



## EFFECTS OF ARMED BANDITRY ON MAIZE PRODUCTION AMONG RURAL WOMEN FARMERS IN NIGER STATE

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### ABSTRACT

*This study assessed the effects of Armed Banditry on maize production among rural women in Niger State. The study described the socio-economic characteristics of rural women maize farmers, examined the effects of armed banditry on their production activities, and identified the coping strategies adopted in Niger State, Nigeria. Primary data were collected using a structured questionnaire administered to rural women maize farmers, while secondary data were obtained from relevant publications. Descriptive statistics and Pair-Wise Ranking (PWR) were employed for analysis. Findings revealed that most respondents were in their active and productive years, predominantly married, with large household sizes and limited formal education. Farming was the primary occupation and source of income, yet access to extension services remained low. Armed banditry significantly disrupted maize production through farm abandonment, displacement, reduced labor strength, and declining yields, resulting in heightened poverty and food insecurity. Coping strategies adopted included community vigilantism, livelihood diversification, relocation, and reliance on social support networks. The study concluded that armed banditry has severely constrained the livelihoods of rural women farmers, threatening food security and agricultural sustainability. It recommended that strengthening rural security systems, improving access to agricultural services and resources, and promoting livelihood diversification and collective action to enhance resilience among rural women maize farmers.*

**Keywords:** Armed banditry, maize production, rural women, coping strategies, Niger State, Nigeria

### INTRODUCTION

Armed banditry has become one of the major security threats confronting agricultural livelihoods in Northern Nigeria. It manifests in forms such as kidnapping, cattle rustling, killings, and destruction of villages, which have displaced farming households and forced many to abandon farmlands (Philips, 2019; Hillay, 2021; James, 2023). These disruptions have significantly reduced crop output, eroded incomes, and heightened food insecurity across rural communities (Ibrahim, Bello, and Tanko, 2024).

Maize is a staple crop widely cultivated in Nigeria and central to household food security and income generation. Women farmers play a

critical role in its cultivation but are disproportionately affected during periods of insecurity due to their restricted mobility, limited access to farmland, and weaker access to markets (FAO, 2022; Adamu & Musa, 2023). In Niger State, recurrent banditry has worsened the challenges faced by rural women, forcing displacement and undermining maize production (WFP, 2024).

Despite the growing attention to insecurity in Nigeria, few studies have examined the socio-economic characteristics of women maize farmers, the direct effects of armed banditry on their production, and the coping strategies they adopt in affected communities. This study seeks to fill this gap by providing evidence-based

insights to guide interventions aimed at sustaining agricultural production and resilience among rural women in Niger State.

Although women constitute a significant proportion of Nigeria's smallholder farmers, the impact of banditry on their socio-economic conditions and maize production remains underexplored. Existing studies often generalize insecurity in terms of insurgency or farmer-herder conflicts, neglecting the gendered realities of women farmers who are key to household food security. This study, therefore, investigates the socio-economic characteristics of rural women maize farmers, the effects of armed banditry on their production, and the coping strategies they employ in Niger State.

The study is guided by the following specific objectives which are to:

- i. describe the socio-economic characteristics of rural women maize farmers in Niger State.
- ii. examine the effects of armed banditry on maize production among rural women farmers.
- iii. identify the coping strategies employed by rural women maize farmers in mitigating the effects of banditry.

## Materials and methods

### The study Area

This study was conducted in Niger State, Nigeria, located between latitudes 8°22'N and 11°30'N and longitudes 3°30'E and 7°20'E. The State covers about 76,363 km<sup>2</sup>, representing 9.3% of Nigeria's landmass, with a population of 6.78 million (NBS, 2022). It is divided into three agricultural zones Bida, Kuta, and Kontagora and is characterized by a wet season (April–October) and a dry season (November–March), with an average annual rainfall of 1,219 mm. Agriculture is the

dominant occupation, with crops such as maize, rice, millet, sorghum, cowpea, and yam widely cultivated.

In recent years, several Local Government Areas (LGAs) notably Shiroro, Rafi, Munya, Mariga, Lapai, Mashegu, and Wushishi have been severely affected by armed banditry, resulting in displacement of farming households and declining agricultural productivity.

### Data Collection

Both primary and secondary data were used. Primary data were obtained through a structured questionnaire administered to rural women maize farmers. For non-literate respondents, the questionnaire was read aloud and explained. Secondary data were sourced from journals, reports, and official publications. The questionnaire comprised three sections; socio-economic characteristics of respondents; effects of armed banditry on maize production, and coping strategies employed by rural women maize farmers to mitigate armed banditry activities in the study area

### Methods of Data Analysis

Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26, while qualitative responses were examined using Participatory Rural Appraisal (PRA) techniques. Pair-Wise Ranking (PWR) was applied to identify and prioritize coping strategies.

### Result and Discussion

This section presents the results and discussion of the study on the respondents' age, educational level, marital status, household size, farm size, major sources of income, sources of maize farming information, and the number of contacts with extension agents in Table 1. The analysis provides a clear understanding of the socioeconomic profile of rural women maize farmers in the study area.

The majority of the respondents 47.2% were within the age range between 40–49 years, followed by 28.3% between 31 to 40 years range. Respondents aged between 51–60 years accounted for 10.4%, those aged 21–30 years represented (9.4 %,) and only 4.7% were 60 years and above. This indicates that most rural women maize farmers in the study area were between 30 and 49 years of age, representing the active and productive segment of the farming population.

This finding aligns with Kettkar (2020), who reported that the majority of rural women farmers in Sub-Saharan Africa were within the 30–49 years age bracket. Similarly, Philips (2019) noted that women farmers in rural areas of the Sub-Saharan region predominantly fall within this age range.

On the other hand, some studies present slightly differing patterns. For instance, Adeoye (2021) observed a higher proportion of younger women farmers aged 25–35 years in certain rural Nigerian communities, suggesting variations due to regional demographic differences and cultural factors influencing farming participation.

Table 1 shows that 38.0% of the respondents had no formal education, 33.0% had primary education, 18.9% had Qur'anic education, 9.4% had secondary education, and only 1.0% had attended tertiary education. This indicates that most respondents had some form of education, suggesting they possess basic literacy skills necessary to read and write.

This finding aligns with Anthony (2021), who reported that the majority of farmers in West Africa had one form of education or another. The low level of formal education among respondents highlights the need for extension services and training to improve the adoption of modern agricultural practices.

Table 1 shows that the majority of respondents (70.8%) were married, 15.6% were widows, and 5.7% were single. This indicates that most women farmers in the study area were married and had family responsibilities, which may influence labor availability and decision-

making in farm activities. This finding aligns with Lagrange (2020), who reported that most rural women farmers in Sub-Saharan Africa were married and engaged in family responsibilities. Similarly, Anthony (2021) noted that the majority of African rural women farmers were married and had children, reflecting the dominant marital status among women engaged in agriculture. This finding agrees with the report of Mohammed (2019), who observed that married women constitute the largest proportion of rural farmers in Sub-Saharan Africa. However, it contrasts slightly with Adeoye (2021), who found a higher proportion of single women participating in farming in some Nigerian communities, highlighting the influence of cultural and regional variations on women's engagement in agriculture.

Table 1 shows that the majority of respondents (71.7%) had a family size of 6–10 members, 18.9% had 1–5 members, and (9.4%) had 11 or more members. This indicates that most respondents had families of more than five members, reflecting high family responsibilities that may affect labor allocation and farming activities.

This finding is consistent with Peterson (2018), who reported that most women farmers in rural areas of Africa were married and had significant family responsibilities, which influenced their participation in agricultural activities. The Implications of a larger family size can provide additional labor for farm activities, potentially increasing productivity. However, it also implies greater household responsibilities, which may limit the time and energy women can devote to farming. This dual effect highlights the need for labor-saving technologies, community support systems, and targeted extension services to help women balance household and farm duties effectively.

Table 1 shows that the majority of respondents (70.8%) relied on farming as their major source of income, 23.6% depended on business activities, and only (5.7%) received support from friends and relatives. This indicates that

farming is the primary occupation and main livelihood source for rural women in the study area. This finding aligns with Anthony (2021), who reported that most women in West Africa depend on farming as their main source of income. Similarly, Lagrange (2020) observed that rural women in West Africa consider farming their major economic activity.

The reliance on farming as the primary source of income suggests that women farmers are highly vulnerable to agricultural risks, including climate variability and armed banditry. It also highlights the importance of providing targeted support, such as access to improved seeds, credit facilities, extension services, and market opportunities, to enhance productivity and livelihood resilience among rural women farmers.

Table 1 shows that the majority of respondents (66.0%) had farm sizes of 6–10 hectares, (23.6%) had farm sizes of 1–5 hectares, and only 10.4% had farm sizes of 11 hectares and above. This indicates that most rural women farmers in the study area operate medium-sized farms of around 5 hectares on average. This finding agrees with Peterson (2018), who reported that the majority of rural women farmers in West Africa cultivate farms averaging five hectares. Having medium-sized farms can provide opportunities for increased production and income; however, it also requires adequate labor, inputs, and management skills. Therefore, despite the potential benefits, women farmers may face challenges in maximizing productivity without access to improved technologies, financial support, and extension services. Consequently, interventions that enhance farm management and input availability are essential to ensure optimal farm productivity and livelihood sustainability.

Table 1 shows that the majority of respondents (61.3%) obtained their maize farming information from friends and relatives. Additionally, (16.3%) accessed information through radio, (14.2%) through social media, (5.2%) through contact with extension agents, and only 3.3% through television. This indicates

that the primary sources of maize farming information for rural women farmers in the study area are informal networks such as friends and relatives, highlighting a limited presence of extension services in the community. This finding supports Anthony (2021), who reported that agricultural extension services are often lacking in many rural areas of Sub-Saharan Africa. The reliance on informal sources for farming information may limit farmers' access to up-to-date and scientifically accurate agricultural practices. Consequently, this could affect productivity, adoption of improved technologies, and resilience to challenges such as climate variability and armed banditry. Therefore, there is a need to strengthen extension services, promote farmer training programs, and leverage media and social platforms to improve the dissemination of reliable farming information.

Table 1 shows that the majority of respondents (61.8%) had never had contact with extension agents. Additionally, (33.0%) had 1–5 contacts in a year, (3.3%) had 6–10 contacts, and only (1.9%) had 11 or more contacts with extension workers annually. This indicates that most rural women maize farmers in the study area have limited or no access to agricultural extension services.

This finding is consistent with Kettkar (2020), who reported insufficient agricultural extension workers across Sub-Saharan Africa. Similarly, Peterson (2018) highlighted the widespread lack of extension services in the region.

Limited contact with extension agents may restrict farmers' access to improved agricultural practices, technologies, and coping strategies against challenges such as climate variability and armed banditry. Consequently, low extension coverage can negatively affect productivity and farm income. Therefore, strengthening extension services and increasing farmer outreach programs are essential to enhance knowledge transfer, improve farming practices, and support sustainable livelihoods among rural women farmers.

**Table 1: Social- Economic Characteristics of the Respondents**

Characteristics	Frequency	Percentage	Mean
<b>Age Range/Years</b>			
20-29	20	9.4	44.5
30-39	60	28.3	
40-49	100	47.2	
50-59	22	10.4	
60 years and above	10	4.70	
<b>Educational level</b>			
Primary	70	33.0	
Secondary	20	9.40	
Tertiary	2		
Non-formal	80	38.0	
Quranic	40	18.9	
<b>Marital Status</b>			
Single	12	5.70	
Married	150	70.8	
Divorced	33	15.6	
Widow	17	8.01	
<b>Family Size</b>			
1-5	40	18.9	
6-10	152	71.7	
11 and above	20	9.40	
<b>Major Sources of incomes</b>			
Farming	150	70.8	
Business	50	23.6	
Friends and relatives	12	5.70	
<b>Farm Size/ha</b>			
1-5ha	50	23.6	8.00
6-10ha	140	66.0	
11 and above	22	10.4	
<b>Source of Maize Farming Information</b>			
Radio	34	16.3	
Television	7	3.30	
Extension Agents	11	5.20	
Social media	30	14.2	
Friends and Relatives	130	61.3	
<b>Number of contact with extension Agents/year</b>			
No contact	131	61.8	8.00
1-5 times	70	33.0	
6 – 10 times	7	3.30	
11 and above	4	1.90	
Total	212	100.0	

### Source Field Survey, 2025

#### Effects of Armed Banditry on Maize production

This section presents the impact of armed banditry on maize production, women farmers' participation, and their overall livelihoods in the study area. The analysis highlights the severity and multidimensional nature of the problem, based on respondents' experiences.

Table 2 shows that all rural women maize

farmers in the study area were affected by armed banditry activities, indicating the pervasive nature of these attacks on farming operations. This finding is consistent with Pandora (2019), who reported that armed banditry significantly disrupts the well-being and agricultural activities of rural women in West Africa.

The universal impact of banditry on maize production suggests severe threats to food

security, household income, and agricultural sustainability in the affected communities. Farmers' inability to protect their crops may discourage investment in maize production, ultimately affecting regional food supply.

Table 2 further shows that 34.1% of respondents reported migration from their settlements, (30.9%) indicated a reduction in production strength, and (30.0%) revealed abandonment of their maize farms. This implies that armed banditry has caused displacement, reduced labor capacity, and led to the neglect of farmlands. These findings corroborate Kettkar (2020), who posited that armed banditry in Nigeria causes temporary displacement of women farmers, abandonment of farmlands, and a reduction in production capacity, thereby destabilizing agricultural communities.

The displacement and abandonment of farms disrupt farming cycles and reduce crop yields, directly affecting household income and food availability. This situation also increases the vulnerability of women farmers to poverty and

social insecurity.

Table 2 shows that armed banditry activities affected rural women maize farmers' livelihoods by reducing income from maize farming (36.0%), increasing poverty rates (38.5%), and reducing food security (25.5%). This finding aligns with James (2023), who reported significant reductions in the well-being of rural women farmers, particularly in Northern Nigeria. Similarly, Peterson (2018) noted that armed banditry activities in Northern Nigeria reduce farmers' income sources and threaten household livelihoods. The reduction in income and food security highlights the critical socioeconomic consequences of banditry for rural women farmers. It underscores the need for interventions such as community-based security, alternative livelihood programs, and financial support schemes to mitigate the adverse effects on livelihoods and promote resilience among affected farming communities.

**Table 2: Effects of armed banditry among Women Farmers on Maize Production**

Effects of Armed Banditry on Maize Production	Frequency	Percentage
Yes	212	100.0
No	0	0.00
<b>Effects of Banditry on Maize Women Farmers</b>		
Migration of women Farmers	128	34.1
Reduce Production Strength	101	30.9
Abandoning maize Farming	98	30.0
<b>Effect on Livelihood</b>		
Reducing Incomes	131	36.0
Increasing Poverty	140	38.5
Reducing Food Security	93	25.5
Total	212	100.0

**Source Field Survey, 2025 (Multiple Response)**

**Table 2: Effects of armed banditry among Women Farmers on Maize Production**

Effects of Armed Banditry on Maize Production	Frequency	Percentage
Yes	212	100.0
No	0	0.00
<b>Effects of Banditry on Maize</b>		
Women Farmers		
Migration of women Farmers	128	34.1
Reduce Production Strength	101	30.9
Abandoning maize Farming	98	30.0
<b>Effect on Livelihood</b>		
Reducing Incomes	131	36.0
Increasing Poverty	140	38.5
Reducing Food Security	93	25.5
<b>Total</b>	<b>212</b>	<b>100.0</b>

Source Field Survey, 2025 (Multiple Response)

### Coping Strategies Adopted by Rural Women Maize Farmers

The result of the Pair-Wise-Ranking (PWR) analysis shows that the most commonly adopted coping strategy by rural women maize farmers in the study area was community vigilantism, with 190 responses, making it the highest-ranked strategy. This was followed by livelihood diversification, which ranked second with 148 responses. Relocation from original settlements ranked third with 145 responses, while social support from friends and relatives ranked fourth with 128 responses.

Other coping strategies include seeking government assistance (125 responses, fifth rank), dialogue with bandits (120 responses, sixth rank), mediation (118 responses, seventh rank), negotiation with bandits (112 responses, eighth rank), and resolutions (46 responses, ninth and least adopted).

This implies that rural women maize farmers employ a variety of strategies to cope with

armed banditry in the study area, combining community-based, social, and formal measures to safeguard their livelihoods and properties. This finding corroborates James (2023), who reported that rural women farmers in West Africa adopt multiple coping strategies against armed banditry, including community vigilance, relocation, livelihood diversification, social support networks, dialogue, negotiation, resolutions, and seeking government assistance. The diversity of coping strategies highlights the resilience and adaptive capacity of rural women farmers in response to insecurity. It also suggests the need for policy support to strengthen these strategies, such as improving community security initiatives, providing government assistance, and promoting livelihood diversification programs to reduce vulnerability to banditry. the resilience and adaptability of women farmers, despite weak institutional and governmental support.

Table 3: Coping Strategies Adopted Rural Women Maize Farmers

S/N	Coping Strategies	Coping Strategies Adopted by Respondents									Score	Rank
		1	2	3	4	5	6	7	8	9		
1	Community Vigilantism	25	30	36	19	27	20	18	15		190	1 <sup>st</sup>
2	Relocation	20	18	15	14	30	11	16	21		145	3 <sup>rd</sup>
3	Livelihood Diversification	18	13	14	18	21	20	33	11		148	2 <sup>nd</sup>
4	Social Support Network	10	11	14	15	18	24	20	16		128	4 <sup>th</sup>
5	Negotiation with Bandit	12	16	15	11	10	12	16	18	112		8 <sup>th</sup>
6	Dialogue	13	14	16	13	12	26	29	120			6 <sup>th</sup>
7	Mediation	11	16	18	27	19	27	118				7 <sup>th</sup>
8	Seeking Gov't Assistance	46	19	21	13	26	125					5 <sup>th</sup>
9	Resolutions	9	7	14	16	46						9 <sup>th</sup>
11	Total										212	09

### Conclusion and Recommendations

Armed banditry has severely undermined maize production and rural livelihoods in Niger State, particularly among women farmers who face displacement, reduced incomes, and heightened food insecurity. Despite these challenges, women have demonstrated resilience through coping strategies such as community vigilance, livelihood diversification, and relocation. However, limited education, poor access to extension services, and restricted productive resources continue to constrain their adaptive capacity.

1. **Government should strengthen rural security and institutional support:** Enhance community-based policing, empower vigilante groups, and provide

rehabilitation programs for displaced farmers to ensure safe and stable farming environments.

2. **Government should improve agricultural services and resources:** Expand extension services, ensure access to improved inputs and credit facilities, and promote training to boost productivity and resilience.
3. **Government and the relevant NGO should promote livelihood diversification and collective action:** Support alternative income opportunities and encourage cooperative formation among women farmers to improve resilience, bargaining power, and social protection.

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