



ACCESS AND CONSTRAINTS TO CREDIT AMONG SMALL-SCALE WOMEN FARMERS IN WESTERN AGRICULTURAL ZONE OF BAUCHI STATE, NIGERIA

¹Ibrahim, M. H., ¹Bala, A. H., ²Sulaiman, A. and ¹Dabo, N. M.

¹Department of Agricultural Extension and Rural Development ATBU, Bauchi

²Department of Agricultural Economics ATBU, Bauchi

Corresponding Author's Email: haynas1990@gmail.com, **GSM:** +2348061155580

ABSTRACT

This study examined the access and constraints to credit among small-scale women farmers in the Western Agricultural Zone of Bauchi State, Nigeria. A multi-stage random sampling technique was employed to select 200 farming households from ten rural communities across Toro and Tafawa Balewa Local Government Areas. Primary data were collected using structured questionnaires and analyzed using descriptive statistics including frequency, percentage, mean, and standard deviation. The findings revealed that 43.4% of the women farmers were aged 57 years and above, 65.2% were married, and 69.7% had secondary education. The results showed that 70.2% of respondents had accessed credit, with microfinance banks (64.1%), NGOs (63.6%), and cooperatives (61.1%) being the primary sources. Credit was predominantly used for payment of labour (70.2%), purchase of livestock (70.2%), and acquisition of farm inputs including seeds, fertilizers, and equipment (64.1%). The major constraints to credit access were stringent collateral requirements (70.2%), long loan processing time (70.2%), inadequate information (70.2%), lack of trust with lenders (59.1%), low education levels (58.6%), and unfavorable government policies (53.0%). The study concludes that although women farmers have moderate access to credit, institutional and structural barriers significantly constrain their ability to obtain adequate financing. It is recommended that financial institutions should adopt flexible collateral requirements, government should strengthen credit delivery systems through timely disbursement and gender-sensitive policies, and women farmers should be encouraged to join cooperatives while improving their financial literacy through targeted training programs.

Keywords: Credit, Access, Small-scale, Farmers, Women, Agricultural.

INTRODUCTION

Agricultural credit is an essential element for agricultural growth in developing countries. Kiplimo *et al.* (2015) described agricultural credit as a temporary substitute for personal savings, and it accelerates technology change to stimulate agricultural production by enhancing smallholder farmers' productivity, asset formation, food security and subsequently, rural agricultural income. Djoumessi *et al.* (2018) noted that farm credit is widely recognized as one of the important factor to increase agricultural productivity and farm incomes, and for poverty alleviation Nwankwo (2017) opined that adequate and timely provision of credit significantly increases agricultural output which leads to an increase in the economic development of the cultivators and people attached to cultivation. Temesgen *et al.* (2018) stated that access to credit is considered as one of the key elements in achieving the transformation plan, and is an important factor in economic development to achieve higher growth in agricultural sector and it is being an engine of growth. Therefore, inadequate agricultural funding has been identified as one of the major factors militating against agricultural production in Nigeria. Gender is a socio-economic parameter that is useful in analyzing the roles, responsibilities, opportunities and constraints of both men and women along different ethnic, cultural, religion and ecological lines (Simonyan *et al.*, 2018). Nigeria economy have been supported by numerous sectors such as oil and gas sector, industrial sector and agricultural sector. According to the report of Olomola (2018) and Afolayan (2017), the agricultural sector is a dominant sector of the Nigerian economy. Despite the fact that agriculture is domiciled as a rural enterprise, it still provides employment for approximately 70 million people that constitute about 65 percent of the working population (Thornton, 2010; FAO, 2020).

In spite of the past efforts at providing microcredit through the establishment of agricultural development banks, microfinance banks, cooperatives, special lending schemes, and other self-help



groups (SHGs), micro-credit availability in Nigeria and particularly Bauchi State. Many research works have been carried out on access to agricultural credit (Muhammad *et al.*, 2013; Johnny *et al.*, 2021); some tried to compare the effort of interest rate on access (Ali *et al.*, 2017); some worked on credit utilization (Bulus *et al.*, 2021), etc. These and numerous other studies demonstrate the crucial role of credit in agriculture. However, there has been little to no research focused specifically on determinants of credit accessibility by small-scale women farmers in Southern Agricultural Zone of Bauchi State, Nigeria.

The broad objectives of the study were to examine the Determinant of Credit Access by Small Scale Women Farmers in Western Agricultural Zone of Bauchi State, Nigeria. The specific objectives were to;

- i. describe the socio-economic characteristics of the respondents;
- ii. identify the various sources of credit available in the study area; and
- iii. describe the constraints to credit access among small scale women farmers in the study.

METHODOLOGY

The Study Area

The study was conducted in Western Agricultural Zone of Bauchi State, Nigeria. The State is divided into three (3) Agricultural Zones by the Bauchi State Agricultural Development Programme (BSADP); Central Zone, Northern Zone and Southern Zone. The State is located between Latitudes 9°30' and 12°30' North of the equator, and Longitudes 8°45' and 11°0' East of the Green Which Meridian. It is bounded in a clockwise direction by Yobe, Gombe, Taraba, Plateau, Kaduna, Kano and Jigawa states. There are 20 Local Government Areas (LGAs) in the State. Bauchi State has a land mass of 49,259 Km² with a population of 4,653,066 according to National Population Commission (NPC, 2006) which is estimated to be 7,057,045 people in 2018 at 3.2% annual increase rate and estimated to be 9,000,0000 people in 2022 at 3.86% annual increase rate.

The State is heterogeneous with predominant tribes like Hausa, Fulani, Jarawa, Sayawa among others (Bauchi State Economic Empowerment and Development strategies [BSEEDS], 2016). The State is one of the States in the north east of Nigeria that span two distinctive vegetation zones, namely, the Sudan savannah and the Sahel savannah. The Sudan savannah type of vegetation covers the Western part of the State. The vegetation types as described above are conditioned by the climatic factors, which in turn determine the amount of rainfall received in the area. For instance, the rainfall in Bauchi state ranges between 1,300 millimeters per annum in the south and only 700 millimeters per annum in the extreme north. The major economic activities of the Bauchi State were agriculture, which include both crop and livestock production. The major crop production activities include production of rice, maize, sorghum and soybean in western zone, while for central and northern is millet, sorghum, cowpea and sesame. The livestock production includes rearing of cattle, sheep, goat and poultry (BSEEDS, 2016).

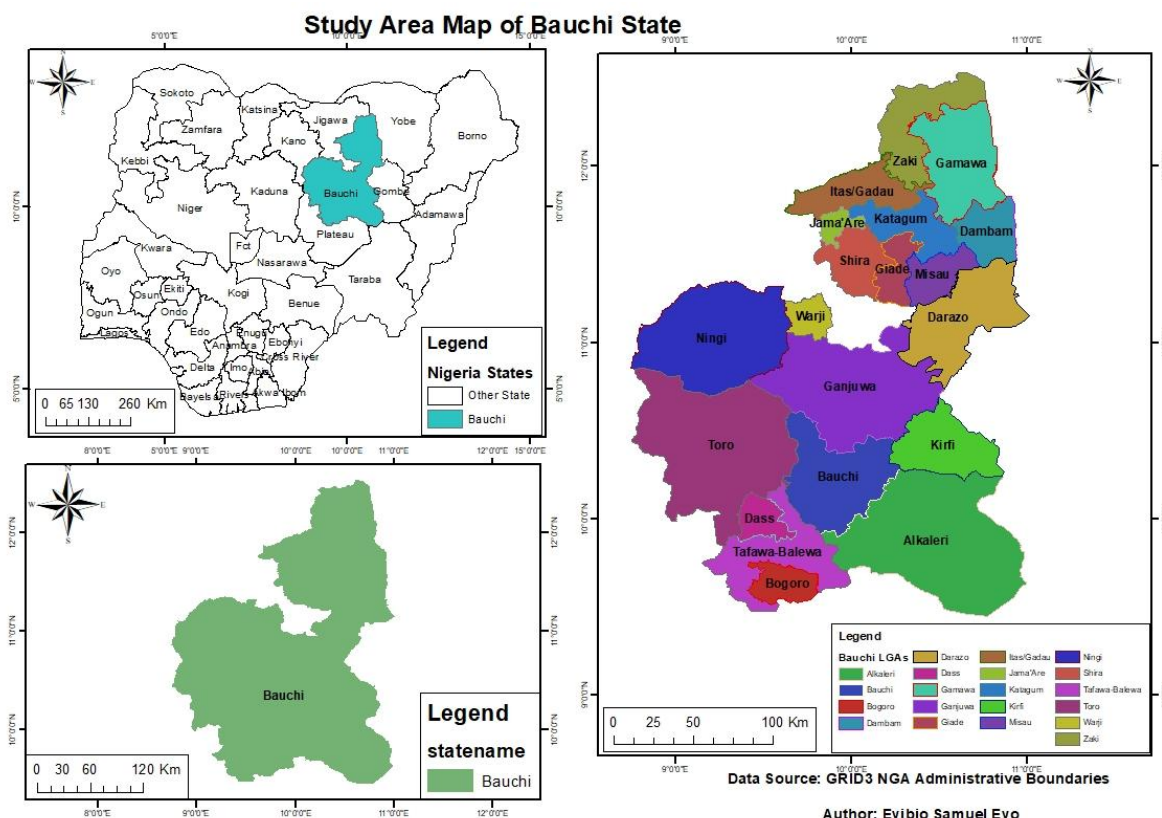


Figure 1: Map of Bauchi State

Sampling Techniques and Sample Size

Multi-stage random sampling technique was employed in the selection of respondents for the study. The first stage, two Local Governments were randomly selected out of the seven Local Government Areas in the Western Zone of Bauchi State Agricultural Development Programme. In the second stage, five (5) rural communities were randomly selected from each Local Government selected, making a total of ten rural communities. The last stage was a random selection of twenty households from each of the selected rural community making a total of 200 farming households for the study.

Method of Data Collection

Primary data was collected through the administration of structured questionnaires to the respondents in the study area.

Table 1: Sampling Techniques and Sampling Size

LGAs	Communities	Number of Households	Sample size (10%)
Toro	Lame	256	26
	Nabordo	200	20
	Gumau	165	17
	Zaranda	228	22
	Geji	105	11
Tafawa Balewa	Bununu	294	29
	Bula	125	13
	Burga	223	22
	Dajin	143	14
	Lere	258	26
Total		1997	200



Method of Data Analysis

The data collected were analyzed using descriptive statistics.

Descriptive statistics

Descriptive statistics such as frequency, percentage, mean and standard deviation were used to achieve objectives i, ii and iii.

RESULTS AND DISCUSSION

Socio-economic Characteristics of the Respondents

The result from Table 2 showed that 43.4% small-scale women farmers in the Southern Agricultural Zone of Bauchi State were 57 years and above, while 23.7% were between 41-48 years. This finding indicates that the farming population is largely dominated by older women, suggesting that younger women may be less engaged in farming activities, possibly due to rural-urban migration or preference for non-agricultural employment. Similar age patterns have been reported in other Nigerian studies, where older women constituted the bulk of smallholder farmers, reflecting limited youth involvement in agriculture (Ogunniyi *et al.*, 2021). The implication is that policies aimed at encouraging youth participation in agriculture are necessary to ensure generational continuity and sustainability of farming in the study area. The result also showed that majority (65.2%) of the respondents were married, while 25.8% were single and 9.1% divorced. Marriage may enhance women's social capital and support systems, thereby influencing their ability to mobilize resources, including credit. However, large household responsibilities associated with marriage can also increase financial pressures, limiting repayment ability. This dual effect has been documented by Bongomin and Ntayi (2020), who noted that while marriage strengthens creditworthiness through social support, it may also constrain women's capacity to take financial risks.

The finding further revealed that majority (69.7%) of the respondents had attained secondary education, 23.2% had primary education, and only 7.1% had tertiary education. This shows that most of the women were literate, which is advantageous for understanding credit terms, maintaining financial records, and engaging with extension agents.



Table 2: Distribution of Respondents According to their Socioeconomic Characteristics (n=198)

Variables	Frequency	Percentage (%)
Age		
25-32	19	9.6
33-40	27	13.6
41-48	47	23.7
49-56	19	9.6
57 and Above	86	43.4
Marital status		
Single	51	25.8
Married	129	65.2
Divorced	18	9.1
Educational level		
Primary education	46	23.2
Secondary education	138	69.7
Tertiary education	14	7.1
Household size		
1-5	64	32.3
6-10	31	15.7
11-15	14	7.1
16 and Above	89	44.9
Primary occupation		
Farmer	66	33.3
Trader	112	56.6
Artisan	10	5.1
Processors	10	5.1
Years of farming experience		
1-5	19	9.6
6-10	50	25.3
11-15	9	4.5
16-20	17	8.6
21 and Above	103	52.0
Farm size (ha)		
1.0-2.0	93	47.0
2.1-3.0	14	7.1
3.1 and Above	91	46.0
Type of farming activities		
Crop farming	63	31.8
Livestock farming	28	14.1
Both	107	54.0
Average monthly income (N)		
9,000-100,000	103	52.0
100,001-200,000	2	1.0
200,001-300,000	42	21.2
300,001-400,000	33	16.7
400,001 and Above	18	9.1
Membership of cooperatives		
Yes	172	86.9
No	26	13.1
Access to credit		
Yes	139	70.2
No	59	29.8

Education has consistently been identified as a key determinant of agricultural credit access because it enhances decision-making capacity and reduces information asymmetry between lenders and borrowers (Ofoegbu and Joseph, 2021). The implication is that investment in adult education and



literacy programs could further strengthen women farmers' ability to navigate financial systems. The finding also shows that 44.9% of respondents had 16 members and above, while only 32.3% had fewer than 5 members. Large household sizes may place significant consumption demands on available income, reducing the ability to save or invest in productive farming activities. This aligns with Akinwale *et al.* (2020), who observed that higher dependency ratios often reduce women farmers' financial flexibility, thereby limiting their eligibility for credit.

The finding further showed that more than half (56.6%) of the respondents were traders, 33.3% farmers, and 10.2% were engaged in artisan and processing activities. This suggests that many women combined farming with trading, possibly as a livelihood diversification strategy. Trading provides supplementary income which may help women meet household needs and loan repayment obligations. Diversified livelihoods have been shown to improve creditworthiness and reduce vulnerability to shocks (Ali *et al.*, 2021). The farming experience of respondents revealed that more than half (52%) had more than 21 years of experience, indicating deep-rooted knowledge in agricultural practices. Experience often enhances farmers' credibility with lenders, as long-term engagement in farming is associated with resilience and stability (Kansiime and Mastenbroek, 2022). Farm size was relatively small, with 47% operating on 1–2 hectares and 46% on more than 3 hectares, reinforcing the dominance of smallholder agriculture in the study area.

The finding also indicates that more than half (54%) of the women practiced both crop and livestock farming, while 31.8% focused on crops and 14.1% on livestock. Mixed farming systems suggest risk diversification, which can stabilize income flows and improve credit repayment potential. Income analysis further showed that more than half (52%) earned between ₦9,000 and ₦100,000 monthly, highlighting low-income levels among women farmers. Low income may limit their ability to meet collateral requirements but simultaneously increases reliance on credit to sustain agricultural operations (Abebe and Gebremedhin, 2021). Most (86.9%) of the women belonged to cooperatives, which suggests strong reliance on collective action. Membership in cooperatives has been widely acknowledged as an enabler of credit access because cooperatives serve as guarantors and reduce information asymmetry between lenders and borrowers (Wanjala *et al.*, 2021). Finally, 70.2% of respondents had accessed credit, demonstrating that despite the barriers, credit institutions remain an important part of livelihood strategies for small-scale women farmers. This implies that the importance of expanding financial services that are gender-sensitive and tailored to the realities of rural women.

Credit Sources and Uses by the Respondents

Sources of credit by the respondents

The findings in Table 3 indicated that majority (64.1%) of the respondents had their credit through microfinance banks. This finding implies that the central role of microfinance institutions in rural financial intermediation, particularly for women who are often excluded from conventional banking systems. The prominence of microfinance aligns with existing studies in Nigeria and other developing countries, which emphasize that microfinance services are more accessible to women because they offer smaller loan sizes, flexible repayment structures, and fewer collateral demands compared to commercial banks (Akinwale *et al.*, 2020; Bongomin and Ntayi, 2020).

Table 3: Distribution of Respondents According to their Sources of Credit

Variables	Frequency*	Percentage (%)	Ranking
Microfinance bank	127	64.1	1 st
NGOs	126	63.6	2 nd
Cooperatives	121	61.1	3 rd
Family and friends	83	41.9	4 th
Money lenders	30	15.2	5 th
Commercial banks	24	12.1	6 th
Government agencies	22	11.1	7 th

*Multiple response



The implication is that strengthening microfinance institutions could further enhance financial inclusion and empower rural women economically. Non-governmental organizations (NGOs) (63.6%) were also reported as a major credit source, ranking second in importance. NGOs often provide not only credit but also training, extension support, and group-based lending models that suit the financial needs of women farmers. Wanjala *et al.* (2021) similarly found that NGOs are critical in bridging the rural financing gap, particularly for marginalized groups such as women. This suggests that collaborative programs involving NGOs and local cooperatives can play a vital role in scaling up women's access to agricultural finance in Bauchi State.

Cooperatives ranked third (61.1%), reflecting their significance as community-based platforms through which women pool resources and guarantee one another's creditworthiness. Membership in cooperatives reduces information asymmetry, provides social collateral, and enables group lending mechanisms. This finding aligns with Alfred and Akinyosoye (2020), who reported that cooperative membership significantly improves access to credit among rural women in Nigeria. The implication is that promoting cooperative societies and strengthening their capacity could enhance women's collective bargaining power in financial markets. Family and friends (41.9%) were also an important source of credit, serving as an informal safety net. Informal credit networks are often characterized by flexibility and trust, making them vital for women who cannot meet the requirements of formal lenders. However, reliance on such sources may limit the scale of credit available for productive investment, a concern also noted by Choudhury *et al.* (2022).

Other sources such as money lenders (15.2%), commercial banks (12.1%), and government agencies (11.1%) played less significant roles. The limited use of commercial banks reflects structural barriers such as stringent collateral requirements, high interest rates, and bureaucratic procedures, which disproportionately disadvantage women (Ogunniyi *et al.*, 2021). Similarly, the minimal role of government agencies suggests inadequate implementation of gender-sensitive credit policies or weak outreach of government programs in the study area.

Uses of credit by the respondents

The result from Table 4 showed that the primary uses of borrowed funds by small-scale women farmers in the Southern Agricultural Zone of Bauchi State were payment of labour (70.2%) and purchase of livestock (70.2%), both ranking as the most common purposes for credit. This finding highlights the dual role of credit in supporting both operational expenses and asset accumulation. The reliance on credit for labour costs suggests that most women farmers face liquidity constraints in meeting seasonal labour demands. This is consistent with Ali *et al.* (2021), who noted that agricultural credit often helps farmers address short-term operational challenges such as wage payments, which directly impact productivity and timeliness of farm operations.

Table 4: Distribution of Respondents According to their uses of Credit

Variables	Frequency*	Percentage	Ranking
Purchase of livestock	139	70.2	1 st
Payment of labour	139	70.2	1 st
Purchase of farm equipment	127	64.1	3 rd
Purchase of fertilizer and pesticides	127	64.1	3 rd
Purchase of seed/seedlings	127	64.1	3 rd

*Multiple response

Credit was also used substantially for the purchase of inputs such as seeds/seedlings (64.1%), fertilizer/pesticides (64.1%), and farm equipment (64.1%), ranking third in importance. This shows that women allocate loans toward improving productivity by investing in modern inputs and tools. According to Choudhury *et al.* (2022), access to agricultural credit enhances the adoption of improved technologies by easing liquidity constraints, thereby enabling farmers to invest in higher-quality inputs and equipment. The use of credit for inputs in this study suggests that respondents recognize the importance of credit in boosting farm productivity and achieving higher yields. The use of credit for livestock purchases (70.2%) reflects women's preference for investing in tangible and tradable assets.



Livestock not only provide food and income but also serve as collateral and a form of savings for rural households. This aligns with findings by Kansime and Mastenbroek (2022), who reported that smallholder farmers often channel credit into livestock because it enhances resilience and provides a financial buffer against shocks. Such investments are particularly important for women farmers, who may have limited access to land and therefore rely on livestock as a key form of asset ownership.

The results also indicated that women farmers in Bauchi State use credit to diversify income sources, reduce risk, and improve household food security. By spreading credit use across multiple needs labour, inputs, equipment, and livestock respondents demonstrate rational decision-making aimed at both immediate production support and long-term livelihood improvement. However, the heavy reliance on credit for recurrent costs such as labour may increase repayment risks, especially in poor harvest years. This observation is supported by Abebe and Gebremedhin (2021), who emphasized that the manner in which credit is utilized directly influences both repayment performance and the sustainability of agricultural financing systems.

Constraints to Credit Access among Respondents

The results in Table 5 revealed that the major constraints to credit access among women farmers in the Southern Agricultural Zone of Bauchi State were stringent collateral requirements (70.2%), long loan processing time (70.2%), and inadequate information (70.2%), all ranking first. These findings highlight structural and institutional challenges that hinder women's ability to obtain timely and adequate credit. The requirement for collateral remains the most critical barrier, as most women farmers lack access to land and other fixed assets that formal lenders demand. This corroborates earlier results in Section 4.3.2, where collateral was identified as the only influential component of credit accessibility. It also aligns with FAO (2022), which emphasizes that collateral requirements disproportionately exclude women due to limited asset ownership.

Table 5: Distribution of Respondents According to their Constraints to Credit Accessibility

Variables	Frequency*	Percentage	Ranking
Stringent on collaterals	139	70.2	1 st
Long loan processing time	139	70.2	1 st
Inadequate Information	139	70.2	1 st
Lack of trust with lenders	117	59.1	4 th
Low level of education	116	58.6	5 th
Unfavorable government policies	105	53.0	6 th
Gender discrimination	90	45.5	7 th
Lack of membership of cooperatives	30	15.2	8 th
High interest rates	12	6.1	9 th

*Multiple response

The constraint of long loan processing time indicates inefficiencies and bureaucratic bottlenecks within credit institutions, which discourage women farmers who often require quick access to funds during critical agricultural seasons. Similar findings were reported by Oggunniyi *et al.* (2021), who noted that delays in loan approval processes limit the effectiveness of credit in improving farm productivity. The situation is worsened by inadequate information (70.2%), which suggests that many women farmers are not fully aware of the availability, requirements, and procedures for obtaining credit. According to Wanjala *et al.* (2021), poor dissemination of financial information contributes significantly to women's financial exclusion in Sub-Saharan Africa. Other notable constraints included lack of trust with lenders (59.1%), low level of education (58.6%), and unfavorable government policies (53.0%). Lack of trust suggests weak relationships between borrowers and financial institutions, possibly due to past loan defaults or rigid repayment conditions. Low levels of education limit women's ability to navigate loan application processes and understand repayment terms, as also highlighted by Ofoegbu and Joseph (2021). Unfavorable government policies, on the other hand, may reflect women's limited access to government-backed credit programs, which are often poorly implemented or skewed toward politically connected beneficiaries.



Interestingly, gender discrimination (45.5%) was identified by nearly half of the respondents, indicating that socio-cultural barriers still play a role in limiting women's access to financial resources. While gender bias was not considered a statistically significant component of credit access in Section 4.3.2, this finding demonstrates that many women perceive discrimination in their interactions with lenders. Furthermore, lack of cooperative membership (15.2%) ranked lower, suggesting that while cooperative participation enhances access to credit, it is not the most pressing challenge compared to structural barriers like collateral and bureaucracy. Finally, high interest rates (6.1%) were reported as the least constraint, indicating that respondents were more concerned with accessibility than affordability of loans. This finding contrasts with other studies (Choudhury *et al.*, 2022), suggesting that in this context, credit institutions may already be offering relatively lower interest products through microfinance and cooperative systems.

CONCLUSION AND RECOMMENDATIONS

The study concluded that credit access among the respondents is moderate, with most having accessed to credit from various sources. Microfinance banks, NGOs, and cooperatives emerged as the most significant formal credit sources, while family and friends provided informal credit support. However, several critical constraints impede women farmers' access to credit, with stringent collateral requirements, long loan processing times, inadequate information, and lack of trust in lenders being the most pressing challenges.

Based on the findings the following recommendations were made;

- i. Microfinance banks and other credit institutions should relax collateral requirements by accepting alternative forms of security such as cooperative group guarantees, livestock assets, and land use rights.
- ii. Government at all levels should develop and implement credit policies specifically targeting women farmers
- iii. Women farmers should be encouraged to join cooperatives and improve financial literacy
- iv. Financial institutions and government agencies should build trust and ensure transparent credit systems

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