



# Effect of Gender on Access and Ownership of Farmland for Cassava Production in Abia State, Nigeria

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## ABSTRACT

The study analyzed gender access and ownership of farm land for cassava production in Abia state. The specific objectives were to describe the socio-economic characteristics of the respondents, identify the land ownership structure for cassava production, and determine the cultural factors influencing access to cassava farmland. A multi-stage random sampling technique was used to select 109 males and 109 female giving a sample size of 218 respondents. Data for the study were collected with pre- tested questionnaire, and scheduled interview. Data generated were analyzed using frequency counts, mean, percentages, while inferential statistics such as probit regression analysis and z-test were used in analyzing the data. The result shows that a large number of the male 100.0%, reported that the prevalent method of land ownership system in the study were through inheritance, purchase and lease while majority of the female 75.5% reported that the prevalent method of land ownership system in the study area were through sharecropping, purchase and lease. On the bases of cultural factors that affected access to land the community decides who owns a land and that men own the land to the disadvantage of the women. it was also observed that men mostly decide on the piece of land to be cultivated, with majority 69.7% and 51.4% of both male and female respectively agreeing while 30.3% and 39.4% says the decision is deliberated by both parties on the piece of land to be cultivated. The test of hypotheses shows the social economics characteristics of the female respondents such as marital status, education, farm size, income and access to credit were found to be highly significant with land ownership system at 1% (\*\*\*) level. While for the male age, education, household size, farm size, income, and access to credit were also found to be highly significant with land ownership system at 1% (\*\*\*) significant level. The study recommended among others that the government should institute a micro-credit scheme with little or no interest rate targeted mainly at the women groups that are into full time farming for the purchase and leasing of farmland and other agro input since it has been severally observed that women are the major producers of cassava despite their disadvantage nature in inherited land.

**Keywords:** *Effect, Gender, Cassava, Ownership, Farmland, Production*

## [1] INTRODUCTION

According to the UN, the “feminization of agriculture’ has placed a considerable burden on women’s capacity to produce, provide, and prepare food in the face of already considerable obstacles (United Nations Ministerial Conference of the Least Developed Countries, 2007). Women face problems that other societal groups do not. In addition, obstacles such as high HIV prevalence, protracted crises such as civil unrest, and male urban migration in search of paid labor have led to an increase in female-headed households around the world. Women in most parts of the world often gain access to land upon marriage and are primarily responsible for working that land to produce food for the household, but lack legal control of that land. Women often have less access to technologies that facilitate the agricultural and post-harvest processes and also have less access to market (Opio, 2003)

Gendered education systems affect the way men and women gain from their participation in cassava production in several ways firstly, women’s income is often limited by their occupancy of lower skilled roles; secondly, the less educated are less able to access training and thereby upgrade their skills

and knowledge about recent improvement in cassava; thirdly, they are less able to access and process market and financial information. Thus, women, on aggregate tend to earn less than men even in similar roles (World Bank, 2007).

Food and agricultural Organization (2010) went further to buttress this problem faced in cassava production by stating that Women nearly always have less access than men to assets, credit, services, markets and information on new technologies, consumer preferences and export trade requirements. This reduces their chances of entering into contract farming agreements that could change their lives for good.

World Bank (1999) reported that if the contribution of men and women are taken into account equitably when allocating productive resources, agricultural production can be on the increase women given certain food crops such as cassava, maize, yam, melon etc. and are also responsible for weeding, harvesting, transporting processing, storage and marketing of their crops.



Food and Agricultural Organization (2000) also asserted that with the increasing male migration women are becoming the sole producers and processors in the household economy. Due to their lack of access to production resource and their inability to take decision in the family, effective cassava production activities are affected. According to Food and Agricultural Organization (2010), empirical evidence from many different countries shows that female farmers are just as efficient as their male counterparts, but they have less land and use fewer inputs, so they produce less.

According to (World Health Organization, 2008), women in Nigeria produce 80% of food stuff both for house hold consumption and sale, yet female farmers receive less than 10 percent of credit provided to farmers and own only 1 to 2 percent of all land in developing countries. Despite the numerous contributions of women in agriculture production, access to farmland in our community still did not favour them. There is a lot of gender disparity when it comes to the issue of acquiring farmland in many communities specifically in the southeastern Nigeria. The rigid culture has made it difficult or impossible for women to cultivate enough land and in most cases affect cassava production. An example of these is seen in the statement made by (Korieh, 2001) “Why should a woman be allotted land? She married away from this village and can only have access to land where she marries. Her access to land will be through her husband and children.”

Consequently, the wealth obtainable from cassava production, processing and marketing and as result of gender inequality remains under serious threat if nothing is done to improve the operating environmental and socio-economic conditions of the farmers in terms of land holding, welfare and credit availability. The study sought to access the effect of gender on access and ownership of land for cassava production in Abia state and specifically to describe the socio- economic characteristics of the respondents, ascertain the system of land ownership for cassava production among the respondents, examine gender perception of cultural factor influencing access to farmland in

the study are. In this study it is hypothesized that there is no significant relationship between socio-economic characteristics of respondents and land ownership

**[2] METHODOLOGY**

The study was carried out in Abia state, Abia state is situated between latitude 04<sup>0</sup> 45’ and 06<sup>0</sup> 07’ north and longitude 07<sup>0</sup> 00’ and 08<sup>0</sup> 10’ east it is bordered by Imo, Anambra, and River in the west, northwest and southwest respectively. To the north, northeast, east and southeast is bordered by Enugu, Ebonyi, Cross River, and Akwa-Ibom state respectively. Abia state is found in the southeast geopolitical zone of Nigeria, and is located within the forest belt with temperature ranging between 20<sup>0</sup>c – 36<sup>0</sup>c. According to the National Population Commission (2006), Abia state has a population of 2,833,999 people and a land mass cover of 5,833.77<sub>sq</sub>.km.

Multi-stage and simple random sampling procedures were used to select the respondents as well as the towns and villages. Firstly, three (3) agricultural zones were selected. Secondly, two (2) Local Government Areas were purposively selected from each of the agricultural zones making 9 LGAs, This was followed by a random selection of two (2) villages from each of the LGAs. A proportionate sampling was then used to select the respondents from the sampling frame and the sampling frame was made up of 109 male and 109 female cassava farmers making it a total of 218 respondents. Data were collected by means of well structured interview schedules and analysed by the use of descriptive statistics and inferential statistics such as probit regression analysis. The formula used to compute the mean used in this study is specified below. The mean was computed by multiplying the frequency (f) of the responses under each response category by assigned value and dividing the (Σ) of the product by the (N) no of respondents to the particular indicator as shown:

$$X = (\sum fx) / N \dots\dots\dots (1)$$

- Where
- Σ = Summation
- f = frequency
- x = assigned score to response category
- N = number of respondents
- X = Arithmetic mean

The Hypotheses was analyzed using probit analysis. The probit analysis is give as:

$$\text{Probit } (Y^*) = X_i\beta + \mu$$

Where

$\mu \sim N(0,1)$

$Y^* = 0 \text{ or } 1$

$Y = \text{Prob}(\text{Land ownership System}) (\text{Inheritance} = 1 \text{ and others} = 0)$ .

$X_i = \text{vector of the independent variables}$

$X_1 = \text{Age of respondents (years)}$

$X_2 = \text{Marital status (married} = 1; \text{ otherwise} = 0)$

$X_3 = \text{Educational level (years)}$

$X_4 = \text{Occupation (farming} = 1; \text{ otherwise} = 0)$

$X_5 = \text{Household size (number of persons living in the same house)}$

$X_6 = \text{Farm size (hectares)}$

$X_7 = \text{Farm Experience (years)}$

$X_8 = \text{Income level in naira (Annually)}$

### [3] RESULTS AND DISCUSSION

Table 1: shows that a large number of the male 100.0%, 72.5%, 60.6% reported that the prevalent method of land ownership system in the study were through inheritance, purchase and lease while majority of the female 75.5%, 62.4%, and 45.9% reported that the prevalent method of land ownership system in the study area were through sharecropping, purchase and lease. The implication of the high ownership of land through inheritance for the male is due to the fact that they inherit land,

and the inability of the women to inherit land is one of the reasons for their poor access to farmland. And if this is not curtailed in our society food production in the area will be negatively affected. This finding supports the work of (Ekong, 2010) which states that women's right to land tend to be mainly derived from marriage. The implication is that women who are not married tend to lease land for agricultural purpose.

**Table 1: Distribution of Respondents Base on Methods of Land Ownership**

Traditional method of land ownership	Males			Females		
	Yes	No	Total	Yes	No	Total
Inheritance	109(100.0)	-	109(100.0)	20(18.3)	89(81.7)	109(100.0)
Purchase	79(72.5)	30(27.5)	109(100.0)	68(62.4)	41(37.6)	109(100.0)
Lease	66 (60.6)	43 (39.4)	109(100.0)	50(45.9)	59(54.1)	109(100.0)
Rent	28 (25.7)	81(74.3)	109(100.0)	33(30.3)	76(69.7)	109(100.0)
Communal	34 (31.2)	75(68.8)	109(100.0)	29(26.6)	80(73.4)	109(100.0)
Share cropping	39(35.8)	70(64.2)	109(100.0)	82(75.2)	27(24.8)	109(100.0)
Gift	9 (8.3)	100(91.7)	109(100.0)	7(6.4)	102(93.6)	109(100.0)

#### Field Survey data, 2014

The result in Table 2: show that out of the cultural factors that affected access to land only two items scores above 3.0 indicating that community decides who owns a land and that

men own the land to the disadvantage of the women. This may be as a result of cases regarding to conflict of interest, the community plays a significant role on the bases of history on

who owns a particular land and that men own the land to the disadvantage of the women is due to the fact that women do

not inherits land except through her husband or spouse.

**Table 2: Distribution of respondents by identification of perceived cultural factors affecting access to land**

Options	Males						Females					
	SA	A	Don't know	D	SD	$\bar{X}$ score	SA	A	Don't know	D	SD	$\bar{X}$ score
The community decides who owns a land	26	39	1	26	17	3.28	34	49	3	12	8	3.73
Religious belief of the people decides who owns land	9	27	3	28	42	2.39	11	33	4	23	38	2.60
Women are not allowed to own land	12	24	8	30	35	2.52	14	19	6	32	38	2.44
Widows are not allowed to own land	5	4	14	38	48	1.90	10	11	16	29	43	2.23
Men own the land to the disadvantages of the women	36	19	8	28	18	3.25	25	30	10	12	32	3.04
Grand mean	2.67						2.81					
Number of respondents	109						109					

Source: Field survey, 2014.

Table 3: The distribution of respondents by who takes decision on land to be cultivated for cassava production is depicted by 69.7% and 51.4% of both male and female respectively while 30.3% and 39.4% says the decision were deliberated by both parties on the piece of land to be cultivated. Thus, men dominated in taking decision on the piece of land to be cultivated for cassava production per planting season in the study area. By implication, any wrong decision taken by men

on allocation of land to be cultivated for cassava production such as mapping out a land that is yet to replenish its nutrient from previous or past cultivation will affect the productivity of such land for cassava production. The disadvantage of woman in the study area on matters concerning land allocation for cultivation may not permit their checkmating their male counterpart for wrong decisions and this may affects the house hold yield.

**Table 3: Distribution of respondents by who takes decision on land to be cultivated for cassava production**

Options	Males		Females	
	Frequency	Percent	Frequency	Percent
Men	76	69.7	56	51.4
Women	-	-	10	9.2
Both	33	30.3	43	39.4
Total	109	100.0	109	100.0

Source: field survey, 2014.



## Regression Analysis on Factors Affecting Ownership of Land

Table 5 and 6 shows the Socio- economic factors affecting both male and female access to land ownership system. In table 5, the result of the probit regression analysis shows that Marital Statuses ( $X_2$ ) had a positive relationship with the female farmer's ownership to land and was significant at 1% level of probability. This means that being married increases the chances of a female acquiring land.

Education ( $X_3$ ) shows a positive relationship with land ownership and it was highly significant at 1%. This means that an increase in education level of the female will lead to an increase in ownership of land.

Farm size ( $X_6$ ) shows a positive relationship with land ownership and was significant at 1% implying that the larger a family land the greater the chances of individual female owning a farm land.

Income ( $X_8$ ) had a positive relationship with land ownership at 1% significant level, which implies that the higher the income

of the female farmers the greater their chances of purchasing, renting or leasing a land which will in turn lead to increase in cassava production.

Access to credit ( $X_9$ ) had a positive relationship and it is significant at 1% this means that if banks, social organization and other financial institution can make it possible for farmers to access loan with ease it will increase farmer's chances of acquiring land which will in turn lead to increase in agricultural production.

Since the coefficients of the variable were all significant at 1% significant level, it therefore implies that the null hypothesis which states that there is no significant relationship between the socio-economic characteristics of the female respondents and land ownership is rejected. Thus, the study concluded that significant relationship existed between the socio-economic characteristics of the female farmers and land ownership system in the study area.

**Table 5: Determinants of land ownership among female respondents**

Variable	Coefficient	Std. Error	z-statistic	Probability
Constant	46.04892	9.174421	5.019272***	0.0000
Age of respondent	44.71884	7.648897	0.846443	0.5065
Marital status	60.02904	56.94694	4.054122***	0.0000
Education	47.00874	6.596540	7.126272***	0.0000
Occupation	-109.0523	-2729.41	-0.039954	0.9852
House hold size	-65.10053	-12.47254	-0.219506	0.3322
Farm size to be inherited	85.91664	8.519764	5.084393***	0.0000
Farm Experience	-55.53186	-7.397688	-0.506651	0.4872
Income	41.27838	8.718785	4.734418***	0.0000
Access to credit	663.6834	140.1827	4.734418***	0.0000
McFadden R-squared	0.881			
LR statistic (9 df)	78.392***			

**Source:** Field survey, 2014

\*\*\*significant at 1%

H01: Rejected at 1%

In Table 6, the result showed that Male Farmers' age ( $X_1$ ), showed a positive relationship with the male farmer's ownership to land and was significant at 1% level of probability. This means that increase in age of male increases his ownership of land.

Education ( $X_3$ ) shows a positive relationship with land ownership and it was highly significant at 1%. This means that an increase in education level of the female will lead to an increase in ownership of land.

House hold size ( $X_5$ ) shows a negative relationship with land ownership at 1% significant level which implies that increase in house hold size lead to a decrease in land ownership especially in cases where the house hold size is dominated by male it will reduce the chances of the female not having access to land.

Farm size ( $X_6$ ) shows a positive relationship with land ownership and was significant at 5% implying that the larger a family land the greater the chances of individual male owning a farm land.



Income ( $X_8$ ) has a positive relationship with land ownership, which implies that the higher the income of the male farmers the greater their chances of purchasing a land which will in turn lead to increase in cassava production.

Access to credit ( $X_9$ ) has a positive relationship and it is significant at 1%. This means that if banks, social organization and other financial institution can make it possible for farmers to access loan with ease it will increase farmer's chances of acquiring land which will in turn lead to increase in agricultural production.

Since the coefficients of the variables were significant at 1% and 5%, significant level, it therefore implies that the null hypothesis which states that there is no significant relationship between the socio-economic characteristics of the male respondents and land ownership is rejected. Thus, the study concluded that significant relationship existed between the socio-economic characteristics of the male farmers and land ownership system.

**Table 6: Determinants of land ownership among male respondents**

Variable	Coefficient	Std. Error	z-statistic	Probability
Constant	2863.485	527.5386	5.428010***	0.0000
Age of respondent	2682.835	703.7819	3.812026***	0.0000
Marital status	2659.195	4528.764	0.587179	0.5382
Education	11174.42	3280.621	3.406190***	0.0000
Occupation	3388.470	42756.18	0.079251	0.7863
House hold size	-2809.60	-1208.237	-2.325369**	0.0322
Farm size to be inherited	352.9943	73.85577	4.779505***	0.0000
Farm Experience	767.6120	484.9765	1.582782	0.7332
Income	3840.490	1672.858	2.295766**	0.0370
Access to credit	2863.485	832.7154	3.438732***	0.0000
McFadden R-squared	0,762			
LR statistic (9 df)	65.865***			

Source: Field survey, 2014

\*\*\*significant at 1%, \*\*significant at 5%

H01: Rejected at 1% and 5% significant level

#### [4] CONCLUSION AND RECOMMENDATION

##### Conclusion

The study therefore concludes that men own the lands to the disadvantage of the females. This can be seen in the case of inheritance where land is only transferred to the male and the female neglected. In this case the ability of a woman to own a land rest on either her marital status or educational background which empowers her to work, earn salary and buy a land. Men are the major decision taker in respect to the cultivation of land and this affects the production capacity of the females. Again, age, marital status, level of education, household size, farming size, farm experience, income, level of education, and access to credit are the determinants of land ownership system by female and male farmers especially the females whom culture discriminate against land ownership by inheritance system.

##### Recommendation

The study based on the findings recommends the following

- As part of the land tenure reform, customary laws of access to land and inheritance which do not support the cause of women, should be reformed.
- It was therefore recommended that the government should institute a micro-credit scheme with little or no interest rate targeted mainly at the women groups that are into full time farming for the purchase and leasing of farmland and other agro input.
- The government should ensure that, in achieving equity in access to and control of land, the Land Reform Programme (LRP) must be becomes an integral component of customary land administration. This can be done through sensitization of land owners, traditional chiefs and (men) on the need to allow women to own and use land specifically for cultivation and a commission should be set



up in different LGA to enforce and monitor the implementation of land policy in respect to farming.

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