



## CONSTRAINTS OF FARMERS IN CASHEW PRODUCTION: A CASE STUDY OF ORIRE L.G.A. OF OYO STATE, NIGERIA

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### ABSTRACT

This study examines constraints of farmers in cashew production in Orire Local Government Area of Oyo state Nigeria. There are problems of low yield and utilization of cashew pseudo apple. This study was carried out in 2008 and data were collected from one hundred and ten respondents with the aid of well structured questionnaire. Respondents were selected using purposive and systematic sampling techniques. Data were analyzed using descriptive and Pearson Product Moment Correlation (PPMC). Results showed that cashew production in the study area is male dominated with 84.5% of the respondents being males. Majority (70%) of the respondents in the study area ranked inadequate capital (finance) as the most severe constraint while lack of storage facilities was ranked by few (5.50%) of the respondents. This could be attributed to difficulty in obtaining loan from the banks due to collateral while storage facilities constraint could be attributed to the fact that the cashew farmers in the study area do not store their produce for processing. Also the constraints experienced by cashew farmers negatively relate to the income generated from cashew fruits ( $r = -0.177$ ,  $P < 0.05$ ). This implies that significant increase in constraints will lead to reduction in income of cashew farmers. These constraints should be considered in developmental plans for cashew farmers in the area. Incentives such as soft loan should be provided for cashew farmers to alleviate the constraints of inadequate financial capital, encourage establishment of processing industries to increase their level of income.

**Keywords:** constraints, cashew production, Nigerian farmers.

### INTRODUCTION

Cashew is native of Brazil and was introduced to Nigeria by the Portuguese explorers during the 15<sup>th</sup> and 16<sup>th</sup> century (Olher, 1967). In early 1950's cashew was on large scale production with the establishment of commercial plantation of about 8,000 hectares at Oghe, in Anambra state and Mbala in Imo state while about 824 hectares were also established in Oyo state (Olunloyo 1996).

In Nigeria, cashew produce had been exported for foreign currency which had been depressed due to the advent of oil boom in the 70s and 80s (Raw materials and Development council, 200) in 1994, cashew nut accounted for N743m (U.S\$7.43m) in 1995 (Central Bank of Nigeria Annual Report, 1997). The studies at Cocoa Research Institute of Nigeria (CRIN) have established the possibilities of utilizing the apple to produce juice, wine, vinegar, jam etc. while whole cashew kernels when roasted plain or salted are consumed as desert fruit. However, ground cashew kernels are mixed with cocoa to produce cashew chocolate and the broken made into cashew butter (Olunloyo, 1999).

### Constraints of cashew fruit production

Various constraints are militating against the production, marketing and processing of cashew fruits in Nigeria. Cashew producers have called on the government to arrest the increasing transport of the nuts into neighbouring counties like Togo, Benin and Cameroon from where they are exported to Europe and U.S. (Igwe, 2001).

Akinwale and Ayodele (1999) identified the following constraints of cashew in Nigeria; Land acquisition (about 60% of Nigeria cashew nut production is attributed to small-scale farmers who manage between 2-4ha of cashew) nut production is attributed to small-scale farmers who manage between 2-4ha of cashew), unavailability of labour, lack of processing technology, high cost of production, unstable market system, High interest rate, low funding, inadequate infrastructural facilities such as rural roads, electricity water supply and poor exit services.

Inadequate availability of good planting material, Prevalence of Powdery Mildew Disease (PMD), is a major cashew production constraint Plant damage from sucking pests and mealy-bugs affect both yield and quality of cashew, of cashew, inefficient extension network and inadequate farmer training, low nut quality and low farmer profitability and lack of by-products usage.

Ezeagu (2001) reported that prices of cashew nuts in Nigeria both at local and international markets impact significantly on its productivity, He stated that good market prices are strong incentive for farmers, but when prices are low and even more when they remain depressed for two years and beyond, cashew farmers are frustrated and sometimes destroy their trees. This does not encourage production and it makes it difficult for farmers to feel secure in their livelihood. It also makes growers wary of investing in any inputs for cashew growing, since they cannot judge what returns they might expect to receive for the crop at the end of the growing season.

In the East and West/Central Africa it was found out that in many cases factory-gate or export prices were



reasonable, but the price actually received by the grower was often very low. This could be attributed to the activities of middlemen who added cost to products without necessarily adding value, which reduced the profit of the producers or farmers (Topper and callgari, 1999). In Nigeria market uncertainties is a very serious problem, which can impede cashew production and marketing as cashew farmers are left at the mercy of middlemen whose activities usually make prices to be low and damaging. (Olunloyo, 1996)

USAID (2002) reported that unstable prices of nuts had sent a lot of exporters out of business in the cashew nut trade e.g. in 1996 season, the prices of nut jumped from \$350/ton in March to \$400/ton in April. Many exporters made substantial stocks, following season slump in prices unsold stocks were stacked in warehoused and many exporters who borrowed funds for such operations had to sell their personal properties to offset such loans.

Azam-Ali and judge (2001) also reported that only six percent of cashew apple production is exploited, since the producer only six percent of cashew apple production is exploited, since the producer only has a guaranteed market for cashew nuts it is also extremely difficult to use the whole fruits commercially as the apple ripens prior to the nut. The quality of nuts detached from the green fruit, is unacceptable for processing. Cashew apples are processed within two to three hours of deft picking, since they undergo rapid deterioration when kept for a longer time.

Ezeagu (2002) asserted that the perishable nature of cashew is also a limitation to the development of processing options for cashew fruits and consequent difficulties in transportation from growing areas to distant processing plants, When exporters of raw nuts resulting in higher prices of nuts for processors and the non- respect of obligations by buying agents. In this situation exporter of raw nuts tends to pay more to farmers leaving the processor with insufficient nuts for processing.

However, recent studies have identified various constraints militating against cashew fruits production which varies from one place to the other, therefore, the need to examine the constraints of cashew production among farmers in Orire L.G.A. of Oyo state which is the main objective of this study. Following are the specific objectives:

- a) to identify the socio-economic characteristics of the respondents in the study area;
- b) to examine the farming activities of the respondents in the study area; and
- c) to examine the constraints of cashew fruits production in the study area.

### Hypothesis of the study

There is no, significant relationship between the constraints of cashew farmers and income generated from cashew production.

## MATERIALS AND METHODS

### Data collection and sampling technique

Purposive sampling technique was used to select Orire block as a major cashew producing area in Ogbomoso zone of the Oyo State Agricultural Development Programme (OSADEP). Five villages namely: Iluju, Ahoro, Oko, Egbejoda and Ahoro Dada were selected from the fourteen cashew producing villages identified in the area with simple random sampling technique. Detailed questionnaire were administered to 110 respondents on proportional basis using systematic sampling technique with the list of ADP contact farmers. The questionnaires containing 32 questions which were divided into three sections as follows: Section A. Personal characteristics of the Cashew farmers. B. Farming activities of the cashew farmers while C. contained questions on the various constraints militating against cashew fruits production, marketing and processing in the study area.

### Data analysis

The responses of the cashew farmers were coded and analyzed using frequency counts, percentages and Pearson Product Moment Correlation (PPMC) with SPSS 11.0 Windows.

## RESULTS AND DISCUSSIONS

### Selected personal characteristics

The selected personal characteristics of the farmers are presented under the following sub-headings: Age distribution of the respondents, Sex and educational level.

Age is an important factor in farm work. Increase in number of years of farmer might result in additional experience of the farmer, to improve upon their level of productivity and income. The result in Table-1 shows that most (52.7%) were between the age range of 30 and 49 years. 44.6% were above 50 years while 2.7% are less than 30 years. This implies that most of the cashew farmers in the study area were in their prime age and could be vulnerable to rural urban drift in search of white collar job which can adversely affect cashew production.

Cashew farming requires labour, which is also gender sensitive. Table-1 shows that most (84.5%) of the Cashew farmers are male while 15.5% are female. The male domination of cashew farming activities as observed in the study area could be attributed to the fact that women are given opportunity to cultivate arable crops on the their husband's plots while access to permanent crop production is usually restricted to men (Abubakar, 2003). In a similar study Bzugu (1995) reported that men are generally considered as head of family decisions with regards to resources acquisition and utilization in Ogbomoso area. This could be a constraint to cashew production as these women would have contributed their quota.

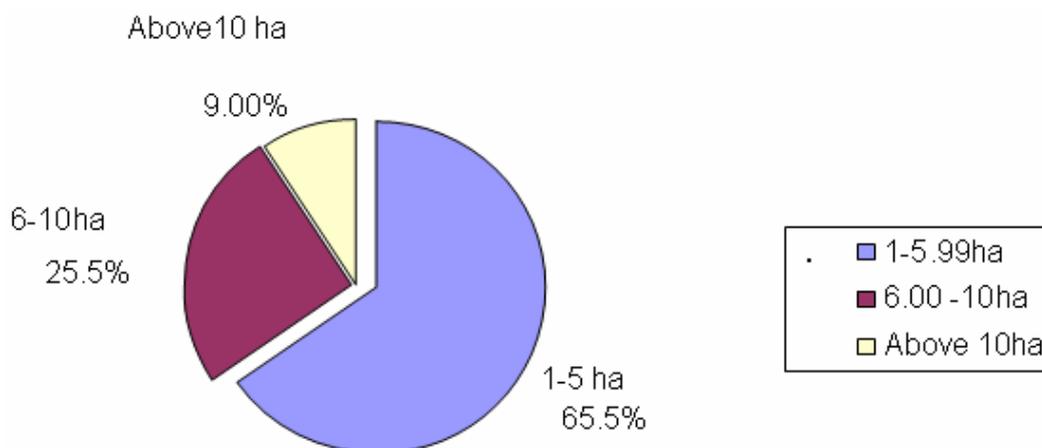
It is generally believed that farmer's level of education would enhance their farming activities and level



of awareness. Most (53.3%) of the respondents have no formal education while (28.2%) had primary education which is an indication that the farmers level of education in the study area is very low which could affect their level of receptivity of improved technologies hence their high dependency on the use of local varieties based on the findings of this study. This could reduce their yield and consequently result in low income of the farmers. However, some (10%) and (4.5%) of the respondents have secondary and tertiary education, respectively (Table-1).

**Table-1.** Distribution of respondents by their personal characteristics.

Variables	Frequency	Percentage
<b>Age group</b>		
< 30 years	3	2.70
30-49	58	52.70
>50	49	44.60
<b>Total</b>	<b>110</b>	<b>100.00</b>
<b>Sex</b>		
Male	93	84.50
Female	17	15.50
<b>Total</b>	<b>110</b>	<b>100.00</b>



**Figure-1.** Distribution of respondents' farm size.

**Source:** Field survey, 2008

#### Varieties of cashew crop used for planting

Table-2 reveals that few (9.1%) and 10% used CRIN improved varieties and Brazilian Jumbo nuts, respectively while 80.9% used local varieties which the farmers referred to as Ogbomoso varieties. This is an indication that majority of the cashew farmers do not use high yielding varieties which would have increased their income which could result smaller nuts and low income, as their produce could not meet up with the required standard grade for export.

Olunloyo (1966) reported that the large size of nuts is more acceptable for export. Therefore the numbers of nuts for each 1kg should not count more than 160-200 nuts. Any sample collected which counts more than this

Level of education	Frequency	Percentage
No formal education	53	57.30
Primary	41	28.20
Secondary	11	10.00
Tertiary	5	4.50
<b>Total</b>	<b>110</b>	<b>100.00</b>

**Source:** Field survey, 2008

#### Farming activities

As indicated in Figure-1, most (65.5%) of the respondents cultivated 1 and 5ha and 25.5% of the respondents cultivated between 6 and 10ha while 9% cultivated above 10ha. It can also be deduced from the finding that majority of the respondents could be considered as small scale farmer cultivating less than 5ha which is in agreement with Olayide (1980) findings that majority of farmers in Nigeria are small scale farmers as they cultivate less than 10ha of farm land.

Also, Akinwale and Ayodele (1999) observed that inadequate access to natural resources including land, capital in terms of bottlenecks, composite farm policy of the government, inefficient system are problems faced by Nigerian farmers.

limit per kg will attract lesser price while counting below 160 normally attract additional price.

**Table-2.** Distribution of respondents based on varieties used for planting.

Varieties	Frequency	Percentage
Local varieties	89	80.90
CRIN improved varieties	10	9.10
Brazilian Jumbo nuts	11	10.00
<b>Total</b>	<b>110</b>	<b>100.00</b>

**Source:** Field survey, 2008



### Produce obtained from cashew fruits for sale

Table-3 shows that majority (83.6%) of the respondents harvest only nuts from their farms for sale while few (13.6%) and 2.8% harvest whole fruits and fleshy fruits respectively, which is an indication that a whole lot of fruits are wasting away. This substantiates the opinion of Akinwale *et al* (2001) that the present consumption of cashew apple in Nigeria is about 10% of cashew total production.

**Table-3.** Distribution of respondents based on produce sold.

Produce harvested	Frequency	Percentages
Nuts only	92	83.60
Fleshy fruits	4	2.80
Whole fruits	14	13.60
<b>Total</b>	<b>110</b>	<b>100.00</b>

Source: Field survey, 2008

### Constraints experienced by cashew farmers

Table-4 reveals that most (70%) of the respondents ranked inadequate capital as the most severe constraints while lack of storage facilities was ranked by few (5.5%) of the respondents as serious constraints. This implies that cashew farmers in the study area could have found it difficult to obtain loan from banks that will require collateral to enhance increase in their cashew production which would increase their level of income. Storage facilities as the least constraints could be attributed to the fact that the cashew farmers do not store their produce as they sell most of their produce fresh and do not process. Akinwale *et al* (2001) observed that despite the increase in cashew production in Nigeria, it is only the cashew nuts that are being utilized in the processing industry.

**Table-4.** Ranking of respondents constraints according to their severity.

Constraints	Frequency	Percentages	Mean scores	Ranking
Insufficient price information	25	22.70	210	6 <sup>th</sup>
High cost of transport	23	20.90	209	7 <sup>th</sup>
Low farm gate price	30	27.30	225	3 <sup>rd</sup>
Inadequate Extension services	8	7.30	151	10 <sup>th</sup>
Insufficient labour	26	23.60	212	5 <sup>th</sup>
Poor marketing channel	30	27.30	225	3 <sup>rd</sup>
Inadequate market information	20	18.20	185	9 <sup>th</sup>
Poor quality nuts	6	5.50	104	12 <sup>th</sup>
Lack of storage facilities	22	20.00	193	8 <sup>th</sup>
Lack of processing industries	73	66.40	273	2 <sup>nd</sup>
Lack of good access road	28	25.50	217	4 <sup>th</sup>
Insufficient buyers	7	6.40	139	11 <sup>th</sup>
Inadequate capital(Finance)	77	70.00	287	1 <sup>st</sup>

Source: Field survey, 2008

### Effect of constraints on cashew farmers' income

The result of the analysis shows that constraints experienced by cashew farmers in the study area negatively relates to the income generated from cashew fruits ( $r = -0.177$ ,  $p = 0.051$ ) This implies that a significant increase in constraints will lead to reduction in income of cashew farmers.

**Table-5.** Correlation between respondents income and constraints.

Variables	r	p	Remark
Constraints and income	-0.177	0.051	S

Level of significance 0.05

Source: Field survey, 2008



## CONCLUSIONS

Cashew production in Orire LGA of Oyo state is male dominated (84.5%) of the farmers are males. The cashew farmers are relatively young with low level of education. There is inadequate capital (finance) that can be used to expand their farm land as 65.5% of the respondents cultivate 0.10-5.99 ha which is too small for commercially sized farm. Majority of the farmers are using local varieties on their farms which they claim is the available planting materials in the area. Other problem of importance are insufficient price information, high cost of transport, low farm gate price, insufficient labour, lack of processing industries and lack of good roads. These problems can be ameliorated by formulating and implementing economic policies aimed at increasing the level of education which could increase their level of receptivity of improved technologies of cashew production. The government should provide soft loan to the cashew farmers to enable them establish cottage industries in order to alleviate the constraints of inadequate capital (finance) and lack of processing industries. There should be a collaborative work between CRIN and ADP to enhance awareness creation and easy access to adequate information such as recommended improved varieties by cashew farmers in the study area.

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