

Farmer–Herder Conflict and Agricultural Development in Benue State, Nigeria: Implications for National Security

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Abstract

This study assessed the impact of farmer–herder conflict on agricultural development and national security in Benue State, Nigeria. Two research objectives, two research questions, and two hypotheses guided the study. The study adopted a descriptive survey research design.

The population frame comprised 2,777,727 registered voters in Benue State as reported in the 2023 electoral register, from which a sample of 384 respondents was determined using the Krejcie and Morgan sample-size table. We retrieved 341 valid questionnaires, representing an 88.8% response rate. Data were collected using a structured questionnaire titled the “Farmer–Herder Conflict and National Security Questionnaire (FHCNSQ).” Content validity was established through expert review, while internal consistency was assessed using Cronbach's alpha. We used descriptive statistics, independent-samples t-tests, and multiple linear regression to analyse the data at the 0.05 significance level. The findings showed that farmer–herder conflict substantially disrupts agricultural development through crop destruction, farmland abandonment, reduced crop yields, labour shortages, reduced investment, and damage to agricultural equipment. The findings also showed significant national-security implications, particularly through weapon proliferation, displacement, pressure on social services, weakened public trust, and heightened social tensions. The regression model explained 71.4% of the variance in reported national-security threats. The study concludes that conflict prevention, effective land governance, community-based security mechanisms, and agricultural recovery measures are necessary to protect livelihoods and strengthen security in Benue State.

Keywords: Farmer–Herder Conflict, Agricultural Development, National Security, Food Security, Benue State, Nigeria

Introduction

Farmers and herders in Benue State, Nigeria, have been in persistent conflict, particularly over access to farmland, grazing areas, water, and other livelihood resources. According to Ioryue et al. (2024), insecurity in Benue State has restricted access to farmlands, displaced farming communities, disrupted agricultural activities, and weakened local livelihoods. The conflict's persistence is also linked to environmental pressures and weaknesses in security governance.

Lenshie et al. (2021) explained that desertification-induced migration and inadequate security governance have intensified herder–farmer conflicts in Nigeria, with consequences for livelihoods and human security. Similarly, Okoye et al. (2025) found that contradictions in government laws and policies concerning land access and land-based resources have contributed to the persistence of herder–farmer conflict in Benue State.

These concerns suggest that the conflict extends beyond disagreement between two occupational groups to issues of resource governance, institutional capacity, livelihood vulnerability, and the effectiveness of conflict-management arrangements.

According to Ioryue et al. (2024), insecurity in Benue State has displaced farming communities, restricted access to agricultural land, and disrupted agricultural activities, weakening agricultural productivity and livelihoods. Madu and Nwankwo (2021) further identified Benue State as a major

hotspot of farmer–herder conflict in Nigeria and examined the relationship between climate-change vulnerability and conflict vulnerability. These conditions create difficulties for farmers whose livelihoods depend substantially on access to land and other agricultural resources.

Disruptions to agricultural activities also affect food availability and household livelihoods. According to Idowu et al. (2025), farmer–herder conflict is associated with challenges that require effective third-party intervention and conflict-management mechanisms. Similarly, Obi (2023) reported that farmer–herder conflict in Agatu Local Government Area of Benue State was associated with reduced food production, displacement, poverty, and unemployment. Adewuyi and Odeh (2024) also found that farmer–herder conflict negatively affected food crop production in North-Eastern Nigeria, identifying the need for improved agricultural practices, appropriate land-use arrangements, and stronger community peace and security mechanisms.

The consequences of prolonged conflict extend beyond immediate agricultural losses. Displacement can interrupt established livelihood systems and make it difficult for affected households to return to productive agricultural activities. According to Ioryue et al. (2024), insecurity in Benue State has contributed to rural-to-urban migration as affected residents seek safer locations, thereby placing additional pressure on urban communities. Okoye et al. (2025) similarly observed that weaknesses in land and land-based resource management have complicated efforts to manage the conflict and strengthen internal security in Benue State.

Nigeria's agricultural sector is affected not only by direct destruction of crops and agricultural assets but also by displacement, restricted land access, disrupted production, and weakened rural livelihoods. Adewuyi and Odeh (2024) found that farmer–herder conflict negatively affected food crop production, while Ioryue et al. (2024) linked insecurity in Benue State to reduced agricultural productivity, abandoned farmlands, displacement, and disruption of agricultural activities. Consequently, persistent farmer–herder conflict presents interconnected challenges for agricultural development and national security in Benue State.

Farmer–herder conflict also has direct implications for national security because prolonged violence can weaken community stability, undermine confidence in state institutions, generate displacement, and intensify competition over already limited resources.

According to Ioryue et al. (2024), the conflict in Benue State affects Nigeria's broader security architecture, particularly through its effects on social cohesion, food security, resource competition, and the stability of affected communities. Similarly, Okoye et al. (2025) linked weaknesses in land and land-based resource management to the conflict's persistence and related internal security challenges in Benue State. From this perspective, national security extends beyond protecting territorial borders to include protecting lives and livelihoods, maintaining social stability, ensuring food security, and strengthening state institutions' capacity to manage internal threats. Continued disruptions to agricultural production, displacement of rural populations, rising insecurity, and weakening institutional trust can therefore transform a localised resource conflict into a broader security concern.

Nigeria's agricultural sector is important to livelihoods, food supply, and economic stability. The FAO (2024) notes that agriculture and agrifood systems require policies that strengthen resilience, address structural constraints, and reconcile competing interests.

In Benue State, farmer–herder conflict therefore extends beyond individual farms. This study therefore seeks to determine how farmer–herder conflict affects agricultural development and how the resulting pressures are reflected in national-security outcomes.

Statement of Problem

Farmer–herder conflict has become a major challenge to agricultural development in Benue State. In this state, a large proportion of the population depends directly or indirectly on agriculture for food, employment, and livelihood. Recurrent clashes between farmers and herders over access to farmland, grazing areas, water, and other natural resources have created an insecure environment in many farming communities (Okoli & Atelhe, 2014). The problem is not limited to violent clashes; it also disrupts the normal activities required for agriculture to develop and for rural communities to sustain their livelihoods.

One major problem is disrupted agricultural production. When farmers fear attacks, they may be unable to cultivate their farms at the appropriate time, may abandon cultivated or ancestral farmlands, or may reduce the size of land they are willing to cultivate. The destruction of crops, agricultural equipment, storage facilities and other productive assets can further reduce farmers' capacity to continue production (Mercy Corps, 2015). Displacement also removes farmers from their livelihoods and can create agricultural labour shortages.

Consequently, persistent conflict may affect crop yields, food availability, investment in agriculture, and the broader development of the agricultural sector (Food and Agriculture Organisation [FAO], 2018). The conflict also creates wider livelihood and food-security problems. When agricultural activities are disrupted, affected households may lose income and become more dependent on external assistance. Reduced agricultural production can place pressure on food availability and prices, particularly where affected communities depend heavily on local agricultural production (FAO, 2018). Displacing farming households can further weaken rural economies because people who would normally produce, process, transport, and trade agricultural goods may be forced to leave their communities. These conditions make stable, sustainable agricultural development harder to achieve.

Beyond its effects on agriculture, the conflict raises an important national-security concern. Persistent violence can result in deaths, displacement, destruction of property, community instability, and weakened trust in the ability of security and government institutions to protect lives and livelihoods (International Crisis Group, 2017). Continued conflict may also intensify competition over land and other resources, deepen social divisions, and place additional pressure on communities receiving displaced persons. Thus, what begins as competition over agricultural and livelihood resources can become a broader national security challenge when institutions cannot effectively prevent violence, protect affected populations, and resolve disputes.

Despite the significance of these problems, existing studies on Benue State have often examined agricultural losses, food insecurity, displacement, land-resource competition, or security consequences separately. Less attention has been given to an integrated empirical assessment that links perceived agricultural-development disruptions with measurable national-security outcomes within the same analytical framework. This study addresses that gap by examining both dimensions simultaneously and by testing whether crop destruction, farmer displacement, and weapon proliferation are significantly associated with perceived national-security threats in Benue State.

Objectives of the Study

The main objective of the study is to investigate the impact of farmer–herder conflict on agricultural development in Benue State, Nigeria, and its implications for national security.

Specifically, the study aims to:

- i. Investigate the impact of farmer–herder conflict on agricultural development in Benue State, Nigeria.
- ii. Determine the impact of farmer–herder conflict on national security in Benue State, Nigeria.

Research Questions

- i. What is the impact of farmer–herder conflict on agricultural development in Benue State, Nigeria?
- ii. What is the impact of farmer–herder conflict on national security in Benue State, Nigeria?

Hypotheses

- H01: There is no significant difference in the mean perception of the impact of farmer–herder conflict on agricultural development between farmers and non-farmers in Benue State, Nigeria.
- H02: Crop destruction, farmer displacement, and weapon proliferation are not jointly statistically related to perceived national-security threats in Benue State, Nigeria.

Conceptual Clarification

Farmers

A farmer is an individual engaged in agricultural production through crop cultivation, livestock rearing, or both, for food, income, or livelihood purposes. In Nigeria, smallholder farmers constitute an important part of the food-production system and contribute to the production of major crops, including rice, maize, sorghum, soybean, cassava, and yam (Chiaka et al., 2022).

Farmers operate under different production arrangements, ranging from household-based subsistence farming to commercial enterprises. Their productivity depends on access to farmland, labour, agricultural inputs, technology, finance, and markets. In the context of farmer–herder conflict, insecurity can restrict access to farmland, cause crop destruction and displacement, and create uncertainty about continued cultivation.

Ma et al. (2023) found that perceptions of farmer–herder conflict risk influence farmers' production decisions, including access to cropland and the use of agricultural inputs. For this study, farmers therefore refer to individuals in Benue State engaged in crop cultivation, livestock production, or related agricultural activities whose livelihoods depend substantially on agricultural resources.

Herders

A herder is a person who manages and tends livestock, particularly cattle, sheep, or goats, within pastoral or agro-pastoral livelihood systems. Herding may involve seasonal movement in response to pasture and water availability. In Nigeria, pastoral mobility can become contentious where livestock movement intersects with expanding cultivation, restricted grazing resources, and weakly enforced land-use arrangements (Nsemba et al., 2021). Environmental pressures can further influence pastoral movement and increase competition for available resources. Lenshie et al. (2021) linked environmental change, migration, and weak security governance to escalating farmer–herder tensions in Nigeria.

Ma et al. (2023) similarly observed that pastoral herders move in search of pasture, particularly during dry periods, increasing interactions with farming communities. Such mobility does not inherently produce conflict; however, disputes may arise where livestock enter cultivated areas, damage crops, or compete with farmers for land and water. For this study, herders refer to individuals engaged in livestock management whose livelihoods depend substantially on access to pasture, water, and other resources necessary for livestock production.

Conflict

Conflict refers to a situation in which individuals or groups perceive their interests, goals, values, or access to resources as incompatible. It may range from non-violent disagreement to confrontation and violence, depending on how competing interests are managed (Kriesberg, 2020). Conflict can be classified as interpersonal, intragroup, intergroup, resource-based, or violent.

Farmer–herder conflict is primarily an intergroup and resource-based conflict because it involves groups with different but overlapping livelihood interests, particularly concerning access to land, water, grazing areas, and agricultural resources. Such disagreements may escalate into violence where environmental pressures, resource competition, and weak governance interact (IPCC, 2022).

In Benue State, farmers depend on land for crop production, while pastoral herders require pasture and water for livestock production. Competition over these resources may generate disputes concerning grazing routes, crop damage, land use, and water access.

Schilling et al. (2020) noted that climate variability, land-use changes, and weak resource governance can intensify these tensions. The consequences may extend beyond physical violence to agricultural disruption, displacement, livelihood losses, and food-security pressures (Adelaja & George, 2022).

Agricultural Development

Agricultural development refers to the sustained improvement and transformation of agricultural production systems to increase productivity, strengthen rural livelihoods, improve market participation, and support wider economic and social development. De Janvry and Sadoulet (2020) associate agricultural development with productive investment, increased productivity, agricultural transformation, diversification, and rural transformation. In Nigeria, agricultural development also involves improving access to productive technologies, markets, technical capacity, and rural infrastructure (Ekong et al., 2021). It therefore extends beyond increased farm output to include the conditions that enable farmers to produce sustainably and improve their livelihoods.

Agricultural development encompasses productivity, access to farmland and inputs, technology, finance, markets, infrastructure, employment, and agricultural commercialisation. These dimensions are interconnected because limitations in one area can constrain agricultural performance in others. Ekong et al. (2021) demonstrate the importance of agricultural commercialisation and access to productive resources for rural welfare, while Christiaensen and Maertens (2022) link agricultural productivity and rural transformation to broader livelihood opportunities.

Thus, agricultural development refers to sustained improvements in agricultural productivity, productive capacity, rural livelihoods, investment, infrastructure, access to agricultural resources, and market opportunities.

National Security

National security refers to protecting the state, its population, institutions, territory, and vital political, economic, and social interests from threats that could undermine national stability. Security is no longer understood solely in terms of military defence or protection against external aggression; contemporary approaches recognise that internal violence, displacement, institutional weakness, livelihood insecurity, and threats to social stability can also significantly affect national security (Chukwuma, 2020).

Kiyani (2021) explains that the concept of security has developed from a predominantly state-centred understanding towards broader approaches that recognise the relationship between state security, collective security, and human security. Thus, national security encompasses the state's capacity to protect lives and property, maintain public order, preserve institutional authority, and respond effectively to threats that undermine national stability.

In the Nigerian context, farmer–herder conflict shows how a conflict rooted in land, water, grazing, and livelihood resources can develop into a broader security concern. Chukwuma (2020) demonstrates that farmer–herder conflict in Nigeria has increasingly been framed as an issue of insecurity because of its implications for violence, displacement, access to land, and the capacity of state institutions to provide

protection. Similarly, Nwozor et al. (2021) found that the escalation of farmer–herder violence and the emergence of community-based and vigilante security responses reflect concerns about the effectiveness of formal security institutions. These developments matter for national security because persistent violence can weaken public confidence in state institutions and encourage communities to seek alternative forms of protection.

National security is also closely connected to the security of livelihoods and communities. Okpeh et al. (2021), in their study of farmer–herder conflict in North-Central Nigeria, including Benue State, identified fatalities, forced displacement, loss of livelihoods, food insecurity, family and community dislocation, and rural violence as major consequences of the conflict. These outcomes demonstrate that internal security cannot be considered separately from the conditions under which people live, work, produce food, and access essential resources. When conflict repeatedly disrupts these conditions, it can undermine community stability and increase demands on government and security institutions.

The relationship between farmer–herder conflict and national security is further demonstrated by the interaction between land-resource competition and other forms of violence.

Adelaja et al. (2021) found a significant relationship between terrorist attacks and violent farmer–herder conflicts in Nigeria, with their analysis indicating that terrorist violence can contribute to the escalation of farmer–herder conflict through its effects on land-resource competition. This finding does not mean that farmer–herder conflict is itself terrorism or that participants in the conflict should automatically be characterised as terrorists. Rather, it indicates that different forms of violence can interact within the same geographical and resource environment, thereby creating broader security challenges.

Empirical Literature Review

Recent empirical studies demonstrate that farmer–herder conflict is multidimensional, but they differ in emphasis and geographical scope. Lenshie et al. (2021) linked desertification-induced migration and weak security governance to intensified herder–farmer conflict in Nigeria, highlighting the interaction between environmental pressure and institutional capacity. Madu and Nwankwo (2021) mapped climate-change and conflict vulnerabilities and identified Benue State as an important hotspot. These studies illuminate structural drivers but do not directly integrate agricultural-development outcomes with national-security perceptions in a single Benue-focused model.

At the livelihood level, Ma et al. (2023) showed that conflict-risk perceptions influence production decisions, while Ioryue et al. (2024) reported restricted farmland access, displacement, and disrupted agricultural activities in Benue State. Oriko et al. (2024) similarly found that herdsman–crop farmer conflict reduced yam productivity through losses of labour and farm inputs. Obi (2023) associated farmer–herder conflict in Agatu Local Government Area with reduced food production, displacement, poverty, and unemployment. Collectively, these studies establish substantial agricultural consequences, but their principal outcomes are productivity, food security, or livelihood disruption.

Security-oriented studies add another dimension. Nwozor et al. (2021) examined the politicisation of farmer–herder violence and evolving community-security responses, while Okpeh et al. (2021) identified fatalities, forced displacement, livelihood losses, food insecurity, and community dislocation as human-security consequences in North-Central Nigeria. Okoye et al. (2025) further showed how contradictions in land policy and weaknesses in managing land-based resources complicate conflict management in Benue State. Adelaja et al. (2021) demonstrated that different forms of organised violence may interact with land-resource competition and farmer–herder conflict.

The literature therefore provides strong evidence on environmental pressures, agricultural disruption, displacement, food insecurity, and security governance. The present study addresses the gap by bringing these strands together empirically. It simultaneously measures perceived effects on agricultural

development and national security and tests whether crop destruction, farmer displacement, and weapon proliferation jointly predict reported national-security threats among respondents in Benue State. This integrated approach links livelihood disruption to broader security consequences while avoiding the assumption that a cross-sectional perception survey establishes direct causality.

Theoretical Framework

This study adopts Eco-Violence Theory as its explanatory framework for examining the relationship among farmer–herder conflict, agricultural development, and perceived national-security threats in Benue State, Nigeria.

Eco-Violence Theory (Thomas F. Homer-Dixon, 1999): The Eco-Violence Theory, principally associated with Thomas F. Homer-Dixon (1999), explains how environmental scarcity can contribute to social conflict and violence through competition over renewable resources. Homer-Dixon (1999) argues that environmental scarcity may result from resource degradation and depletion, increasing demand, or unequal access to resources. However, environmental scarcity does not automatically produce violence. Political, economic, social, and institutional conditions mediate its effects, including institutions' capacity to regulate access, manage disputes, and prevent escalation. This qualification is important because similar environmental pressures can produce cooperation in some settings and violent conflict in others.

Homer-Dixon's earlier empirical work similarly showed that environmental scarcity can contribute to violent conflict when it interacts with broader social and institutional conditions (Homer-Dixon, 1994). Applied to Benue State, the theory suggests a sequential relationship among farmer–herder conflict, agricultural development and national security outcomes. Pressure on land and water can increase competition between farming and pastoral livelihoods. Where land-use rules are contested, poorly enforced, or perceived as unfair, routine disputes over crop damage, grazing access, and water points may escalate.

Lenshie et al. (2021) show that desertification-induced migration and weak security governance can intensify herder–farmer conflict in Nigeria, while Okoye et al. (2025) demonstrate that contradictions in land policies and poor management of land-based resources contribute to the persistence of the conflict in Benue State.

Once violence escalates, farmers may abandon fields, lose productive assets, face labour shortages, and reduce cultivation. These agricultural disruptions can subsequently contribute to national insecurity and increased pressure on security institutions. The theory therefore provides a useful framework for explaining how a conflict that may initially emerge from competition over land and water can generate wider agricultural and national-security consequences.

Methodology

The study adopted a descriptive survey research design. The geographical scope covered the twenty-three (23) Local Government Areas of Benue State, Nigeria. The population frame was 2,777,727 registered voters in Benue State, based on the Independent National Electoral Commission's 2023 voter register (Independent National Electoral Commission [INEC], 2023). The study determined a sample size of 384 respondents using the Krejcie and Morgan (1970) sample-size table.

Respondents were selected from the registered-voter population, which served as the study's operational sampling frame. The voter register was adopted because it provides a broad adult population frame across the 23 Local Government Areas; however, it is not a specialised register of farmers or herders, and this limitation is acknowledged in interpreting the findings. Of the 384 questionnaires administered, 341 were valid and used for analysis, representing an 88.8% response rate.

The instrument for data collection was a structured, closed-ended questionnaire titled “Farmer–Herder Conflict and National Security Questionnaire (FHCNSQ).” The questionnaire comprised two sections. Section A collected demographic information, including respondents' primary occupation, which was used to classify respondents into farmers and non-farmers for the first hypothesis. Section B contained items measured on a 4-point Likert scale to assess the perceived effects of conflict on agricultural development and national security. We established content validity through expert review by specialists in Agricultural Education and Peace and Conflict Studies. We assessed internal consistency of the multi-item scales using Cronbach's alpha. We entered and analysed the data using SPSS Version 25. We used descriptive statistics, including mean scores and standard deviations, to answer the research questions. The independent-samples t-test compared farmers and non-farmers on perceptions of the agricultural impact of the conflict. Multiple linear regression was used to determine how much crop destruction, farmer displacement, and weapon proliferation predicted national-security threats.

Statistical decisions were made at the 0.05 level of significance.

Results

Research Question One: What is the impact of farmer–herder conflict on agricultural development in Benue State, Nigeria?

Table 1

Impact of farmer–herder conflict on agricultural development in Benue State, Nigeria

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	M	SD	Decision
1	Constant conflicts have led to the massive destruction of food crops and storage facilities.	190	115	20	16	3.40	0.81	Agreed
2	Farmers have abandoned their ancestral farmlands due to fear of attacks.	200	105	25	11	3.45	0.79	Agreed
3	The conflict has significantly reduced annual crop yields in Benue State.	210	100	21	10	3.50	0.77	Agreed
4	Farmers' displacement has led to a labour shortage for agricultural activities.	185	120	27	9	3.41	0.77	Agreed
5	Conflict-related insecurity has discouraged investors from supporting agribusiness.	195	112	20	14	3.43	0.80	Agreed
6	The destruction of farming equipment has hindered mechanised farming.	205	115	13	8	3.52	0.72	Agreed
	Average Mean/SD					3.45	0.78	Agreed

Note. $N = 341$. *Source:* Field Survey, 2026.

The data in Table 1 show consistently high agreement that farmer–herder conflict has disrupted agricultural development in Benue State. The highest mean was recorded for the destruction of farming equipment ($M = 3.52$, $SD = 0.72$), followed by reduced annual crop yields ($M = 3.50$, $SD = 0.77$). Farmland abandonment ($M = 3.45$, $SD = 0.79$), reduced investment in agribusiness ($M = 3.43$, $SD = 0.80$), labour scarcity ($M = 3.41$, $SD = 0.77$), and destruction of crops and storage facilities ($M = 3.40$, $SD = 0.81$) were also rated highly. The overall mean of 3.45 indicates strong agreement that the conflict affects several interconnected components of agricultural production. This pattern matters because it shows the consequences extend beyond immediate crop losses: equipment damage and labour loss can reduce productive capacity in subsequent farming seasons, while insecurity can discourage investment and delay recovery.

This interpretation aligns with evidence from Benue showing that conflict can reduce agricultural productivity through the destruction of farm inputs and loss of labour (Oriko et al., 2024).

Research Question Two: What is the impact of farmer–herder conflict on national security in Benue State, Nigeria?

Table 2

Impact of farmer–herder conflict on national security in Benue State, Nigeria

S/N	Items	SA (4)	A (3)	D (2)	SD (1)	M	SD	Decision
7	Increased proliferation of small arms and light weapons.	180	130	20	11	3.41	0.75	Agreed
8	Threat to the food security of the entire Nigerian federation.	212	98	21	10	3.50	0.77	Agreed
9	Overstretching of social amenities by internal displacement (IDPs).	175	130	29	7	3.39	0.74	Agreed
10	Exacerbation of ethnic and religious tensions across the country.	208	108	15	10	3.51	0.75	Agreed
11	Weakened public trust in national security agencies.	195	115	21	10	3.45	0.77	Agreed
12	Continued violence catalyses other organised crime.	204	120	12	5	3.53	0.67	Agreed
	Average Mean/SD					3.47	0.74	Agreed

Note. $N = 341$. *Source:* Field Survey, 2026.

Table 2 indicates that respondents also perceived substantial national-security consequences. The highest mean was recorded for the view that continued violence can act as a catalyst for other organised crime ($M = 3.53$, $SD = 0.67$), followed by exacerbation of ethnic and religious tensions ($M = 3.51$, $SD = 0.75$), threats to food security ($M = 3.50$, $SD = 0.77$), weakened public trust in security agencies ($M = 3.45$, $SD = 0.77$), proliferation of small arms and light weapons ($M = 3.41$, $SD = 0.75$), and pressure on social amenities resulting from internal displacement ($M = 3.39$, $SD = 0.74$). The overall mean of 3.47 suggests that respondents perceive the conflict as a security issue with effects that extend beyond the immediate locations of violent encounters. However, interpret the result as respondents' perceptions rather than direct evidence that the conflict causes organised crime or extremist recruitment. It indicates that prolonged violence is perceived as weakening social order, public confidence, and the capacity of communities and institutions to maintain security.

Test of Hypotheses

H01: There is no significant difference in the mean perception of the impact of farmer–herder conflict on agricultural development between farmers and non-farmers in Benue State, Nigeria.

Table 3

Independent-samples t test of farmers' and non-farmers' perceptions of the agricultural-development impact

Group	N	M	SD	t	df	p	Decision
Farmers	180	3.58	0.65	3.124	339	.002	Reject H01
Non-farmers	161	3.31	0.82				

Note. $N = 341$. Two-tailed test. *Source:* Field Survey, 2026.

Table 3 shows a statistically significant difference between farmers and non-farmers in their perception of the impact of farmer–herder conflict on agricultural development. Farmers recorded a higher mean score ($M = 3.58$, $SD = 0.65$) than non-farmers ($M = 3.31$, $SD = 0.82$). The difference was statistically significant, $t(339) = 3.124$, $p = .002$. H01 was therefore rejected. The result suggests that direct exposure to farming activities may shape perceptions of conflict more strongly than indirect exposure. Farmers are more likely to experience the immediate effects of crop destruction, land abandonment, damaged equipment, and disrupted labour arrangements. In contrast, non-farmers may experience these effects primarily through food prices, local economic disruption, or community insecurity.

H02: Crop destruction, farmer displacement, and weapon proliferation are not jointly statistically related to perceived national-security threats in Benue State, Nigeria.

Table 4

Multiple regression of conflict dimensions predicting perceived national-security threats

Predictor	Standardised β	Multiple R	R ²
Crop destruction (X1)	0.28	0.845	0.714
Farmer displacement (X2)	0.35		
Weapon proliferation (X3)	0.48		

Model	Sum of Squares	df	Mean Square	F	p
Regression	132.93	3	44.31	280.44	< .001
Residual	52.79	337	0.15		
Total	185.72	340			

Note. $N = 341$. Overall model: $F(3, 337) = 280.44$, $p < .001$. Source: Field Survey, 2026.

The multiple regression results in Table 4 indicate that farmer–herder conflict is statistically significantly associated with perceived national-security threats in Benue State. With an R of 0.845, the conflict dimensions show a very strong positive relationship with security threats. At the same time, an R² of 0.714 indicates that crop destruction, farmer displacement, and weapon proliferation explain 71.4% of the variance in national security challenges. The ANOVA component of the table supports the model's reliability, as the F-statistic of 280.44 is significant at $p < .001$, well below the 0.05 threshold. An examination of the Standardised Coefficients (β) shows that Weapon Proliferation ($\beta = 0.48$) is the strongest reported predictor of national security threats, followed by Farmer Displacement ($\beta = 0.35$) and Crop Destruction ($\beta = 0.28$). The null hypothesis (H02) is rejected. It is concluded that the multifaceted nature of the conflict, particularly the influx of illegal arms and the massive displacement of populations, is associated with reported instability in the region.

Discussion of Findings

The first major finding is that farmer–herder conflict disrupts agricultural development through multiple pathways, including damage to farming equipment, reduced crop yields, farmland abandonment, and labour shortages. These findings are consistent with Ioryue et al. (2024), who reported restricted farmland access, displacement, and disrupted agricultural activities in Benue State, and Oriko et al. (2024), who found that conflict-related attacks reduced yam-farmer productivity through losses of labour and farm inputs. This implies that agricultural recovery requires more than replacing seeds and fertiliser; it must also restore secure land access, productive assets, labour capacity, and conditions that encourage farmers to resume cultivation.

The second finding concerns national security.

Respondents identified weapon proliferation, displacement, social tensions, weakened trust in security agencies, and pressure on public services as important consequences. The regression model further shows that crop destruction, farmer displacement, and weapon proliferation jointly explain 71.4% of the variance in reported national-security threats. Weapon proliferation recorded the strongest reported coefficient, followed by farmer displacement, suggesting that arms availability and population displacement can intensify insecurity. This is consistent with Lenshie et al. (2021), who linked migration pressures and weak security governance to intensified conflict, and Okoye et al. (2025), who identified weaknesses in land policy and resource management in Benue State. These findings support an

integrated approach combining land governance, agricultural recovery, displacement management, and community security.

The findings also strengthen the eco-violence perspective. Resource scarcity alone does not explain sustained violence; rather, pressure on land and water interacts with migration, contested land-use arrangements, institutional weaknesses, and inadequate conflict-management mechanisms. Violence can then disrupt agriculture, displace people, and reduce livelihoods, further straining already weak institutions. This feedback process aligns with Homer-Dixon's (1999) argument that environmental scarcity interacts with social and institutional conditions to shape conflict.

Limitations of the Study

The findings should be interpreted within the limits of the research design. First, the study is cross-sectional and relies substantially on respondents' perceptions; consequently, the statistical relationships reported should not be interpreted as definitive proof of causation. Second, the registered-voter population served as an operational adult sampling frame rather than a specialised list of farmers and herders. Third, the regression model is limited to the conflict dimensions measured in the questionnaire and does not exhaust all political, economic, institutional, climatic, or criminal factors that may influence national security. These limitations do not invalidate the findings, but they delimit the claims that can reasonably be made from the evidence.

Conclusion

The study concludes that farmer–herder conflict constitutes a significant challenge to agricultural development and national security in Benue State, Nigeria. The findings show that conflict disrupts agricultural production through crop destruction, farmland abandonment, reduced yields, labour shortages, damaged farming equipment, and reduced investment in agribusiness. The study also finds that respondents perceive the conflict as having wider security implications, including weapon proliferation, displacement, social tensions, threats to food security, weakened public trust in security institutions, and pressure on public services. The regression analysis further indicates that crop destruction, farmer displacement, and weapon proliferation jointly explain 71.4% of the variance in reported national-security threats, with weapon proliferation emerging as the strongest predictor. The findings demonstrate that agricultural and security challenges are interconnected. Addressing the conflict therefore requires coordinated land governance, conflict prevention, agricultural recovery, displacement management, and community-security measures rather than isolated interventions.

Recommendations

Based on the findings and conclusion of the study, the following recommendations are proposed:

- i. The Federal and Benue State governments should strengthen land-governance and conflict-prevention mechanisms by clarifying land-use arrangements, improving dispute-resolution procedures, and ensuring that policies affecting farming and pastoral livelihoods are implemented consistently.
- ii. The Federal Government, Benue State Government, and relevant security and humanitarian agencies should establish integrated agricultural recovery and community-security programmes in conflict-affected areas. Such programmes should support the safe return or resettlement of displaced farmers, replacement of essential farm equipment and inputs, access to agricultural finance, community-based early-warning and intelligence-sharing systems, and rehabilitation of local infrastructure. These measures should be implemented alongside peacebuilding and livelihood programmes so that agricultural recovery and security reinforcement occur together.
- iii. The Federal Government, Benue State Government, and security agencies should strengthen controls against the proliferation of small arms and light weapons, improve intelligence-led prevention, and deepen community-based early-warning arrangements in conflict-prone areas.

- iv. Agricultural and humanitarian interventions should prioritise the safe return or resettlement of displaced farming households, restoration of productive assets, access to finance and inputs, rehabilitation of rural infrastructure, and sustained peacebuilding between farming and pastoral communities.

Reference

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