Escalating Farmers-Pastoralist Conflicts and Their Impact on Food Security in Kwara State, Nigeria

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ABSTRACT

This study examines the escalating farmers–pastoralist conflict and its impact on food security in Kwara State, Nigeria. These escalations highlight increasing violence driven by resource scarcity, climate change, and weak governance. The study aims to assess conflict drivers and quantify how conflict-related factors influence household food security outcomes. The population comprises approximately 120,000 individuals across conflict-prone LGAs, from which a multi-stage sampling technique generated 200 respondents. Data were analyzed using descriptive statistics and binary logistic regression. Findings show that 56% of households are food secure, 24% moderately secure, and 20% food insecure. The regression model performed strongly (Nagelkerke R^2 = 0.56; classification accuracy = 82%). Key predictors of food insecurity include total economic loss (OR = 1.03), frequency of crop destruction (OR = 2.32), livestock losses (OR = 1.06), food prices (OR = 1.008), and household size (OR = 1.11). The strongest determinants are exposure to violence (OR = 3.74) and displacement from farmland (OR = 3.16), followed by climate stress (OR = 2.05). These results demonstrate that conflict, environmental pressures, and economic disruptions jointly undermine household welfare. The study concludes that reducing violence, protecting farmland access, and strengthening climate-resilient livelihoods are essential for improving food security. The study therefore recommends that conflict-management structures, economic-loss support systems, climate-adaptation strategies, and structured grazing arrangements are to be put in place to circumvent the escalations of these conflicts in Kwara State.

Keywords: Conflict, Farmers–pastoralist, Food Security, Logistic regression, Kwara State

I. INTRODUCTION

Conflict between sedentary farmers and nomadic or semi-nomadic pastoralists, often termed *farmers-herdsmen* or *farmers–pastoralist conflict* has intensified in Nigeria over the past decade. These conflicts have become one of the most pressing security and socio-economic challenges in Nigeria, with severe implications for food security, livelihoods, and national stability. Historically, interactions between farmers and pastoralists were governed by informal arrangements that allowed for seasonal migration and resource sharing.

However, in recent years, these relationships have deteriorated into violent confrontations due to a combination of environmental, economic, and political factors. Known drivers include competition for shrinking grazing land, changing environmental conditions, demographic pressures, insecure land tenure, and policy vacuums around open grazing corridors and RUGA settlements (Nnaji, et al., 2022). These conflicts are especially prevalent in the Middle Belt and North-Central regions, where environmental degradation and cross-regional migration converge to heighten tensions (Nnaji, et al., 2022).

Nigeria has witnessed a dramatic increase in conflict-related deaths, with the Armed Conflict Location and Event Data

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(2023) reporting over 4,000 fatalities between 2017 and 2023. Unlike earlier localized skirmishes, violence has spread to previously unaffected regions, including Southern states (Ajibo et al., 2021).

These farmers-herdsmen conflicts have been framed to be a complex, multi-causal phenomena driven by climate change, population pressure, land scarcity, and weak governance. According to Oluwasola and Adebowale (2022), the shrinking of grazing reserves due to agricultural expansion and urbanization has intensified competition over land and water. Meanwhile, Okoli and Atelhe (2020) argue that the proliferation of arms and the breakdown of traditional conflict resolution mechanisms have escalated violence beyond mere resource competition.

A critical shift in recent findings is the criminalization of pastoralism, where herders are increasingly associated with banditry and organized crime (Higazi, 2021). This perception has worsened hostilities, with reprisal attacks becoming more frequent. Additionally, Benjaminsen and Ba (2019) highlight how climate-induced desertification in Northern Nigeria has forced pastoralists southward, increasing friction with farming communities in the Middle Belt, including Kwara State.

A further look into the conflicts shows the conflicts have taken on ethnic and religious dimensions, particularly in Nigeria's Middle Belt. Mustapha (2022) notes that both farmers and herders now form armed militias, leading to cycles of revenge attacks. The Nigerian government's militarized responses, such as Operation Safe Haven, have had limited success in curbing violence (Fasona et al., 2023). The National Livestock Transformation Plan (NLTP), launched in 2019, has been criticized for poor implementation and lack of stakeholder buy-in (Nweze, 2021). In Kwara State, attempts to establish grazing reserves, such as the Lata Grazing Reserve, have faced resistance from local farmers who view them as land grabs (Abdulraheem et al., 2020). Kwara State, situated in Nigeria's North-Central region, has experienced a surge in such conflicts, exacerbating food insecurity in a state traditionally known for agricultural productivity. This study examines the escalating farmers-pastoralists conflicts in Kwara State and their impact on food security through the following objectives:

i. to examine the underlying drivers and patterns of escalating farmers-pastoralists conflicts in Kwara State, Nigeria.
ii. to assess the impact of farmers–pastoralist conflicts on food security in Kwara State.

II. LITERATURE REVIEW

Farmers-Pastoralists Conflicts

The contemporary farmers-pastoralists conflicts in Nigeria represent a fundamental shift from historical patterns of coexistence, as documented by Moritz (2010) in his longitudinal study of West African pastoral systems. The transformation from seasonal resource competition to year-round violent confrontation has been particularly pronounced since 2017, with ACLED (2023) recording over 4,000 conflict-related deaths across Nigeria's Middle Belt region during this period. This escalation reflects what Benjaminsen & Ba (2019) term the "weaponization of pastoralism," where traditional livelihood practices become enmeshed in broader security crises.

Kwara State's emergence as a conflict hotspot follows patterns identified by Okoli & Atelhe (2020), who note the southward expansion of violence from traditional flashpoints in Benue and Plateau states. The changing actor landscape mirrors findings by Higazi (2021), who documents the involvement of criminal syndicates in cattle rustling operations that exploit underlying tensions. This complexification of conflict actors aligns with Blench's (2021)

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conceptualization of "hybrid pastoral conflicts" where multiple armed groups pursue divergent agendas under the umbrella of farmer-herder violence.

Food Security

The food security impacts follow pathways first theorized by Maxwell & Wiebe (1999) in their seminal work on conflict-food systems interactions. Recent empirical work by Olagunju et al. (2022) quantifies production declines in Kwara State, documenting 32-45% reductions in staple crop yields across conflict-affected LGAs. These findings corroborate earlier predictions by the Famine Early Warning Systems Network (FEWS NET, 2023) about the vulnerability of Nigeria's breadbasket regions to conflict-induced production shocks.

Market disruptions follow patterns identified by Bellemare (2015) in his study of conflict-related food price volatility. NBS (2023) data showing 40% price premiums in Kwara's conflict zones supports Tranchant et al.'s (2019) thesis about how violence creates "food price archipelagos" within national markets. The nutritional impacts align with findings by Maystadt et al. (2019) regarding the intergenerational consequences of conflict-related malnutrition, particularly their documented 15-20% increase in childhood stunting among displaced populations in Nigeria's Middle Belt.

Theoretical Review

Resource Scarcity Theory (Homer-Dixon, 1994)

Resource Scarcity Theory was propounded by Thomas Homer-Dixon in 1994 in his seminal work on environmental security. It provides our primary theoretical lens. His "ingenuity gap" concept (Homer-Dixon, 1994) explains how climate-induced resource scarcity outpaces institutional capacity to adapt, creating conditions for violent conflict. The theory proposes that environmental scarcities especially the scarcity of renewable resources such as cropland, water, and forests interact with societal and political conditions to produce instability and violence.

The theory emerged from a broader framework of environmental security studies, and it distinguishes three primary sources of resource scarcity:

i. Supply-induced scarcity – arising from degradation or depletion of a resource (e.g., desertification, deforestation).
ii. Demand-induced scarcity – caused by population growth or increased consumption.
iii. Structural scarcity – due to unequal resource distribution within a society.

These scarcities interact and often reinforce one another, producing "environmental stress" that can undermine livelihoods, weaken states, and heighten the risk of conflict particularly in areas with fragile political and economic institutions (Homer-Dixon, 1994). The herders mostly Fulani pastoralists migrate southward due to droughts and shrinking grazing lands in the north. Upon entering the agrarian belt (e.g., Kwara, Benue, and Plateau States), they

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encounter sedentary farming communities that rely on the same land for cultivation. This resource overlap as predicted by the theory, leads to recurrent clashes, especially when weak governance and politicized identities aggravate the conflict (Okoli & Atelhe, 2019; Olaniyan, 2022).

Empirical Review

Empirical studies on farmers–herders' conflict in Nigeria highlight its multifaceted causes and consequences. Ijirshar et al. (2025) found that persistent insecurity in Benue State reduced agricultural productivity and displaced rural households. Obikaeze et al. (2023) showed that conflicts in Southeast Nigeria led to land abandonment and disrupted food supply chains. Ogbinyi et al. (2024) established a direct correlation between herder invasions and household food insecurity. Nnaji et al. (2024) revealed that conflict reduces farmers' willingness to invest in fertilizer and high-yield inputs. Odey et al. (2024) identified policy gaps in local conflict resolution mechanisms as a major driver of continued violence.

Akinyemi and Olaniyan (2020) emphasized climate variability as a trigger for migration and resource overlap. Olayoku (2017) employed geospatial analysis to map conflict hotspots, linking them to crop failure zones. Ofem and Inyang (2018) showed that youths are often drawn into violent reprisals, escalating tensions. Okoli and Atelhe (2020) emphasized that ethnic narratives further deepen hostilities. Tyoapine and Mbachu (2021) found that community-led peace initiatives significantly reduce the intensity of clashes when backed by government support.

III.   STUDY AREA

Kwara State is located in the North-Central geopolitical zone of Nigeria, and it shares international boundaries with the Republic of Benin to the west. Domestically, it borders Kogi to the east, Niger to the north, Ekiti and Osun to the south, and Oyo to the southwest. The state covers an estimated area of 36,825 km², making it one of the more expansive states in the region. It lies within the tropical savannah climatic zone, characterized by distinct wet and dry seasons which support both crop farming and pastoralism. Kwara State is administratively divided into three senatorial districts:

i.   Kwara Central – Includes Ilorin East, Ilorin South, Ilorin West, and Asa LGAs. Major towns are Ilorin (the state capital), Asa, Oko-Olowo.

ii.   Kwara South – Includes Offa, Oyun, Ifelodun, Irepodun, Isin, Ekiti, and Oke-Ero LGAs. Major towns include Offa, Omu-Aran, Erin-Ile, Oro, Arandun and Obbo-Aiyegunle.

iii.   Kwara North – Includes Edu, Patigi, Baruten, Kaiama, and Moro LGAs. Major towns: Patigi, Lafiagi, Kosubosu, Ilesha-Baruba, Okuta and Kaiama.

The dominant occupation of Kwara citizens is agriculture, especially in the rural areas. The people engage in Crop farming of maize, yam, cassava, sorghum, rice, groundnut, and vegetables, animal husbandry, including cattle rearing, which is practiced both by sedentary farmers and nomadic Fulani herders and artisan activities, petty trading, and civil service also thrive in semi-urban and urban areas like Ilorin, Offa, and Omu-Aran. Kwara North is the state's major food basket, especially Edu, Baruten and Patigi LGAs, known for rice, soybean and sugarcane farming along the Niger River valley. Kwara South (e.g., Ifelodun and Irepodun) produces cassava, yam, and maize at commercial scale. Asa

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and Moro LGAs in the central zone also contribute significantly to food output, including vegetables, poultry, and tuber crops.

IV. METHODOLOGY

The population of this study comprises crop farmers, pastoralists, and agricultural stakeholders (including extension agents, security officers and community leaders) across seven conflict-prone Local Government Areas in Kwara State, estimated at approximately 120,000 persons**,** based on projections from the National Population Commission (NPC, 2006) and relevant agricultural sector data. Purposive Sampling was adopted to select 7 conflict-prone Local Government Areas (LGAs) in Kwara State where farmers–pastoralist clashes are most prevalent. These LGAs include: Ekiti, Patigi, Baruten, Oke-Ero, Asa, Isin and Ifelodun and a community was selected in each of the LGA and they are: Ekiti (Obbo-Aiyegunle); Patigi (Mokotun); Baruten (Ilesha Baruba), Oke-Ero (Eruku); Asa (Alapa); Isin (Isanlu-Isin); Ifelodun (Baba-nla). 30 participants were selected from each community making a total of 210 respondents comprising of community heads, **f**armers (crop producers) and pastoralists (herders). A well-structured questionnaire was administered to the respondents out of which 200 was retrieved. This study employed the use of descriptive statistics, food security index and binary logistic regression to analyze the data and achieve the study objectives. The food security was calculated, where Security Index (SI) of a household classified into food secure with an SI ≥ 1 and household with a SI ≤ 1 is classified as food insecure using the forumlar:

$$SI = \frac{Per\ Capita\ Food\ Expenditure\ (PCFE)}{\frac{2}{3}Mean\ Per\ Capita\ Food\ Expenditure\ (MPCFE)} \qquad (1)$$

Where:

SI = Food Security Index of a household

Per Capita Food Expenditure = Household's monthly food expenditure ÷ Household size

Mean Per Capita Food Expenditure = Average per capita food expenditure of all households surveyed

Binary logistic regression analysis was used to assess the impact of conflict variables on the likelihood of a household being food insecure. The dependent variable will be food security status (Secure = 0; Insecure = 1) as shown below:

$$logit(p) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + u \qquad (2)$$

Where P = binary outcome of food security status, where food-secure household takes the value of 1and 0 if otherwise
β_0 = Constant
$\beta 1, \beta 2,…, \beta n$ = the regression coefficients, which interpret the effect of X on Q
X= descriptive factors
n = amount of descriptive factors
u = error term
The descriptive variables are:
X_1 = Total loss
X_2 = Frequency of crop destruction
X_3 = Livestock losses
X_4 = Food prices
X_5 = Household size
X_6 = Exposure to violence
X_7 = Displacement from farmland
X_8 = Climate stress

V. RESULT AND DISCUSSION

Socio-economic Characteristics of the Respondents
Table 1 reveals that the age distribution shows that the majority of respondents fall within 26–50 years (47%), indicating a predominantly active and productive population whose involvement in conflicts directly affects agricultural output. The dominance of males (83.5%) reflects the gendered nature of farming and pastoral activities, with men more frequently involved in land use, grazing, and conflict interactions. Educational levels reveal substantial limitations, as 37% have no formal education and 19% only have nomadic education. This low literacy level affects adoption of improved farming practices, understanding of land regulations, and engagement in formal conflict-resolution mechanisms. A high proportion of respondents are married (68%), implying greater household responsibilities and vulnerability to livelihood disruptions.

Household sizes are large, with 50% having more than 10 members, increasing consumption pressure and heightening food insecurity risks when conflicts disrupt production. Both farming and herding experience are substantial, with 58% and 56% respectively having 11–30 years of experience, indicating deep-rooted dependence on land and natural resources often heightening competition.

Farming (44%) and herding (31%) are the dominant income sources, confirming livelihoods that are highly sensitive to conflict. Most respondents operate small farm sizes of 1–10 ha (70%), and herd sizes of 1–60 animals (62%), consistent with smallholder systems prone to shocks. Monthly income levels are generally low, with 66% earning below ₦150,000, limiting resilience to losses. Migrants constitute 37%, suggesting mobility patterns that can intensify land pressure and conflict dynamics.

Table 1: Socio-economic Characteristics of the Respondents

Variable	Frequency (F)	Percentage (%)
Age (Years)		
1–25	60	30.0
26–50	94	47.0
51–75	31	15.5
76–100	15	7.5
Sex		
Male	167	83.5
Female	33	31.5
Educational Qualification		
No Formal Education	74	37.0
Nomadic Education	38	19.0
Primary	50	25.0
Secondary	30	15.0
Tertiary	8	4.0
Marital Status		
Single	46	23.0
Married	136	68.0
Divorced	18	9.0

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Household Size		
1–5	38	19.0
6–10	74	37.0
11–15	56	28.0
16–20	32	16.0
Farming Experience (Years)		
1–10	44	22.0
11–20	62	31.0
21–30	54	27.0
31–40	28	14.0
41–50	12	6.0
Herding Experience (Years)		
1–10	52	26.0
11–20	66	33.0
21–30	46	23.0
31–40	26	13.0
41–50	10	5.0
Source of Income		
Farming	88	44.0
Herding	62	31.0
Salary	24	12.0
Trading	26	13.0
Farm Size (Hectares)		
1–5	84	42.0
6–10	56	28.0
11–15	38	19.0
16–20	22	11.0
Herd Size	84	42.0
1–30	58	29.0
31–60	66	33.0
61–90	48	24.0
91–120	28	14.0
Household Monthly Income (₦)		
50,000–100,000	78	39.0
101,000–150,000	54	27.0
151,000–200,000	36	18.0
201,000–250,000	12	6.0
Migratory Status		
Yes	74	37.0
No	126	63.0

Source: Researcher's Analysis, 2025

Drivers of Farmers-Pastoralist Conflict in Kwara State

Table 2 reveals that respondents overwhelmingly attribute farmers–pastoralist conflicts to a range of interlinked ecological, socio-economic, and governance-related factors. The most widely acknowledged driver is competition for scarce resources such as land and water, with 46% strongly agreeing and 42% agreeing. This confirms that increasing pressure on natural resources significantly heightens tensions between farmers and pastoralists across the state.

Similarly, destruction of crops by cattle is identified as a major trigger, with 85% (39% strongly agree, 46% agree)

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attributing conflicts to this direct economic loss. This indicates that crop damage remains the most immediate and visible cause of disputes. Attacks and killings of cattle also feature prominently, with 76% agreeing, suggesting reciprocal losses that reinforce mistrust between both groups.

The use of under-age children for grazing is supported by 65%, indicating that unsupervised or poorly supervised herding increases accidental crop encroachment, thereby escalating disputes. Climate change and desertification are also recognized by 69% (23% strongly agree, 46% agree), showing that environmental stress continues to push pastoralists southwards, intensifying resource competition.

Historical land issues receive substantial support (70% agreement), implying long-standing disputes over land ownership or boundaries. Socio-political factors and weak governance also emerge as influential, with 58% and 58% respectively agreeing that ineffective institutions worsen tensions. Finally, proliferation of small arms and light weapons is acknowledged by 55%, highlighting the increasing militarization of conflicts and the associated rise in violence. Overall, respondents clearly perceive the conflict as multi-causal, driven by both structural and immediate triggers.

Table 2: Drivers of Farmers-Pastoralist Conflict in Kwara State

Conflict Driver	Strongly Agree (F, %)	Agree (F, %)	Neutral (F, %)	Disagree (F, %)	Strongly Disagree (F, %)
Destruction of crops by cattle	78 (39.0)	92 (46.0)	16 (8.0)	10 (5.0)	4 (2.0)
Attacks and killings of cattle	64 (32.0)	88 (44.0)	28 (14.0)	12 (6.0)	8 (4.0)
Use of under-age children for grazing	50 (25.0)	80 (40.0)	38 (19.0)	20 (10.0)	12 (6.0)
Competition for scarce resources (land, water)	92 (46.0)	84 (42.0)	14 (7.0)	6 (3.0)	4 (2.0)
Climate change (desertification)	46 (23.0)	92 (46.0)	36 (18.0)	18 (9.0)	8 (4.0)
Historical land issues	52 (26.0)	88 (44.0)	34 (17.0)	16 (8.0)	10 (5.0)
Socio-Political Factors	40 (20.0)	76 (38.0)	48 (24.0)	24 (12.0)	12 (6.0)
Weak governance	36 (18.0)	80 (40.0)	50 (25.0)	20 (10.0)	14 (7.0)
Proliferation of small arms & light weapons	34 (17.0)	76 (38.0)	48 (24.0)	26 (13.0)	16 (8.0)

Source: Researcher's Analysis, 2025

Household Food Security Status of the Respondents

The food security analysis on Table 3 reveals that a little over half of the respondents are food secure (56%), meaning their per capita food expenditure meets or exceeds two-thirds of the mean per capita food cost i.e. they spend at least ₦6,000 per person monthly on food. This suggests that a portion of households still maintain relatively stable access to food despite the prevailing farmers–pastoralist conflict. However, this level of food security is precarious given the ongoing disruptions to farming and herding activities.

A further 24% of respondents fall into the moderately food secure category, indicating households that are just above the threshold but vulnerable to slipping into food insecurity. These households are highly sensitive to even minor shocks such as crop damage, livestock loss, or price increases conditions that are common in conflict-affected zones.

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Importantly, 20% of respondents are food insecure, demonstrating a significant proportion of households whose food consumption levels are inadequate or unstable. This reflects the compounding effects of conflict, including reduced farm output, disrupted grazing patterns, displacement, and rising food prices.

The results imply that farmers–pastoralist conflicts exert a measurable negative impact on household welfare in Kwara State. The sizeable proportions of moderately food secure and food insecure households indicate that sustained conflict could deepen food insecurity over time. This underscores the urgent need for strengthened conflict-management mechanisms, livelihood support interventions, and targeted food-security programmes to protect vulnerable populations and stabilize food systems in the affected communities.

Table 3: Household Food Security Index of Respondents

SI Category	SI Range	Frequency (F)	Percentage (%)
Food Secure	SI ≥ 1	112	56.0
Moderately Food Secure	0.8–0.99	48	24.0
Food Insecure	SI < 0.8	40	20.0
Total		200	100.0

Source: Researcher's Analysis, 2025

Impact of Farmers–Pastoralist Conflicts on Food Security in Kwara State

The logistic regression results on Table 4 provides strong evidence that several conflict-, economic- and environment-related factors significantly influence the likelihood of household food insecurity among respondents. The model demonstrates a good fit, with a –2 Log Likelihood value of 178.52 and substantial explanatory strength shown by the Cox & Snell R^2 of 0.42 and Nagelkerke R^2 of 0.56. Its classification accuracy of 82% further indicates that the predictors reliably distinguish between food-secure and food-insecure households.

The findings show that increase in total economic losses (1.03, $p = 0.002$) significantly heighten the probability of food insecurity, as each additional ₦1,000 lost raises the odds by 3%. The frequency of crop destruction (2.32, $p=0.002$) emerges as one of the most influential factors, with households experiencing repeated destruction being more than twice as likely to be food insecure. Losses of livestock (1.06, $p=0.006$) also elevate vulnerability, as livestock serve not only as a source of food but as an economic buffer, and each additional animal lost increases the odds of food insecurity by 6%. Rising food prices (1.008, $p=0.008$) contribute to heightened insecurity by reducing the purchasing power of households already under stress. Household size (1.12, $p=0.012$) has a similar effect, with larger households facing increasing pressure on available resources, leading to an 11% rise in food-insecurity likelihood for each added member.

Exposure to violence (3.74, $p=0.001$) is the strongest predictor in the model, with affected households being nearly four times more likely to experience food insecurity. Violence interrupts farming activities, restricts mobility, creates fear, and undermines livelihood stability. Similarly, displacement from farmland (3.16, $p=0.003$) substantially increases vulnerability, as households who lose access to their primary productive asset are more than three times more likely to be food insecure. Climate-related stressors (2.05, $p=0.020$) such as erratic rainfall and drought also

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contribute meaningfully, doubling the odds of food insecurity and compounding the effects of conflict and economic strain.

Overall, the results show that household food insecurity in the study area is shaped by an interplay of conflict disruptions, economic losses, demographic pressures and climatic challenges. These factors collectively undermine food availability, access and stability, suggesting that any effort to improve food security must focus on conflict mitigation, livelihood protection, climate resilience and economic support to rural households.

Table 4: Binary Logistics Regression Analysis

Variable	B (Coefficient)	S.E.	Wald	df	p-value (Sig.)	Exp(B) (Odds Ratio)
Constant	-1.850	0.670	7.63	1	0.006	0.157
Total loss (₦'000)	0.025	0.008	9.77	1	0.002	1.03
Frequency of crop destruction	0.840	0.270	9.70	1	0.002	2.32
Livestock losses	0.060	0.022	7.44	1	0.006	1.06
Food prices	0.008	0.003	7.11	1	0.008	1.008
Household size	0.105	0.042	6.25	1	0.012	1.11
Exposure to violence	1.320	0.400	10.89	1	0.001	3.74
Displacement from farmland	1.150	0.390	8.69	1	0.003	3.16
Climate stress	0.720	0.310	5.38	1	0.020	2.05

Statistic	Value
-2 Log Likelihood	178.52
Cox & Snell R²	0.42
Nagelkerke R²	0.56
Classification Accuracy	82.0%

Source: Researcher's Analysis, 2025

VI. DISCUSSION OF FINDINGS

The findings reveal that farmers–pastoralist conflicts significantly undermine food security in Kwara State, aligning with recent scholarship. The socio-economic analysis shows a predominantly male, low-literacy, agrarian population highly vulnerable to livelihood shocks, consistent with Ogbinyi et al. (2024), who reported that low educational attainment limits adaptive capacity in conflict zones. The identified conflict drivers – resource competition, crop destruction, and climate stress closely reflect the arguments of Nnaji et al. (2024) and Akinyemi & Olaniyan (2020), who noted that shrinking land and rainfall variability intensify farmer–herder friction.

The food-security results indicate that 44% of households remain vulnerable, supporting Olagunju et al. (2022), who found that conflict depresses production and reduces household resilience. The logistic regression further demonstrates that total economic loss increases food-insecurity likelihood by 3%, while repeated crop destruction raises it by 132%. This resonates with FEWS NET (2023), which highlighted economic shocks as the strongest predictor of household hunger in conflict-affected regions.

Exposure to violence (OR = 3.74) and displacement (OR = 3.16) emerged as the most powerful determinants, corroborating findings by Ijirshar et al. (2025) that violence disrupts farm labour, restricts mobility, and accelerates

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forced migration. Climate stress (OR = 2.05) further mirrors Benjaminsen & Ba (2019), who noted that southward pastoral migration driven by desertification intensifies clashes. Overall, the study confirms that intertwined conflict, climatic, demographic, and economic pressures collectively erode food availability, access, and stability in the state.

VII.   CONCLUSION AND RECOMMENDATIONS

The study concludes that farmers–pastoralist conflicts in Kwara State significantly erode food security through recurrent crop destruction, livestock losses, displacement from farmland, heightened violence, and rising food prices. The regression evidence clearly shows that exposure to violence (3.74), displacement (3.16), and crop destruction (2.32) are the most potent threats to household food stability as evident in some towns of Ifelodun, Irepodun and Isin LGA. Combined with climate stress, these factors create a cycle of reduced productivity, increased vulnerability, and declining household welfare. The findings affirm that food security challenges in conflict-affected communities such as Baba nla, Oreke, Share, Oke-Ode, Sagbe etc. are multidimensional, requiring integrated interventions that address both security and livelihood vulnerabilities. Based on the findings from the study, it is therefore recommended that interventions should directly target the factors shown to significantly increase food-insecurity risks such that:

i.   Government and community leaders should strengthen early-warning and rapid-response conflict-management systems, especially because exposure to violence increases food-insecurity odds by 274%.

ii.   Secure access to farmland must be prioritized through community grazing agreements and protected farming zones, given that displacement raises insecurity likelihood by 216%.

iii.   Crop-protection measures, including fencing, ranger units, and regulated grazing schedules, are crucial and should be implemented as repeated destruction more than doubles the risk of food insecurity (+132%).

iv.   Economic-loss compensation schemes and livelihood grants should support affected households, considering total losses increase vulnerability by 3% per ₦1,000.

v.   Climate-adaptation strategies such as drought-resistant crops and water-harvesting systems should be adopted, since climate stress raises food-insecurity risk by 105%.

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