



Effects of Communal Conflicts on Household Food Security in Toto Local Government Area, Nasarawa State, Nigeria

Mustapha Muhammad Umaru¹, Alexander Akor Agbara², Ibrahim Babayidi Maikasuwa³

¹ Department of Political Science, Federal University of Lafia, Nasarawa State

² Department of Crime Management, Federal Polytechnic Nasarawa, Nasarawa State

³ Department of Local Government and Development Studies, Federal Polytechnic Nasarawa, Nasarawa State

ARTICLE HISTORY

Received: 2 August 2026

Accepted: 29 September 2026

Published: October 2026

ARTICLE INFO



Vol. 1, No. 2 (2026), pp. 480–488

ISSN: 3141-6268 (Print)

3156-5077 (Online)

DOI: 10.67523/aujmss.v1i2.018

License: CC BY 4.0

HOW TO CITE

Umaru, M. M., Agbara, A. A., & Maikasuwa, I. B. (2026). Effects of communal conflicts on household food security in Toto Local Government Area, Nasarawa State, Nigeria. *Azman Univ. Int. J. Manag. Soc. Sci.*, 1(2), 480–488. <https://doi.org/10.67523/aujmss.v1i2.018>

ABSTRACT

This study examined communal conflicts and household food security in Toto Local Government Area, Nasarawa State, Nigeria. A cross-sectional mixed-methods design was used, with data collected via a structured questionnaire and in-depth interviews from 384 households and 12 key informants. Food security was assessed using the Food Consumption Score, the Household Food Insecurity Access Scale, and the Foster–Greer–Thorbecke (FGT) index; descriptive statistics, Chi-square tests, and binary logistic regression were used for analysis. About 72.4% of households had experienced at least one conflict incident in the previous three years, most commonly farmer–herder conflict (52.3%), followed by land disputes (25.5%) and ethnic clashes (22.1%). Farmland loss, displacement, market disruption, livestock loss, and destruction of stored food were all significantly more prevalent among conflict-affected households ($p < .001$). The FGT index showed that 68.2% of conflict-affected households were food insecure, compared with 34.1% of non-affected households, with severe food insecurity 4.6 times higher among affected households. Logistic regression indicated that conflict exposure was associated with 3.80 times higher odds of household food insecurity ($OR = 3.80$). Communal conflict undermined all four pillars of food security in Toto LGA through asset destruction, market disruption, displacement, and loss of social capital. The study recommends community peacebuilding, peace-sensitive agricultural policy, targeted social protection, seasonal farm-area security, and livelihood recovery in conflict-prone areas.

Keywords: Communal Conflict; Displacement; Food Security; Household; Livelihood; Toto LGA

1. Introduction

The target of Zero Hunger by 2030 remains a central commitment of the Sustainable Development Goals. Although global food security recorded some gains after 2019, conflict, climate change, COVID-19 and economic shocks have reversed that progress (FAO, IFAD, UNICEF, WFP & WHO, 2023). In 2022, an estimated 735 million people worldwide were undernourished, and conflict was the main driver of acute food insecurity in 19 countries, affecting about 117 million people (United Nations, 2022). The burden is heavily concentrated in Sub-Saharan Africa, which accounts for more than 60 per cent of the world's hungry people and about 80 per cent of those living in extreme poverty (World Food Programme, 2023). Persistent communal tensions over political and governance arrangements, identity, water, land and livelihoods have disrupted production systems, displaced about 35 million people and weakened food systems across the Sahel and West Africa (Olaniyan & Yahaya, 2021; IDMC, 2023). These conflicts strike all four pillars of food security: availability, access, utilisation and stability (FAO, 2021).

Nigeria has experienced an intensification of communal violence over the past decade, especially in the Middle Belt and North West (Adeola & Oluyemi, 2023). Between 2018 and 2022, farmer–herder conflicts alone were associated with more than 8,000 deaths and the displacement of millions of people (International Crisis Group, 2022). Agriculture still employs more than 70 per cent of the rural population and contributes about 24 per cent of GDP, yet insecurity has reduced productivity (Central Bank of Nigeria, 2022). Nigeria's ranking of 109 on the 2023 Global Hunger Index reflects a serious hunger situation (Concern Worldwide & Welthungerhilfe, 2023). Nasarawa State lies on the farmer–herder conflict corridor of North Central Nigeria. More than 80 per cent of its population is engaged in crop farming and animal husbandry (National Bureau of Statistics, 2022). In recent years the State has recorded recurring farmer–herder and inter-ethnic confrontations, with serious humanitarian and food-security consequences (Ibrahim & Musa, 2021). In 2021 alone, more than 60,000 people were displaced in Nasarawa as a result of conflict (NEMA, 2022).

Toto Local Government Area is among the worst-affected areas in the State. It is predominantly rural, and households depend on agriculture for food and income. Yam, maize, rice, cassava and soybean are the main crops. Since 2018, recurrent communal conflict and displacement have destroyed grain stores, reduced harvests and disrupted market access, placing household food security at risk. Despite this, empirical evidence on how communal conflict affects food security at the household level in Toto LGA remains limited. Existing Nigerian studies on conflict and food insecurity have concentrated largely on Borno, Benue and Plateau States, with little attention to local conflict dynamics and their differential effects on households in Toto. Understanding these mechanisms is necessary for conflict-sensitive interventions that meet immediate food needs while strengthening longer-term resilience.

This study therefore examines the characteristics, incidence and causes of communal conflicts in Toto LGA; assesses their effects on household food-security indicators; compares food-security status between conflict-affected and non-affected households using the Foster–Greer–Thorbecke (FGT) index; identifies the factors that contribute to food insecurity among conflict-affected households; and draws policy implications for reducing the impact of conflict on food security. It asks: what are the causes, prevalence and types of communal conflicts in Toto LGA; how do these conflicts influence household food-security indicators; to what extent does food-security status differ between conflict-affected and non-affected households; and what factors shape the food-security situation of conflict-affected households? The findings will add household-level evidence from Toto LGA to the Nigerian literature on conflict and food security and can inform policies and programmes by security authorities, humanitarian agencies and development actors working in Toto and in similar conflict-affected settings in Sub-Saharan Africa.

2. Literature Review

Communal conflict is defined as violent conflict between two or more identity groups within a state over land, resource, identity or political power (Adeola & Oluyemi, 2023). Food security itself refers to a state in which everyone has physical, social and economic access to safe, sufficient and nutritious food at all times, in adequate amounts, to lead an active and healthy life (FAO, 2021), and it rests on four pillars: availability, access, utilisation and stability.

Communal violence disrupts farmers' activities on farms during planting and harvest periods (Blench, 2020). It causes crop destruction and damage to irrigation systems, farm-storage facilities and farm utensils (Boko, Musa, & Ibrahim, 2022). In the Middle Belt, farmer–herder conflict has been associated with a 30–50% decline in harvested crops in affected communities (Adeola & Oluyemi, 2023). Conflict also causes livestock losses, which decrease household assets and future income (Carter & Barrett, 2020).

Conflict undermines food security across all four FAO dimensions. Availability falls because farms are abandoned, crops are destroyed, and livestock are slaughtered (Nwanegbo & Odigbo, 2021); displacement further reduces the agricultural labour force, limiting the volume of food that can be produced. Access is eroded as displacement reduces household income, assets, and purchasing power, while market disruptions during conflict drive sharp food-price inflation, estimated at 60–120% (WFP, 2023); blocked roads and severed trade routes compound these constraints and restrict physical access to food. Utilisation suffers because conflict damages water, sanitation, and health services, increasing malnutrition and disease (Devereux, 2021), while dietary diversity falls as households shift from preferred foods to cheaper, calorie-dense alternatives. Stability is undermined because recurrent conflict discourages long-term investment in agriculture and storage (Justino, 2021); households cannot plan reliably for future seasons, so food security remains insecure even when production or markets briefly recover.

Empirical evidence reinforces these mechanisms. Research conducted in Benue, Plateau and Kaduna States shows that households in conflict situations are two to three times more likely to be food insecure (Olaniyan & Yahaya, 2021). Conflict has worsened food insecurity in Borno State from 12% in 2015 to 47% in 2021 (WFP, 2023). Overcrowding in IDP camps, combined with poor food access and sanitation, is a further consequence of displacement (IDMC, 2023), and similar patterns of conflict-driven food insecurity have been documented in Ghana and Burkina Faso (Awumbila et al., 2020).

The study is grounded in Sen's (1981) Entitlement Approach, supported by the Sustainable Livelihood Framework of DFID (1999). Sen's Entitlement Approach draws the distinction that food shortages do not necessarily trigger food insecurity or famine, but rather the breakdown of entitlement relations, that is, the collection of alternative commodity packages a person can obtain by legal means. Conflict within a community can destroy entitlements in four ways: production-based entitlement is lost when displacement and farm destruction deny farmers access to land, labour, seeds and tools; trade-based entitlement is eroded when market disruption, road closures and inflation reduce what food a given income can buy; labour entitlement is lost when insecurity and displacement destroy employment opportunities; and transfer-based entitlement is weakened when conflict disrupts the social-support systems, remittances and kinship networks that households rely on. The Sustainable Livelihood Framework complements this by identifying five capitals that households draw on for their livelihoods: human, natural, financial, physical, and social. Conflict depletes these capitals and compels households to adopt coping strategies that can themselves affect future food security. The two frameworks together suit this study because they explain both the structural breakdown of access to food (Sen) and the depletion of the asset base from which households would otherwise recover (DFID), providing a coherent lens for interpreting the results reported below.

3. Methodology

The study was conducted in Toto Local Government Area (LGA), Nasarawa State, in Nigeria's North Central region. Toto LGA lies between latitudes 8°20'N and 8°50'N and longitudes 6°50'E and 7°20'E, and borders Nasarawa LGA, Gwagwalada Area Council (FCT), and Kogi State. Its population is estimated at 119,077 (2006 census projection) and is predominantly Gbagyi, Bassa and Fulani. Yam, maize, rice, cassava and soybean are the main crops. Since 2018 the LGA has experienced recurrent farmer–herder and inter-communal conflict, which intensified in 2020 and again in 2022, making it an appropriate site for examining the conflict–food-security relationship.

A cross-sectional survey using a mixed-methods approach was adopted, with quantitative data providing breadth and qualitative data providing depth on conflict dynamics and household coping strategies. The study covered all households in Toto LGA; an appropriate sample size of 399 was calculated at a 95% confidence level and 5% margin of error using the Taro Yamane formula, of which 384 questionnaires were successfully administered and returned. A multi-stage sampling procedure was used: in the first stage, four districts were purposively selected based on the conflict intensity recorded by the National Emergency Management Agency (NEMA); in the second stage, two communities were randomly selected within each district; and in the third stage, households were selected within each community using systematic random sampling.

Three instruments were used to gather data: a structured questionnaire covering socio-demographics, conflict experiences, the Food Consumption Score (FCS), the Household Food Insecurity Access Scale (HFIAS), and asset ownership; a Key Informant Interview guide administered to 12 traditional rulers, women leaders, youth leaders and security personnel; and Focus Group Discussions with community members. Quantitative data were analysed with SPSS v26. Socio-demographic characteristics and conflict types were summarised using descriptive statistics; associations between conflict exposure and food-security indicators were tested using the Chi-square test; the Foster–Greer–Thorbecke (FGT) index was used to measure the incidence, depth, and severity of food insecurity; and binary logistic regression was used to identify the factors influencing household food security.

Ethical approval was obtained from the relevant Ethics Committee, and all respondents gave informed consent, with confidentiality and anonymity assured throughout. Safeguards were also taken to secure the consent and cooperation of the Emir, District Heads, and community leaders before data collection began in each community.

4. Results and Discussion

Of the 384 households surveyed, the majority were male (64.6%) farmers (75.8%) aged 36–50 (43.5%) with primary education (34.9%); mean household size was 6.8 persons, with 45.8% of households in the 6–10-person band (Table 1). The high proportion of farmers indicates strong livelihood dependence on agriculture, while the large household size increases food demand and vulnerability. Low education may limit access to conflict-resolution mechanisms, early-warning information, and alternative livelihood opportunities; key informants also reported that female-headed households were more likely to be displaced.

Table 1: Socio-demographic characteristics of respondents

Variable	Category	Frequency	Percentage
Sex	Male	248	64.6
	Female	136	35.4
Age	18–35	142	37.0
	36–50	167	43.5
	51+ years	75	19.5
Occupation	Farming	291	75.8
	Trading	52	13.5
	Civil servant	41	10.7
Education	No formal	89	23.2
	Primary	134	34.9
	Secondary	112	29.2
	Tertiary	49	12.8
Household size	1–5 persons	158	41.1
	6–10 persons	176	45.8
	11+ persons	50	13.0

Source: Field survey (2026). *N* = 384; mean household size = 6.8 persons.

About 72.4% of households had experienced at least one conflict incident in the previous three years. Farmer–herder conflict was the most prevalent type (52.3%), driven by competition over land and water and by crop damage caused by cattle, followed by land disputes (25.5%) and ethnic or communal clashes (22.1%) (Table 2). Key informants reported that conflict incidents peak during the dry season, from November to March, when herders migrate southward; land disputes were most common in areas with unclear land tenure, and ethnic clashes often followed allegations of cattle rustling or killings. This pattern is consistent with Blench (2020) and Adeola and Oluyemi (2023).

Table 2: Prevalence and types of communal conflicts in Toto LGA

Type of conflict	Frequency	Percentage
Farmer–herder conflict	201	52.3
Land dispute	98	25.5
Ethnic/communal clash	85	22.1

Source: Field survey (2026). *N* = 384; multiple responses allowed.

Table 3 compares conflict-affected households (*n* = 299) with households that reported no conflict incident in the previous three years (*n* = 106). Every indicator was significantly more common among the affected group (*p* < .001). Loss of farmland was the most frequent effect (84.2% against 11.3%), followed by market disruption (75.5% against 14.2%) and displacement (71.2% against 7.5%). Livestock loss and destruction of stored food were also far higher among affected households (60.1% and 52.2%) than among non-affected households (8.5% and 5.7%). These differences show a strong association between conflict exposure and breakdown of the local food system; key informants added that markets often stayed closed for two to four weeks after violence, with food prices rising by about 60–80% during that period.

Table 3: Effects of communal conflict on food-security indicators

Indicator	Affected (n = 278) n (%)	Not affected (n = 106) n (%)	χ^2	p
Loss of farmland	234 (84.2)	12 (11.3)	176.91	<.001
Displacement	198 (71.2)	8 (7.5)	125.13	<.001
Market disruption	210 (75.5)	15 (14.2)	119.20	<.001
Loss of livestock	167 (60.1)	9 (8.5)	82.24	<.001
Destruction of stored food	145 (52.2)	6 (5.7)	69.54	<.001

Source: Field survey (2026). Total N = 384 (affected = 299; not affected = 106). Chi-square (χ^2) tests compare affected versus not-affected households for each indicator; all p-values are significant at $p < .001$.

The FGT results in Table 4 show that conflict-affected households were about twice as likely to be food insecure as non-affected households (68.2% against 34.1%), and that severe food insecurity was 4.6 times higher among affected households (17.2% against 3.7%). The higher P1 (depth) and P2 (severity) values among affected households indicate that conflict does not merely increase the incidence of food insecurity but also deepens it and makes it more severe for those already affected. This reinforces Sen's (1981) view that conflict strips away several entitlements simultaneously rather than producing a uniform shortfall.

Table 4: Food-security status by conflict exposure using the FGT index

Group	Food secure	Mildly insecure	Moderately insecure	Severely insecure	Total insecure	FGT P0	FGT P1	FGT P2
Conflict-affected	31.8%	22.4%	28.6%	17.2%	68.2%	0.682	0.341	0.198
Non-affected	65.9%	18.8%	11.6%	3.7%	34.1%	0.341	0.128	0.056

Source: Field survey (2026). N = 384. P0 = incidence, P1 = depth, P2 = severity.

Table 5 presents the binary logistic regression estimates of the factors associated with household food security. The model was statistically significant, $\chi^2(5) = 112.34$, $p < .001$, and accounted for approximately 38% of the variance in food security (Nagelkerke $R^2 = .38$). Conflict exposure was the strongest predictor ($B = 1.335$, $p < .001$): the odds ratio of 3.80 indicates that conflict exposure was associated with 3.80 times higher odds of household food insecurity. Household size was negatively associated with food security ($B = -0.187$, OR = 0.83, $p = .001$), with each additional household member associated with a 17% reduction in the odds of being food secure. Education ($B = 0.342$, OR = 1.41, $p < .001$), farm size ($B = 0.256$, OR = 1.29, $p = .003$), and access to aid ($B = 0.498$, OR = 1.65, $p < .001$) were each positively associated with food security. Education, farm size, and access to aid were thus associated with higher odds of household food security, larger household size was associated with lower odds, and conflict exposure dominated all of these as the single strongest predictor of food insecurity.

Table 5: Logistic regression factors influencing household food security

Variable	B	S.E.	Wald	p-value	Exp(B)
Conflict exposure	1.335	0.214	38.91	.000	3.80
Household size	-0.187	0.056	11.14	.001	0.83
Education	0.342	0.098	12.18	.000	1.41
Farm size	0.256	0.087	8.67	.003	1.29
Access to aid	0.498	0.123	16.39	.000	1.65
Constant	-0.876	0.301	8.47	.004	0.42

Source: Field survey (2026). N = 384. Dependent variable: food secure = 1. Model $\chi^2 = 112.34$, $p < .001$; Nagelkerke $R^2 = .38$.

These results support the proposition that communal conflict is a major cause of food insecurity in Toto LGA. The high rates of farmland loss (84.2%) and displacement (71.2%) had a direct negative effect on food availability and access, consistent with Nwanegbo and Odigbo (2021) and Adeola and Oluyemi (2023). Substantial food-price inflation caused by market disruption further eroded trade-based entitlements, in Sen's (1981) sense, while the higher depth and severity of insecurity among affected households (Table 4) shows that conflict strips away several entitlements at once rather than producing a single, uniform shortfall. Key informants reported that women and children were the most affected, as they took on greater caregiving responsibilities, faced reduced earning capacity following the loss of male breadwinners, and were exposed to heightened risk of gender-based violence during displacement.

Viewed through the Sustainable Livelihood Framework, conflict eroded natural capital (farmland and water access), financial capital (income and savings), physical capital (stored food, livestock, and farm infrastructure), and social capital (kinship and community support networks) simultaneously, which is why food insecurity persisted in Toto LGA even in years of favourable rainfall: households had lost the assets and social networks needed to convert a good harvest into reliable food access. Although conflict exposure was the dominant predictor of food insecurity in the logistic regression, education and access to aid meaningfully reduced the odds of insecurity, pointing to concrete levers for intervention. Qualitative accounts reinforced this: households that diversified into trading and retained strong social networks recovered from conflict shocks more quickly than households that remained solely dependent on farming, which is consistent with the Sustainable Livelihood Framework's emphasis on capital diversification as a buffer against shocks.

5. Conclusion and Recommendations

Communal conflict has a substantial impact on food security in Toto LGA, undermining all four food-security pillars: availability, access, utilisation, and stability. Conflict-affected households faced 3.80 times higher odds of food insecurity than non-affected households, and the FGT results show that conflict deepened as well as widened food insecurity in the LGA. Farmer–herder conflict, farmland loss, displacement, and market shutdowns were the primary routes to food insecurity, while education, farm size, and access to aid were the factors that increased the likelihood of a household remaining food secure; response strategies should therefore be both local and seasonal.

Ahead of the herder migration season (November–March), joint meetings should be convened between traditional rulers, herder leaders, and the State Ministry of Agriculture in Toto LGA to agree grazing routes and to transmit early-warning messages to security agencies. The Agricultural Development Programme should provide seed, tools, and temporary land to affected farmers ahead of the next planting season, while Nasarawa State Emergency Management Agency (SEMA) and its partners should provide short-term in-kind food support during market closures and cash or voucher support once markets reopen, prioritising large households, poorly educated households, and displaced women. These measures should be complemented by security patrols on farm roads during planting and harvest periods, restocking and small trading support for households that lost animals or stores, and a simple HFIAS check conducted each season by the LGA, so that support reaches the households identified in this study as most vulnerable.

6. Limitations and Direction for Future Research

This study is subject to several limitations. The cross-sectional design captures household food-security status and conflict exposure at a single point in time, so it can establish association but not causal sequencing between conflict incidents and changes in food security; a longitudinal design would allow the trajectory of household recovery, or continued decline, to be tracked directly. Food-security and conflict-exposure data relied substantially on household self-report, which is subject to recall error and possible social-desirability bias, particularly for sensitive items such as displacement and asset loss; triangulation with the key-informant interviews and focus-group discussions helped offset this but did not eliminate it. The study's geographical focus on Toto LGA, while allowing depth of local analysis, limits the generalisability of the findings to other conflict-affected areas of Nasarawa State and the wider Middle Belt, where conflict drivers and household coping capacity may differ. Finally, the logistic regression model, while statistically significant, explained approximately 38% of the variance in food security (Nagelkerke $R^2 = .38$), indicating that other unmeasured factors, such as access to credit, remittances, or specific coping strategies, also shape household outcomes.

Future research should adopt longitudinal or panel designs to track household food-security trajectories before, during, and after conflict episodes, and should extend the comparative analysis to other conflict-affected LGAs in Nasarawa State and neighbouring states to test the generalisability of the entitlement-based mechanisms identified here. Incorporating objective or triangulated measures of asset loss and market prices, alongside the survey-based indicators used in this study, would strengthen the evidence base, as would further qualitative work on the gendered dimensions of conflict-driven food insecurity that key informants raised but that fell outside the scope of the present quantitative analysis.

References

- Adeola, G. L., & Oluyemi, O. (2023). Farmer-herder conflicts and food security in North Central Nigeria. *Journal of Rural Studies*, 98, 112-125.
- Awumbila, M., Owusu, G., & Teye, J. K. (2020). *Migration in a globalizing world: The role of rural-urban migration in livelihood strategies*. Ghana Universities Press.
- Blench, R. (2020). *Conflict and livelihoods in Nigeria's Middle Belt*. Cambridge Academic Press.
- Boko, S., Musa, I., & Ibrahim, T. (2022). Impact of communal violence on agricultural productivity in Nigeria. *African Development Review*, 34(2), 45-60.
- Carter, M. R., & Barrett, C. B. (2020). Asset thresholds and asset dynamics. In *The economics of poverty traps* (pp. 33-52). University of Chicago Press.
- Central Bank of Nigeria. (2022). *Annual statistical bulletin*. CBN.
- Concern Worldwide, & Welthungerhilfe. (2023). *2023 Global hunger index: The power of youth in shaping food systems*. <https://www.globalhungerindex.org>
- Devereux, S. (2021). *Social protection in Africa*. Edward Elgar Publishing.
- DFID. (1999). *Sustainable livelihoods guidance sheets*. Department for International Development.
- Food and Agriculture Organization, International Fund for Agricultural Development, UNICEF, World Food Programme, & World Health Organization. (2023). *The state of food security and nutrition in the world 2023*. FAO.
- Food and Agriculture Organization. (2021). *The state of food security and nutrition in the world*. FAO.
- Ibrahim, M., & Musa, A. (2021). Communal conflicts and rural development in Nasarawa State. *Nigerian Journal of Social Sciences*, 18(2), 34-49.
- Internal Displacement Monitoring Centre. (2023). *Global report on internal displacement*. IDMC. <https://www.internal-displacement.org>
- International Crisis Group. (2022). *Stopping Nigeria's spiraling farmer-herder violence* (Africa Report No. 262).
- Justino, P. (2021). *Conflict and poverty: A micro-level analysis*. Routledge.
- National Bureau of Statistics. (2022). *National agricultural sample survey*. NBS.

- National Emergency Management Agency. (2022). *Disaster situation report: Nasarawa State*. NEMA.
- Nwanegbo, J., & Odigbo, P. (2021). Conflict and livelihoods in Nigeria's Middle Belt. *African Security Review*, 30(4), 201-215.
- Olaniyan, A., & Yahaya, A. (2021). Communal conflict and food security in West Africa. *West African Journal of Development*, 12(1), 77-92.
- Sen, A. (1981). *Poverty and famines: An essay on entitlement and deprivation*. Oxford University Press.
- United Nations. (2022). *Global report on food crises*. UN.
- World Food Programme. (2023). *Hunger map: Sub-Saharan Africa*. WFP. <https://www.wfp.org>