

SOCIO-ECONOMIC CONTRIBUTION OF KOLA NUT PRODUCTION (*Cola nitida*) IN IMEKO AFON LOCAL GOVERNMENT AREA OF OGUN STATE

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Abstract

The study examined the socio economic contribution of kola nut production on rural dwellers in Imeko Afon Local government area of Ogun State. A Multi stage sampling procedure was used to select 215 respondents in the study area. Data collected through the use of a questionnaire subjected to descriptive statistics. The socioeconomic characteristics revealed that most of the respondents (58%) were male, 67.4% are married, most of the respondents have no formal education (63.3%) and trading is the major primary occupation (51.7%). Result also showed that 36.7% confirmed that kola nut is used in the treatment of some health related problems, 41.4 % of the respondent strongly agreed that there are high returns on the sale of the nut. The study further showed that 47.0% agreed that kolanut serve as source of foreign exchange while 40.0% of the respondents agreed that it is a source of income to farmers and 33.5% agreed that it serves as source of raw materials for industry. The major constraints identified by respondents were transportation of goods, storage facilities, poor marketing channel, unavailability of improved variety and lack of capital to mention a few. From findings, the socio economic contribution is favourable but the level of production is low and has not reached commercialization in the study area. It is recommended that the private and public sectors should be involved in the production of kola nuts by investing. Government should provide adequate infrastructure and cooperative body which will be of help to farmers in providing soft loans enhance production.

Key Words: *Economic contribution, Kolanut production, Descriptive statistics*

Introduction

In the last decades, there has been more research on the roles of forest in the livelihood of the rural population. Much of the research has looked into the gathering of non-timber forest product (NTFPs) which includes resins, fodder, spices, food, medicine, leaves, honey and nuts. Also all by-products of the forest not used in large quantity by the industries and

produce from the trees such as *Parkia biglobosa*, *Dacryodes edulis*, *Irvingia* spp., *Azalia africana*, *Garcinia cola* etc. on fallow or farmland. In the past years people have increasingly recognised non-timber forest products for the important cultural, subsistence and market values that they add to rural forest and individual household worldwide (Community Resource, 2000).

The kolanut is the fruit of the kola tree which is usually or commonly grown in the tropical rainforest of Africa or in tropical regions. Kola (a member of the family Sterculiaceae) is mostly produced in Africa and is cultivated to a large degree in Nigeria, but also in Ghana, Ivory Coast, Brazil and the West Indian Islands (Asogwa *et al.*, 2008). Kolanuts as one of many non-timber forest products provide nuts and pods. It is perhaps second only to palm oil in terms of importance in the list of indigenous cash crops. It occupies a unique place in West Africa and Central Africa; Caribbean Island, Sri Lanka and Malaysia (Eijnatten, 2001). The edible fruit of the kola tree is also used as a flavouring ingredient in beverages, and is the origin of the term cola. Kolanut is a caffeine- containing nut of the evergreen trees of the genus *Cola*, primarily the species of *Cola acuminata* and *Cola nitida* (Burdock *et al.*, 2009). The kolanut is used as a masticatory stimulant in the tropics, it has a social and a traditional significance as it features in many traditional ceremonies in Nigeria. It also has industrial use in pharmaceuticals, production of soft drinks, wines and in confectionaries (Asogwa *et al.*, 2012). The kolanut pod husk, which is a by-product from processing the nut, is widely used as animal feed because of its high nutritive quality. Babatunde and Hamzat (2005) revealed that broilers fed with kolanut pod husk meal diets had an outstanding growth performance.

Kola is an important economic cash crop to a significant proportion of Nigerian population who are involved in kola farming, trading and industrial utilization. However, Nigeria accounts for about 70% of the total world production of kolanuts (Asogwa *et al.*, 2012). Its economic contribution to both domestic

and national markets, according to Yakubu *et al.* (2014) raises the standard of living of those involved in its trading activities both in the rural and urban centres. Trading in bitter kola is more profitable than trading in non-timber forest products in most developing countries (Adebesi, 2004). This is because of the high amenability of bitter kola (both in fresh and dried forms) to storage. In Nigeria, where employment opportunities for traditional industries are declining, workers looking for alternative sources of income often turn to the collection of non-timber forest products, such as bitter kola, from nearby forests (Adepoju and Salau, 2007).

Statement of Problem

So much literatures has highlighted the importance of kolanut but little work has been done on the socio-economic contribution and use of this plant. Kolanut is one of the most valuable plants in the world. It is plant with high value but not completely identified potentially. Little is known about the kolanut and its various uses by rural dwellers in Nigeria as its potential has not been exploited as it is in advanced part of the world where it is used to cure ailment, suppress hunger and helps to enhance sleep. It is also used as raw materials for preparation of kola beverages, such as coca cola, pepsi cola and kola wine, it is also use as source of alkaloids (caffeine and theobromine) in pharmaceutical preparation. Kolanut has various use apart from crop plant which is the common use believed by the people especially in the rural areas, the various use of kola-nut can only be achieved with proper awareness of importance in the rural area. Thus in view of the high poverty level in Nigeria, efforts are being made by both government and non – governmental organization to reduce the

poverty level in Nigeria. There is therefore the need to look inward, Nigeria, especially the southern zone is blessed with vast forest land part of which can be used to grow the kola tree in order to alleviate poverty and ensure food security. Kolanuts plays a vital role in human health of many people and they are also source of income. Therefore, in this study the following research objectives were addressed:

- To describe the socio economic characteristics of the respondents in the study area
- To identify the economic importance of kola nut to rural dwellers
- To identify the contribution of kola nut to life of the rural dwellers
- To identify the constraints face by kolanut farmers and proffer solution to them

Methodology

Study Area

The study was carried out in Imeko Afon Abeokuta South Local Government of Ogun State; it

is one of the 20 local governments in Ogun State. It is in the west of Ogun State, Nigeria, bordering the Republic of Benin. Its headquarters are in the town of Imeko at coordinates $7^{\circ} 29' 00'' \text{ N } 2^{\circ} 53' 00'' \text{ E}$. The area is about $1,711.43 \text{ km}^2$ (660,79sqmil). Imeko LG is divide into ten (10) political wards Imeko, Afon, Ilara, Iwoye, Idofa, Owode, Idi-ayin/Obada, Moriwi/OkeAgbede, Agborogbomo, Atapele/Agberiodo.

Farming is the main economic activity with fertile soil. The vegetation is a mixture of savannah belt and sparse forest suitable for cattle raising, with the advantage of being free of Tse-tse flies. The climate is tropical, with a rainy season commencing around March and ending in November. Cassava and Tomatoes are grown in large quantities. Cotton grown in the LGA supplies the Yaru, tread and textile industries in Benin Republic. Other crops are Pepper, Maize, Groundnuts, Yams, Vegetables, Cocoa, Cashew and Teak (Wikipedia, 2011).

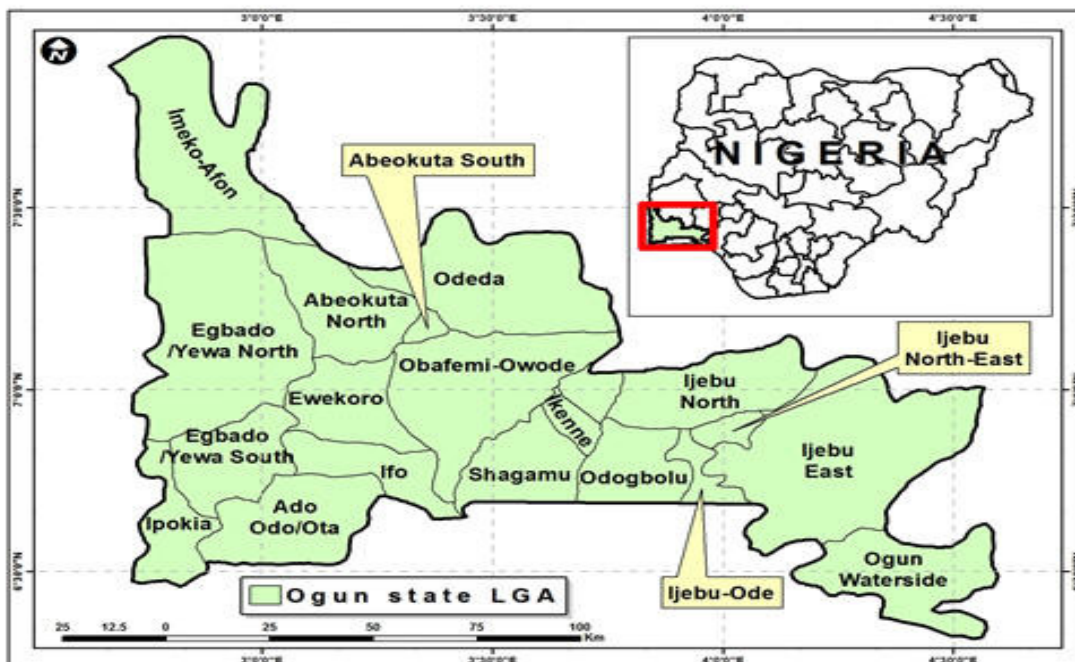


Fig. 1: Map of Ogun State showing Imeko Afon, the study area

Table 1: The details on the basis of the wards selected in the Local Government

S/N	WARDS	POPULATION	NUMBER OF QUESTIONAIRE
1	Imeko	12,958	63
2	Oke Agbede	6,910	34
3	Idofa	3,548	17
4	Iwoye	5,703	28
5	Ilara	10,040	49
6	Idi ayin	4,858	24
Total		44,017	215

Sampling Procedure and Sample Size

A multistage sampling technique was used in the study. In the first stage, purposive sampling technique was used to select Imeko Afon Local Government out of the 20 local government in Ogun state due to the presence of kola nut marketers in the Local Government. In the second stage, a random sampling was used to select six (6) wards which are Imeko, Oke Agbede, Idofa, Iwoye, Ilara and Idi Ayin. A total of 215 questionnaires were selected for the study.

Data Collection

Primary data was used for data collection through the use of a well-structured questionnaire administered to the respondents by the researcher and trained enumerators from the zonal area to collect information from the respondents through interview schedules.

Analytical Techniques

The data were analyzed using descriptive statistics such as frequency, percentage and Likert scale for the socio-economic characteristics, contribution of the kolanut production to wellbeing of the rural dwellers, economic importance of kolanut production and constraints faced by the farmers.

Results and Discussion

Table 2 showed the socio economic characteristics of the respondents in the study area. It was revealed that most of the

respondents are male with 58.0% while 42.0% are female. This might be connected to the fact that kolanut production is a family enterprise with the head of the family (the father in most cases) being the owner. The rest of the family members assist in the production activities ranging from weeding to harvesting and processing of the pods.

With respect to age, the study reveals that majority of the respondents were at their economic and productive ages (20 to 40years). This results agrees with the findings of Nwaru (2004), that age of farmers is an important factor in productivity. It was observed from the survey that 67.4% are married, 24.7% are single while 5.1% are widow and 2.8% are divorced, majority of the respondents (67.4%) were married and this confirms the findings of Taphone (2009) who reported that married people have more responsibilities in taking care of their family members and this may be the reason why the enterprise is dominated by them so as to meet these responsibilities. Majority of the respondents have no formal education constituting a total of 63.3% of the respondents, this hinders the sustainable use and adoption of information available to bring about improvement in the production of kola nut, 20 % had primary education and very few respondents (5.1%) had tertiary education. The table further shows that

majority of the respondents (51.7%) engaged in trading this result agrees with the study of Falconer (1990), that trading is mostly common among the poor

household and indigenous communities which tend to be benefactors as an opportunity for additional employment and income.

Table 2: Socio economic characteristics of respondents

Variable	Frequency	%
Gender		
Male	124	58
Female	91	42
Total	215	100.0
Age(yrs.)		
20-30	87	40.7
31-40	74	34.4
41-50	22	10.0
51 and above	32	14.9
Total	215	100.0
Marital Status		
Single	53	24.7
Married	145	67.4
Divorced	6	2.8
Widowed	11	5.1
Total	215	100.0
Educational Level		
No Education	136	63.3
Primary Education	43	20.0
Secondary Education	25	11.6
Tertiary Education	11	5.1
Total	215	100.0
Occupation		
Civil Service	43	20.0
Trading	111	51.7
Farming	45	20.9
Hunting	16	7.4
Total	215	100.0

Table 3 shows that 36.7% of the respondents agreed that the kola nut is used in the treatment of some health related problems, 27.4% were uncertain, 14.4% strongly agreed while 11.2% disagreed and 10.2% strongly disagreed. The table also reveals that 41.4% of the respondents strongly agreed that there is high return on the sale of the nut and 24.7% agreed, 14.0% disagreed while 13.5% strongly disagreed and 6.5% were

uncertain. The table also shows that 44.2% agreed that kola nut creates job opportunities while 23.3 % strongly agreed and 14.0% were uncertain, 11.6 % disagreed and 7.0% strongly disagreed. Also from the table, 47.0% agreed that the kolanut serves as sources of foreign exchange, 23.7% strongly agreed while 14.9% were uncertain, 8.4% disagreed and 6.0% of the respondents strongly disagreed. 40% of the respondents agree

that it serves as source of income to farmers, 35.8% strongly agreed, 13.5% are undecided while 6.0% disagreed and 4.7% of the respondents strongly disagreed. This study also shows that those who agreed that kolanut are a source of income constituted 38.1% are undecided that kolanut promote livelihood diversification while those who disagreed constituted 21.4%, 17.7% strongly agreed and 7.4% strongly disagreed. Table 3 also shows that 33.5% of the respondents agreed that the kolanut is an industrial raw material, 33.0% strongly agreed while 14.9% strongly disagreed, 9.8% were undecided and 8.8% disagreed.

Table 4 shows that 85.1% of the respondents accepted that the kolanut serves as a source of revenue generation to the country while 14.9% of the respondent did not. Also 64.2% accepted that it creates jobs while 35.8% did not. The table also shows that 51.2% accepted that kolanut aids digestion while 48.8% of the respondents disagreed, 55.2% of the respondents did not agree that kolanut aids weight loss while other respondents agreed. Furthermore 60% of the respondents disagree that kola nut is used to control high blood pressure while others (40%) accepted, 80.5% of the respondent accepted that the kolanut is used in ceremonies.

Table 3: Economic Importance of the Kolanut

STATEMENT	SA	A	U	D	SD
It is use in treatment of health related problems	31 (14.4)	79 (36.7)	59 (27.4)	24 (11.2)	22 (10.2)
Its sales gives high returns	89 (41.4)	53 (24.7)	14 (6.5)	30 (14.0)	29 (13.5)
It creates job opportunity	50 (23.3)	95 (44.2)	30 (14.0)	25 (11.6)	15 (7.0)
It serves as foreign exchange	51 (23.7)	101 (47.0)	32 (14.9)	18 (8.4)	13 (6.0)
It serves as a sources of income to farmers	77 (35.8)	86 (40.0)	29 (13.5)	13 (6.0)	10 (4.7)
It promotes livelihood diversification	38 (17.7)	46 (21.4)	82 (38.1)	33 (15.3)	16 (7.4)
It serves as a sources of raw materials for industries	71 (33.0)	72 (33.5)	21 (9.8)	19 (8.8)	32 (14.9)

Table 4: Contribution of the Kolanut to the wellbeing rural dwellers

Variables	Frequency	%
Revenue Generation		
Yes	183	85.1
No	32	14.9
Total	215	100.0
Job Creation		
Yes	138	64.2
No	77	35.8
Total	215	100.0
It aids in digestion		
Yes	110	51.2
No	105	48.8
Total	215	100.0
It aids in weight loss		
Yes	96	44.7
No	119	55.3
Total	215	100.0
It decreases blood pressure		
Yes	86	40.0
No	129	60.0
Total	215	100.0
It is used in ceremonial presentation		
Yes	173	80.5
No	42	19.5
Total	215	100.0

The constraints in Kolanut production in the study area were found to be numerous starting from transportation, storage, poor marketing channels, low Yield, deforestation, unavailability of improved Seedlings, unavailability of kolanut farmers association, government policy, lack of extension agent, lack of land availability and lack of capital. Table 5 below shows the gravity of these problems/ constraints in the study area. These constraints reported by the respondents are critical, therefore, to be able to improve the production of kolanut proper measure must be considered. About 95% of the respondents said transportation is a constraint, 94.6% of the respondents said storage of the produce is a constraint and 75.8% of the respondents said poor marketing channel is a constraint

in kola nut production, the findings corroborate with Yusuff *et al.* (2014), who reported that transportation, storage and poor marketing channels were major challenges facing the marketing of non-timber forest products such as Kolanut in Nigeria. 50.7% of the respondents said low yield of kolanut is a serious constraints, 36.3% said it is a mild constraint while 28 % said it is no constraint. This result agrees with the study of Ndagi *et al.* (2012), which revealed that kolanut production in Labozhi has low yield as a result of old age of the kolanut trees. Farmers resolved at abandoning their kolanut farms for the production of annuals crops like maize, cassava, guinea corn, and vegetables. 70.2% of the respondents said deforestation is a serious constraint in

kolanut production, 28.4% of the respondents said it is a mild constraint and 1.4% said it is no constraint. 80.7% of the respondents said unavailability of improved Seedling is a serious constraint, 12.3% of the respondents said unavailability of improved seedling is a mild constraint and 7.0% of the respondents said it was not a constraint. This agrees with the study of Ndagi *et al.* (2012), who said that unavailability of improved kolanut seed/seedlings is a major constraint for them to establish new plantations. 77.6% of the respondents said unavailability of kolanut farmers association is a constraint while 22.4% of the respondents said unavailability of kolanut farmers association is not a constraint. 90.1% of the respondents said that government attitude towards kolanut production is a constraint while 9.1 % said that government attitude towards kolanut production is not a constraint, this confirms with the study of Ndagi *et al.* (2012), who showed that farmers lamented about the lack of interest by the government and policy makers in developing kolanut sector. Table 5 also

showed that 32.1 % of the respondents said that lack of extension agent is a serious constraint in kolanut production, 31.2% said lack of extension agent was a mild constraint while 36.7% of the respondents said lack of extension agent was not a constraint. 31.6% of the respondents said lack of land availability was a serious constraint, 55.3 % of the respondents said lack of land availability was a mild constraint while 13.1% of the respondents said lack of land availability was not a constraint. 33% of the respondents said lack of capital was a serious constraint in kolanut production, 48.4% of the respondents said lack of capital was a mild constraint and 18.6% of the respondents said lack of capital was not a constraint in kolanut production. Finally the table 5 showed that 54% of the respondents said socio cultural belief was not a constraint in kolanut production, 25.1% of the respondents said socio cultural belief was a mild constraint in kolanut production while 20.9% of the respondents said socio cultural belief was a serious constraint in kolanut production.

Table 5: Constraint face by farmer in the production of Kola Nut

STATEMENT	FREQUENCY	PERCENT
Transportation		
Serious constraint	140	65.2
Mild constraint	65	30.0
No constraint	10	4.8
Total	215	100.0
Poor Marketing Channel		
Serious constraint	54	25.1
Mild constraint	109	50.7
No constraint	52	24.2
Total	215	100.0
Low Yield		
Serious constraint	109	50.7
Mild constraint	78	36.3
No constraint	28	13.0
Total	215	100.0

Deforestation		
Serious constraint	151	70.2
Mild constraint	61	28.4
No constraint	3	1.4
Total	215	100.0
Unavailability of improved Seedlings		
Serious constraint	174	80.7
Mild constraint	26	12.3
No constraint	15	7.0
Total	215	100.0
Unavailability of Kolanut farmers Association		
Serious constraint	79	36.7
Mild constraint	88	40.9
No constraint	48	22.4
Total	215	100.0
Government attitude towards kolanut production		
Serious constraint	73	33.8
Mild constraint	122	57.1
No constraint	20	9.1
Total	215	100.0
Lack of Extension Agent		
Serious constraint	69	32.1
Mild constraint	67	31.2
No constraint	79	36.7
Total	215	100.0
Lack of Land availability		
Serious constraint	68	31.6
Mild constraint	119	55.3
No constraint	28	13.1
Total	215	100.0
Lack of Capital		
Serious constraint	71	33.0
Mild constraint	104	48.4
No constraint	40	18.6
Total	215	100.0
Socio cultural belief		
Serious constraint	45	20.9
Mild constraint	54	25.1
No constraint	116	54.0
Total	215	100.0

Conclusion

Kolanut is yet to be granted a full export status by the Federal Government of Nigeria, unlike cocoa, coffee, cashew,

palm kernel and others which enjoy favourable market prices on the International market. The official enlistment of kolanut as one of Nigerians

export crops will awaken the interest of farmers in the establishment of kola farms. The result from the present study has elucidated the numerous problems encountered in kolanut production in Nigeria. There is, therefore the need for government and research institutions with a mandate on this crop to address these problems and make their findings available to kola nut farmers in the form of bulletins, hand bills, farmers guide or through electronic media as well as the Extension Research Liaison Service (ERLS). This will sensitize farmers on improved agricultural techniques on the production, processing, storage and marketing of the crop. It will also enhance the establishment and maintenance of kolanut farms, thereby improving the quantity and quality of kolanuts that will be produced in these areas.

Recommendation

From the study the following recommendations are made;

- Since most rural dwellers agree that Kolanuts serve as sources of income, it is advisable that the rural dwellers should go into the production of kola nut
- The kola nut is used for the treatment of some health problems and serve as sources of income for farmers. Kolanut should be produced in large quantities in the study area to improve the sources of income of the dwellers.
- There is the need of newly developed technologies and innovation from research institutions to facilitate improved kolanut production.
- There should be provision of improved kolanut varieties to replace the species existing in most of the old plantations.

- Farmers should be assisted in provision of appropriate storage facilities for the kolanut, to discourage the usage of Garmalin used to prevent pest attack.
- Government should provide adequate soft loan to farmers in that region to increase their production.
- Government should put in place adequate infrastructure like good and moveable roads for easy accessibility.

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