



## **GENDER DISPARITY IN AGRICULTURAL CREDIT FACILITIES AND INPUT DISTRIBUTION IN BOGORO LOCAL GOVERNMENT AREA, BAUCHI STATE**

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### **ABSTRACT**

The study examines gender disparity in agricultural credit facilities and input distribution in Bogoro Local Government Area. Data were collected and analyzed using simple descriptive statistics and the regression analysis. Findings revealed that 96% of the farmers were aged between 25 to 50 years while 80% were male. The results further showed that 70% were married, 22% were single with an average farming experience of 10 years. In addition, the results revealed that majority (60%) of the respondents disagreed that women had equal access to credit facilities to their men counterparts while 50% agreed that women were informed about the credit facilities in comparison to men. Also, majority (70%) of the respondents disagreed that there was fairness in credit approval to women in comparison to their men counterparts. The results of regression analysis revealed that age (0.05), educational qualification (0.05), farming experience (0.01) were the significant factors influencing farmers' access to agricultural credit. The results also revealed that the major constraints include; lack of collateral, discriminatory practices and limited financial literacy. In conclusion, there exist a gender disparity in women access to credit facilities and fairness of approval compared to their men counterparts in the study area. The study therefore recommends that government should advance adequate farm credit to farmers irrespective of gender to enable them improve food production as well as ensure food security in the area. A supervised credit scheme should be set up by the government as well as functional and effective credit access which would serve as panacea for gender differential in credit access.

**Keywords:** Gender, Disparity, Credit, Facility, Inputs

### **INTRODUCTION**

Women's contribution to economic development is hard to over-emphasize. In the agricultural sector of many developing countries, they represent the main driving force and spend considerable amount of time planting, weeding, ridging, and harvesting, while simultaneously doing their regular chores. It is pertinent to note that two key features are prevalent in the Agricultural sector in Nigeria (Adinya *et al.*, 2013). The first one is the dominance of female labor in agriculture and the second one is the existence of a gender gap in agricultural productivity. The feminization of agriculture is evident in Nigeria, where women make up a higher proportion of agricultural labor than males, potentially ranging from 30 to 80. Sustainable food systems rely on sustainable forms of agricultural production, where sustainability includes not just a long-term absence of known environmental harms but dynamic and thriving social and ecological relations respectful of diverse lives (Adeola and Ayoade, 2019).

In particular, gendered forms of social organization are deeply embedded across a variety of scales within food systems, at the household and community level and extending through to international organizations such as the Food and Agriculture Organization of the United Nations and the Global Forum for Rural Advisory Services (Kuye *et al.*, 2006).

Several key reasons for the observed gender gap in agricultural productivity have been identified in the literature: gender differences in access and use of agricultural inputs, tenure security



and related investments in land and improved technologies, market and credit access, human and physical capital, and informal and institutional constraints affecting farm/plot management and marketing of agricultural produce. Cultural roles that are assigned to males and females regarding domestic duties as well as other factors that may underline the gender segregation in crop production (i.e. staple versus cash crop cultivation, high-yielding versus low-yielding variety cultivation, etc.) could be thought of as informal institutional constraints.

Gender inequality remains a significant barrier to the development of inclusive, genuinely sustainable forms of agriculture. Approaches to and motivations for addressing gender inequality have been evolving. At the global level, gender is increasingly visible on the agenda in international development. Goal five of the United Nations' 2015 "Sustainable Development Goals" is to "Achieve gender equality and empower all women and girls" (FAO, 2018). Yet, what this means is contested. Since the 1970s, feminist activists and scholars have sought to foreground women and gendered dynamics in development theory and practice, with mixed results (Ogunlela & Mukhtar, 2009). Also on the development agenda is agriculture, which has been rediscovered as a food security issue linked to civil unrest and climate change in the global South. In the specific agriculture for development sector, women and gender are now a highly visible discursive presence. Contributing to this gender-agriculture development convergence is the fact that both gender inequality and agriculture are considered more prevalent in developing countries (World Bank, 2011). This mutual constitution of gender and agricultural development issues have been reinforced by a sense that efforts to implement the gender agenda into agriculture has, at least in terms of visibility, been a resounding success (Adeola and Ayoade, 2019). From scholarly work, including participatory action research, to the extensive practice literature such as (World Bank, 2011; FAO, 2018; UN Women, 2015), women and gender have become central to agricultural development initiatives. However, what is pursued in the name of improved gender outcomes in sustainable agricultural development varies widely. In particular, feminist critics and grassroots movements have challenged the implementation of the gender agenda by international organizations in ways that reproduce neoliberal policy frameworks, thus failing to take meaningful steps toward either gender equity or the development of sustainable food systems.

It is therefore important to look critically at the intellectual underpinnings of "gender" interventions, particularly as they pertain to globally dominant constructions of agriculture and food policy. As feminists have long argued, the problem is not just the inadequate inclusion of women, but an inadequate engagement with gender in development discourse and practice (Thea, 2010). Because un-nuanced gendered approaches to development can exacerbate inequalities, reentrancy forms of difference, or marginalize women in new ways. The assumptions and outcomes of gender initiatives require constant evaluation. Such vigilance is vital, if meaningful food systems transformation, from a gender perspective, is to be achieved.

Agriculture remains the main source of livelihood for the majority of the population in rural areas. Over 80% of the population is estimated to be engaged in subsistence farming in recent times, the neglect of the agricultural sector, coupled with industrialization and rural-urban migration, has widened the gap between food supply and demand. This situation is made worse by the migration of men, who are the major land owners, to the nonagricultural sector. Consequent of the aforementioned therefore, women are in recent times, major stakeholders in agriculture. In Bogoro Local Government Area (LGA) of Bauchi state, women are at the forefront of agricultural production. This is in addition to their domestic roles as homemakers. In spite of these developments, roles and production resources are sharply divided along gender line.

Similarly, farm roles are most times divided along gender line in Bogoro LGA of Bauchi State. For instance, men often engage in such tasks as bush clearing, land cultivation and yam staking. On the other hand, women mostly engage in such tasks as planting, weeding and food processing among others. Based on this, the researcher intends to investigate the answers to the following objectives: describe the socioeconomic characteristics of the farmers; describe the disparity in access to agricultural credit; and to ascertain the factors that influenced farmers' access to agricultural credit in the study area.



## RESEARCH METHODOLOGY

### The Study Area

Bogoro is a LGA of Bauchi State, Nigeria, has a latitude of 9°40'4.53"N and a longitude of 9°36'17.67"E or 9.667924 and 9.604909 respectively. It has an estimated landmass of about 894km<sup>2</sup>. The area experiences a tropical climate characterized by distinct wet and dry seasons, with an average annual rainfall ranging between 1000 and 1200mm, mostly between May and October. The major economic activities of the study area include both subsistence and commercial farming, animal husbandry, petty trading and local crafts. Za'ar or Sayawa people are the majority of its inhabitants and estimated population of 99,315 people at the 2022 census.

### Sampling Procedure and Sample Size

Due to large size of the target population, the researcher used the Taro Yamani formula to arrive at the sample size of the study.

$$n = \frac{N}{1 + N(e)^2} \quad \dots(i)$$

Where

$$n = \frac{200}{1 + 200(0.005)^2}$$

$$n = \frac{200}{1 + 200(0.005)^2}$$

$$n = \frac{200}{1 + 200(0.000025)}$$

$$n = \frac{200}{1}$$

### Method of Data Collection

Data were collected using structured questionnaires to the respondents randomly drawn from the study.

### Method of Data Analysis

Both descriptive and inferential statistics were employed in the analysis of data. Descriptive statistic such as frequency distribution and percentages were used to achieve objectives i, and ii while the logit regression analysis was employed to analyse objective iii.

### Logistic regression model

Logit regression analysis was used to analyse the socio-economic factors that influence women farmers' access to extension services which satisfy objective iii of the study. Logistic regression uses a logistic function called a sigmoid function to map predictions and their probabilities. The sigmoid function refers to an S-shaped curve that converts any real value to a range between 0 and 1. The logistic regression models are explicitly stated as;

$$f(x) = \frac{1}{1 + e^{-x}} \quad \dots (i)$$

Where;

e = base of natural logarithms

f(x) = numerical value one wishes to transform

The following equation represents logistic regression:

$$Y = \frac{P(Y=1/X)}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6)}} \quad \dots (ii)$$

Where;

P(Y = 1/X) is the probability that the dependent variable Y equals 1 given the input X

$\beta_0$  is the intercept term

$\beta_1 - \beta_6$  are the coefficients of the independent variables

Y = Access to credit (dummy: yes =1; no = 0)

X<sub>1</sub> = Gender (dummy: male=1; female = 0)

X<sub>2</sub> = Age (in years)

X<sub>3</sub> = Education level

X<sub>4</sub> = Farm size (ha)

X<sub>5</sub> = Household Size (in numbers)

X<sub>6</sub> = Farming experience (in years)



## RESULT AND DISCUSSION

### Socio-demographic Characteristics of the Respondents

The result in Table 1 showed that 80 % were male while more than half (55%) of the farmers in the study area were aged between 18 and 40 years. The high percentage of young men indicated that greater proportion of the farmers possess the vigour and can withstand farming stress. Also, 70 % of the respondents were married, 22 % were single, and 8 % were divorced.

The result on the educational level of the respondents revealed that most (85%) of the farmers were privileged to be literate hence, can comprehend and adopt faster than their counterparts that were not educated (Anaglo *et al.*, 2014). The results further showed that 70% had household size of <5 while 20% had 5-10, 10% had >10; whereas 70% of the farmers had farming experience of <10 years while 15 % had 10-20 years' experience, 10 % had 21-30 years' experience while 5 % had more than 30 years' experience. This showed that majority of the respondents were experienced and can handle their farming activities more efficiently in view of their vast experience in the system.

**Table1:** Socio-demographic Characteristics of the Respondents

Variables	Frequency	Percentage %(n=200)
<b>Gender</b>		
Male	160	80
Female	40	20
<b>Age</b>		
15-20	10	5
21-30	60	30
31-40	40	20
41-50	90	45
<b>Marital Status</b>		
Married	140	70
Single	44	22
Divorced	16	8
<b>Education</b>		
Primary	20	10
Secondary	90	45
Tertiary	40	20
Adult education	20	10
Nil	30	15
<b>Household size</b>		
<5	140	70
5-10	40	20
>10	20	10
<b>Farming experience</b>		
<10	140	70
10-20	30	15
21-30	20	10
>30	10	5

**Source:** Field Survey, 2024.

### Nature of Disparity in Access to Agricultural Credit in Bogoro LGA, Bauchi State

The results in Table 2 showed that 20 % strongly agreed that there is equal access to agricultural credit facilities for both gender, 15 % agreed, 30 % disagreed to that while 35 % strongly disagreed to that. This implies that majority of the respondents disagreed and by implication there is no equal access to agricultural credits among the respondents in the study area. The result also shows that 30 % of the respondents strongly agreed that both genders are equally informed about available agricultural credit, 20 % agreed, 15 % disagreed to that while 35 % strongly disagreed to that. The implication of the above findings is that half of the respondents agreed that women were informed about credit access while the other half stand on the contrary. The result also showed that 15 % of the



respondents strongly agreed that there fairness in credit approval, 20 % agreed, 45 % disagreed to that while 25 % strongly disagreed to that. This implies that majority (70%) of the respondents were of the opinion that is no fairness in the approval for loan to the women in the study area. This is in line with the findings of Anang, *et al.* (2015).

**Table 2:** Nature of Disparity in Access to Agricultural Credit in Bogoro LGA, Bauchi State

Variables	Frequency	Percentage % (n=200)
<b>There is equal access to agricultural credit facilities for both genders</b>		
SA	40	20
A	30	15
D	60	30
SD	70	35
<b>Both genders are equally informed about available agricultural credit</b>		
SA	60	30
A	40	20
D	30	15
SD	70	35
<b>Fairness in Credit Approval</b>		
SA	20	10
A	40	20
D	90	45
SD	50	25

**Source:** Field Survey, 2024

**KEY:** SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree

### Socioeconomic Factors Influencing Farmers' Access to Agricultural Credit

Table 3 showed the precision of the model of the joint effect of the explanatory variable in the model account for 74.1% of the variations in factors influencing farmers' access to agricultural credit. Five coefficients (Age, educational qualification, farming experience, income and amount of savings) were significant. Age showed a positive relationship indicating that a year increase in the age of farmer brings about increase in amount of loan the farmer can assess by ₦132.92. Educational qualification showed a positive sign indicating that a year increase in educational qualification will bring about an increase in amount of loan the farmer can assess ₦14,254.74. Farm size shows a positive relationship indicating that a hectare increase in farm size of the farmer brings about increase in amount of loan the farmer can assess to credit by less than ₦1.00. Family size shows a negative relationship indicating that an increase in the number of dependents in the family will bring about a decrease in amount of loan the farmer can assess by ₦1.00. Farming experience shows a positive relationship indicating that a year increase in farming experience will bring about an increase in farmers access to credit by ₦8.40.

**Table 3.** Socioeconomic Factors Influencing Farmers' Access to Agricultural Credit

Factors	Coefficient	Std. error	t	Sig.
Constant	-111410.425	23721.009	-4.667	0.000
Gender	1.92	1.400	1.371	1.108
Age	132.919*	41.741	3.164	0.008
Education	14254.736*	2445.763	5.868	0.000
Farm size	0.062	0.1316	0.471	0.127
Family size	-0.016	0.0307	-0.521	0.221
Faming experience	0.084***	0.0244	3.44	0.000
R	0.729			
R <sup>2</sup>	0.741			
Adj. R <sup>2</sup>	0.749			
F-statistic	142.042			0.000

**Source:** Output from SPSS, 2024 \*\*\*Sig.at 1% level; \*\*=5% level; \* =10 %





## CONCLUSION AND RECOMMENDATIONS

The study concluded that great gender disparity exist between women access to agricultural credit facilities and fairness in receiving approval compared to their men counterpart. Also access credit facility is influenced by age, education and farm size in the study area.

To address the quagmire to gender disparities in agricultural credit facilities and input distribution, the study recommended the following:

- i. Tailored Financial Products: Develop and offer credit products that address women's specific needs, such as smaller loan sizes, longer repayment terms, and lower interest rates.
- ii. Collaboration with Women's Groups: Partner with women's agricultural cooperatives and organizations to improve access to credit and inputs, leveraging existing networks for outreach and support.
- iii. Improved Access to Collateral: Develop alternative collateral options that don't rely on traditional assets, such as social guarantees or group lending mechanisms.

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