such as rice, cassava, potato, yam and vegetables are also grown extensively at subsistence level in the entire country. Oil palm is a native and one of the most important tree crops in West Africa growing extensively in the tropical rain forest zones (Williams, 1989). Oil Palm is a rich source of carbohydrate, fats and vitamin A.

Palm wine can be obtained from the tree and the trunk can be used in bridge construction. The oil from the kernel is used in industries to manufacture soap, it is also a source of glycerin, margarine, cosmetics, lamp oil and the kernel is used as feed (kernel cake) for livestock (Akinyosoye, 1979).

Oil palm production rose to a peak in the late 70's, however there had been a sharp decline or a stagnation in production. The causes of such decline and the roles Non-Governmental Organizations (NGO's) play to reverse this trend was the focus of this research. A growing population and recovery of income in Sierra Leone is causing a rapid increase in the domestic demand for food crops. There is also increase in demand for food in neighboring countries.

Another problem is that the active working youths flee agricultural production to mining areas or urban centers in preference of white–collar jobs or other economic activities. To realize sustainable oil palm production, it requires inputs from not, only the poor farmers but the government and donor agencies. In theory, NGO's purport that they help the rural farmers better than central government. How far this statement is true will be reflected partially in their efforts to come to the aid of the farmers in augmenting production, processing and marketing of oil palm.

## **Purpose and Objectives**

The purpose of the study was to investigate the roles of NGOs, in the production, processing and marketing of oil palm in Kailahun District. In specific terms the objectives of the study were to:

- Investigate the support programmes NGOs offer in oil palm production, processing and marketing.
- Determine the extent of appropriateness of the support programmes in oil palm production, processing and marketing.
- Identify the problems farmers encounter in the production, processing and marketing of oil palm.

The result of this study will be useful to agricultural policy makers, NGO's and donor agencies that have interest in oil palm production, processing and marketing. It can also

throw light on the strength and weaknesses of NGO's support programmes in oil palm production, processing and marketing.

- It will also be useful to the Ministry of Agriculture and Finance for budget allocation to tree crops.
- The result will act as a guide to development, extension workers and donors for focusing resources into oil palm production, processing and marketing.

## **Conceptual Frame work and Review of Related Literature**

Much of the reputation of Non-Governmental Organization's (NGO's) is based on the claim that they have the ability to reach the poor (Farington *et al.*, 1993). Research has however shown that reaching the poor is not the same as alleviating rural poverty (IFAD, 1992). Saito *et al.*, (1995) states that, the adoption of appropriate technology is required to help the farming community to maintain present production levels so that the farmers can respond to increasing demand.

The use of improved and modern farm inputs can improve production to a large scale. Landis (2000), Hall (1988) and Ogor (1990) stated that the most important imputs to farmers among others are capital, labour, agro-chemicals, tools, improved varieties of seeds/seedlings and breeds of animals. The lack of these will seriously hinders the farmers level of production.

Wakker (2004) and Ogor (1990) added that the most important issue about new development is adopting and spreading new technologies. NGOs with agricultural competence can, more easily than most government agencies introduce new seeds/seedlings, field and horticultural crops, multipurpose trees, livestock, soil and water conservation approaches and support farmers through extension services. Extension service agents are trained to disseminate new development and technologies to the largest number of farmers within the shortest possible time (Akinsamni, 1985).

Chamber (1998) noted that various NGO's activities are undertaken in rural settings in helping farmers and the rural poor. He further realized that many different programmes are implemented in creating food security in the poor communities.

Oyango (1984) observed that the present situation of rural farmers and youths in developing countries is generally characterized by illiteracy, lack of educational training opportunities, unemployment and the flight of rural youths to the cities. This situation is likely to deteriorate if a significant effort is not made to improve it.

Ogor (1990) also added that the use of land operated press in rural areas and machine operated mills in Nigeria increased the processing of palm oil by 35% compared to traditional processing method. Roche (1999) opined that appropriate technology could be an example of positive innovation that can yield negative results if the needs and roles of women are ignored.

Drucker (2001) pointed out that the rate of illiteracy in a village in Bonthe District dropped drastically when World Vision International built a primary school in the community. He said this further motivated farmers to increase their farm sizes and production level and to have extra money to pay fees for their children. Livingstone (1981) stated that economic growth and stable incomes help in many forms of improved welfare and remain a priority of the poorer countries. He stressed that without economic growth it will be difficult to improve

physical conditions and services including infrastructure, education, agriculture, health inputs and transportation.

Although there is evidence of NGO's comparative strong performance in welfare and relief activities, there is evidence of success in income and micro-credit generation in rural areas. Clark (1991) argues that despite their rhetoric nature, NGOs find it very difficult to assist the growing population with few or no access via income generation projects. Income generation approach to reduce poverty holds that government, NGOs and donor agencies should seek to develop income–generating activities that are likely to increase revenue of the rural poor farmers (Ngegba, 2004).

The concept of appropriateness is very difficult to define because various schools of thoughts and agencies perceive it differently. Collius (2000) states that appropriateness has to do not the degree of fitness or acceptance or correctness for the particular circumstance. Mott (1972) defined appropriateness as an organization's ability to address the felt needs of its target population.

Yukle (1981) perceives it in terms of rating given by clients. In this case it has to do with how well the organization satisfies the needs and expectations of the clients in terms of programme execution and the degree of awareness. Of the clients to the organization's activities and services rendered. Tracey and Tews (1995) consider several factors in determining the appropriateness of NGOs support programmes implemented. They proposed that in determining the appropriateness of NGOs implemented programmes, heads of support programmes need to look beyond the usual factors of need assessment, programmes design implementation and follow-up, but in addition consideration must be made of external factors such as employees characteristics such as motivation attitude and the basic ability and the work environment, particularly the characteristics of the job, social networks, corporate culture, appraisal and reward schemes. Sinha et al (1976) used a number of indicators to measure the appropriateness of support programmes in India. He used indicators such as awareness of the villagers' level works, adoption of suggested improved practices by villages and the credibility in the village level workers in relation to communication skills.

Basiron (2007) and Okigob (1986) stated that land tenure system, irregular visits by extension agents, land acquisition, unavailability of subsidies and loans in African are great impediment to the advancement of crop production. They further stated that most African countries vast land is owned by an individual and those owning large portions of lands do not have the required capital and technical know-how to practice plantation, agriculture.

Akinsamini (1985), Babadi (2006) and Koroma (1994) observed that the performance of the agricultural sector has been affected by land tenure system lack of labour, lack of and misuse of credits, inadequate and low quality farm tools and equipment, bad road network, lack of transportation, inefficient extension services and poor funding for research activities.

Alkello (2001) also stated that the main constraints affecting the production potential in Sierra Leone for the past years has been unstable economy due to the ten-year rebel war. He added that basic farm inputs such as agro-chemicals, adequate quality tools, and equipment not available to farmers, supply of seeds and other planting materials are inadequate and mainly of unimproved varieties. Oil palm is unique in terms of yields. It yields more oil per unit area when chemical fertilizer are applied.

Evenson (2003) and Rahnrina (1992), stated that increasing doses of fertilizers will bring an increase in yield of approximately 35% compared to those not fertilized. Idachaba et al and Tucker (2004) stated that bad roads leading to market centers greatly influence agricultural production. Farmers produce especially perishable fruits get spoilt or perish due to lack of access to marketing centers and poor or non-existence of feeder roads to the production centers making buyers who manage to reach them take advantage of the existing situation.

#### **Methodology**

#### **Description of Study Area**

This research was carried out in Kailahun District of Eastern Sierra Leone. Kailahun District is located in the Eastern Province and is one of the three districts; Kenema and Kono Districts being the other two. The district has fourteen (14) chiefdoms. The district is composed of all tribes in Sierra Leone. However, Mende is the predominant language spoken in the district although Kissi is commonly spoken in the Kissi Chiefdoms.

The research design is a descriptive study about roles of NGO's in the production, processing and marketing of oil palm in Kailahun District.

#### **Population and Sampling Procedure**

A purposeful population was obtained by:

i. Determining the most popular top twenty (20) oil palm farmers in each settlement as target population.

ii. The plantation size should be at least five (5) acres. The population of the study consists of eighty (80) major oil palm farmers in the Kailahun. The district was divided into six (6) research zones each depicting areas of high oil palm production. An inventory of 20 farmers was made at random in each research town/village in each chiefdom to form the sample frame. The random selection distribution trend is shown below:

Njaluahun-15 Oil Palm Farmers Jawei-15 Oil Palm Farmers Malema-15 Oil Palm Farmers Mendu-15 Oil Palm Farmers Upper Bambara-10 Oil Palm Farmers Dia-12 Oil Palm Farmers

To obtain data for this study the instruments used was structured questionnaire. The questionnaires were administered to the sample population in the field. In the process of obtaining the data two main exercise were carried out. Firstly the questionnaires were given to respondents that were literate to be completed. Secondly, the researcher used questionnaire to interview respondents that were illiterate. The researcher had to read and translate the questions and options in Mende for clarity and their responses were recorded accordingly.

Data obtained from the questionnaires were analysed, frequencies and percentages were worked out using simple statistics. Bar charts were used to describe the data. Data were analysed using descriptive statistics.

# **Results and Discussion**

# **Support Programmes**

Eight main support programmes were implemented in the study area. The most important of these is supply of farm inputs (97.5%). The second most important programme is income

generation and micro-credit (87.5%). The third programme is provision of food for agriculture, construction and rehabilitation, of roads and bridges (85.0%).

The fourth programme is provision of extension services (83.8%). This is followed by construction of food processing plants (81.3%), schools and health centers (76.3%) and construction of stores (70.0%). Other mentioned programmes not implemented were provision of storage facilities, family planning, construction of toilet, creation of seed banks and construction of wells and installation of pumps.

The findings of the study show that various support programmes were implemented by NGO's in the study area. Although there is evidence of NGOs support programmes, there were other programmes to be implemented that are pertinent in oil palm production, processing and marketing.

When NGOs are implementing poverty alleviation, and food security programmes, they implement various programmes as an integral development programmes to give the farmers opportunities to increase their standard of life (see table).

No.	NGOs Support Programmes	Agre	ee	Disagree		
		Freq.	%	Freq.	%	
1.	Provision of food for agriculture	68	85.0	12	15.0	
2.	Supply of farm inputs	78	97.5	2	2.5	
3.	Provision of extension services	67	83.3	13	16.2	
4.	Training of farmers and youths	26	32.5	54	67.5	
5.	Provision of storage facilities	2	2.5	78	97.5	
6.	Construction of food processing plants	65	81.3	15	18.7	
7.	Construction and rehabilitation of roads	68	85.0	12	15.0	
	and bridges					
8.	Construction of wells and installation of	9	11.2	71	88.8	
	pumps					
9.	Construction of toilets	4	5.0	76	95.0	
10.	Empowerment of women's group	8	10.0	72	90.0	
11.	Construction of schools and health centers	61	76.3	19	23.8	
12.	Restocking of livestock	7	8.8	73	91.2	
13.	Income generation and micro-credits	70	87.5	10	12.5	
14.	Provision of good health and hygiene	12	15.0	68	85.0	
15.	Family planning	5	6.3	75	93.7	
16.	Child and human right awareness	3	3.8	77	96.2	
17.	Construction of stores	56	70.0	24	30.0	
18.	Creation of seed banks	4	5.0	76	95.0	

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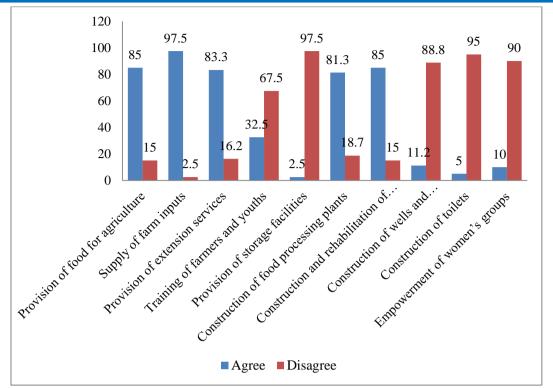
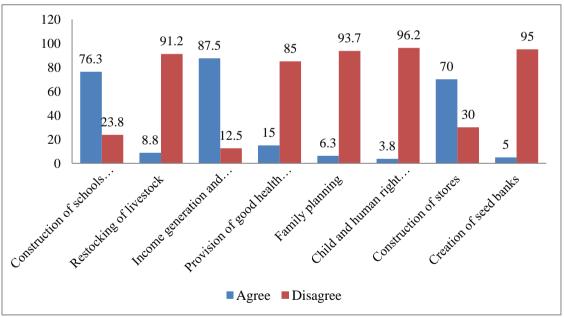


Figure 1. NGOs Support Programmes



**Figure 2. NGOs Support Programmes** 

# **Appropriateness of NGOs Programmes**

Most of the programmes implemented were appropriate. When the degree of appropriateness were investigated, construction and rehabilitation of roads and bridges were rated to be very appropriate (93.7%), provision of extension services (91.3%), construction of schools and health centers income generation and micro-credits (88.8%) are appropriate. These were followed by supply of farm inputs (83.8%), provision of food for agriculture (82.5%) construction of food processing plants (75.8%) and stores (67.5%) all rated as very appropriate.

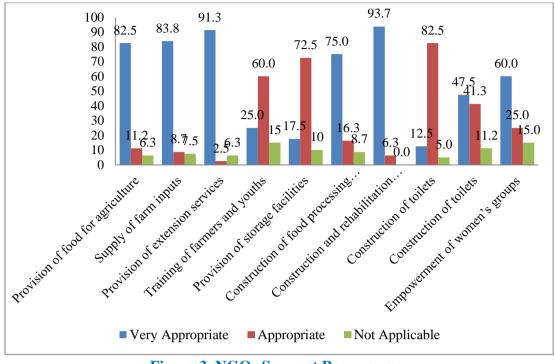
Construction of wells and installation of pumps (82.5%), seed banks (81.3%), re-stocking of livestock (76.3%), child and human right awareness, provision of good health and hygiene (73.8%) and storage facilities (72.5%) were said to be appropriate, yet not implemented by any NGOs in the study area. All the respondents said family planning is not appropriate to their environment.

The research reveals that a high percentage of the respondents view construction and rehabilitation of roads and bridges, extension services, schools and health centers, income generation and micro-credit, supply of farm inputs, provision of food for agriculture, food. Processing, plants and stores were very appropriate to their communities. This is therefore in agreement with Collins (2000), Mott (1972) and Yukle (1981) reports.

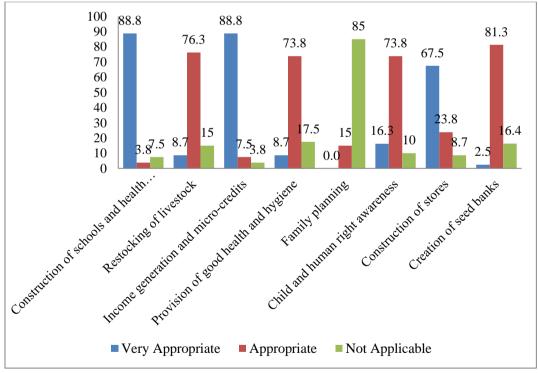
		Degree of Appropriateness						
		Ve	ery	Appro		Not		
No.	NGOs Support Programmes	Appropriate				Applicable		
			%	Freq.	%	Freq.	%	
1.	Provision of food for	66	82.5	9	11.2	5	6.3	
	agriculture							
2.	Supply of farm inputs	67	83.8	7	8.7	6	7.5	
3.	Provision of extension services	73	91.3	2	2.5	5	6.3	
4.	Training of farmers and youths	20	25.0	48	60.0	12	15.0	
5.	Provision of storage facilities	14	17.5	58	72.5	8	10.0	
6.	Construction of food	60	75.0	13	16.3	7	8.7	
	processing plants							
7.	Construction and rehabilitation							
	of roads and bridges	75	93.7	5	6.3	0	0.0	
8.	Construction of wells and							
	installation of pumps	10	12.5	66	82.5	4	5.0	
9.	Construction of toilets	38	47.5	33	41.3	9	11.2	
10.	Empowerment of women's	48	60.0	20	25.0	12	15.0	
	groups							
11.	Construction of schools and							
	health centers	71	88.8	3	3.8	6	7.5	
12.	Restocking of livestock	8	8.7	61	76.3	12	15.0	
13.	Income generation and micro-	71	88.8	6	7.5	3	3.8	
	credits							
14.	Provision of good health and	8	8.7	59	73.8	14	17.5	
	hygiene	0		1.0	1 7 0		07.0	
15.	Family planning	0	0.0	12	15.0	68	85.0	
16.	Child and human right	13	16.3	59	73.8	8	10.0	
1.5	awareness	~ .		10				
17.	Construction of stores	54	67.5	19	23.8	7	8.7	
18.	Creation of seed banks	2	2.5	65	81.3	13	16.4	

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**Figure 4. NGOs Support Programmes** 

**Problems farmers Encounter in the Production, processing and Marketing of Oil Palm** According to the findings on the problems (92.5%) of the sample farmers claimed that low quality of harvesting equipment and bad road network (91.3%) are highly difficult problems they encounter. These are followed by inadequate information form NGOs workers (90.0%), unavailability of appropriate tools, irregular visit by extension agents and unavailability of vehicles (87.5%) respectively. Also (83.3%) of the respondent affirmed poor storage facilities and lack of adequate training opportunities (81.3%) as highly difficult. This is also followed by inadequate marketing facilities (80.0%), unavailability of labour (78.8%), diversion of farming materials by some field staff (77.5%), lack of chemical fertilizers (71.3%) inadequate processing materials (67.5%) and lack of improved seeds and seedling (62. 5%). However (48.8%) of the farmers claimed unavailability of loans to be highly difficult.

Also (77.5%) of the sample respondents viewed the acquisition of land as moderate. This is also followed by difficulty to get buyers (72.5%). Furthermore, (16.3%) of the farmers said acquisition of land, getting buyers (15.0%), lack of improved seeds/seedlings (8.8%), unavailability of loans (7.5%), unavailability of labour, lack of adequate training opportunities, poor storage facilities and inadequate marketing facilities, each scoring (6.3%) were claimed to be little difficulties they encounter for more detail see table below:

								Not		
No	<b>Possible Problem</b>			High		Applicable				
•		Freq.	%	Freq.	%	Freq.	%	Freq.	%	
1.	Acquisition of land	13	16.3	62	77.5	5	6.3	0	0.0	
2.	Unavailability of labour	5	6.3	12	15.0	63	78.8	0	0.0	
3.	Unavailability of appropriate tools	2	2.5	5	6.3	70	87.5	3	3.8	
4.	Lack of improved seeds/seedling	7	8.8	8	10.0	50	62.5	15	18.8	
5.	Unavailability of loans	6	7.5	22	27.5	39	48.8	13	16.3	
6.	Diversion of farm inputs by some field staff	3	3.8	13	16.3	62	77.5	2	2.5	
7.	Lack of chemical fertilizers	3	3.8	8	10.0	57	71.3	12	15.0	
8.	Irregular visits by extension agents	4	5.0	2	2.5	70	87.5	4	5.0	
9.	Lack of adequate training opportunities	5	6.3	8	10.0	65	81.3	2	2.5	
10.	Inadequate information NGOs workers	3	3.8	2	2.5	72	90.0	3	3.8	
11.	Low quality of harvesting equipment	1	1.3	3	3.8	74	92.5	2	2.5	
12.	Inadequate processing materials	0	0.0	15	18.8	54	67.5	11	13.8	
13.	Poor storage facilities	5	6.3	8	10.0	67	83.8	0	0.0	
14.	Bad road network	0	0.0	7	8.8	73	91.3	0	0.0	
15.	Unavailability of									

Table 3. Frequencies and Percentages of farmers on Problems Encounter in Oil
Palm Production, Processing and Marketing:

	vehicles to transport products	3	3.8	7	8.8	70	87.5	0	0.0
16.	Inadequate marketing facilities	5	6.3	11	13.8	64	80.0	0	0.0
17.	Difficulty to get buyers	12	15.0	58	72.5	6	7.5	4	5.0



100 87.5 87.5 90 80 70 81.3 78.8 77.5 77.5 71.3 62.5 60 48.8 50 40 30 20 27.5 18.8 16. 16.3 16.3 5.0 8.80.0 5.0 6.<sup>10.0</sup> 0.0 2.§.3 3.8 5.0 5 ð.0 3.8 5 10 Acquisition of land unavailability of improved... Unavailability of hears for improved... I have been a fact of an improved to the state of the stat 0 ■ Little ■ Moderate ■ High ■ Not Applicable

Figure 5. Showing the Percentages of Farmers on Problems Encountered in Oil Palm Production, Processing and Marketing

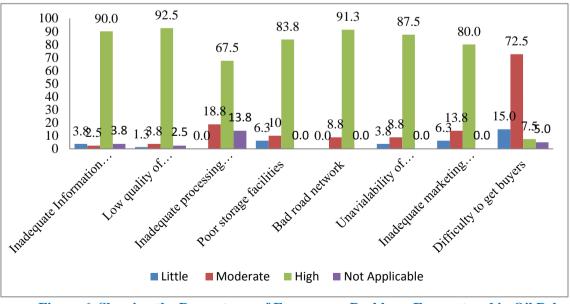


Figure 6. Showing the Percentages of Farmers on Problems Encountered in Oil Palm Production, Processing and Marketing

Farmers claimed acquisition of land, labour inadequate training and storage to as not a difficult problem their farm sizes remain to be small. This is as a result of land tenure

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systems, in which land is divided into small portions and they depend mainly on farm family labour. The output from this type labour is always very small. According to Akinyosoye (1979), Akinsamni (1985), Akintibubo (2002) and Babadi (2006), land acquisition through inheritance is the order of the day. The high level of difficulty is an indication that account for the small farm size holdings in the district.

The findings shows that a greater percentage of the sample farmers do not employ labour instead they rely on farm family labour. In addition Anyawu (1982) said farmers lack capital to hire labour but depend on family labour. A farm family in the study area consists of a farmer, wife (wives) and children. Invariably, such a family labour contribution is small therefore limits farm size.

Erebor (1998) explained that the use of crude tools lead to drudgery, waste of time and low productivity of farmers. Majority of the farmers stated that the unavailability of appropriate tools is a major problem in their farm operations. The types of tools used are mainly crude and primitive. Consequently, the use of crude and primitive tools account for low productivity and poor standard of living of oil palm farmers. Ayegbayo (1989) stated that the most important requirement of a farmer is improved planting materials Landis (2000) said almost all seeds/seedlings available to farmers come from unimproved varieties, which are not only low yielding but are susceptible to pests and diseases. The finding revealed that majority of the contacted farmers grow unimproved varieties of oil palm.

The unavailability of loans was confirmed by majority of farmers in oil palm production, processing and marketing. Farmers require loans to finance purchases of tools, agrochemicals, hire labour and all farm operations. Unfortunately, their per capital income is low, nothing is expected as personal savings to develop their farms.

According to Stone (2007), the lack of frequent visits to farmers by extension agents is a major factor responsible for low yield of crops. Majority of them also confirmed that it is extremely difficult for them to get information from NGOs and Government workers. Meaning most of the farmers are not adequately aware of NGOs and government operations in the district. It can be inferred that farmers had not been informed about recent trends and new development in crop production.

Idachba (1980) and Tucker (2004), stated that bad road network leads to unavailability of vehicles to transport farm products to urban markets where farmers can realize better returns. A very high percentage of farmers attested that bad road network seriously affected their levels of production, processing and marketing activities.

## Conclusion

From the findings of the research it can be concluded that eight main support programmes were implemented by NGO's in the study area including:-

- i. Supply of farm inputs
- ii. Income generation and micro-credit
- iii. Provision of food for agriculture
- iv. Construction and rehabilitation of roads and bridges
- v. Provision of extension services
- vi. Food processing plants
- vii. Construction of schools and health centers and
- viii. Construction of stores

However, there were other programmes to be implemented that were pertinent in oil palm production, processing and marketing. These were:

- i. Provision of storage facilities
- ii. Family planning
- iii. Construction of toilets
- iv. Creation of seed banks and
- v. Construction of wells and installation of pumps.

## Recommendations

In order to improve on the roles of NGOs in oil palm production, processing and marketing, the researcher made the following recommendations:

- i. NGOs should emphasize more on agricultural educational training and extension services for oil palm farmers to enable them use skilled man-power effectively.
- ii. This will also promote adoption of appropriate technologies and constant maintenance of oil palm processing plants among oil palm producers, processors and marketers.
- iii. NGOs, Government and donor agencies should provide adequate secured storage and processing facilities, good health and sanitation centers, safe drinking water, toilet, improve on road rehabilitation especially feeder roads leading to oil palm producing areas in the district to motivate oil palm farmers to improve on their level of production.
- iv. To make planning effective, government, NGOs and donor agencies should involve oil palm farmers in the planning, implementation and evaluation processes of their programmes.
- v. To make the health centers already constructed within the study area useful to oil palm farmers, there should be enough and constant supply of medicines at the health centers.

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