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## **Gender Assessment of Cocoa Farmers' Involvement in Cocoa Enterprise in Ibadan, Nigeria**

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### **Abstract**

This study was carried out to assess the levels of involvement of male and female cocoa farmers' in cocoa enterprise/value chain in Ibadan, Nigeria. A multi-stage sampling technique was used to select 160 respondents in the study area. Data were collected using interview schedule on socio-economic characteristics, constraints faced by cocoa farmers and levels of involvement in cocoa enterprises. The data were analyzed using descriptive statistical tools and T-test. Findings from this study revealed that most (77.2%) of the respondents were male and 57.4% fell in the age range of 36-45 years. Also, 98.5% of them had formal education. For operations requiring greater energy such as site selection, 77.2 and 6.5% of the men and female respondents respectively were fully involved. Lack of credit facilities and input were the most severe constraints faced by the respondents. Independent T-test analysis revealed that there was a significant difference in the levels of involvement of both male and female cocoa farmers in the study area. The higher mean value of the male respondents compared to that of the female respondents implies that men are much more involved in the cocoa enterprise than women in the areas sampled/visited. This study therefore recommends that women cocoa farmers in the study area are given utmost priorities in the various agricultural intervention programmes, because of their significance in the cocoa value chain.

**Keywords:** Men; women; agriculture; assessment; gender; enterprise; cocoa; farmers.

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## **1. Introduction**

In times past, men were regarded as farmers while women were regarded as farmers' wives who assisted men on the farms. In recent times however, the contributions of women to agricultural productivity have started gaining attention. The role of women in agriculture is fundamental, as they are key players in the agricultural value-chain. Women form the core of the economics of sub-Saharan Africa, comprising about 60% of the informal sector and providing about 70% of total agricultural labour. Viatte and his colleagues [1] noted that women constituted the mainstay of the agricultural sector, the farm labour force, the food systems and day-to-day family subsistence. They are known to be primarily responsible for ensuring food availability in the family. The Nigerian government has been making frantic efforts at defining the roles of men and women in agriculture, partly by setting up programmes and policies to encourage the involvement of both genders in agriculture. Despite these, there still exists a great imbalance in the allocation/distribution of agricultural resources such as inputs and credit facilities among both genders.

Gender refers not to male and female, but to masculine and feminine; that is, two qualities or characteristics that society ascribes to each sex. According to FAO [2], gender is a concept that deals with the roles and relationships between men and women that are determined by social, political and economic contexts, not by biology. This definition leads to the concept of sexual division of labour where men and women are limited in sexually ascribed tasks and also gender stratification which emphasizes men's dominance and female subordination. While men are able to focus principally on their productive tasks and carry out other activities sequentially, women are often obliged to carry out a large number of tasks, especially reproductive tasks, simultaneously and dispersed over the day. Thus, women's productive time and flexibility are much more constrained compared to men, often leading to trade-offs between their non-productive and productive roles. By this, men are wrongly considered as the sole contributors in production activities while women are referred to as economically inactive. Reference [3] stated that gender is an organizing concept because it places male against female, serving as an ideological device that justifies and legitimates the allocation of duties and privileges on the basis of sex.

Men and women are involved in the production of different agricultural crops like cocoa, cashew, maize, kola, etc., in animal husbandry and catfish production. But that cash crops such as cocoa, kola, coffee, cashew etc. are often considered as male crops, while food crops such as cassava, maize, cowpea etc. are recognized as female crops. This was as a result of earlier colonial policies, where men's attention was directed towards cash crop production while food crop production was left to the women. In the production of cocoa, men and women are generally involved in operations such as pre-planting, post-planting/processing and marketing of cocoa products. However, men are assumed to perform the harder work of land preparation (site selection, bush clearing, tree felling etc.), while women are concerned with the planting, weeding, harvesting, processing and marketing. Women's long history, in cocoa production across West Africa and the historical importance of cocoa production in Southwest Nigeria, warrant further study of women's access to resources for tree crop production [4]. All these partly point out the fact that though women are a key part of the mainstream agriculture, yet, they face certain obstacles [5]. Hence, the study was carried-out to assess the gender roles and responsibilities of cocoa enterprises in Ibadan.

### **1.1 Specific objectives**

- To determine the selected personal characteristics of cocoa farmers in the study areas.
- To identify the constraints faced by male and female cocoa farmers in the study areas.
- To determine the level of involvement of male and female in cocoa enterprises in the study areas.

### **1.2 Hypothesis of the study**

Ho<sub>1</sub>: There is no significant difference between male and female involvement in cocoa enterprises.

## **2. Materials and Methods**

The study was carried out in Ibadan, Oyo State. Oyo State is made up of thirty-three local government areas (LGAs). It is located between latitudes 5<sup>0</sup>5N and 9<sup>0</sup>0N, and longitudes 2<sup>0</sup>5E and 5<sup>0</sup>55E. Agricultural activities in the area include crop farming and livestock production. The climate favours the production of arable crops and tree crops such as cocoa. Multistage sampling technique was used for the study. Three local government areas, LGAs (Ido, Egbeda and Ibadan South-West) were purposively selected because of the predominance of cocoa farmers in them. Following this proportionate sampling, 90% of cocoa farmers (136 respondents) from the list of registered cocoa farmers (151) obtained from Cocoa Farmers Association of Nigeria were selected. Measurement of the variables of this study was done as follows:

- **Constraints to cocoa enterprise:** A list of perceived constraints was developed and respondents were asked to indicate which of the constraints affect them. It was measured on a 3-point scale of 'not a constraint', 'minor constraint' and 'severe constraint', with scores of 0, 1 and 2 assigned respectively.
- **Involvement in cocoa enterprise:** The respondents were presented with a list of cocoa enterprise activities from which they indicated their levels of involvement. These were measured on a 3-point scale of 'not involved', 'partially involved' and 'fully involved', with scores of 0, 1 and 2 assigned respectively.

## **3. Results and Discussion**

### **3.1 Personal characteristics of respondents**

Table 1 shows the personal characteristics of the cocoa farmers. Larger proportion of the respondents fell within the age range of 36-45 years. This implies that most of the cocoa farmers were in their middle age and would thus be actively involved in their cocoa farming enterprise. They are in their economically active stage of life. The results also revealed that majority (77.2%) were male, which indicates the dominance of cocoa enterprise in the study area by men. This is consistent with IFPRI [6] observation that the proportion of male in agriculture is higher than female. This is in line with the findings of [7], that men are prominent in cocoa production. Also, 98.5% of the respondents had formal education, indicating that they are literate farmers. This has its advantage as according to [8], the educational attainment of a farmer would not only serve to increase his farm productivity, but also enhance his ability to understand and evaluate new production technologies.

**Table 1:** Distribution of the respondents by personal characteristics

Variables	Frequency	Percentage
Age		
<b>24-35</b>	22	16.2
<b>36-45</b>	78	57.4
<b>46-55</b>	32	23.5
<b>56-65</b>	4	2.9
<b>Total</b>	136	100
Sex		
<b>Male</b>	105	77.2
<b>Female</b>	31	22.8
<b>Total</b>	136	100
Religion		
<b>Christianity</b>	97	71.3
<b>Islam</b>	35	25.7
<b>Traditional</b>	4	3.0
<b>Total</b>	136	100
Educational level		
<b>No formal education</b>	2	1.5
<b>Primary education</b>	26	19.1
<b>Secondary</b>	35	25.7
<b>Tertiary Education</b>	73	53.7
<b>Total</b>	136	100

### 3.2 Constraints to cocoa enterprise

Table 2 shows that lack of credit facilities (99.0%), lack of input (85.7%) and poor marketing channel (80.0%) were the main constraints confronting male cocoa farmers in the study area. Lack of credit facilities (100%) and lack of input (96.8%) were however the most prominent challenges faced by the female farmers. These findings, are in line with what World Bank [9] observed and with the findings of Mutanga [10], that lack of quality seeds and fertilizer is one of the major constraints faced by small holder farmers in developing countries and that inadequate labour (74.2%) were the main constraints facing female cocoa farmers. Over-time, lack of credit has been identified as one of the crucial factors affecting small scale farmers globally. But credit is crucial to the cocoa farmers because they need money to procure agricultural inputs such as improved seeds, fertilizers and agro-chemicals in order to boost their production. This discovery aligns with Akinbode [11] submission that farmers hardly obtain loans from banks due to high interest rates charged by commercial banks.

**Table 2:** Distribution of respondents based on constraints faced in cocoa enterprise

S/N	Constraints	Male n=105						Female, n=31					
		NC		MC		SC		NC		MC		SC	
		F	%	F	%	F	%	F	%	F	%	F	%
1	Lack of credit	-	-	1	1.0	104	99.0	-	-	-	-	31	100
2	Inadequate labour	-	-	51	48.6	54	51.4	-	-	8	25.8	23	74.2
3	Transportation problem	-	-	63	60.0	42	40.0	-	-	15	48.4	18	58.1
4	Lack of storage facilities	24	22.9	56	53.3	25	23.8	8	25.8	18	58.1	5	16.1
5	Lack of inputs (fertilizers, seedlings)	2	1.9	13	12.4	90	85.7	-	-	1	3.2	30	96.8
6	Poor marketing channel	4	3.8	17	16.2	84	80.0	3	9.7	9	29.0	19	61.3
7	Inadequate source of information	54	51.4	46	43.8	5	4.8	15	48.4	15	48.4	1	3.2
8	Lack of extension contact	61	58.1	44	41.9	-	-	23	74.2	7	22.6	1	3.2
9	Water unavailability	15	14.3	64	61.0	26	24.8	3	9.7	14	45.2	14	45.2

Note: NC = Not a constraint; MC = Minor constraint; SC = Severe constraint.

### ***3.3 Involvement in pre-planting/planting, post-planting/processing and marketing operations in cocoa enterprise***

Table 3 shows different activities that cocoa farmers engage themselves in cocoa enterprise. These include pre-planting/planting operations, post-planting/processing operations and marketing activities.

It can be seen from the Table that men and women cocoa farmers were well involved in pre-planting/planting operations.

For instance, except for site selection in which 77.2% of the men were fully involved and only 6.5% of the women were involved, both of them were fully involved in other pre-planting/planting operations.

This discovery does not agree with the widely assumed view that women are less involved in such farming operations due to their cumbersome nature, which suits the doggedness of men. The results also indicate that women were more involved in post-planting/processing and marketing operations relative to men.

As can be seen in the Table 3, 90.3% and 38.7% of the women farmers were fully involved in fermentation of cocoa beans and grading respectively. However, 18.1% and 8.6% of the men farmers were fully involved in the said operations.

This corroborates [12,13] submissions that female farmers are more engaged in farm processing activities than their male counterparts. Men (72.4%) and women (71.0%) were fully involved in harvesting. Majority (93.5% men and 85.7% women) of the respondents market their produce through retail means.

### ***3.4 Difference in male and female involvement in cocoa enterprise***

Independent T-test analysis in Table 4 shows that there was a significant difference in the level of involvement of male and female cocoa farmers in the study area. The higher mean value of the male respondents compared to that of the female respondents implies that men were more involved in cocoa enterprise than women.

The significant difference observed may be due to the specific demand for some activities involved in cocoa enterprise which may dictate whether such activities can best be handled by men or women as the situation may warrant.

For instance, female farmers are known to be more engaged in less tedious farming activities such as fertilizer application and processing, relative to male farmers [12,13].

**Table 3:** Distribution of cocoa farmers' based on pre-planting/planting, post-planting/processing and marketing operations

S/N	Activities	Male						Female					
		NI		PI		FI		NI		PI		FI	
		F	%	F	%	F	%	F	%	F	%	F	%
	<b>Pre-planting/planting operations</b>												
1	Site Selection	10	9.5	14	13.3	81	77.2	23	74.1	6	19.4	2	6.5
2	Bush burning	4	3.8	36	34.3	65	61.9	18	58.1	13	41.9	-	-
3	Lining and pegging	11	10.5	3	2.0	91	86.7	23	74.1	6	19.4	2	6.5
4	Planting	12	11.4	45	42.9	48	45.8	2	6.5	13	41.9	16	51.6
5	Fertilizer application	12	11.4	40	38.1	53	50.5	2	6.5	13	41.9	16	51.6
6	Weed control	11	10.5	30	28.5	64	61.0	2	6.5	7	22.6	22	71.0
7	Pest and disease control	15	14.3	31	29.5	59	56.2	3	9.7	9	29.0	19	61.3
8	Watering during dry season	12	11.4	11	10.5	82	78.1	2	6.5	4	12.9	25	80.6
	<b>Post planting operation</b>												
9	Harvesting of ripe pods	8	7.6	21	20.0	76	72.4	-	-	9	29.0	22	71.0
10	Breaking of pods	57	54.3	37	35.2	11	10.5	14	45.2	15	48.4	2	6.5
11	Fermentation of cocoa beans	11	10.5	75	71.4	19	18.1	3	9.7	9	29.0	19	61.3
12	Drying of cocoa beans	98	93.3	3	2.9	4	3.8	1	3.2	18	58.1	12	38.7
13	Sorting of defected beans	55	30.5	32	30.5	15	14.3	11	35.5	18	58.0	2	6.5
14	Bagging of cocoa inside jute bag	15	14.3	-	-	90	85.7	2	6.5	-	-	29	93.5
15	Stocking of cocoa bags on wooden pallets	94	89.5	-	-	11	10.5	19	61.3	-	-	12	38.7
	<b>Marketing activities</b>												
16	Grading	96	91.4	-	-	9	8.6	19	61.3	-	-	12	38.7
17	Wholesales selling	97	92.4	-	-	8	7.6	30	96.8	-	-	1	3.2
18	Retail selling	15	14.3	-	-	90	85.7	2	6.5	-	-	29	93.5
19	Export directly	97	92.4	-	-	8	7.6	14	45.2	15	48.4	2	6.5

**Table 4:** Test of difference showing the difference in level of male and female involvement in cocoa enterprise in the study area

Category	N	Mean	SD	T	Df	Sig	Remark
<b>Male</b>	105	29.1243	5.393	4.423	134	0.009	S
<b>Female</b>	31	5.4667	2.523				

#### 4. Conclusions

Most of the cocoa farmers in the study area were male and to some extent, literate. Men and women cocoa farmers were well involved in pre-planting/planting operations, but women were more involved in the post-planting/processing and marketing operations relative to men. Lack of credit facilities and lack of input were the main constraints confronting both male and female cocoa farmers in the study area.

#### 5. Recommendations

In view of the above, concerted efforts should be made towards ensuring that women farmers in the Ibadan agro-ecological area are given utmost priorities in the various agricultural intervention programmes, because of their significant contributions to agricultural activities down the cocoa value chain.

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