JOURNAL OF AGRICULTURAL ECONOMICS, EXTENSION & SCIENCES
Official Journal of the College of Agricultural Economics and Extension
www.jaees.org
www.uam.edu.ng
Jaees Vol. 12 No.2 2025, Page 163-174
ISSN (Print) 2545-5179, ISSN (Online) 2714-5018

EVALUATION OF ANCHOR BORROWERS' PROGRAMME AMONGST WOMEN MAIZE FARMERS IN BORGU LOCAL GOVERNMENT AREA OF NIGER STATE, NIGERIA

[1]Mohammed, U., [2]Umar, I. S. and [3]Maimuna, A. A.

[1]Department of Agricultural Economics and Extension Services, Ibrahim Badamasi Babangida University, Lapai.

[2]Department of Agricultural Extension and Rural Development, Federal University of Technology, Minna.

[3]IFAD Assisted Value Chain Development Programme (VCDP) Niger State.

Email: usmanmohammed.usmanou@gmail.com

Abstract

The study evaluated participation of women maize farmers in the Anchor Borrowers' Programme (ABP) on maize production in Borgu Local Government Area of Niger State. Nigeria. The population of the study consisted of all Women farmers who participated in the programme. A total of 306 respondents were selected from the Local Government Area as the sample size for the study. Primary data were used for the study, the data were collected by researchers and trained enumerators using structured questionnaire alongside with interview technique. The findings showed that the mean age of the respondents in the study area was 39 years, while the average family size was 13 persons and 90% were married and majority (76%) had non-formal education. Before the implementation of the Anchor Borrowers Programme, the production efficiency of female maize farmers was 87.4%, but this decreased to 76.5%. Similarly the profitability index dropped from 46.6% to 43.3% after participation in Anchor Borrowers' Programme. The Anchor Borrowers' Programme had a negative effect on their productivity and profitability. The result also reveals that the grand mean of women maize farmers' participation in ABP was 1.09. The result indicates that women maize farmers participated more in account opening (=1.90)and less in repaying loans as at when due (=0.35). However, inadequate credit facilities and input supply ($\bar{x}$=2.36), poor extension services ($\bar{x}$=2.59), poor communication gap between the end users and credit agents ($\bar{x}$=2.63)as well as delay in disbursement ($\bar{x}$=2.82)were some of the major constraints faced by women maize

farmers. Women's involvement in the Anchor Borrowers' Programme was low and had no tangible effect on the level of maize production among women maize farmers. It was therefore recommended that, the Government and Non-Governmental Organizations should provide adequate credit facilities, ensure timely delivery of inputs, and provide adequate extension services to women maize farmers.

***Keywords**: Evaluation, women, maize, farmers, anchor borrowers' programme.*

1.0 Introduction

Maize (*Zea mays*) is a major staple food crop consumed across all parts of Nigeria. The demand for maize in the country had been soaring and the rising demand was partly a result of increased income levels, rapid urbanization, and the associated change in occupational structure (Mathew and Joshua, 2025). Rabiu *et al*. (2024) asserted that the country's per capita annual maize consumption level has been on the increase over the years and that the ever-increasing demand for the commodity across the country has transformed it into a cash crop, especially in the areas where the crop is produced. In a bid to sustain domestic maize production in Nigeria and decrease dependence on imports, numerous programmes and policies have been introduced, some of the policies are; Agricultural Transformation Initiative on Increased Maize Production (2009-2019), Nigerian National Maize Development Strategy (2009-2019), Agricultural Transformation Agenda Support Programme I (2012- 2016), Agricultural Promotion Policy, the CBN Anchor Borrowers' Programme (2015 to date), Central Bank of Nigeria Foreign exchange policy excluding 41 items, including maize, from assessing official window for foreign exchange. The activities involved in maize production contribute immensely to creating employment opportunities in the communities concerned (Amina, 2025). In almost all maize-growing areas in Nigeria, men traditionally undertake such activities as land preparation, ploughing, irrigation and field-levelling. Women, on the other hand, are responsible for sowing, transplanting, weeding and crop processing (Salim *et al*., 2024).

According to Toba (2024), women's participation in most of the activities is usually undertaken in post-harvesting such as processing of crop produce. However, rural women, in some parts of Nigeria worked side by side with men in maize production with some marked division of labour among them. The role that women play, however, is greatly marked by gross production challenges such as inadequate institutional support

(no access to credit, research and extension), inappropriate production systems, inadequate basic infrastructure production risk and inefficiency on the part of the farmers. In line with this, Adamu (2025) reported that men have access to resources needed in agricultural production, but women agriculturalists face several challenges which include land tenure problem, limited access to credit, lack of access to markets, and cultural restrictions and biases. These obstacles may preclude them from participation in more capital-intensive women maize farming with low productivity.

Amid these challenges, Federal and State Ministries of Agriculture as well as some donor agencies have partnered to outline projections to double maize cultivation to reduce importation, using intervention programmes such as Anchor Borrowers' and Fadamaprogrammes and Additional Fiancing (Umar, 2025). In response, the Anchor Borrowers' Programme (ABP) was established by the Central Bank of Nigeria to support small-scale farmers including women. This programme aims to empower subsistence and small-scale maize farmers to transit into efficient driven agricultural enterprises. Under this programme, the Central Bank provides collateral-free loans to registered farmers with the government as guarantors. This provides financing for small-scale agricultural endeavours and subsidies to purchase agricultural inputs, such as seedlings and fertilisers (Adamu, 2025). Additionally, the programme creates a platform to connect small-scale farmers to financial services, input suppliers, and markets. The programme not only helps to ensure that the monetary benefit of agriculture is increased but also gives the farmers a chance to empower themselves and take control of their lives (Solomon and James, 2023).

Maize farmers in Niger State of Nigeria have benefitted from this scheme. However, there is limited information and research on the effect of participation of women maize farmers on maize production in Niger State. Thus, this study filled this research gap.

2.0 Objectives of the Study: The broad objective of the study was to evaluate anchor borrowers programme amongst women maize farmers in Borgu LGA of Niger State, Nigeriaand the specific objectives were to:

i. describe the socio-economic characteristic of the respondents in the study area:
ii. determine level of maize production before and after the implementation of Anchor Borrowers' Programme.

iii. ascertain level of women farmer's participation in the Anchor Borrowers Programme.
iv. Identify constraints faced by women maize farmers in accessing Anchor Borrowers programme.

3.0 Methodology

Borgu Local Government Area is one of the 25 Local Government Areas (LGAs) in Niger State, with its headquarters located in New Bussa town. It lies between latitude 10.3232°N and longitude 4.1514°E. It covers an area of 10,992km² with a total projected population of 296,500 as at 2022Niger State Geographical Information System, (NIGIS, 2023). It is important to note that migration and natural population growth may have caused population estimates to change since that time.The dry and wet seasons are the two main ones in Borgu LGA, it has an average humidity of 38% and an average wind speed of 13km/h. with an average temperature of 30°C. Economic activities includes, agriculture, fishing, livestock farming, inland water transportation and tourism, while crops mostly cultivated are millet, sorghum, rice, maize and cassava.

The research was carried out in six (6) different communities in Borgu Local Government Area of Niger State..Multi-stage sampling technique was used for the study. The first stage involved random selection of Agricultural zone III (Borgu) out of 25 LGS's in the State. The second stage involved random selection of six (6) rural communities from the Local Government Areas (LGA). At the third stage, 15% of the farmers were randomly selected from the sampling frame of each rural community. In all, a total of 306 respondents were selected from the LGA as the sample size for the study.

Table 1: Size Selection Plan

Rural Communities	Sampling frame	Sample size (0.15)
GadaOli	442	66
Gandu	388	58
Kakuria	339	51
Malale	324	49
Budo	298	45
Kara	245	37
Total	**2036**	**306**

Sources: Field survey (2025).

Primary data were used for the study, the data were collected by researchers and trained enumerators using structured questionnaire alongside with interview technique. The data, were analyzed using descriptive statistics such as (frequency distribution, percentage, mean) level of maize production of women maize farmers and level of women participation were analyzed using percentage, mean,. Objective IV was analyzed using Kendal's coefficient of concordance.

Kendall's W was computed as shown below:

$$W=\frac{12\sum R^{-2}i-3N(N-1)^{2}}{N(N-1)}$$

Where:

W = Kendall's value,

N = total sample size,

R = mean of the rank.

4.0 Results and Discussions

4.1 Socio-economic Characteristics of the Respondents

Table 2 shows that the mean age of the respondents was 39 years. The finding suggests that the respondents belonged to the middle age classes, who are agile and eager to participate in Anchor Borrowing programme which will directly or indirectly affect their means of livelihoodsand are more mentally alert to embrace new agricultural programmes that will benefit them. This finding agrees with Onome (2025) who stated that middle aged farming families embraces new programmes on agricultural enterprises for their livelihoods. Table 2 also shows that, 90.0% of the respondents in the study area were married, which is a strong indication of some kinds of family responsibilities that will compel them to seek for alternative source of more agricultural programmes that will better their livelihoods. This result is in line with Isa and Zainab, (2025) who stated that married people embrace new enterprise that will benefit their means of living Table 2 further shows that, the mean household size of respondents in the study area was 13 persons. Large household size point to availability of more information on new agricultural enterprise either from the neighborhood or other sources for agricultural activities. This agrees with Benjamin*et al.*(2025) who stated that the large household size is a strong indication that farming family can seek for more agricultural programmes that will benefit them directly or indirectly to better their lives.

In Table 2 the average years of experience in farming activities was between 11−20 years, while the mean year of experience for the respondents was 18 years. The fact is that the majority of the respondents in the study area started seeking for information on Agricultural programmes long ago, which signifies that most women maize farmers in the study area earned their living on farming activities to better their lives. This finding conforms to that of Adamu (2025) who stated that majority of farming household in the northern part of Nigeria had long years of experience in farming and benefits from Agricultural programmes which has gone a long way in betterment of their live. Table 2 shows that 76% of the respondents lack formal education. The implication of this is that those who are literate will be more informed about the Anchor Borrowing Programme because of their literacy ability to access information more quickly on agricultural programmes. In a related study, Isa and Zainab, (2025) contended that education is an important factor that influences acceptance of innovations among farming families in Nigeria.

Table 2: Distribution of respondents according to socio-economic characteristics (n=306)

Variables	Frequency (%)	Mean
Age (year)		
≤20	45(16.8	
21-30	60(20.0)	
31-40	97(26.6	
41-50	56(194)	
51-60	34(15.1	
>60	14(2.1)	39
Mean	**39**	
Marital status		
Single	78(8.8	
Married	219 (90	
Widow	9(1.2	
Separated	-	
Household size (number)		
1-5	47(10.5	
6-10	60(13.0)	
11-15	90(534)	
16-20	68(155)	
21-25	35(6.4	
>25	6(1.2)	13.0
Mean	**13.0**	
Experience in farming (yrs)		
1-10	77 (32)0	
11-20	118 (40).2	
21-30	64 (21)5	
31-40	35 (5)0	
>40	12 (1)3	18
Educational level (year)		
No-formal education	194(760)	
Primary education	34 (91)	
Secondary education	16 (21)	
Tertiary education	4 (0.6	
Adult education	58 (1.2)	

Sources: Field survey (2025)

4.2 Level of Maize Production before and after the Implementation of Anchor Borrower's Programme (ABP)

Table 3 shows that the percentage of total variable cost about the total cost was 90%, whereas, after the programme, it increased to 94%. This implies that, women Maize farmers incurred higher costs for farm inputs that varied with production output after ABP. Some factors identified to buttress the findings included lack of access to quality inputs such as improved seed varieties, fertilizers, and mechanized farming tools and lack of access to finance. All of these could make it difficult for women maize farmers to reduce their costs and increase their profits. The result in Table 3 further indicates that the profitability index of maize production among women farmers decreased from 46.6% to 43.3% after the participation in the Anchor Borrowers' Programme. Conversely, before the implementation of the Anchor Borrowers' Programme, the production efficiency of female maize farmers was 87.4%, but this decreased to 76.5% after the programme. This implies that the Anchor Borrowers Programme, which was intended to support women maize farmers, had a negative effect on their productivity and profitability. The decrease in profits could be as a result of ineffective utilization of agricultural inputs given to them such as fertilizers and pesticides to effectively implement the programme. However, lack of adequate support from the government, including financial incentives, could have also contributed to the decline in profitability. This finding is in contrast with that of Benjamin*et al.*(2025) who stated that beneficiaries of ABP recorded a higher profitability index than non-participants.

Table 3: Maize production before and after Anchor Borrowers' Programme(n=306)

Variables	Before ABP	% total cost	After ABP	% total cost
Labour	18,473.34	8.6	20,650.16	8.8
Seed	19,365.21	9.9	23,263.74	10.5
Herbicide	12,500.56	7.7	16,431.43	8.5
Fertilizer	41,250.74	17.8	50,400.36	18.4
Transportation	13,430.22	8.4	15,860.78	8.0
Harvesting	30,742.65	13.3	34,231.18	13.8
Tractor hiring	49,265.90	18.5	58,154.14	19.8
Insecticide	8,500.40	5.8	14,675.60	6.2
Total Variable cost	**193,529.02**	**90**	**233,667.39**	**94**
Cost of hired land	15,600.40	7.4	18,250.52	8.0
Cost of fixed asset	2,111.35	2.6	3,860.46	2.0
Total Fixed cost	**17,711.75**		**22,110.98**	
Total cost (TVC+TFC)	**211,240.77**	**100.0**	**255,778.98**	**100.0**
Total Revenue				
Value of Sales	395,865.46		451,350.25	
Gross margin (TR-TVC)	**202,336.44**		**217,682.86**	
Net Margin (TR-TC)	**184,624.69**		**195,571.27**	
Profitability index: (NM/TR) x100%	**46.6**		**43.3**	
Productivity efficiency (NM/TC) x100%	**87.4**		**76.5**	

Source: Field survey (2025)

N.B: TC = TOTAL COST, TVC = TOTAL VARIABLE COST, TFC =TOTAL FIXED COST, TR =TOTAL REVENUE, NM = NET MARGIN.

4.3 Level of women Farmer's Participation in the Anchor Borrower's Programme

Table 4 reveals that the grand mean of women maize farmers' participation in ABP was 1.09. The result indicates that women maize farmers participated more in account opening ($\bar{x}$=1.90), products to buy up at agreed price ($\bar{x}$=0.61), formation of cooperative society ($\bar{x}$=1.82) indicating involvement of women maize farmers in the ABP. The signing of a tripartite agreement involving PFI, Anchor and farmers($\bar{x}$=0.75) to boost their level of participation in the programme. Participation in town hall meetings to agree on off-take price and economics of production($\bar{x}$= 1.53) This is a forum to create an awareness on the importance of ABP. Demonstrating evidence of farm ownership lease/rent and agreement to work with extension persons($\bar{x}$=1.14), this will enable the credit agents to identify the real participating farmers. Verification of farm size($\bar{x}$=1.71), this will facilitate the kind or cash that will be given to each of the participating farmer. Capacity building training ($\bar{x}$=0.98) this will provide farmers with the skills on how to use these loans on their intended purpose, starting from production to harvest. Repaying loan as at when due ($\bar{x}$=0.35). the lower mean indicate that majority of women maize farmers defaulted in repaying their loans as at when due, and that is the major challenge faced by the ABP. However, respondents demonstrated less participation in the signing of tripartite agreements involving Participating Financial Institutions (PFIs), Anchor and farmers ($\bar{x}$=0.75), repaying loans as at when due ($\bar{x}$=0.35). This implies that respondents were not involved in some of the more administrative and financial aspects of the programme as they involved other activities. This could be due to low level of education, lack of resources (to facilitate access to capital), corrupt political practices or poor communication between farmers and the administrators of the programme. This is in line Isa and Zainab (2025) who stated that, weak communication linkages between farmers, government and corruption tends to reduce farmers' participation in agricultural intervention programmes.

Table 4: Women rice farmers' participation Borrowers' Program(n=306)

Variables	Mean
Participation in town hall meetings to-a take price and economics of production	1.53
Capacity building training	0.98
The signing of a tripartite agreement in Anchor and farmers	0.75
Verification of farm size	1.71
Formation of cooperative by beneficiaries	1.82
Account opening	1.90
Demonstrating evidence of farm lease/rent and agreement to work wi persons	1.14
Produce to buy up at an agreed price	0.61
Repaying of loan as at when due	0.35
Low (-52)	69.3
High (1300)	30.7

Grand Mean: 1.09

Source: Field Su(2025).

4.4 Constraints faced by women Maize farmers in Anchor Borrowers' Programme

The Kendall's coefficient of 0.18 was significant at 1% level of probability, implying rather a weak agreement among respondents regarding what really was their most serious constraints during the Anchor Borrowers Programme in the study area. The result in Table 5 shows that inadequate credit ($\bar{x}$=2.36) facilities and poor extension services ($\bar{x}$=2.59) ranked highest among the constraints faced by women maize farmers participating in ABP in the study area. This could pose a major challenge to the success of the ABP since inadequate credit facilities and poor extension services can lead to decreased productivity and reduced crop yields. This can also lead to higher costs for farmers due to the need to purchase inputs at higher prices, also inadequate extension services could pose negative effect on outreach of the programme. However, poor communication between end users and the credit agents as well as disbursement were ranked 3rd and 4th constraints faced by respondents. Lack of communication has negative effect between the farmer ad extension agents who serve as credit agents on how to use the loan for intended purposes, also, delay in disbursement may be a deterrent for the end users to use both kind and cash given to them by the programme. However, low participation rates ($\bar{x}$= 3.68) and production efficiency issues($\bar{x}$=3.89) were the least

constraints faced by women maize farmers. In addition, access to more comprehensive and effective extension services, women maize farmers may be more likely to adopt agricultural innovations, which could in turn lead to increased production and income. This is in line of Akeem and Olugbenga, (2024) who identified poor extension contact as a major constraint faced by beneficiaries of anchor borrowers' programme in North Central Nigeria.

Table 5: Constraints faced by Women Maize Farmers in ABP (n=306)

Variables	Mean ($\bar{x}$)	Ranking
Inadequate Access to Credit and Input Supply	2.36	1st
Low Participation Rates	3.68	8th
Production Efficiency Issues	3.89	9th
Delays in Disbursement	2.82	4th
Security challenges	3.55	7th
Poor Extension Services	2.59	2nd
Poor communication between the end users and credit agents	2.63	3rd
Lack of entrepreneurial skills	3.23	6th
Government Policies	3.01	5th
Kendall's Coefficient	**0.18**	**(1%)**

Source: Field Survey (2025).

5.0 Conclusion and Recommendations

5.1 Conclusion

Women's involvement in the Anchor Borrowers' Programme was low and had no tangible effect on the level of maize production among women maize farmers. However, inadequate credit facilities and input suppy, poor extension services, poor communication gap between the end users and credit agents as well as delay in disbursement were the major constraints faced by women maize farmers.

5.2 Recommendations

To increase the participation of women maize farmers in the Anchor Borrowers' Programme, the government and non-governmental organizations should provide adequate credit facilities, ensure timely delivery of inputs, and provide adequate extension services to women maize farmers. Efforts should be made by the government, policy makers, educationists and other agricultural stakeholders to increase participation of women in decision-making and policy formulation to ensure their

needs are adequately addressed in subsequent agricultural intervention programmes.

References

Adamu, M., I. (2025). Evaluation of ecological climate change amongsmallholder farmers in North western Nigeria. *Journal of Agriculture and Environmental Science*. 3(3).

Akeem, D., &Olugbenga, O. (2024). Determinants of women involvement and adoption of anchor borrowers' program's adoption among rice farmers in Kano State, Nigeria. *International Journal of Arid Agriculture*, 3(4), 2024.

Amina, N. M. (2025). Gender, culture, norms and values of traditional agriculture in Africa's sustainable development. *Journal of Sociological reform*. 2(6). 2025

Benjamin, F., Daniel, R., Awwal, A. M., & Jude, A. (2025). Prospects and challenges in communication gap among smallholder farmers and its impact on agricultural programmes and projects: The Nigeria future in focus. *Journal of Agriculture and Rural Sociology*. 7(3), 2025.

Isa, Z., M., & Zainab. I., (2025). Impact of anchor borrowers' programme access among farmers in Niger State, Nigeria. *International Journal of Agriculture and Environmental Science*, 2(5) 2025.

Mathew, W., & Joshua, D. (2025) Spacing the economic inclusion of women maize farmers in small scale agriculture in NorthenNigeria: A predicted future for sustainable agricultural development. Agricultural sustainable development, 5th annual bulletin, Cote d'Ivoire. Pp. 16-19. 2025.

Onome, S. (2025). Formulation of policy and evaluation of agricultural programme and projects: A case study of Anchor Borrowers benefit and challenges. *International Journal of Agriculture and Biotechnology*, 1(6), 2025.

Rabiu, M. A., Sufyan, S. A., & Lawal, .O. (2024). Effects of Agriculturalprogrammes to staple crop farmers' processors in Tambuwal LGA of Sokoto State. *Journal of Agriculture and Agricultural Technology* 3(4). 2024.

Salim, M. A, Nasiru, A., John, G., Abdullah, S., & Mahmud, S. M. (2024). Assessement of anchor borrowers' programme (ABP) on productivity and efficacy on women rice farmers in Hadeja, Jigawa State, Nigeria. *Journal of Agriculture and Veterinary Science*. 3(2). 2024

Solomon, Y., O. & James, A. (2023). Midstream of Gender efficacy among rural

farming families and its determinants on smart agriculture in Ifelodun LGA of Kwara State, Nigeria.*Journal of Agricultural Extension and Education* 1(2), 2023.

Toba, J. (2024). Impetus of communication techniques and adoption among rural farming populace in Northern Nigeria. *Sub-Saharan Journal of Agriculture and Agricultural Technology*. 2(1).

Umar, S. (2025). Economic analysis of cereal production by small-holder women farmers in Katsina State, Nigeria. *Journal of Development Economics*. 2(3).