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THE ECONOMIC COST OF TRANSHUMANCE–CROP FARMERS’ CONFLICTS IN PLATEAU STATE, NIGERIA (2020–2025)

WILBERFORCE BERNARD ASTIRA¹, ASSOC. PROF. CANICE E. ERUNKE², DR. ABDULLAHI M. ABDUL³, DR. KANA A. A. EBINI.⁴

DEPARTMENT OF POLITICAL SCIENCE, NASARAWA STATE UNIVERSITY, KEFFI, NIGERIA.

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***Corresponding author:** WILBERFORCE BERNARD ASTIRA

Abstract

Transhumance–crop farmers’ conflicts have become a significant threat to agricultural production, rural livelihoods and food security in Plateau State, Nigeria. These conflicts arise from competing land-use interests, crop destruction, livestock movement, insecurity and unresolved grievances, with consequences extending beyond immediate physical damage to long-term economic losses. This article examines the economic costs of these conflicts between 2020 and 2025, focusing on agricultural production, livestock assets, household income, displacement, market activities and public expenditure. The study adopts a qualitative descriptive research design based on secondary data obtained from peer-reviewed journal articles, official reports and relevant institutional publications. The analysis is guided by a political economy perspective, which explains how unequal access to productive resources, institutional weaknesses and competition over livelihoods shape conflict and its economic consequences. Existing evidence indicates that conflict-related risks discourage investment in agricultural inputs and land cultivation, disrupt farming activities and increase the vulnerability of rural households. Studies specific to Plateau State also document the socioeconomic consequences of farmer–herder conflict, while displacement reports from 2025 illustrate the continuing humanitarian and livelihood pressures affecting rural communities. However, a comprehensive monetary estimate of the total economic losses attributable exclusively to these conflicts in Plateau State during 2020–2025 is not available in the reviewed evidence. The article therefore distinguishes documented incidents and empirical findings from inferred economic costs. It argues that sustainable conflict management requires improved land-use governance, effective early-warning mechanisms, accessible compensation arrangements, livestock-management reforms and inclusive community-based peacebuilding. The study contributes to the literature by presenting an integrated framework for understanding and measuring the direct, indirect and longer-term economic costs of transhumance–crop farmers’ conflicts in Plateau State.

Keywords: economic costs, transhumance, crop farmers, farmer–herder conflict, agricultural production, rural livelihoods, Plateau State, Nigeria.

Introduction

Agriculture remains a major source of employment, income and livelihood in Nigeria, particularly among rural households dependent on crop farming and livestock rearing. However, insecurity, competition over land and water, and weak resource governance have increasingly threatened agricultural activities. Conflicts between pastoralists and crop farmers can disrupt farming, destroy property and undermine rural livelihoods (International Crisis Group, 2017; Moritz, 2010; Okoli & Atelhe, 2014).

Plateau State provides an important context for examining these challenges, particularly in Mangu, Bokkos, Barkin Ladi, Riyom and Bassa. Beyond deaths and property destruction, recurring violence can disrupt cultivation, displace households and discourage agricultural investment. Babatunde and Ibnouf (2024) highlight the influence of institutional practices, political interests and unequal resource access on conflict dynamics, suggesting that these crises cannot be explained by resource scarcity alone.

The economic consequences include crop losses, livestock deaths, reduced farm investment, disrupted markets and declining household income. Nnaji et al. (2023) found that perceived farmer–herder conflict risks influenced fertiliser investment and cropland-rental decisions among rural Nigerian households. Similarly, Adelaja and George (2019) showed that violent conflict can undermine agricultural production and labour, although their study focused on the Boko Haram insurgency. These findings demonstrate how insecurity can generate losses beyond immediate destruction.

Conflict also threatens food security and household welfare. FAO (2024) projected that 33.1 million Nigerians would face acute food insecurity during the June–August 2025 lean season, although this national projection cannot be attributed solely to farmer–herder conflicts. Kaila and Azad (2023) likewise linked crime and violence to food insecurity and reduced household consumption in Nigeria. In Plateau State, reported attacks in Bassa and Riyom in June 2025 affected 1,203 people across 373 households, according to the cited International Organization for Migration report. Such insecurity can interrupt farming, restrict access to productive assets and increase household recovery costs (IOM, 2024).

Despite growing research on farmer–herder conflicts, the economic costs are not always systematically distinguished. Direct costs include destroyed crops, livestock losses and damaged property, while indirect costs include lost working days, reduced investment, market disruption and additional transportation expenses. Longer-term consequences may involve persistent income losses and weakened productive capacity (Adelaja & George, 2019; Nnaji et al., 2023). However, a consolidated and independently verified monetary estimate of the costs specifically attributable to transhumance–crop farmers’ conflicts in Plateau State between 2020 and 2025 remains limited.

This article examines the economic costs of these conflicts from 2020 to 2025, focusing on agricultural production, household livelihoods, displacement, market activities and food security. It asks: What are the principal direct, indirect and long-term economic costs of transhumance–crop farmers’ conflicts in Plateau State? Using documentary evidence, the study distinguishes documented losses from potential economic effects rather than presenting unsupported monetary estimates. Its findings are

intended to inform policies that protect agricultural livelihoods, improve resource governance and reduce conflict-related economic losses.

Statement of the Problem

Transhumance–crop farmers’ conflicts in Plateau State have disrupted agricultural production, destroyed crops and livestock, displaced rural households and threatened food security. These disruptions impose direct costs through damaged farms and lost assets, as well as indirect costs through reduced investment, lost income and interrupted market activities. Nnaji et al. (2023) found that perceived farmer–herder conflict risks influenced fertiliser investment and cropland-rental decisions among rural Nigerian households. Similarly, Kaila and Azad (2023) linked crime and violence to food insecurity and reduced household consumption in Nigeria.

Furthermore, the economic consequences extend beyond immediate agricultural losses to affect employment, food prices, household purchasing power and government expenditure on security, relief and reconstruction. The International Crisis Group (2017) identified competition over land, insecurity and weaknesses in conflict management as important dimensions of Nigeria’s farmer–herder crisis. Despite these concerns, the specific economic costs of transhumance–crop farmers’ conflicts in Plateau State between 2020 and 2025 remain insufficiently documented and systematically assessed. The absence of a consolidated assessment makes it difficult to determine the extent of agricultural losses, household income reductions, market disruptions and long-term livelihood damage attributable to these conflicts. This study therefore examines their direct, indirect and longer-term economic costs to provide evidence for improved conflict prevention, agricultural recovery and rural development policies.

Conceptual Review

Transhumance and crop farmers’ conflicts

Transhumance refers to the seasonal movement of livestock and pastoral households between grazing areas in response to changing conditions of pasture, water availability, weather and livestock management. It is an established livelihood strategy in which mobility can support animal productivity and the efficient use of variable natural resources. However, transhumance may generate disputes when livestock routes intersect with cultivated farmland, when access to water is contested or when institutions fail to clarify rights and responsibilities.

Farmer–herder conflict describes disputes between crop-producing communities and livestock-keeping groups over resources, livelihood practices, rights, security and the management of agricultural land. Such disputes do not automatically result in violence. They may be managed through negotiation, compensation, local agreements and established institutions. Conflict becomes particularly damaging when grievances remain unresolved, trust declines and disputes develop into retaliation or organised violence.

Babatunde and Ibnouf (2024) explain that Plateau State’s farmer–herder conflict is shaped by the interaction of resource management, identity politics, historical grievances and the activities of state and local actors. Their findings challenge explanations that reduce the conflict to environmental scarcity alone. We therefore understand transhumance–crop farmers’

conflict as a combination of resource-use disputes and wider institutional and political processes that influence access to land, security and livelihood opportunities.

The Economic Cost of Conflict

The economic cost of conflict refers to the value of resources lost, productive activities disrupted and additional expenditures incurred because of violence or the threat of violence. It comprises direct costs, indirect costs and longer-term opportunity costs (Collier et al., 2003; World Bank, 2011). Direct costs include destroyed crops, killed livestock, damaged buildings and lost equipment, while indirect costs arise from disruptions to production, transportation, labour, investment and market exchange. Opportunity costs represent the income and development benefits forgone when resources are diverted from productive activities to security operations, emergency relief, relocation and reconstruction (World Bank, 2011).

In agricultural communities, these costs often overlap. For instance, a destroyed crop represents a direct production loss, while replanting incurs additional recovery expenses. If insecurity forces a farmer to abandon the next farming season, the forgone harvest constitutes a further economic loss. Nnaji et al. (2023) demonstrate how perceived farmer–herder conflict risks can influence agricultural investment and land-rental decisions among rural Nigerian households. Therefore, a reliable assessment must distinguish between different cost categories and avoid double-counting related losses.

Economic costs should also be distinguished from broader social and humanitarian consequences. Deaths, injuries, psychological distress and weakened social cohesion have substantial welfare implications, although they cannot always be accurately expressed in monetary terms. Collier et al. (2003) explain that conflict generates economic consequences extending beyond immediate destruction, while the World Bank (2011) highlights the relationship between insecurity, institutional weaknesses and development setbacks. Accordingly, an assessment of transhumance–crop farmers’ conflicts in Plateau State should report measurable financial losses separately from non-market human costs.

Theoretical Framework

This article adopts Political Economy Theory as its principal analytical framework. Political economy examines how the distribution of economic resources, political authority and institutional power shapes social relations, public policy and development outcomes. It is appropriate for understanding farmer–herder conflict because access to land, water, grazing routes and security is not determined by environmental conditions alone. It is also influenced by legal arrangements, historical claims, government decisions, local authority structures and the capacity of institutions to resolve competing interests.

The central assumption is that economic resources are embedded in political and institutional relationships. When access to productive resources is perceived as unequal, or when institutions fail to enforce agreements impartially, disputes may become more difficult to resolve. Babatunde and Ibnouf (2024) show that state and local actors can influence conflict dynamics through resource management and peacebuilding practices that empower some groups while disadvantaging others. This perspective directs attention to governance failures and unequal resource access

without assuming that every conflict has the same causes or that any single community is uniformly responsible.

The theory also explains how conflict produces economic costs beyond the immediate destruction of assets. Households with limited political influence or financial resources may find it more difficult to secure compensation, relocate safely or restore productive activities. Conversely, groups with greater access to capital, land or institutional support may have more capacity to absorb losses. In this way, conflict can deepen existing economic inequalities and reinforce livelihood insecurity.

The applicability of Political Economy Theory lies in its ability to connect resource competition, institutional performance and economic outcomes. It helps explain why compensation mechanisms, land-use regulation, security provision and public investment are central to conflict prevention. However, the framework does not by itself quantify the monetary value of crop destruction, livestock losses or forgone income. It must therefore be combined with systematic economic accounting and reliable data on agricultural losses, household livelihoods and public expenditure.

Empirical Review

Nnaji et al. (2023) examined the relationship between perceived farmer–herder conflict risk and agricultural production decisions using data from 401 rural households in Nigeria. Their findings showed that greater perceived conflict risk was associated with a lower likelihood of fertiliser use and reduced fertiliser investment. Risk-averse households also rented less additional cropland. The study demonstrates that insecurity can reduce agricultural productivity through changes in investment decisions, even without a complete accounting of direct physical damage. We consider this evidence particularly relevant to Plateau State because it identifies a measurable pathway through which insecurity can weaken agricultural performance.

Cinjel and Kefas (2024) investigated the conflict between Mwanghavul arable farmers and Fulani herders in Mangu Local Government Area of Plateau State. Their study focused on the conflict’s socioeconomic consequences and the relationship between crop damage, farmer–herder relations and local development. The study provides geographically relevant evidence that conflict affects farming communities and their livelihood conditions. We regard its local focus as valuable because economic losses and conflict dynamics may differ across local government areas, depending on cropping systems, livestock movement, land-use arrangements and the intensity of insecurity.

Babatunde and Ibnouf (2024) compared farmer–herder conflict dynamics in Plateau State with those in Central Darfur, Sudan. Drawing on field research, they examined the roles of state and local actors in resource management and peacebuilding. They found that some institutional practices reinforced unequal access to resources and aggravated grievances, thereby undermining peacebuilding. We interpret their findings as showing that the economic consequences of conflict cannot be addressed solely through immediate security measures; institutions governing resource access and dispute resolution must also be considered.

The European Union Agency for Asylum (EUAA, 2025) documented continuing insecurity and displacement in Plateau State. Its reporting indicated that IOM data identified communal clashes and farmer–herder clashes as important reasons for

displacement in the state, while attacks in Bokkos and Bassa during 2025 displaced additional residents. These records demonstrate the importance of displacement as an economic consequence of insecurity. We note, however, that displacement statistics often aggregate several types of violence and should not be treated as a direct measure of losses attributable exclusively to transhumance-related conflict.

The International Organization for Migration (IOM, 2025) reported that attacks in Bassa and Riyom on 3–4 June 2025 affected 1,203 individuals from 373 households. The rapid assessment identified security as a major need, alongside water, sanitation, hygiene, psychosocial support, health, shelter, non-food items and food. These needs indicate that insecurity can generate immediate household expenditure and public or humanitarian response costs. We emphasise that the report records affected people rather than providing a monetary estimate of their total economic losses.

The Food and Agriculture Organization of the United Nations (FAO, 2024) reported that 33.1 million Nigerians were projected to experience acute food insecurity during the June–August 2025 lean season. The organisation identified multiple contributing factors, including economic hardship, climate-related pressures and insecurity, and specifically recognised farmer–herder conflict in North-Central Nigeria as part of the wider food-security challenge. We interpret this evidence as showing the national importance of protecting agricultural production, while recognising that the projection cannot establish the share of food insecurity caused by conflict in Plateau State.

The literature establishes several connections between conflict and economic welfare: reduced agricultural investment, damage to productive resources, displacement, institutional weaknesses and food insecurity. Nevertheless, the studies reviewed do not provide a consolidated estimate of direct and indirect monetary losses for Plateau State covering the entire 2020–2025 period. This is the principal empirical gap addressed by the present article. Rather than manufacture a total cost, the study develops an analytical framework for identifying the principal loss categories and explaining the evidence currently available.

Research Methodology

The study adopts a qualitative descriptive research design based on secondary documentary evidence, including peer-reviewed articles, official reports and institutional publications. It focuses on Plateau State, North-Central Nigeria, covering the period 2020–2025. Sources were selected based on credibility, relevance to the study objectives and evidence of conflict-related economic consequences. Key sources include Nnaji et al. (2023), Cinjel and Kefas (2024), Babatunde and Ibnouf (2024), the International Organization for Migration (IOM) and the Food and Agriculture Organization (FAO).

Data were analysed thematically, focusing on crop and livestock losses, household income and employment, displacement, market disruption, food security, and public expenditure on security and recovery. Economic costs were classified as direct costs, including destroyed crops, livestock and property; indirect costs, such as lost income, disrupted trade and reduced investment; and longer-term costs associated with weakened productive capacity and livelihood recovery. Where monetary estimates were unavailable, the study reported documented evidence without assigning unsupported financial values.

To ensure reliability, findings were compared across sources, recognising differences in geographical coverage, conflict classifications and reporting periods. The study acknowledges the absence of a harmonised dataset measuring all economic losses attributable specifically to transhumance–crop farmers’ conflicts in Plateau State during the study period. It therefore provides a structured assessment of documented and potential economic costs rather than a comprehensive monetary valuation.

Research Findings

Effects on Agricultural Production and Livestock Assets

Transhumance–crop farmers’ conflicts in Plateau State threaten agricultural production through crop destruction, abandoned farmland, livestock losses and reduced investment. Farmers who fear attacks may cultivate smaller areas, avoid purchasing fertiliser or abandon fields, thereby losing potential income even when their crops are not directly damaged. Nnaji et al. (2023) found that perceived conflict risks influenced agricultural investment and land-rental decisions among rural Nigerian households. Cinjel and Kefas (2024) also examined the socioeconomic implications of farmer–herder conflict for arable farming communities in Mangu Local Government Area.

Livestock losses and damage to farm equipment, stored produce and buildings can further weaken productive capacity. For pastoral households, livestock provide income, food and savings, while farming households depend on land, tools and inputs for continued production. The economic consequences therefore affect both livelihood groups, although the extent of losses varies across communities and incidents.

Table 1: Principal agricultural and asset-related costs

Cost category	Economic consequence	Data required for valuation
Crop destruction	Lost harvest and wasted inputs	Area damaged, crop yield and farm-gate prices
Abandoned farmland	Forgone production and income	Area abandoned and expected yield
Livestock losses	Reduced wealth, income and herd size	Animals lost and market value
Damaged farm assets	Repair and replacement expenses	Verified damage and replacement costs
Reduced investment	Lower potential agricultural output	Input expenditure and changes in cultivated area

Source: Author’s compilation based on Nnaji et al. (2023) and Cinjel and Kefas (2024).

The evidence indicates that conflict-related agricultural costs include both actual destruction and production forgone because of insecurity. However, the reviewed sources do not establish a comprehensive monetary estimate of crop, livestock and farm-asset losses across Plateau State between 2020 and 2025. Reliable valuation would require systematic records of affected farms, livestock numbers, yields and prevailing market prices.

Household Income, Employment and Rural Livelihoods

Conflict-related agricultural disruption can reduce household income while increasing expenditure on transportation, food, relocation and recovery. Nnaji et al. (2023) demonstrate that perceived insecurity can influence productive decisions, suggesting that economic losses may arise even without a recorded attack. Reduced cultivation can also lower demand for farm labour and affect transporters, processors, storage operators and market traders.

These effects may be particularly difficult for smallholders, landless agricultural workers and households with limited savings to absorb. Pastoral households may also experience reduced income when livestock are lost or access to grazing and water is disrupted. Consequently, conflict can weaken the economic relationships between crop production, livestock rearing and rural trade. The potential effects can be summarised as follows.

Table 2: Economic Channels and likely Consequences

Economic channel	Likely consequence
Reduced cultivation	Lower farm earnings
Fewer agricultural workdays	Reduced wages and seasonal employment
Disrupted trading	Lower sales and higher transaction costs
Loss of productive assets	Increased recovery expenses
Reduced investment	Weaker future productive capacity

Source: Author's analysis based on Nnaji et al. (2023) and the conflict literature.

Although these mechanisms explain how insecurity can affect livelihoods, their combined monetary value cannot be established from the available evidence. A more precise assessment would require household income records, production costs, sales data and information on workdays lost before and after conflict incidents.

Displacement, Market Disruption and Food Security

Displacement can impose substantial economic costs by separating households from farmland, livestock, employment and markets. Families may incur additional expenses for transportation, shelter and food while losing income from abandoned farms or interrupted trading. The International Organization for Migration (IOM, 2025) reported that attacks in Bassa and Riyom on 3–4 June 2025 affected 1,203 people from 373 households. These figures demonstrate the scale of the reported incidents but do not establish that every affected household experienced displacement specifically because of transhumance-related conflict.

Market disruption can compound these losses through reduced agricultural supply, interrupted transportation and higher transaction costs. The Food and Agriculture Organization (FAO, 2025) reported that 30.6 million Nigerians were projected to face acute food insecurity during June–August 2025. This was a national estimate reflecting several factors, including economic hardship, climate hazards and insecurity; it should not be interpreted as the number affected by farmer–herder conflicts in Plateau State alone.

Table 3: Evidence of displacement and food-security pressures

Indicator	Reported figure	Economic significance
People affected by attacks in Bassa and Riyom, June 2025	1,203	Potential disruption of livelihoods and household economic activity
Households affected in the reported incidents	373	Potential shelter, food and recovery expenses
Nigerians projected to face acute food insecurity, June–August 2025	30.6 million	National evidence of wider food-access pressures

Source: IOM (2025) and FAO (2025).

These figures illustrate the wider economic environment in which conflict-affected households operate, but they do not provide a monetary estimate of losses attributable to transhumance–crop farmers' conflicts in Plateau State. Such an estimate would require household expenditure records, displacement duration, market prices, transport costs and evidence of lost agricultural production.

Public Expenditure and Overall Economic Costs

Conflict creates additional demands for security operations, humanitarian assistance, healthcare, temporary shelter, reconstruction and livelihood recovery. Such expenditure may divert limited resources from planned investments in rural roads, irrigation, agricultural extension and other development priorities. However, the actual opportunity cost cannot be calculated without verified government budgets and expenditure records. The humanitarian needs documented by IOM (2025), including food, shelter, healthcare and water and sanitation, demonstrate the range of responses required following violent incidents.

The findings indicate that the economic burden operates through four connected channels: agricultural and asset losses, declining household income, displacement and market disruption, and public expenditure on emergency response. These effects can reinforce one another as lost production reduces earnings, income shortages weaken future investment, and displacement increases household recovery costs. Nnaji et al. (2023) support the importance of production decisions in understanding these effects, while the Plateau-focused research of Cinjel and Kefas (2024) provides relevant local context.

Table 4: Summary of the principal economic costs

Cost category	Principal losses	Evidence needed for valuation
Agricultural production	Destroyed crops and forgone harvests	Damaged hectares, yields and farm-gate prices
Livestock and assets	Animal deaths, damaged equipment and buildings	Verified losses and replacement values
Household livelihoods	Lost earnings, wages and investment	Household income and employment records
Displacement	Relocation expenses	Household

and markets	and interrupted trade	expenditure, transport costs and market data
Public expenditure	Security, relief and reconstruction	Verified government and humanitarian expenditure

Source: Author’s compilation based on the reviewed literature and institutional reports.

Finally, the evidence establishes several important channels through which transhumance–crop farmers’ conflicts can impose economic costs on Plateau State. However, the available sources do not provide a harmonised dataset covering all relevant losses between 2020 and 2025. The findings therefore support a structured assessment of economic consequences rather than a definitive aggregate monetary estimate. Reliable quantification would require incident-level records linked to crop and livestock losses, household income, market activity and public expenditure.

Discussion of Findings

The findings indicate that transhumance–crop farmers’ conflicts in Plateau State impose economic costs through agricultural losses, declining household income, displacement, market disruption and public expenditure on emergency response. These effects are interconnected, as the destruction of crops and productive assets can reduce earnings, weaken future investment and prolong livelihood recovery. Nnaji et al. (2023) support this interpretation by showing that perceived conflict risks influence agricultural investment and land-rental decisions among rural Nigerian households. We therefore observe that the economic consequences extend beyond immediate physical destruction to include production and income forgone because of insecurity.

The findings also demonstrate that both farming and pastoral households can experience substantial livelihood pressures. Crop farmers may lose harvests, inputs and access to farmland, while pastoralists may suffer livestock losses and restricted access to grazing and water. Cinjel and Kefas (2024), in their study of Mangu Local Government Area, provide relevant evidence of the socioeconomic implications of farmer–herder conflict for arable farming communities. We argue that sustainable conflict management should protect the productive assets and livelihood interests of both groups rather than address agricultural losses in isolation.

Displacement and market disruption further compound these costs. The reported June 2025 incidents in Bassa and Riyom, which affected 1,203 people from 373 households, illustrate the potential scale of disruption, although the figures do not establish that every affected household was displaced specifically by transhumance-related conflict (International Organization for Migration [IOM], 2025). Similarly, the Food and Agriculture Organization’s (FAO, 2025) projection of 30.6 million Nigerians facing acute food insecurity during June–August 2025 highlights wider food-access pressures but cannot be attributed exclusively to conflicts in Plateau State. We therefore interpret these indicators as evidence of the broader humanitarian and economic environment rather than direct measurements of conflict-related financial losses in the state.

Another important finding concerns the role of public expenditure and institutional capacity in determining the duration and severity of economic losses. Security operations, relief assistance and reconstruction require resources that could otherwise support

agricultural infrastructure and rural development. However, without verified expenditure records, the magnitude of these opportunity costs cannot be established. We consequently argue that effective responses should combine immediate humanitarian assistance with preventive measures, including improved land-use planning, accessible dispute-resolution mechanisms, early-warning systems and support for restoring damaged livelihoods.

In the final analysis, the findings suggest that transhumance–crop farmers’ conflicts weaken agricultural productivity and rural economic resilience through mutually reinforcing channels. Nevertheless, the absence of a harmonised dataset covering crop destruction, livestock losses, household earnings, displacement expenses and public expenditure between 2020 and 2025 prevents a reliable estimate of the total monetary cost. The study therefore contributes by identifying the principal economic consequences and the evidence required to measure them more accurately. We conclude that reducing these costs requires both improved conflict prevention and systematic documentation of economic losses to guide agricultural recovery and development policy.

Conclusion

This article examined the economic costs of transhumance–crop farmers’ conflicts in Plateau State, Nigeria, between 2020 and 2025. Using secondary evidence from scholarly studies and institutional reports, it identified agricultural losses, reduced production investment, livestock and property damage, household income disruption, displacement, market pressures, food insecurity and public response expenditure as the principal economic cost categories.

The findings show that the economic burden extends beyond the immediate destruction of crops and property. Perceived insecurity can discourage investment in fertiliser and land cultivation, while displacement and interrupted market access can weaken household income and livelihood recovery. The effects are interconnected and may persist beyond individual incidents, particularly where households have limited savings and access to productive resources. Evidence from Plateau State also demonstrates that conflict dynamics are influenced by institutional practices and the management of competing resource claims.

However, the available evidence does not support a reliable aggregate monetary estimate of the total economic cost of these conflicts across Plateau State for the entire 2020–2025 period. National food-security projections and displacement counts provide useful context, but they cannot be converted directly into state-level conflict losses. A credible monetary estimate requires verified records of crop and livestock losses, damaged assets, household income forgone, displacement costs and additional public expenditure.

The article concludes that reducing the economic burden requires a combination of inclusive land-use governance, early-warning systems, transparent compensation, agricultural recovery, livelihood support and accountable public institutions. Future research should undertake a state-wide economic assessment using household surveys, local market prices, conflict incident records and government expenditure data. Such work would provide a stronger empirical basis for comparing the costs of continued conflict with the resources required for prevention, peacebuilding and sustainable agricultural development.

Policy Implications and Recommendations

The findings highlight the need for coordinated policies that address both the immediate economic losses and the underlying causes of transhumance–crop farmers’ conflicts in Plateau State. The state government, local governments and relevant federal agencies should strengthen land-use governance through transparent arrangements for access to farmland, grazing areas and water points. These arrangements should involve farmers, pastoralists, traditional authorities, women and youth, with accessible dispute-resolution mechanisms to prevent disagreements from escalating into violence.

The government should also establish a standardised system for documenting crop destruction, livestock losses, property damage and displacement-related livelihood costs. Independent verification, transparent eligibility criteria and accessible complaints procedures would improve accountability and support fair compensation where appropriate. Reliable records would help identify repeatedly affected communities and guide the allocation of recovery resources.

Furthermore, early-warning systems should link community reports of emerging disputes and security threats to timely responses by security agencies, local authorities and community representatives. Regular dialogue and mediation, particularly before planting and harvesting seasons, could help resolve disputes before they disrupt agricultural activities. Such interventions should be assessed according to their ability to reduce recurring violence and protect livelihoods.

Agricultural recovery should support affected farmers through access to seeds, tools, credit, extension services, storage facilities and markets. Pastoral households should also receive appropriate livelihood support, including veterinary services and predictable access to water and legally recognised grazing resources. Assistance should reflect verified needs and enable both groups to restore productive activities.

Displaced households require emergency assistance alongside longer-term livelihood restoration. Support should cover shelter, food, healthcare, water and sanitation, while recovery programmes should monitor whether households regain access to farmland, livestock, employment and markets. Relevant indicators include income recovery, resumed cultivation, restored livestock assets and the duration of displacement.

Finally, Plateau State should strengthen economic accountability by linking security and humanitarian expenditure to long-term rural development. Government agencies, research institutions and humanitarian partners should collaborate on a common database covering conflict incidents, agricultural losses, market disruptions, displacement and recovery expenditure. Investment in rural roads, water infrastructure, agricultural extension and local conflict-resolution institutions should complement necessary security measures. This integrated approach would improve evidence-based planning, reduce avoidable economic losses and strengthen the resilience of farming and pastoral communities.

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