

# IMPACT OF FARMER-HERDER CONFLICT ON SOCIO-ECONOMIC DEVELOPMENT IN MANGU LOCAL GOVERNMENT AREA, PLATEAU STATE, NIGERIA

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## ARTICLE INFO

**Article No.:** 0227

**Accepted Date:** 09/03/2026

**Published Date:** 28/03/2026

**Type:** Research

## ABSTRACT

Farmers-herders conflict has become a persistent development challenge in Nigeria's Middle Belt; however, existing studies largely emphasise its security, with limited empirical attention to its combined effects on both livelihood systems and educational outcomes at the local level. This study therefore examined the impact of farmers-herders conflict on socio-economic development in Mangu Local Government Area of Plateau State, focusing specifically on agricultural productivity and educational development. A cross-sectional survey research design was adopted. A total of 420 respondents were selected through multistage sampling techniques, alongside 10 purposively selected key informants, giving 430 participants. Data were collected using structured questionnaires and interview guides. Quantitative data were analysed using descriptive statistics and the Pearson Product Moment Correlation (PPMC), while qualitative data were analysed through content analysis. Findings revealed that the conflict significantly reduces agricultural productivity through restricted access to farmlands, destruction of crops, and declining farm investment driven by insecurity. It also disrupts educational development through school closures, teacher displacement, irregular attendance, and trauma among students. The study concludes that farmers-herders conflict undermines both livelihood sustainability and human capital development through direct and indirect mechanisms. It recommends the institutionalization of community-based land-use management systems, the development of localised security and early warning structures, targeted agricultural recovery support, and the implementation of safe-school and psychosocial support programmes to ensure continuity in education in the study area.

**Keywords:** Farmers-herders conflict, Agricultural development, Educational development, Socio-economic development, Mangu LGA.

## Introduction

Farmers-herders conflict has become a major global development and security concern because of its far-reaching implications for socio-economic activities, food systems, and rural livelihoods. Globally, competition over land, water, and pasture which has been exacerbated by climate change, population growth, and land-use transformation has intensified interactions between sedentary farmers and mobile pastoralists (Food and Agricultural Association [FAO], 2022). Empirical evidence shows that climate variability alone has reduced available grazing land and water points in many regions, increasing the frequency of resource-based conflicts and disrupting agricultural production and trade (Intergovernmental Panel on Climate Change [IPCC], 2022). While the phenomenon is most visible in developing regions, similar tensions exist in Europe, the Americas, Asia, and Australia, though often managed through stronger institutions. In parts of Southern Europe, for instance Spain and Greece, conflicts between crop farmers and transhumant pastoralists persist around grazing corridors, while in the western United States and Latin America disputes over rangeland use and livestock encroachment affect rural economies (FAO, 2022; Reid et al., 2015). In Asia, particularly in India and Central Asia, farmer-herders clashes linked to land fragmentation and irrigation schemes have been shown to reduce farm productivity and household income, underscoring the global relevance of the conflict-livelihood nexus.

The intensity and socio-economic consequences of farmers-herders conflict are, however, most pronounced in sub-Saharan Africa, where weak land governance, environmental stress, and ethno-political factors intersect. Studies estimate that about 60-80% of conflicts in the Sahel and West Africa are linked to disputes over natural resources between farmers and pastoralists, with significant impacts on food security and rural welfare (UNDP, 2023). In Nigeria, the conflict has escalated into one of the country's most pressing internal security challenges, particularly in the Middle Belt region. Empirical studies show that farmers-herders clashes have reduced agricultural output, displaced thousands of households, and increased rural poverty levels (Nwankwo, 2020). The International Crisis Group (2023) reported that thousands of lives have been lost over the past decade, while economic losses from destroyed crops, livestock, and markets run into billions of naira annually. These conflicts directly undermine socio-economic activities by disrupting farming cycles, limiting access to markets, discouraging investment, and eroding social capital among rural communities. Consequently, a focused study examining the impact of farmers-herders conflict on the socio-economic development of Mangu LGA is necessary to generate context-specific empirical evidence for informed policy interventions, sustainable conflict management, and improved rural development planning in Mangu LGA, Plateau State, and Nigeria at large.

## Statement of the Problem

Farmers-herders conflict has emerged as a pressing socio-economic problem with profound implications for agricultural productivity, livelihoods, and rural stability. Across multiple regions of the world, competition over diminishing natural resources such as arable land and water has intensified interactions between sedentary farmers and mobile pastoralists, often culminating in violent clashes that disrupt food systems and local economies (Sayne et al., 2023; FAO, 2022). Empirical studies show that where such conflicts are frequent, household incomes fall and food insecurity rises because farming activities are delayed or abandoned (Sadiq et al., 2021; FAO, 2022). Despite global recognition of these dynamics, much of the research remains concentrated at macro levels, leaving nuanced socio-economic pathways under-examined in specific local contexts.

In Nigeria, particularly the North-Central geopolitical zone, studies reveal that the conflict primarily between Fulani herders and sedentary farmers has led to widespread destruction of farmland, loss of lives and property worth billions of naira, displacement of households, and long-term deterioration of social relationships (Mustapha, 2023). The

conflict's prevalence is evidenced by recurrent attacks and casualties. For instance, Amnesty International Nigeria (2025) reporting on violent incidents in Benue and Plateau states indicate dozens to hundreds of deaths linked to farmer-herder clashes in recent years, often disrupting the agricultural calendar and local market systems (AP News, 2025). While national and sub-national policies such as open grazing bans, advocacy for ranching systems, and peace committees have been instituted, implementation gaps stemming from weak governance, inadequate conflict resolution mechanisms, and persistent resource scarcity limit their effectiveness, indicating a critical need for localized empirical investigation.

In Plateau State and specifically in Mangu Local Government Area, the conflict's socio-economic ramifications are stark but under-documented in the literature, presenting a substantive gap that this study seeks to address. Research focusing on Mangu LGA finds that crop damage by herds and ensuing hostilities have adversely affected agricultural production, education, business activities, and mutual trust within communities, yet systematic quantification of these effects remains limited (Cinjel & Matakhitwen, 2024). Moreover, while existing studies provide insights into causes and impacts, they often fail to integrate statistically robust measures of socio-economic outcomes with conflict incidence at the local level, constraining evidence-based policy design. In view of the aforementioned issues, this study sets out to examine the conflicts between farmers and herders and socio-economic activities of Mangu Local Government Area of Plateau State, Nigeria.

### **Objectives of the Study**

The study is guided by the following specific objectives:

- i. find out the effect of farmers-herders conflict on agricultural development in Mangu L.G.A. of Plateau State; and
- ii. ascertain the relationship between farmers-herders conflict and educational development in Mangu L.G.A. of Plateau State.

### **Research Hypotheses**

**H<sub>01</sub>:** Farmers-herders conflict has no significant effect on agricultural development in Mangu L.G.A of Plateau State.

**H<sub>02</sub>:** There is no significant relationship between farmers-herders conflict and educational development in Mangu L.G.A of Plateau State.

### **Literature Review**

Farmers and herders' conflict refers to disputes between sedentary agriculturalists and mobile pastoralists over access to and use of land and other natural resources essential for livelihoods, such as grazing fields, water points, and arable farmland. Empirical research increasingly frames farmers-herders conflict not merely as sporadic rural disputes but as a structural resource-based conflict with far-reaching socio-economic and security implications. In sub-Saharan Africa, particularly in Nigeria, studies highlight the destructive nature of these conflicts, where encroachments by cattle lead to the destruction of crops, loss of livestock, displacement of communities, and human casualties, undermining rural economies and food security (Obikaeze et al., 2023; Adepoju et al., 2021).

According to a report by the International Crisis Group (2024), farmer-herder violence claimed over 1,300 lives in the first half of 2018 alone, forcing thousands of farmers to abandon their lands. This displacement has led to a significant reduction in cultivated land area and agricultural output. For instance, in Benue State, known to be Nigeria's "Food Basket," the State Emergency Management Agency reported that over 180,000 people were displaced due to herder attacks in 2018, with many unable to return to their farms (Erondu & Ohuocha, 2018). Farmer-herder conflicts led to a 37% reduction in market participation among affected farmers (Ajibo et al., 2020). Many farmers struggle to transport their produce to markets due to unsafe roads and the risk of attacks. This has led to post-harvest losses and reduced income for farmers., significantly impacting their ability to sell their produce and generate income.

Nigerian Economic Summit Group (2019) highlighted that states affected by farmer-herder conflicts experienced a 47% decline in agricultural investments between 2016 and 2018, compared to a national average decline of 18%. This lack of investment has slowed down agricultural modernization efforts and limited productivity gains. Furthermore, the conflicts have exacerbated existing challenges in Nigeria's agricultural sector, such as limited access to credit for smallholder farmers. Financial institutions have become increasingly reluctant to provide loans to farmers in conflict-prone areas due to the high risk of default (Adeagbo et al., 2021).

There is also an intricate relationship between farmer-herder conflicts and educational activities in Nigeria. One of the most direct impacts of farmer-herder conflicts on education is the disruption of schooling in conflict-prone areas. The frequent outbreaks of violence have led to the closure of numerous schools, either due to direct attacks or as a precautionary measure to ensure student safety. Moreover, the psychological impact of conflict on students and teachers cannot be overstated. According to Egede and Ibrahim (2025), exposure to violence and the constant threat of attack create an atmosphere of fear and insecurity that is not conducive to learning. Studies found that students in conflict-affected areas of Nigeria exhibited higher levels of anxiety and lower academic performance compared to their counterparts in more stable regions (Obikaeze et al., 2023). This psychological toll extends to teachers as well, many of whom are reluctant to accept postings to high-risk areas, leading to a shortage of qualified educators in the very communities that need it.

The long-term consequences of educational disruption due to farmer-herder conflicts are profound and far-reaching. A generation of Nigerian youth, particularly in the affected regions, risks being left behind in terms of educational attainment and skills development. This educational gap has the potential to exacerbate existing socio-economic inequalities and fuel further conflict in a self-perpetuating cycle. The Nigerian Economic Summit Group [NESG] (2023) projected that if current trends continue, the human capital development index in conflict-affected states could lag behind the national average by up to 30% by 2030, with significant implications for economic growth and social stability.

### **Theoretical Framework**

This study is anchored on Social Identity Theory, developed by Henri Tajfel and later refined with John Turner in 1979. The theory posits that individuals derive their identity from membership in social groups such as ethnic, occupational, or religious groups. This identification leads to the formation of in-groups and out-groups, where members tend to favour their own group while exhibiting bias or hostility toward others, especially under conditions of competition over scarce resources. In this study, Social Identity Theory explains the independent variable (farmers-herders conflict). Farming communities and Fulani herders in Mangu Local Government Area perceive themselves as distinct groups with competing livelihood interests. This group categorisation reinforces mistrust and hostility, particularly over access to land, water, and grazing routes. These identity-based tensions often escalate into violent conflict.

However, while Social Identity Theory explains the origin and persistence of conflict, it does not adequately explain its socio-economic consequences. To address this gap, the study also adopts the Sustainable Livelihoods Framework, developed by Robert Chambers and Gordon Conway (1992) and later expanded by Ian Scoones (1998). The framework emphasizes that livelihoods are sustained through access to key assets such as natural (land), financial, human (education and skills), social, and physical capital. It further posits that shocks such as violent conflict can disrupt these assets and weaken livelihood outcomes. Sustainable Livelihoods Framework explains agricultural productivity and educational activities. Farmers-herders conflict in Mangu LGA destroys crops (natural capital), reduces income (financial capital), displaces households (social capital), and disrupts schooling (human capital). These

disruptions lead to reduced agricultural output and hinder access to education, thereby undermining overall socio-economic wellbeing.

The two theories provide a complementary explanation of the phenomenon under investigation. Social Identity Theory explains the causal mechanism of conflict, while the Sustainable Livelihoods Framework explains its effects on agricultural and educational outcomes. This theoretical integration guides the study's assumptions that such conflict significantly disrupts agricultural production and educational activities in the study area.

### **Methodology**

This study adopted a cross-sectional survey design, which involves collecting data at a single point in time to examine the effects of farmers-herders conflict on socio-economic activities. The study was conducted in Mangu Local Government Area, an agrarian area prone to recurrent conflicts between farmers and pastoral herders. The study population consisted of adult residents of Mangu LGA with knowledge of the conflict. The adult population was estimated at 328,551 out of a projected total population of 442,100 (City Population, 2024). Using the Yamane (1967) formula at a 5% margin of error, a sample size of 400 was obtained. To account for non-response, 5% (20) was added, resulting in 420 questionnaire respondents, alongside 10 purposively selected key informants, giving a total of 430 participants. A multistage sampling technique was employed. First, the 16 political wards in the LGA were treated as clusters. Five wards (Ampang West, Gindiri II, Kerang, Mangu I, and Pushit) were randomly selected using the lottery method. Second, Bowley's proportionate allocation formula was used to distribute the sample across the selected wards based on their population sizes. Third, systematic sampling was used to select households by choosing every third household in each ward. Finally, purposive sampling was used to select key informants such as community leaders, religious leaders, and youth leaders due to their knowledge of the conflict.

Data were collected using a structured questionnaire and in-depth interview guide. The questionnaire covered socio-demographic characteristics and variables related to farmers-herders conflict, agricultural activities, and educational disruption, while interviews provided deeper contextual insights. To ensure validity, the instrument was subjected to face, content, and construct validation through expert review by experts. For reliability, a test-retest method was conducted on 20% of respondents from a non-selected ward, and results were analysed using Pearson Product Moment Correlation (PPMC) to ensure consistency. Data analysis involved both descriptive and inferential statistics using SPSS version 27. Descriptive statistics (frequencies and percentages) were used to summarise data, while PPMC was employed to test relationships between variables, particularly the effect of conflict on agricultural and educational outcomes. Qualitative data were analyzed using content analysis to identify themes and complement quantitative findings. Ethical standards were strictly observed, including informed consent, voluntary participation, confidentiality, and the right to withdraw from the study at any stage.

## Results

The data collected for the purpose of the study is presented and analysed in this section.

**Table 1: Socio-demographic Characteristics of Respondents**

Characteristics	Frequency	Percent (%)	$\bar{x}$	Std. D
Age			35.76	10.928
18-27	96	23.8		
28-37	152	37.7		
38-47	72	17.9		
48-57	67	16.6		
≥58	16	6		
Total	<b>403</b>	<b>100</b>		
Sex				
Male	238	59.1		
Female	165	40.9		
Total	403	100		
Place of Origin				
South-South	--			
Plateau Indigene	255	63.3		
Others	148	36.7		
Total	<b>403</b>	<b>100</b>		
Occupation				
Farming	188	46.7		
Business	126	31.3		
Civil servant	63	15.6		
Student	26	6.5		
Others	--	--		
Total	<b>403</b>	<b>100</b>		
Education				
Tertiary	105	26.1		
Secondary	281	69.7		
Primary	17	4.2		
No formal Education	--	--		
Total	<b>378</b>	<b>100</b>		
Hectares of land cultivated				
1 hectare and below	287	71.2		
2-3 hectares	100	24.8		
3 hectares and above	16	4		
Total	<b>403</b>	<b>100</b>		
No. of persons in household				
1-3	265	30.2		
4-5	122	65.8		
≥7	16	4		
Total	<b>403</b>	<b>100</b>		
Income per annum				
100001-200000	31	7.7		
200001-300000	26	6.5		
300001-400000	101	25.1		
400001 and above	208	51.6		
Missing	37	9.2		
Total	<b>403</b>	<b>100</b>		

**Source: Fieldwork, 2026**

The age distribution of the respondents shown in Table 1 shows the largest group was 28-37 years with 37.7% of the respondents, followed by 18-27 years with 23.8% of the respondents, 38-47 age group has 17.9% of the respondents, 16.6% of the respondents were aged between 48-57 and respondents aged 58 years and above constituted 6% of the sample, with a reported mean age of 35.76 and standard deviation 10.928, indicating a relatively young adult sample concentrated in the late 20s to late 30s. Regarding sex composition, 59.1% of the

respondents were males while 40.9% of the respondents were females. The place of origin of the respondents showed that Plateau indigenes were majority in the study (63.3%) while respondents from other areas constituted 36.7%. Christianity was the dominant religion with 78.2% of the respondents and Islam with 21.8% of the respondents.

Respondents' occupation was led by farming with 46.7% of the respondents, business with 31.3% of the respondents, civil servants constituted 15.6% of the respondents and students were 6.5%. Educational levels reported were mainly secondary as 69.7% of the respondents had obtained their secondary certificate and 26.1% had tertiary education. On the hectares of land cultivated, the result showed that majority of the respondents cultivated small plots: 71.2% of the respondents cultivated 1 hectare and below, 24.8% of the respondents cultivated 2-3 hectares and 3 hectares and above was cultivated by 4% of the respondents cultivated. Household size responses showed that 30.2 of the respondents has 1–3 persons in their household, 65.8% of the respondents had 4-5 persons and 4% of the respondents had at least 7 persons in their households. Annual income categories indicated that 51.6% of the respondents earned 400,001 and above, 25.1% 6% of the respondents earned between 300,001-400,000, smaller shares in lower bands, and 9.2% did not indicate their income. This suggests that with nearly half of respondents being farmers and most cultivating less than 1 hectare, the sample is agriculturally oriented and likely vulnerable to land-use pressures; education is largely secondary, which may influence awareness and reporting of conflict.

**Table 2: Respondents' opinion on farmers-herders conflict and agricultural development in Mangu LGA**

S/N	Statement	Response						X̄	St. D
		SA	A	U	D	SD			
1	Farmers-herdsmen conflict leads to farmers' reluctance to go back to their farms	345 (85.6%)	52 (12.9%)	--	-	6 (1.5%)	4.81	.577	
2	Farmers-herdsmen conflict leads to destruction of farmlands	122 (30.3%)	281 (69.7%)	--	-	--	4.30	.460	
3	Farmers-herdsmen conflict leads to destruction of crops	387 (98.5%)	6 (1.5%)	--	-	--	4.99	.121	
4	Farmers-herdsmen conflict leads to destruction of livestock	207 (51.4%)	178 (44.2%)	18 (4.5%)	-	--	4.47	.582	
5	Farmers-herdsmen conflict threatens food security in the society	334 (82.9%)	69 (17.1%)	--	-	--	4.83	.377	
6	Leads to the disruption of farming activities and the displacement of rural communities.	237 (58.8%)	166 (41.2%)	--	-	--	4.59	.493	
7	Led to a significant decline in crop yields and livestock productivity.	163 (40.4%)	240 (59.6%)	--	-	--	4.40	.491	
8	Decline in agricultural investments	197 (48.9%)	206 (51.1%)	--	-	--	4.49	.500	
9	Conflicts between farmers and herdsmen have contributed to a shift in crop selection and farming practices in affected areas	88 (21.8%)	65 (16.1%)	250 (62%)	-	--	3.60	.824	
10	Conflicts between farmers and herdsmen have led to decline in communal farming practices	325 (80.6%)	78 (19.4%)	--	-	--	4.81	.396	
11	Farmers may experience anxiety, post-traumatic stress disorder as a result	362 (89.8%)	41 (10.2%)	--	-	--	4.90	.303	
12	Can lead to reduced agricultural productivity and a reluctance to invest in long-term agricultural projects	327 (81.1%)	76 (18.9%)	--	-	--	4.81	.392	

**Source: Fieldwork, 2026**

Table 2 showed respondents' opinion on farmers-herders conflict and agricultural development in Mangu LGA. The result showed that the respondents strongly associated conflict with negative agricultural outcomes. 85.6% of the respondents strongly agreed that farmers are reluctant to return to farms; 98.5% of the respondents) agreed conflict leads to destruction of crops; 51.4% of the respondents and 44.2% of the respondents agreed that it leads to destruction of livestock; 82.9% of the respondents agreed that conflict threatens food security; 58.8% of the respondents strongly agreed and 41.2% of the respondents agreed that it

disrupts farming and displaces communities. Also, 89.8% of the respondents believed that farmers may experience anxiety or PTSD; and 81.1% of the respondents strongly agreed that conflict reduces willingness to invest in long-term agricultural projects. Items on decline in yields, investment, and communal farming also showed majority agreement.

**Table 3: Respondents' views on farmers-herders conflict and educational development in Mangu LGA**

S/N	Questions	Response			X̄	St. D
		Yes	No	Not sure		
1	Does farmers-herdsmen conflict lead to the displacement or loss of qualified teachers?	403 (100%)	--	--	1.00	.000
2	Makes an area unfavoruable for schools to open?	403 (100%)	--	--	1.00	.000
3	Can victims of farmers-herdsmen conflict experience psychological and mental disorders?	403 (100%)	--	--	1.00	.000
4	Does learning hardly take place in an area experiencing inter-ethnic conflict?	403 (100%)	--	--	1.00	.000
5	Deters children from attending school?	403 (100%)	--	--	1.00	.000
6	Do conflicts between farmers and herders lead to diversion of resources meant for education?	403 (100%)	--	--	1.00	.000
7	Leads to the disruption of schooling in conflict-prone areas.	403 (100%)	--	--	1.00	.000
8	Conflict contributes to increased dropout rates and a general decline in educational attainment in affected communities	403 (100%)	--	--	1.00	.000
9	Creates an atmosphere of fear and insecurity that is not conducive to learning	403 (100%)	--	--	1.00	.000
10	Do families find themselves unable to afford the costs associated with education as a result of conflicts between farmers and herdsmen?	403 (100%)	--	--	1.00	.000
11	Do universities and colleges in affected regions face challenges in attracting and retaining students and sponsorship?	403 (100%)	--	--	1.00	.000

**Source: Author's Fieldwork, 2026**

Table 3 showed respondents' view on farmers-herders conflict and educational development in Mangu L.G.A. the result showed that for every education item listed, all the respondents (100%) concur to the assertions as they unanimously reported that conflict displaces or causes loss of qualified teachers, makes areas unfavorable for schools to open, causes psychological disorders among victims, impedes learning, deters children from attending school, diverts resources away from education, disrupts schooling, increases dropout rates and lowers attainment, creates fear and insecurity not conducive to learning, and renders families unable to afford education costs; respondents also agreed universities and colleges face challenges attracting and retaining students and sponsorship.

### Test of Hypotheses

**H<sub>01</sub>:** Farmers-herders conflict has no significant effect on agricultural development in Mangu L.G.A of Plateau State.

**Table 4: Pearson correlation on the effect of farmers-herders conflict on agricultural development**

S/N	Variables	1	2	3	4	5	6	7	8	9	10	11	12
1	Farmers-herdsmen conflict leads to farmers' reluctance to go back to their farms	1											
2	Farmers-herdsmen conflict leads to destruction of farmlands	-.338**	1										
3	Farmers-herdsmen conflict leads to destruction of crops	.814**	-.187**	1									
4	Farmers-herdsmen conflict leads to destruction of livestock	-.166**	.286**	-.112*	1								
5	Farmers-herdsmen conflict threatens food security in the society	.126*	-.016	.270**	.287**	1							
6	Conflicts between farmers and herdsmen leads to the disruption of farming activities and the displacement of rural communities.	.085	-.403**	.147**	-.270**	.048	1						
7	The ongoing conflicts between farmers and herdsmen have led to a significant decline in crop yields and livestock productivity.	-.037	.194**	.101*	.370**	-.229**	.094	1					
8	Areas facing conflict between farmers and herdsmen experience decline in agricultural investments	-.180**	.296**	-.126*	.534**	.023	-.543**	.135**	1				
9	Conflicts between farmers and herdsmen have contributed to a shift in crop selection and farming practices in affected areas	-.291**	-.052	-.209**	.259**	-.150**	.234**	.237**	.104*	1			
10	Conflicts between farmers and herdsmen have led to decline in communal farming practices	.287**	.022	.251**	-.339**	.044	-.002	-.377**	-.501**	-.255*	1		
11	Lead to reduced agricultural productivity and a reluctance to invest in long-term agricultural projects	.228**	.069	-.059	-.244**	.101*	-.120*	-.301**	-.023	-.390*	.037	1	.194*

\* Correlation is significant at the 0.05 level (2-tailed).

Table 4 showed the Pearson correlation on the effect of farmers-herders conflict on agricultural development in Mangu LGA. The Pearson correlation matrices report multiple statistically significant relationships (many coefficients are marked as significant at the 0.05 level) between conflict indicators and negative outcomes across agriculture, education, and business variables. Qualitative data from the interview session corroborated the quantitative data from the field; respondents, particularly community heads and religious leaders, explained that relations between farmers and herders were once largely cooperative, with both groups depending on each other for survival and livelihood. According to an interviewee:

Many of our people are now too afraid to go back to their farms because they worry about being attacked, kidnapped, or losing their lives. You hear of attacks in one village, and soon everyone in the surrounding communities abandons their farms and flees for safety (Respondent E, Farm leader, Male, 52 years).

Similarly, a 55-year-old male community head opined that *“This fear has translated into widespread reluctance to return to farmlands, with many farmers choosing to stay in camps or seek urban jobs, even during critical planting seasons, which has profoundly disrupted crop cycles.* Several other respondents vividly described how the conflict has resulted in the destruction of farmlands, crops, and livestock. According to an interviewee:

Herders' cattle trample crop fields when they graze on farmlands that are meant to be protected; and when there is fighting, farms are burned and destroyed, leaving nothing for harvest. We see the aftermath every season; maize stalks cut down, cassava fields uprooted, and herds of cattle killing

smaller livestock. The loss isn't only to food crops but also to the animals that farmers rear for income." This destruction, respondents emphasized, directly threatens food security at the household and community level, forcing families to ration food or depend on costly imports (Respondent I, Market women leader, Female, 49 years).

The qualitative responses generally agreed with results in table 4 which showed several strong positive correlations linking farmer-herder conflicts with crop destruction, reluctance to farm, food insecurity, and psychological distress. To this end, the null hypothesis which stated that farmers-herders conflict has no significant effect on agricultural activities in Mangu L.G.A. of Plateau State is rejected in favour of the alternate hypothesis which states that farmers-herders conflict has a significant effect on agricultural activities in Mangu L.G.A. of Plateau State.

**H<sub>02</sub>:** There is no significant relationship between farmers-herders conflict and educational activities in Mangu L.G.A. of Plateau State

**Table 5: Pearson correlation on the relationship between farmers-herders conflict and educational development**

S/N	Variables	1	2	3	4	5	6	7	8	9	10
1	Leads to the displacement or loss of qualified teachers	1									
2	Makes an area unfavourable for schools to open	.000	1								
3	Can victims of farmers-herdsmen conflict experience psychological and mental disorders?	.000	.000	1							
4	Does learning hardly take place in an area experiencing inter-ethnic conflict?	.000	.000	.000	1						
5	Deters children from attending school	.000	.000	.000	.000	1					
6	Lead to diversion of resources meant for education?	.000	.000	.000	.000	.000	1				
7	Leads to the disruption of schooling in conflict-prone areas	.000	.000	.000	.000	.000	.000	1			
8	Increased dropout rates and a general decline in educational attainment in affected communities	.000	.000	.000	.000	.000	.000	.000	1		
9	Creates an atmosphere of fear and insecurity that is not conducive to learning	.000	.000	.000	.000	.000	.000	.000	.000	1	
10	Do families find themselves unable to afford the costs associated with education as a result of conflicts between farmers and herdsmen?	.000	.000	.000	.000	.000	.000	.000	.000	.000	1
11	Do universities and colleges in affected regions face challenges in attracting and retaining students and sponsorship	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

\* Correlation is significant at the 0.05 level (2-tailed).

The result in Table 5 showed the significant correlations among education variables (many reported as  $p < 0.05$ ), reflecting consistent co-movement of displacement, school closures, psychological harm, and dropout rates. Respondents across community heads, law enforcement agents, market women leaders, youth leaders, and religious leaders consistently described the effect of the farmers-herders conflict on agricultural activities in Nigeria and Plateau State with a palpable sense of urgency and concern during the interview.

Data from the interview session corroborates the quantitative data in the table above. Respondents in the interviews spoke with deep concern about how the farmers-herders conflict has severely undermined educational development in Nigeria and Plateau State, particularly through the displacement or loss of qualified teachers. According to an interviewee:

When there is violence in a community, many of our best teachers leave for safer towns or states. They cannot risk their lives walking unknown paths early in the morning or late in the evening, and without qualified teachers, our schools struggle to function (Respondent F, Community head, Male, 55 years).

A female school administrator (42 years) also added that *“Some teachers have been killed or injured in attacks, and parents now insist their children stay at home because they fear for their safety. Without teachers and safe routes to school, learning becomes impossible.”* Other respondents highlighted how the conflict has made entire areas unfavourable for schools to open or remain operational. A respondent opined thus:

In places where violence is frequent, we see schools either closing down temporarily or shutting for good because nobody wants to invest in infrastructure that might be destroyed. Parents are scared to send their children to classes when gunshots are heard in the distance. Even when schools open, attendance is low because children and parents alike are anxious about the dangers on the road or near the school compound.” This situation, they explained, creates an environment where real learning hardly takes place because students are preoccupied with fear and insecurity (Respondent G, Youth leader, Male, 30 years).

Market women also described how the psychological and mental effects of the conflict on students severely impair educational outcomes. A respondent said that:

Children who have seen attacks or lost family members often suffer from trauma, anxiety, and nightmares. They cannot concentrate in class or remember what they learn because their minds are stuck on survival (Respondent C, Market women leader, Female, 43 years).

The statistical results corroborate the descriptive frequencies: conflict indicators are significantly associated with deteriorations in agricultural productivity, educational attainment, and business stability. This, the null hypotheses which stated that “There is no significant relationship between farmers-herders conflict and educational activities in Mangu L.G.A. of Plateau State” is rejected while the alternate hypothesis is accepted.

### **Discussion of Findings**

The first objective examined the effect of farmers-herders conflict on agricultural development in Mangu Local Government Area. The findings show that conflict significantly reduces agricultural productivity through restricted access to farmland, destruction of crops, and declining investment in farming. While this aligns with Gwanshak and Zitta (2024) and Nnam (2025), who attribute declining output mainly to displacement and physical destruction, the present study extends this understanding by demonstrating that perceived insecurity alone is sufficient to alter farmers’ behaviour. Many farmers avoid cultivation not only because land is destroyed, but because of fear of future attacks. This suggests that the impact of conflict is not purely material but also behavioural, an aspect that is less emphasized in earlier studies.

The study also found that conflict discourages long-term agricultural investment and reduces labour availability. This supports the EfD Initiative (2025) and Ijirshar et al. (2025), which link insecurity to reduced productivity. However, unlike these studies that focus on output decline, the present findings highlight a shift in production strategies, where farmers adopt low-risk, short-cycle crops. This indicates a rational adaptation to insecurity, but one that

ultimately entrenches low productivity and weakens agricultural commercialisation. This divergence is important because it shows that conflict does not only destroy agriculture but restructures it toward survival rather than growth, with long-term implications for rural development.

The second objective examined the relationship between farmers-herders conflict and educational development. Findings indicate that conflict disrupts education through teacher attrition, school closures, displacement, and psychological trauma. These findings are consistent with Hamma (2025) and Ngbede et al. (2024), who observed declining teacher availability in conflict-affected areas. However, this study advances the discussion by showing that these factors are mutually reinforcing: teacher flight, student displacement, and school closures occur simultaneously, leading to systemic educational breakdown rather than isolated disruptions. In relation to school access and participation, the findings agree with Athena Centre for Policy and Leadership (2025) and Amali et al. (2025), which report declining enrolment and attendance in conflict zones. However, the present study departs slightly from these works by demonstrating that physical access alone does not guarantee participation. Even where schools remain open, fear and instability reduce attendance and concentration, thereby affecting learning outcomes. This highlights a critical gap in existing literature, which tends to measure access without adequately accounting for learning conditions under insecurity.

The study further shows that psychological trauma significantly affects students' academic performance and increases dropout rates. While prior studies acknowledge trauma, they often treat it as a secondary outcome (Boyras et al., 2013; Porche et al., 2011; Ayim, 2024). In contrast, the present findings position mental health as a central mechanism through which conflict affects education. This has important implications, as it suggests that educational disruption is not only infrastructural but also cognitive and emotional, requiring more holistic interventions.

The findings reinforce and extend the study's theoretical framework. Social Identity Theory explains how group-based divisions between farmers and herders sustain the conflict, while the Sustainable Livelihoods Framework elucidates how the conflict erodes key livelihood assets such as land, income, and education. Importantly, the study demonstrates that these processes are interconnected: conflict-induced livelihood disruption feeds back into social tensions, potentially sustaining the cycle of violence. And from a policy perspective, the findings underscore that addressing farmers-herders conflict requires more than security responses. While restoring peace is essential, the results show that post-conflict recovery must include rebuilding agricultural systems, restoring market access, supporting farmer investment, and addressing trauma in educational settings. Without such integrated interventions, both agricultural productivity and human capital development will remain constrained, even in the absence of active violence.

### **Conclusion and recommendations**

This study examined the effects of farmers-herders conflict on agricultural and educational activities in Mangu Local Government Area. The findings demonstrate that the conflict has both immediate and structural consequences for socio-economic development in the area. The study established that insecurity reduces agricultural productivity not only through destruction of crops and farmland but also by discouraging farmers from accessing land and investing in long-term production. In addition, the study found that the conflict disrupts education through teacher attrition, school closures, displacement of households, and trauma among students, leading to reduced participation and learning outcomes. A key contribution of this study is its demonstration that the impact of farmers-herders conflict extends beyond physical destruction to include behavioural and psychological effects, which further weaken agricultural systems and human capital development.

Therefore, the following recommendations are proffered based on findings of the study. First of all, local government authorities, in collaboration with traditional rulers and community associations, should set up inclusive land-use committees comprising representatives of farmers and herders. These committees should map grazing routes and farmlands, develop locally agreed land-use regulations, and enforce conflict resolution mechanisms. Secondly, security agencies, in partnership with local vigilante groups, should develop community-based early warning systems such as reporting networks and local surveillance to identify and respond quickly to emerging threats. This will reduce fear and encourage farmers and teachers to return to their activities. Also, the government and development agencies should provide targeted support such as farm inputs (seeds, fertilizers), soft loans, and extension services to affected farmers. Finally, relevant government authorities should implement safe-school strategies, including community-based school protection, flexible school schedules, and temporary learning centres for displaced students.

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