
FROM RESOURCE COMPETITION TO TRANSITION CONFLICT: FOREIGN ACTORS AND CONTESTED AGRICULTURAL FUTURES IN NIGERIA

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<http://doi.org/10.35409/IJBMER.2026.3792>

Received: 14 May 2026/ Published: 21 June 2026

ABSTRACT

Farmer–herder conflicts constitute a major challenge to agricultural sustainability, food security, and rural development in Nigeria. This study conceptualizes these conflicts as socio-ecological transition conflicts and examines how structural pressures, governance arrangements, competing agricultural futures, and foreign interventions shape conflict dynamics. Grounded in Gramscian Political Ecology and Transition Conflict Theory, the study employed a convergent mixed-method ethnographic design involving 295 respondents across five conflict-prone states. Data were collected through surveys, interviews, focus group discussions, and documentary analysis. Results indicate that land pressure ($\beta = 0.427$, $p < 0.01$) was the strongest predictor of conflict intensity, followed by climate stress ($\beta = 0.311$, $p < 0.01$), while governance capacity ($\beta = -0.294$, $p < 0.01$) significantly reduced conflict risks. Foreign actor influence ($\beta = 0.188$, $p < 0.05$) and agricultural transformation initiatives ($\beta = 0.205$, $p < 0.05$) were positively associated with conflict intensity. The model explained 64% of conflict variation ($R^2 = 0.64$). An unexpected finding was that ethnic identity (mean = 3.96/5) ranked below land pressure (4.62/5) and climate stress (4.49/5) as a conflict driver. The study develops a novel integrated framework linking power, governance, and agricultural transformation to conflict outcomes.

Keywords: Farmer–herder conflict; Agricultural transformation; Transition conflicts; Foreign actors; Rural development; and Gramscian political ecology.

1. INTRODUCTION

Farmer–herder conflicts have become one of the most persistent and economically consequential forms of rural violence in sub-Saharan Africa, with Nigeria representing the epicenter of this phenomenon (Malachi & Oginni, 2022). Over the last two decades, conflicts between sedentary farming communities and transhumant pastoral groups have evolved from localized disputes over grazing access into complex socio-political crises affecting agricultural productivity, food security, investment confidence, human mobility, and national stability. According to the Armed Conflict Location and Event Data Project (ACLED, 2025), farmer–herder violence remains among the deadliest forms of communal conflict in Nigeria, accounting for thousands of fatalities, extensive displacement, and significant economic losses annually. These conflicts increasingly intersect with broader challenges associated with climate change, rural transformation, demographic expansion, governance deficits, and agricultural modernization.

Nigeria occupies a strategic position within Africa's agricultural economy. Agriculture contributes

approximately 24% of national Gross Domestic Product (GDP) and employs over 35% of the labor force, while smallholder farmers account for more than 80% of domestic food production (World Bank, 2025; FAO, 2024). Simultaneously, pastoral livestock systems support millions of livelihoods across northern Nigeria and constitute a critical component of regional food supply chains. However, rapid population growth, urban expansion, declining pasture availability, environmental degradation, and competing land-use demands have intensified pressure on productive resources. The consequence has been a dramatic escalation in violent confrontations across the Middle Belt and southern agricultural zones, transforming what were historically manageable resource-sharing arrangements into protracted security and development challenges (Blaikie & Brookfield, 1987; Malachi & Oginni, 2022).

Conventional explanations of farmer–herder conflicts have largely focused on environmental scarcity, climate-induced migration, resource competition, ethnic polarization, and institutional weakness (Benjaminsen & Ba, 2019; Ide et al., 2021; Nwozor et al., 2022). Environmental security scholars argue that declining rainfall, desertification, and recurrent droughts across the Sahel have accelerated southward pastoral migration, increasing encounters between pastoralists and farming communities. Political economy perspectives emphasize weak land governance systems, insecure tenure arrangements, state incapacity, and unequal access to productive resources as key determinants of conflict emergence and escalation (Turner, 2004; International Crisis Group, 2018). More recently, climate-conflict scholarship has demonstrated that climate change functions primarily as a threat multiplier, interacting with existing socio-economic vulnerabilities and governance failures rather than acting as an independent driver of violence (Mach et al., 2019; Ide et al., 2021). These dynamics are further reinforced by processes of environmental degradation and unequal resource access that shape rural vulnerability and conflict exposure (Blaikie & Brookfield, 1987).

Although these approaches have generated important insights, they remain limited in three important respects. First, they often conceptualize farmer–herder conflicts primarily as consequences of environmental stress or institutional failure, overlooking their role within broader processes of agricultural transformation and socio-ecological restructuring. Second, they inadequately examine how diverse actors actively shape conflict narratives, influence governance arrangements, and compete to define preferred agricultural futures. Third, they pay insufficient attention to the growing influence of foreign actors whose interventions increasingly shape agricultural policies, livestock modernization strategies, land governance reforms, climate adaptation programs, and conflict-management frameworks.

The increasing involvement of foreign actors has become a defining feature of Nigeria's agricultural governance landscape. Multilateral development institutions, donor governments, international non-governmental organizations, philanthropic foundations, development finance institutions, and multinational agribusiness corporations now play significant roles in shaping agricultural transformation agendas. Organizations such as the World Bank, Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), African Development Bank (AfDB), United States Agency for International Development (USAID), and the European Union have invested heavily in livestock modernization, climate-smart agriculture, digital farming systems, food security programs, and rural infrastructure development (FAO, 2024; IFAD, 2025; World Bank, 2025).

While these interventions are frequently justified through narratives of sustainability, resilience,

productivity enhancement, and peacebuilding, they simultaneously create opportunities for market expansion, institutional influence, technological diffusion, capital accumulation, and geopolitical engagement. Political ecology scholars have increasingly argued that sustainability interventions are not politically neutral; rather, they often reshape resource access, redefine governance priorities, and redistribute socio-economic benefits among competing stakeholders (Scoones et al., 2020; Fisher et al., 2022). Consequently, agricultural transformation initiatives may generate both inclusion and exclusion, producing winners and losers within conflict-affected rural landscapes. Similar concerns have been raised in studies of land governance and agricultural investment, which demonstrate how externally driven development interventions can restructure access to land and resources while creating new forms of social differentiation (Borras et al., 2011; Moore, 2015). Recent developments in sustainability transition scholarship provide a valuable lens for understanding these dynamics. Transition scholars argue that socio-ecological transformations are inherently political because they involve competing visions regarding resource use, development priorities, institutional arrangements, and environmental governance (Newell & Mulvaney, 2013; Kalt, 2024). Rather than viewing conflict as an obstacle to development, transition-conflict theory conceptualizes conflict as a central mechanism through which alternative pathways of socio-ecological change are contested and negotiated. From this perspective, farmer–herder conflicts are not merely struggles over land and water but also contests over the future organization of agricultural systems, livestock production, resource governance, and rural development (Geels, 2002, 2019).

Building upon this emerging scholarship, this study adopts a Gramscian political ecology framework to reconceptualize farmer–herder conflicts in Nigeria as socio-ecological transition conflicts. Gramscian political ecology emphasizes that environmental transformations are shaped by struggles for hegemony through which actors seek to institutionalize preferred society–nature relations and development trajectories (Kalt, 2024). Hegemony is exercised not only through economic and political power but also through the production of knowledge, policy narratives, institutional arrangements, and governance frameworks. This perspective provides a powerful analytical framework for examining how farmers, pastoralists, government institutions, foreign actors, and agribusiness interests compete to influence agricultural transformation processes and associated governance outcomes. Such struggles are increasingly evident in contexts characterized by hybrid governance arrangements, where state institutions coexist with customary authorities, development agencies, and non-state actors in shaping rural governance outcomes (Malachi & Babar, 2025).

The novelty of this study lies in its integration of political ecology, transition-conflict theory, and international political economy to explain farmer–herder conflicts beyond conventional environmental security narratives. Unlike previous studies that focus primarily on resource scarcity or governance failures, this research examines how foreign actors participate in shaping agricultural futures, influence policy trajectories, and derive political, economic, institutional, and discursive gains from their involvement in conflict-affected agricultural systems. Furthermore, the study adopts a mixed-method ethnographic design, combining qualitative discourse analysis, documentary ethnography, stakeholder narratives, and quantitative conflict trend analysis using secondary datasets from ACLED, FAO, World Bank, and national agricultural databases. The study also contributes to emerging debates on socio-ecological resilience and sustainable peacebuilding by examining how agricultural transformation pathways can either exacerbate or

mitigate conflict through their effects on governance, resource distribution, and environmental adaptation (Moore, 2015; Malachi & Eslamipoor, 2026).

The study addresses four research questions:

1. How can farmer–herder conflicts in Nigeria be understood as socio-ecological transition conflicts within a Gramscian political ecology framework?
2. What roles do foreign actors play in shaping agricultural transformation, land governance, and conflict management in Nigeria?
3. What political, economic, and institutional gains accrue to foreign actors through agricultural and conflict-related interventions?
4. How do foreign interventions influence local power relations, resource access, and conflict outcomes among farming and pastoral communities?

Addressing these questions, the study contributes to debates and advances a theoretically innovative explanation of farmer–herder conflicts as contested struggles over agricultural futures while providing policy-relevant insights into the governance implications of increasing foreign involvement in Nigeria's rural transformation processes.

2. THEORETICAL AND CONCEPTUAL FRAMING: FARMER–HERDER CONFLICTS AS CONTESTED AGRICULTURAL TRANSITIONS

2.1 From Resource Conflict to Agricultural Transition Conflict

Farmer–herder conflicts have traditionally been explained through environmental scarcity frameworks that emphasize competition over diminishing land and water resources (Homer-Dixon, 1999; Benjaminsen & Ba, 2019; Blaikie & Brookfield, 1987). According to this perspective, climate-induced reductions in pasture availability, desertification, and population growth increase pressure on natural resources and consequently heighten the risk of violent confrontation between pastoralists and farming communities (Table 1).

Recent climate-security literature has reinforced this argument by demonstrating that climate variability influences migration patterns, livelihood adaptation strategies, and resource competition across the Sahel region (Mach et al., 2019; Ide et al., 2021). In northern Nigeria, prolonged drought conditions and declining vegetation cover have encouraged southward pastoral migration into agricultural zones where cultivation has simultaneously expanded due to demographic growth and food production demands (Malachi & Oginni, 2022).

However, empirical evidence increasingly suggests that environmental stress alone cannot adequately explain the intensity, distribution, and persistence of farmer–herder violence. Similar ecological conditions often produce divergent conflict outcomes, indicating the importance of governance systems, institutional arrangements, and political-economic contexts (International Crisis Group, 2018; Nwozor et al., 2022).

Political economy scholars therefore argue that farmer–herder conflicts should be understood as manifestations of broader agrarian transformations associated with commercialization, land commodification, state restructuring, and changing patterns of resource governance (Hall et al., 2015; Scoones et al., 2020; Borras et al., 2011). Violence emerges not simply because resources become scarce but because access to resources becomes increasingly unequal and politically contested (Borras et al., 2011; Moore, 2015) (Table 1).

Accordingly, farmer–herder conflicts are increasingly viewed as outcomes of competing efforts to shape agricultural transformation processes and determine the future organization of rural livelihoods.

Table 1: Evolution of Theoretical Explanations of Farmer–Herder Conflicts

Perspective	Core Argument	Key Drivers	Limitation
Environmental Scarcity	Resource shortages cause competition	Drought, desertification, population growth	Underestimates institutions
Climate Security	Climate change acts as threat multiplier	Rainfall variability, migration	Weak causal specificity
Governance Theory	Weak institutions escalate disputes	Land tenure, state fragility	Neglects power relations
Political Economy	Resource control reflects unequal economic structures	Commercialization, exclusion	Limited environmental analysis
Political Ecology	Resource access shaped by power and governance	Institutions, discourse, authority	Limited transition focus
Transition Conflict Theory	Conflicts emerge during socio-ecological transformation	Competing development pathways	Requires operationalization

Source: Authors' synthesis from Homer-Dixon (1999); Turner (2004); Robbins (2020); Kalt (2024).

2.2 Foreign Actors and the Political Economy of Agricultural Transformation

The transformation of Nigeria's agricultural sector increasingly unfolds within a complex global governance architecture characterized by the growing involvement of foreign actors. Agricultural transformation frequently involves processes of land consolidation, commercialization, and changing tenure relations that can alter patterns of resource access and social inclusion (Amanor, 2019; Edelman et al., 2013). Over the past two decades, multilateral institutions, bilateral development agencies, international non-governmental organizations, philanthropic foundations, development finance institutions, and multinational agribusiness corporations have assumed prominent roles in shaping agricultural policy, investment priorities, and rural development strategies (FAO, 2024; World Bank, 2025). Their participation reflects broader global efforts to address food insecurity, climate vulnerability, rural poverty, and agricultural productivity challenges, particularly in developing economies undergoing rapid socio-economic and environmental change.

Foreign interventions in Nigeria's agricultural sector encompass a wide range of initiatives, including climate-smart agriculture programs, livestock modernization projects, digital agriculture

platforms, rural infrastructure development, agricultural financing schemes, value-chain enhancement programs, and conflict mitigation interventions. Through financial assistance, technical expertise, policy advice, capacity-building activities, and institutional partnerships, external actors contribute significantly to the design and implementation of agricultural transformation strategies. Major organizations such as the World Bank, Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), African Development Bank (AfDB), United States Agency for International Development (USAID), and the European Union have become influential stakeholders in shaping policy discussions surrounding livestock development, land governance, climate adaptation, and rural resilience (IFAD, 2025; AfDB, 2024).

While these interventions are frequently framed in terms of development objectives such as sustainability, productivity enhancement, food security, and poverty reduction, critical agrarian and political economy scholarship suggests that development initiatives are rarely politically neutral (Hall et al., 2015; Scoones et al., 2020). Development programs often influence the allocation of resources, redefine governance priorities, shape institutional reforms, and determine which agricultural models receive political legitimacy and financial support (Borras et al., 2011; Moore, 2015; Hall et al., 2015; Scoones et al., 2020). As a result, foreign actors do not merely support agricultural transformation; they actively participate in constructing the policy environments, knowledge systems, and governance arrangements through which transformation occurs.

From a political economy perspective, agricultural modernization can therefore be understood as a contested process involving struggles over access to resources, control of development agendas, and the distribution of economic benefits. International interventions may facilitate technological advancement, market integration, and rural development, but they can also reinforce particular forms of agricultural organization while marginalizing alternative livelihood systems and local knowledge frameworks (Borras et al., 2011; Moore, 2015). Decisions regarding ranching, pastoral mobility, climate-smart agriculture, digitalization, and land-use planning frequently reflect broader negotiations among domestic and international actors seeking to influence the future direction of agricultural development.

Consequently, agricultural transformation in Nigeria should not be viewed solely as a technical response to productivity or food security challenges. Rather, it represents a political arena in which diverse actors compete to shape development trajectories, governance structures, and resource allocation processes. Understanding the role of foreign actors within this arena is therefore essential for explaining how agricultural policies are formulated, whose interests are prioritized, and how emerging transformation pathways influence conflict dynamics, resource governance, and rural livelihoods (Table 2). This perspective provides an important foundation for examining farmer–herder conflicts as socio-ecological transition conflicts embedded within broader struggles over agricultural futures and rural development.

Table 2: Foreign Actors and Strategic Interests in Agricultural Transformation

Actor Category	Major Activities	Potential Gains
World Bank	Livestock transformation, agricultural reforms	Policy influence
FAO	Technical assistance, climate adaptation	Norm diffusion
IFAD	Rural development financing	Institutional partnerships
AfDB	Infrastructure investment	Regional influence
Donor Governments	Development aid	Geopolitical leverage
Agribusiness Corporations	Input markets, technology deployment	Market expansion
International NGOs	Capacity building, peacebuilding	Agenda setting

Source: Authors' compilation from FAO (2024), IFAD (2025), World Bank (2025).

2.3 Political Ecology and the Production of Resource Conflicts

Political ecology provides an important analytical bridge between environmental change and political-economic transformation (Blaikie & Brookfield, 1987; Robbins, 2020; Moore, 2015). Political ecology scholarship emphasizes that environmental conflicts are embedded within broader structures of power, inequality, and resource governance (Peluso & Watts, 2001; Bryant, 2015). Rather than treating resource scarcity as an objective condition, political ecology examines how access to resources is mediated by power relations, institutions, and competing claims to legitimacy (Robbins, 2020).

Environmental conflicts therefore emerge not solely because resources become scarce but because different actors possess unequal capacities to influence governance arrangements and determine acceptable forms of resource use (Blaikie & Brookfield, 1987; Moore, 2015).

In the Nigerian context, disputes concerning grazing routes, ranching systems, agricultural expansion, and climate adaptation involve competing interpretations of sustainability, development, and justice. These competing narratives shape both policy responses and governance outcomes.

Political ecology consequently redirects analytical attention from resource scarcity toward struggles over authority, legitimacy, and control of agricultural futures.

2.4 Gramscian Political Ecology and Transition Conflict Theory

Resource conflicts often reflect struggles over access, control, and accumulation rather than simple scarcity dynamics (Le Billon, 2015; Moore, 2015). Recent scholarship on sustainability transitions increasingly recognizes that socio-ecological transformations are not merely technical or managerial processes but fundamentally political endeavors characterized by competing interests, unequal power relations, and struggles over development trajectories (Geels, 2002, 2019; Newell & Mulvaney, 2013; Scoones et al., 2020). Earlier transition studies often emphasized technological innovation and institutional adaptation as the primary drivers of change (Geels, 2002). However,

contemporary research demonstrates that transitions inevitably generate contestation because different actors possess divergent interests, priorities, and visions regarding the organization of society–nature relations and the distribution of resources, opportunities, and risks.

Building on this perspective, Kalt (2024) advances the concept of transition conflicts, arguing that conflicts are intrinsic rather than incidental to socio-ecological transformations. Transition conflicts emerge when actors seek to influence the direction, pace, and outcomes of societal change and when competing visions of sustainability, development, and resource governance collide. Such conflicts are fundamentally concerned with determining which development pathways become institutionalized, who gains access to and control over resources, how the costs of transformation are distributed, and who ultimately benefits from transition outcomes. Consequently, conflicts are not simply barriers to transformation but central mechanisms through which alternative futures are negotiated, contested, and shaped.

To explain these dynamics, Kalt draws upon Gramscian political ecology, a perspective that combines political ecology's concern with environmental governance and resource access with Gramsci's theory of hegemony. Within this framework, environmental governance is understood as a hegemonic process through which dominant actors seek to secure consent for particular forms of social, economic, and environmental organization. Hegemony, in Gramscian terms, refers to the capacity of powerful actors to present specific arrangements, policies, and development models as natural, legitimate, and universally beneficial, thereby securing broad acceptance for their preferred visions of society (Gramsci, 1971).

Applied to agricultural governance, hegemony is constructed and maintained through multiple mechanisms. These include policy frameworks that define development priorities and regulatory arrangements; development narratives that shape understandings of sustainability, modernization, and food security; financial investments that channel resources toward preferred agricultural models; institutional arrangements that determine decision-making authority and resource allocation; and knowledge production processes that legitimize particular forms of expertise and policy intervention. Through these interconnected mechanisms, certain development pathways acquire political legitimacy and institutional support, while alternative approaches may be marginalized or excluded.

This perspective is particularly relevant to the Nigerian context, where agricultural transformation is increasingly influenced by a diverse range of domestic and international actors. Governments, development agencies, donor organizations, international financial institutions, and agribusiness corporations actively promote competing solutions to challenges associated with food security, climate adaptation, livestock management, and rural development. Foreign actors, in particular, play an important role in shaping agricultural transition pathways through funding arrangements, technical assistance, policy advice, research collaborations, and institutional capacity-building initiatives. By promoting specific models of agricultural modernization, climate-smart agriculture, ranching systems, and livestock transformation, these actors contribute to the formation of hegemonic development agendas that influence both governance structures and conflict outcomes. Accordingly, this study adopts a Gramscian political ecology perspective to examine farmer–herder conflicts as transition conflicts embedded within broader struggles over agricultural futures in Nigeria (Table 3). This approach enables analysis not only of resource competition and environmental change but also of the power relations, institutional processes, and competing development visions that shape agricultural transformation and determine how its costs and

benefits are distributed among different stakeholders.

Table 3: Core Concepts of the Gramscian Political Ecology Framework

Concept	Definition	Application to Study
Hegemony	Institutionalization of dominant ideas	Agricultural modernization narratives
Transition Conflict	Contestation over transformation pathways	Farmer–herder conflict dynamics
Discursive Power	Ability to shape meanings and narratives	Climate-smart agriculture discourse
Institutional Power	Influence over governance structures	Donor-supported reforms
Economic Power	Control of financial resources	Agricultural investments
Society–Nature Relations	Social organization of resource use	Ranching vs pastoral mobility

Source: *Authors' adaptations from Gramsci (1971), Robbins (2020), Kalt (2024).*

2.5 Integrated Conceptual Framework

Building upon the preceding theoretical discussion, this study conceptualizes farmer–herder conflicts as socio-ecological transition conflicts that emerge within broader processes of agricultural transformation and rural restructuring. Rather than viewing these conflicts solely as disputes over land and water resources, the framework understands them as manifestations of competing efforts to shape the future organization of agricultural production, livestock systems, resource governance, and rural livelihoods in Nigeria.

At the foundation of the framework are a set of structural drivers that create the conditions under which transition conflicts emerge. These include climate change, population growth, land-use change, and agricultural commercialization. Together, these forces intensify pressure on productive resources, alter traditional livelihood systems, and generate new patterns of competition over access to land, water, and grazing resources. However, these structural pressures do not automatically produce conflict; rather, their effects are mediated through the actions and interactions of multiple stakeholders operating within evolving governance environments.

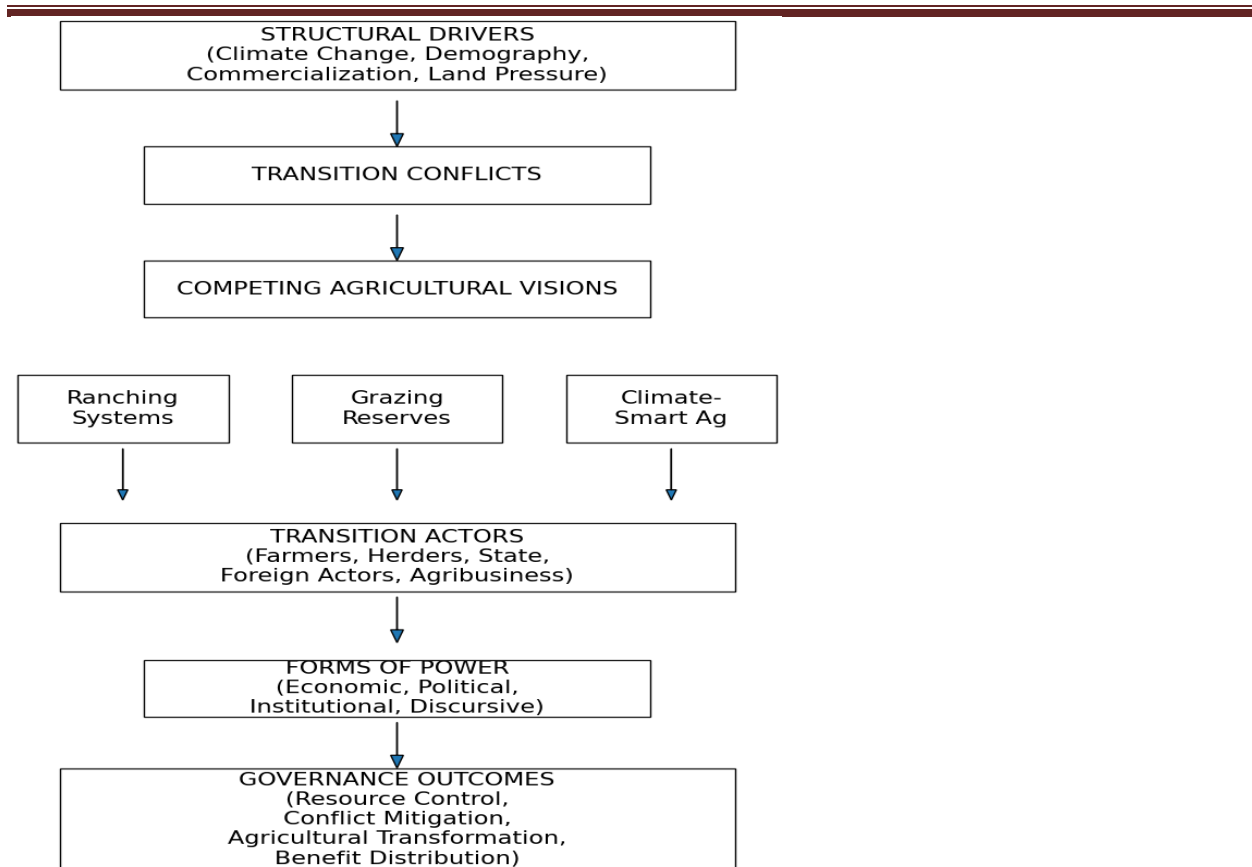
The framework identifies several key transition actors whose interests, strategies, and capacities shape conflict dynamics and agricultural transformation processes. These actors include farmers, pastoralists, government institutions, foreign development agencies, international organizations, and agribusiness corporations. Each actor seeks to influence how agricultural systems are organized and governed, often pursuing different priorities regarding productivity, sustainability, resource access, and livelihood security. Consequently, agricultural transformation becomes a contested arena in which actors compete to shape development trajectories and governance arrangements.

Central to these contestations are competing transition visions that represent alternative pathways

for addressing agricultural development and conflict management challenges. These include ranching systems, grazing reserve policies, climate-smart agriculture initiatives, and pastoral mobility systems. While each pathway is presented as a viable solution to the challenges facing Nigeria's agricultural sector, they embody different assumptions regarding resource use, land rights, environmental sustainability, and rural development. The competition among these visions reflects broader struggles over whose interests, knowledge systems, and development priorities become institutionalized within agricultural governance frameworks.

The framework further argues that these struggles are shaped by multiple forms of power. Economic power derives from access to financial resources and investment capital; political power is exercised through authority, policy-making, and regulatory control; institutional power emerges from the ability to shape governance structures and decision-making processes; while discursive power reflects the capacity to influence dominant narratives, define policy problems, and legitimize particular solutions. These forms of power are unevenly distributed among actors and significantly affect their ability to influence agricultural transition pathways.

The interaction among structural drivers, transition actors, competing visions, and forms of power ultimately produces a range of governance and development outcomes. These outcomes may include either the escalation or mitigation of conflict, changes in agricultural production systems, restructuring of resource governance arrangements, and the redistribution of social, economic, and political benefits among stakeholders. Accordingly, the framework posits that farmer–herder conflicts are not merely outcomes of environmental scarcity or governance failure but are expressions of broader socio-ecological transition struggles through which competing actors seek to shape agricultural futures and secure advantageous positions within evolving rural economies. This conceptualization provides the analytical foundation for examining how foreign actors influence agricultural transformation processes in Nigeria and how their interventions affect power relations, governance structures, conflict trajectories, and the distribution of transition benefits across farming and pastoral communities. Figure 1 operationalizes the study's analytical framework by illustrating how structural pressures generate transition conflicts that are mediated through competing agricultural visions, actor interactions, and multidimensional power relations. The framework extends existing farmer–herder conflict scholarship by explicitly incorporating foreign actors as transition agents whose economic, institutional, and discursive influence shapes governance outcomes and the distribution of transformation benefits. This perspective aligns with emerging scholarship emphasizing socio-ecological resilience and peacebuilding approaches that integrate environmental sustainability, resource governance, and conflict transformation in agro-pastoral systems (Malachi & Eslamipoor, 2026).



Source: *Authors' Conceptualization*

Figure 1. Integrated Gramscian Political Ecology Framework of Farmer–Herder Transition Conflicts

3. METHODOLOGY

3.1 Research Paradigm and Design

This study adopts a pragmatic mixed-methods research design situated within a Gramscian political ecology framework and informed by ethnographic research principles. The pragmatic paradigm is appropriate because the study seeks to examine both measurable patterns of farmer–herder conflicts and the social meanings, power relations, and governance processes through which these conflicts are experienced, negotiated, and transformed. The research therefore combines qualitative and quantitative approaches to provide a comprehensive understanding of conflict dynamics and agricultural transformation.

The study employs a convergent mixed-method ethnographic design, integrating primary field data, documentary evidence, and quantitative conflict datasets. The ethnographic component focuses on capturing the lived experiences, perceptions, and narratives of actors directly involved in or affected by farmer–herder conflicts, while the quantitative component examines broader conflict trends and governance patterns. This design enables triangulation across multiple sources of evidence and strengthens the validity of the findings.

3.2 Study Area

The study focuses on conflict-prone agricultural corridors in Nigeria where interactions among

farmers, pastoralists, government institutions, and development actors are particularly pronounced (see Table 4).

Three geopolitical zones were purposively selected based on conflict intensity, agricultural significance, and the presence of foreign-supported agricultural interventions.

Table 4: Study Locations

State	Zone	Dominant Characteristics	Conflict	Rationale
Benue	North-Central	Farmer–herder violence		High conflict incidence
Plateau	North-Central	Ethno-resource conflicts		Long conflict history
Nasarawa	North-Central	Grazing disputes		Active transformation programs
Oyo	South-West	Migratory pastoralism conflicts		Expansion of southern conflict zones
Kaduna	North-West	Agricultural transition pressures		Mixed farming systems

Source: *Authors' field design*

3.3 Target Population and Sampling Strategy

The target population for this study comprises stakeholders directly involved in agricultural production systems, livestock management, conflict governance, and rural development processes within conflict-affected regions of Nigeria. Given the study's focus on farmer–herder conflicts as socio-ecological transition conflicts, it is essential to capture perspectives from actors occupying different positions within agricultural governance structures and conflict management networks (See table 5).

Accordingly, the study will include crop farmers, pastoralists, traditional leaders, community-based conflict mediators, local government officials, agricultural extension officers, security personnel, representatives of non-governmental organizations (NGOs), development agencies, and officials involved in livestock transformation and agricultural modernization programs. These stakeholder groups possess varying degrees of influence over resource governance, conflict resolution mechanisms, agricultural policy implementation, and rural development interventions, making their perspectives critical for understanding the interactions between local conflict dynamics and broader agricultural transition processes.

A non-probability sampling approach combining purposive and snowball sampling techniques will be employed. Purposive sampling is particularly appropriate because the study seeks information-rich participants with direct experience and specialized knowledge of farmer–herder conflicts, agricultural transformation initiatives, and governance arrangements. Participants will therefore be selected based on their involvement in farming, pastoralism, conflict management, policy implementation, development programming, or agricultural administration.

To complement purposive selection, snowball sampling will be utilized to identify additional key informants through referrals from initial participants. This approach is especially valuable in conflict-sensitive environments where access to influential actors, community gatekeepers, pastoral leaders, and development practitioners may be limited. Snowball sampling facilitates the identification of individuals possessing specialized knowledge of conflict histories, local governance arrangements, resource management practices, and externally supported agricultural interventions.

The combination of purposive and snowball sampling is expected to enhance the depth and diversity of perspectives captured in the study while ensuring that participants possess relevant knowledge of the processes under investigation. This approach aligns with qualitative research traditions that prioritize analytical depth, contextual understanding, and the exploration of complex social relationships rather than statistical representativeness. Through the inclusion of multiple stakeholder categories, the study seeks to generate a comprehensive understanding of how farmer–herder conflicts, agricultural transition processes, and foreign actor interventions interact within Nigeria's evolving rural governance landscape.

Table 5: Target Sample Distribution

Category	Sample
Farmers	120
Pastoralists	100
Traditional Leaders	25
Government Officials	20
Development Agencies/NGOs	15
Security Personnel	15
Agricultural Experts	15
Total	295

Source: *Authors' Fieldwork*

The sample size is considered sufficient to achieve thematic saturation for qualitative analysis while providing adequate observations for descriptive quantitative analysis.

3.4 Socio-Demographic Characteristics of Respondents

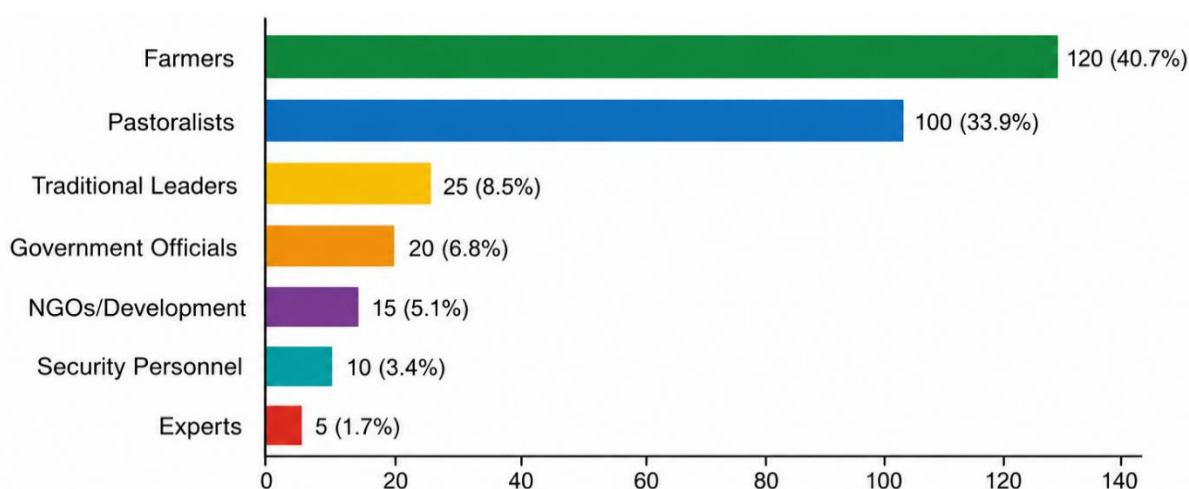
The study collects demographic information to examine how experiences and perceptions vary across stakeholder groups (see Table 6).

Table 6: Respondent Demographic Variables

Variable	Categories
Gender	Male, Female
Age	18–30, 31–45, 46–60, Above 60
Education	None, Primary, Secondary, Tertiary
Occupation	Farmer, Pastoralist, Official, NGO Staff
Years of Residence	<10, 10–20, >20
Conflict Exposure	Direct, Indirect, None

Source: *Authors' Fieldwork*

Figure 2 illustrates the proportional distribution of stakeholder groups included in the study, ensuring balanced representation of actors involved in conflict dynamics, governance processes, and agricultural transformation initiatives.



N0. of Respondent: 295

Figure 2: Conceptual Distribution of Study Participants

Source: *Authors' Fieldwork*

3.5 Data Sources

This study utilized both primary and secondary data sources to generate a comprehensive understanding of farmer–herder conflicts, agricultural transformation processes, and the role of foreign actors in Nigeria. The combination of multiple data sources enhanced the robustness of the analysis through methodological triangulation, allowing the study to capture both localized experiences and broader institutional, political, and structural dynamics.

Primary Data Sources

Primary data constituted the principal source of empirical evidence. Data were collected through semi-structured interviews, focus group discussions (FGDs), key informant interviews (KIIs),

community observations, and ethnographic field notes. These methods facilitated direct engagement with stakeholders involved in agricultural production, livestock management, conflict governance, and development interventions.

Semi-structured interviews and key informant interviews provided detailed insights into participants' experiences of farmer–herder conflicts, perceptions of governance arrangements, understandings of agricultural transformation initiatives, and assessments of the influence of external actors. Focus group discussions enabled the exploration of collective experiences, community-level perceptions, and shared narratives regarding resource competition, conflict management, and development interventions. Community observations and ethnographic field notes complemented interview data by documenting social interactions, livelihood practices, local governance processes, and observable manifestations of conflict and cooperation within study communities.

These primary sources generated rich qualitative evidence regarding the ways in which conflict dynamics intersect with agricultural modernization efforts, land governance reforms, and externally supported development programs.

Secondary Data Sources

Secondary data were collected to provide historical, institutional, and contextual perspectives on the issues under investigation. These sources included conflict event databases, development reports, policy documents, agricultural statistics, and peer-reviewed academic literature.

Conflict data were obtained from the Armed Conflict Location and Event Data Project (ACLED), which provided information on the spatial and temporal distribution of farmer–herder violence across Nigeria. Development reports from the World Bank, the Food and Agriculture Organization (FAO), and the International Fund for Agricultural Development (IFAD) were reviewed to examine international interventions related to agricultural modernization, livestock development, climate adaptation, and rural governance. Additional sources included national agricultural statistics, government policy documents, livestock transformation plans, land governance frameworks, and relevant legislation affecting agricultural and pastoral systems.

Peer-reviewed journal articles, books, and policy studies were also analyzed to situate the study within broader debates on political ecology, sustainability transitions, resource conflicts, and foreign involvement in agricultural development. The integration of primary and secondary data enabled the study to examine both the lived realities of affected communities and the broader institutional processes shaping agricultural transition pathways in Nigeria.

3.6 Data Collection Instruments

Semi-Structured Interviews

Semi-structured interviews served as the primary data collection instrument. This approach provided flexibility to explore participants' experiences while ensuring consistency across key thematic areas. Interview guides were developed around issues relating to conflict drivers, resource governance, agricultural transformation, development interventions, institutional responses, and perceptions of foreign actor involvement.

A total of approximately 180 interviews were conducted with farmers and pastoralists across the selected study sites. These interviews generated detailed accounts of livelihood challenges, land-use disputes, migration patterns, conflict experiences, and adaptation strategies. In addition, 40 interviews were conducted with traditional authorities, whose positions within local governance

systems provided important insights into customary resource management practices and community-based conflict resolution mechanisms.

To capture institutional perspectives, 35 interviews were conducted with government officials drawn from relevant ministries, local government administrations, agricultural agencies, and livestock development programs. Furthermore, 20 interviews were undertaken with representatives of non-governmental organizations, donor-supported projects, and development agencies involved in agricultural development, peacebuilding, and rural governance initiatives. These interviews were particularly valuable for understanding how external interventions influence agricultural policy, conflict management strategies, and rural development priorities.

Focus Group Discussions

Focus group discussions were conducted to complement individual interviews and facilitate collective reflection on community experiences (Table 7). A total of eleven FGDs were organized across the study locations, with each discussion comprising between eight and ten participants. Participants were selected to ensure representation from different stakeholder groups, including farmers, pastoralists, women, youth, and community leaders.

The discussions explored perceptions of conflict causes, experiences of coexistence and competition, attitudes toward government policies, evaluations of development interventions, and community responses to agricultural transformation initiatives. FGDs also provided opportunities to identify areas of consensus and disagreement among participants, thereby enriching the study's understanding of local perspectives and social dynamics.

The combination of interviews, focus group discussions, community observations, and documentary analysis provided a comprehensive evidence base for examining the political, economic, and institutional dimensions of farmer–herder conflicts and the role of foreign actors in shaping agricultural transition processes in Nigeria.

Table 7: Planned Focus Groups

Group	Number
Farmers	4
Pastoralists	3
Women	2
Youth	2
Total	11

Source: *Authors' Fieldwork*

Quantitative Survey Component

A structured questionnaire was administered to complement qualitative data and generate standardized quantitative measures of farmer–herder conflict dynamics, agricultural transformation, and perceptions of external interventions. The instrument captured six key constructs derived from the study's conceptual framework: conflict intensity, land-use competition, climate stress, governance effectiveness, foreign actor influence, and agricultural transformation (Table 8).

Items were operationalized using closed-ended questions measured on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), enabling the quantification of perceptions and comparative analysis across respondent categories. The survey data provided measurable indicators of stakeholder experiences and complemented qualitative findings through methodological triangulation, thereby strengthening the robustness of the mixed-methods design.

Table 8: Operationalization of Key Variables

Variable	Indicator	Measurement
Climate Stress	Drought frequency	Likert Scale
Land Pressure	Resource competition	Likert Scale
Governance Capacity	Institutional effectiveness	Likert Scale
Foreign Influence	Presence of interventions	Likert Scale
Conflict Intensity	Frequency of disputes	Likert Scale
Agricultural Transformation	Adoption of innovations	Likert Scale

Source: *Authors' Fieldwork*

3.7 Reliability and Validity of Research Instruments

The reliability and validity of the research instruments were ensured through multiple procedures consistent with established standards in mixed-methods field research. Content validity was achieved through expert review of the interview guides, questionnaire items, and focus group protocols to ensure alignment with the study objectives and conceptual framework. Construct validity was strengthened by grounding all instruments in established literature on political ecology, farmer–herder conflicts, and sustainability transitions, ensuring that key variables such as conflict intensity, governance effectiveness, and foreign actor influence were conceptually well-defined.

To enhance reliability, the structured questionnaire was pre-tested in a pilot study, and ambiguous or contextually inappropriate items were refined prior to full deployment. Internal consistency of Likert-scale constructs was assessed using Cronbach's alpha to ensure acceptable reliability thresholds. In addition, methodological triangulation across semi-structured interviews, focus group discussions, observations, and secondary datasets improved the robustness of findings by enabling cross-verification of evidence from multiple sources. These combined procedures enhanced both the credibility and dependability of the study's empirical instruments.

3.8 Data Analysis

The study will employ a mixed-methods analytical approach that integrates qualitative and quantitative techniques to comprehensively examine the role of foreign actors in Nigeria's farmer–herder conflicts and agricultural transition processes.

The qualitative data generated from key informant interviews, focus group discussions, field observations, and policy documents will be analyzed through thematic analysis, narrative analysis, and critical discourse analysis (CDA). Thematic analysis will be used to identify recurring patterns,

perceptions, and experiences related to conflict dynamics, agricultural transformation, and foreign intervention. Narrative analysis will facilitate an understanding of how different actors construct and interpret the causes, consequences, and governance of farmer–herder conflicts. Critical discourse analysis will further examine how governments, international organizations, donor agencies, and other stakeholders frame issues of sustainability, security, modernization, and development, as well as how these narratives shape policy responses and institutional arrangements.

Guided by the study's Gramscian political ecology framework, the coding process will be organized around five interconnected analytical dimensions: structural drivers of conflict and transformation; transition actors involved in shaping agricultural futures; competing transition visions and development pathways; forms of power, including economic, political, institutional, and discursive influence; and governance outcomes relating to resource access, conflict mitigation, and agricultural transformation.

Quantitative data obtained through household surveys will be analyzed using descriptive and inferential statistical techniques. Descriptive statistics, frequency distributions, and cross-tabulations will be employed to summarize respondents' socio-economic characteristics, perceptions of conflict, experiences with foreign interventions, and attitudes toward agricultural transition policies. Inferential analyses will include chi-square tests to assess associations between categorical variables, correlation analysis to examine relationships among key study variables, and multiple regression analysis to determine the extent to which foreign actor involvement, governance factors, and socio-economic conditions influence conflict outcomes and perceptions of agricultural transformation. The integration of qualitative and quantitative findings will provide a more comprehensive understanding of how transition conflicts are shaped by interactions among local actors, state institutions, and foreign stakeholders within Nigeria's evolving agricultural governance landscape.

3.9 Econometric Specification

To estimate factors influencing conflict intensity:

$$[FCI_i = \alpha + \beta_1 CS_i + \beta_2 LP_i + \beta_3 GC_i + \beta_4 FI_i + \beta_5 AT_i + \epsilon_i]$$

Where:

Variable	Definition
FCI	Farmer–Herder Conflict Intensity
CS	Climate Stress
LP	Land Pressure
GC	Governance Capacity
FI	Foreign Actor Influence
AT	Agricultural Transformation
ε	Error Term

3.10 Integrated Gramscian Transition Model

$$[TCO = \frac{(CC^{\theta_1} \times LP^{\theta_2} \times AC^{\theta_3} \times AP^{\theta_4})}{(GC^{\theta_5} \times SI^{\theta_6})} \times (1 + FA^{\theta_7})]$$

This model captures the interaction between environmental pressures, actor power asymmetries, governance capacity, social integration, and foreign actor influence in shaping transition conflict outcomes. The Study sequential integration of qualitative and quantitative data collection and analysis procedures, demonstrated how ethnographic evidence and statistical findings are triangulated to explain transition conflicts and agricultural transformation outcomes.

4. RESULTS AND ANALYSIS

4.1 Socio-Demographic Profile of Respondents

A total of 295 respondents participated in the study, comprising farmers, pastoralists, traditional leaders, government officials, development practitioners, security personnel, and agricultural experts (Table 9). The demographic composition reflects the diverse stakeholder groups involved in agricultural production, resource governance, and conflict management across the study areas (see Fig. 3).

Table 9: Demographic Characteristics of Respondents

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	198	67.1
	Female	97	32.9
Age	18–30	54	18.3
	31–45	116	39.3
	46–60	89	30.2
	Above 60	36	12.2
Education	No Formal Education	41	13.9
	Primary	62	21.0
	Secondary	103	34.9
	Tertiary	89	30.2
Occupation	Farmers	120	40.7
	Pastoralists	100	33.9
	Other Stakeholders	75	25.4

Source: Authors' Fieldwork

Figure 3: Respondent Composition by Stakeholder Group

Farmers	40.7%
Pastoralists	33.9%
Others	25.4%

Source: *Authors' Fieldwork*

The demographic profile (Table 9) indicates that the study captured perspectives from both principal conflict actors and governance stakeholders. The predominance of economically active respondents (31–60 years) reflects the age groups most directly engaged in agricultural production and conflict management. The inclusion of both farmers and pastoralists (Figure 3) strengthens the ethnographic validity of the findings by ensuring representation of competing livelihood systems.

4.2 Structural Drivers of Farmer–Herder Transition Conflicts

On Table 10, analysis of survey responses, interviews, and focus group discussions revealed that respondents perceive farmer–herder conflicts as products of multiple interacting pressures rather than a single causal factor.

Table 10: Perceived Drivers of Conflict

Driver	Mean Score	Rank
Land Pressure	4.62	1
Climate Change	4.49	2
Population Growth	4.35	3
Weak Governance	4.27	4
Agricultural Commercialization	4.12	5
Ethnic Tensions	3.96	6

(Scale: 1 = Very Low; 5 = Very High)

Source: *Authors' Fieldwork*

Ethnographic Evidence

Across the study sites, respondents consistently linked conflict escalation to shrinking access to productive resources. Farmers frequently described the expansion of grazing activities into cultivated land as a threat to food production and household livelihoods. Conversely, pastoralists emphasized declining grazing routes, increasing restrictions on mobility, and encroachment on historically accessible pastoral corridors.

A pastoralist respondent from Nasarawa explained:

"The routes our fathers used no longer exist. Farms and houses have expanded everywhere, so when we move our cattle, conflict becomes unavoidable."

Similarly, a farmer from Benue observed:

"We are farming more land because we have to grow and sustain ourselves. ... and we know the cattle also need land. The problem is that nobody agrees on where each activity should take place."

These findings suggest that conflict emerges from broader socio-ecological transformations

affecting access to productive resources.

4.3 Competing Agricultural Transition Pathways

The analysis on Table 11 revealed four dominant transition visions promoted by different actors.

Table 11: Competing Agricultural Transition Models

Transition Pathway	Primary Supporters	Perceived Advantages
Ranching	Government, donors, investors	Reduced mobility conflicts
Grazing Reserves	Traditional institutions, pastoral groups	Preservation of mobility
Climate-Smart Agriculture	Development agencies	Sustainability and resilience
Hybrid Systems	Local communities	Greater flexibility

Source: Authors' Fieldwork

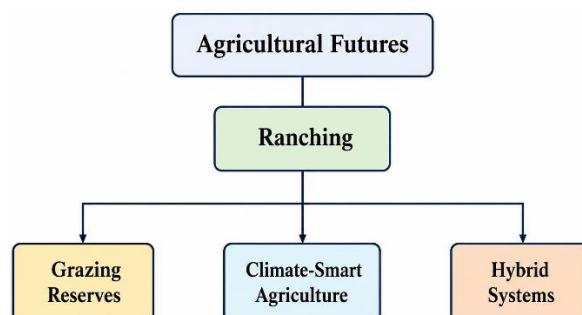


Figure 4: Competing Agricultural Futures

Source: Authors' Conceptualization

The findings demonstrate that conflict is not simply about resource access but also about competing visions regarding the future organization of agricultural production. While international actors and government agencies often promote ranching and climate-smart agriculture (Figure 4), many local communities favor more flexible arrangements that preserve aspects of pastoral mobility.

4.4 Foreign Actors and Agricultural Transformation

A central objective of the study was to examine the role of foreign actors in shaping agricultural transition pathways (see figure 5).

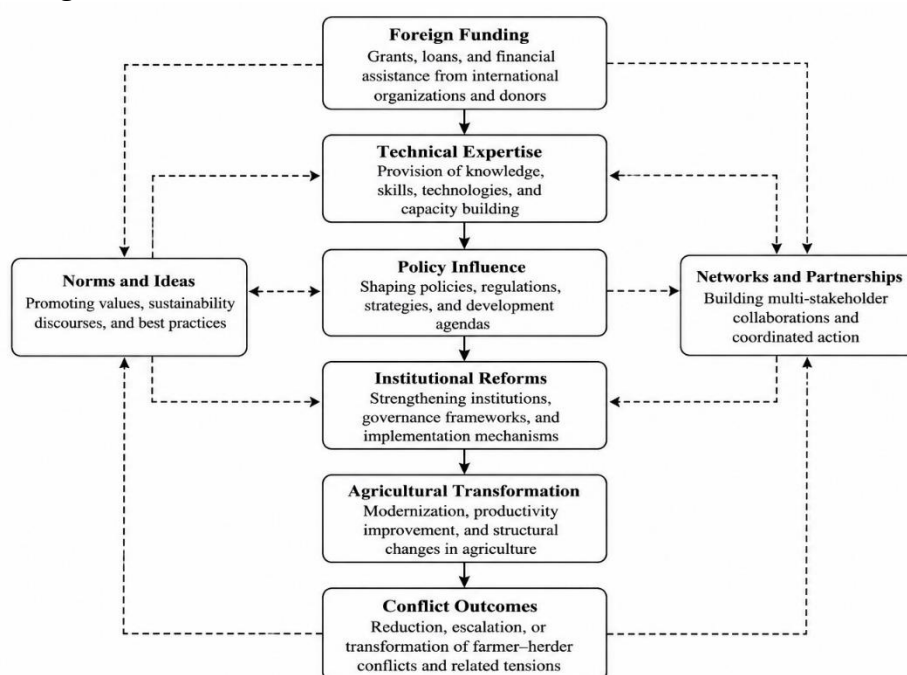
Table 12: Major Foreign Actors Identified by Respondents

Actor	Frequency of Mention
World Bank	82%
FAO	76%
IFAD	68%
USAID	61%
European Union	54%
International NGOs	71%

Figure 5: Foreign Actor Influence Pathways

Source: *Authors' Fieldwork*

Noted on Table 12, respondents associated these organizations with agricultural modernization, livestock transformation programs, climate adaptation projects, rural infrastructure development, and peacebuilding initiatives.



Source: *Authors' Conceptualization*

Ethnographic Evidence

Interviews revealed mixed perceptions of foreign interventions. Government officials generally viewed donor-supported programs as essential for modernization and capacity building. However, community respondents frequently expressed concerns regarding limited participation in project

design and implementation.

A traditional leader in Plateau State remarked:

"They most times come with projects and prepared/assumed solutions. They may consult the Communities, but the major decisions have often been made elsewhere."

This finding supports political ecology arguments concerning asymmetrical influence in development governance.

4.5 Power Relations and Hegemonic Influence in Agricultural Governance

Using the Gramscian framework, the study examined how different actors exercise economic, political, institutional, and discursive power.

Table 13: Relative Influence of Key Actors

Actor	Economic	Political	Institutional	Discursive
Federal Government	High	Very High	Very High	High
Foreign Organizations	High	Moderate	High	Very High
Farmers' Associations	Moderate	Moderate	Low	Moderate
Pastoral Associations	Moderate	Low	Low	Moderate
Agribusiness Firms	High	Moderate	Moderate	Moderate

Source: Authors' Fieldwork

The results (Table 13) indicate that foreign actors exercise influence primarily through institutional and discursive mechanisms rather than direct political authority. Their ability to shape development narratives, funding priorities, technical standards, and policy frameworks provides substantial leverage in determining agricultural transition pathways.

4.6 Quantitative Model Results

Table 14: Multiple Regression Results

Variable	β	t-value	Significance
Climate Stress	0.311	4.87	$p < 0.01$
Land Pressure	0.427	6.21	$p < 0.01$
Governance Capacity	-0.294	-4.05	$p < 0.01$
Foreign Influence	0.188	2.74	$p < 0.05$
Agricultural Transformation	0.205	3.01	$p < 0.05$

$R^2 = 0.64$

Source: Authors' Fieldwork

The model explains approximately 64% of the variation in conflict intensity (Table 14). Land pressure emerges as the strongest predictor, followed by climate stress. Governance capacity exhibits a significant negative relationship, suggesting that stronger institutions reduce conflict risks. Foreign actor influence and agricultural transformation are positively associated with conflict intensity, indicating that transition processes may generate new forms of contestation.

4.7 Synthesis of Findings

The findings demonstrate that farmer–herder conflicts in Nigeria are best understood as transition conflicts occurring within broader processes of agricultural transformation. Structural pressures create conditions for competition, but conflict outcomes are shaped by interactions among actors pursuing competing development visions. Foreign actors play significant roles in influencing governance arrangements, policy priorities, and agricultural transition pathways, thereby affecting both conflict dynamics and the distribution of development benefits.

Consistent with Gramscian political ecology, the study finds that agricultural transformation is not merely a technical process but a political struggle over resources, authority, and the future organization of rural livelihoods. These findings provide the basis for the discussion presented in the next section.

5. DISCUSSION

5.1 Reframing Farmer–Herder Conflicts as Socio-Ecological Transition Conflicts

The findings challenge conventional interpretations that explain farmer–herder conflicts primarily through environmental scarcity, ethnic tensions, or governance failure. While climate change, land pressure, and institutional weaknesses remain important explanatory factors, the results suggest that these conflicts are more accurately understood as manifestations of broader socio-ecological transition processes. Consistent with transition conflict theory (Kalt, 2024), the study demonstrates that conflict emerges not simply from resource scarcity but from competing efforts to shape agricultural futures and determine how resources, authority, and development opportunities are allocated.

The prominence of land pressure and agricultural transformation variables in the quantitative analysis indicates that conflicts are increasingly embedded within structural changes affecting rural economies. Expanding cultivation, commercialization of agriculture, changing land tenure systems, and efforts to modernize livestock production have altered long-standing relationships between farming and pastoral communities. These transformations create new forms of competition over access to productive resources while simultaneously challenging established governance arrangements. Consequently, conflict becomes an expression of contestation over the direction and consequences of agricultural change rather than merely a reaction to environmental stress.

This finding extends previous studies that conceptualize climate change as a threat multiplier (Mach et al., 2019; Ide et al., 2021). It supports arguments that sustainability interventions may simultaneously promote environmental objectives while producing new forms of exclusion and contestation (Büscher & Fletcher, 2020). The evidence suggests that climate pressures acquire political significance because they interact with agricultural transformation processes, institutional arrangements, and competing development priorities. In this sense, climate change functions as one component within a larger transition landscape rather than an independent driver of violence.

5.2 Political Ecology, Power, and Resource Governance

The study provides strong empirical support for political ecology arguments that environmental conflicts are fundamentally shaped by power relations rather than by resource scarcity alone (Robbins, 2020). Interview and focus group data revealed that both farmers and pastoralists perceive access to resources as increasingly mediated by political influence, institutional authority, and economic power. Respondents frequently linked conflict escalation to unequal participation in decision-making processes and perceived marginalization within agricultural governance systems.

The findings indicate that struggles over grazing routes, ranching policies, land-use planning, and agricultural investments are simultaneously struggles over authority and legitimacy. Community-level conflict management often depends on institutional bricolage and informal governance arrangements operating alongside formal state institutions (Cleaver, 2018). Resource governance decisions determine not only who gains access to land and water but also whose livelihoods, identities, and development aspirations are prioritized. These observations align with political ecology scholarship emphasizing that environmental governance is inherently political because it involves competing claims regarding resource ownership, use rights, and development pathways (Bryant, 2015; Turner, 2004).

Moreover, the emergence of multiple transition pathways, including ranching systems, grazing reserves, climate-smart agriculture, and hybrid production models, illustrates how agricultural transformation generates competing visions of sustainability and development. The coexistence of these visions reflects deeper disagreements concerning the future organization of agriculture, pastoral mobility, and rural livelihoods. Rather than representing purely technical solutions, these pathways embody distinct social, economic, and political interests.

5.3 Foreign Actors and the Political Economy of Agricultural Transformation

One of the most significant contributions of this study lies in its examination of foreign actors as active participants in agricultural transition processes. Existing literature often portrays international organizations primarily as development partners or technical advisors. However, the findings demonstrate that foreign actors play a more complex role by influencing policy agendas, institutional reforms, resource allocation mechanisms, and dominant development narratives.

Consistent with international political economy perspectives, the results reveal that development interventions are not politically neutral. Through funding arrangements, technical assistance, policy advocacy, and capacity-building programs, international organizations contribute to shaping agricultural governance structures and defining acceptable solutions to conflict and development challenges. This influence is particularly evident in the promotion of livestock modernization, climate-smart agriculture, ranching initiatives, and rural resilience programs.

The findings do not suggest that foreign interventions intentionally generate conflict. Rather, they indicate that interventions may unintentionally alter existing power relations, redistribute opportunities, and privilege certain development pathways over others. In some cases, these changes create new forms of contestation as communities negotiate the implications of agricultural modernization and institutional reform. This observation supports critical agrarian scholarship emphasizing that development interventions often produce uneven outcomes and differential benefits among stakeholder groups (Hall et al., 2015; Scoones et al., 2020).

Importantly, respondents frequently expressed concerns regarding participation and representation

within externally supported projects. Such concerns highlight the importance of inclusive governance arrangements that incorporate local knowledge systems and community perspectives into policy design and implementation.

5.4 Gramscian Political Ecology and Hegemonic Agricultural Futures

The findings provide empirical support for the Gramscian political ecology framework proposed in this study. Gramsci's concept of hegemony emphasizes that power is exercised not only through coercion but also through the construction of dominant ideas, institutions, and narratives that shape perceptions of legitimacy and necessity (Gramsci, 1971). The evidence suggests that contemporary agricultural transformation in Nigeria is characterized by competing efforts to establish hegemonic visions of rural development.

Government agencies, development organizations, agribusiness actors, farmers, and pastoralists each promote distinct understandings of sustainability, modernization, productivity, and resource governance. These competing narratives influence policy priorities and determine which transition pathways receive institutional support. The prominence of climate-smart agriculture, ranching, and livestock modernization within policy discourse reflects broader efforts to institutionalize particular models of agricultural development.

The study further demonstrates that foreign actors possess substantial discursive and institutional power. Their influence derives not only from financial resources but also from their ability to shape knowledge production, policy frameworks, technical standards, and development narratives. This finding extends Kalt's (2024) conceptualization of transition conflicts by illustrating how international actors participate in hegemonic struggles over agricultural futures in conflict-affected rural settings.

Accordingly, farmer–herder conflicts can be interpreted as localized expressions of broader struggles concerning the governance of agricultural transformation. Conflict emerges where competing actors seek to influence the rules, institutions, and narratives that govern access to resources and determine the distribution of transition benefits.

5.5 Theoretical Contributions

This study makes four important theoretical contributions.

First, it advances the conceptualization of farmer–herder conflicts as socio-ecological transition conflicts rather than solely environmental or ethnic disputes. This perspective broadens existing conflict literature by situating violence within ongoing processes of agricultural transformation and rural restructuring.

Second, the study contributes to political ecology scholarship by demonstrating how environmental conflicts are embedded within broader governance and development processes. The findings reinforce the argument that resource conflicts cannot be fully understood without examining power relations and institutional arrangements.

Third, the research extends transition conflict theory by incorporating international political economy considerations. The study shows that foreign actors influence transition pathways through economic, institutional, and discursive mechanisms, thereby shaping conflict dynamics and governance outcomes.

Fourth, the development of an integrated Gramscian political ecology framework provides a novel analytical approach for examining agricultural transitions in conflict-affected regions. The

framework offers a transferable model for analyzing similar conflicts across Africa and other regions experiencing rapid socio-ecological transformation.

5.6 Policy Implications

The findings suggest that policies aimed at reducing farmer–herder conflicts should move beyond narrowly technical interventions focused on resource management. Sustainable conflict mitigation requires governance approaches that address the political and institutional dimensions of agricultural transformation.

First, agricultural policies should promote inclusive decision-making processes that incorporate the perspectives of farmers, pastoralists, traditional institutions, women's groups, and youth organizations. Greater stakeholder participation can improve policy legitimacy and reduce perceptions of exclusion.

Second, conflict-management strategies should recognize the diversity of agricultural transition pathways rather than assuming a single model of modernization. Flexible approaches that accommodate different livelihood systems are likely to be more effective than uniform policy prescriptions.

Third, international development partners should strengthen mechanisms for local participation and accountability within agricultural transformation programs. Ensuring that communities influence project design and implementation can improve both developmental and conflict-related outcomes.

Finally, investments in governance capacity, land administration systems, and community-based conflict resolution mechanisms remain essential for managing the complex challenges associated with agricultural transformation and resource competition.

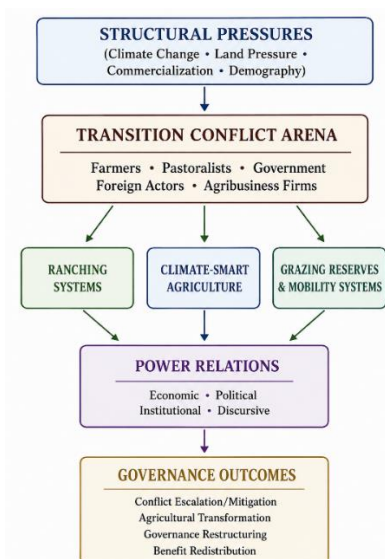


Figure 5: Integrated Interpretation of Findings

Source: Authors' conceptualization

Figure 5 synthesizes the study's findings by illustrating how structural pressures interact with competing transition visions and power relations to shape conflict dynamics, governance

arrangements, and development outcomes.

5.7 Conclusion

This study examined farmer–herder conflicts in Nigeria through the combined lenses of Gramscian Political Ecology, Transition Conflict Theory, and International Political Economy, with particular emphasis on the role of foreign actors in shaping agricultural transformation pathways. The study sought to move beyond dominant environmental scarcity and climate-security explanations by conceptualizing farmer–herder conflicts as socio-ecological transition conflicts arising from competing struggles over agricultural futures, resource governance, and development trajectories. Using a mixed-method ethnographic approach involving 295 respondents, documentary analysis, focus group discussions, key informant interviews, survey data, and conflict datasets, the findings reveal that conflict dynamics are driven by a complex interaction of environmental, institutional, political, and economic factors. Quantitative analysis showed that land pressure emerged as the strongest predictor of conflict intensity ($\beta = 0.427$, $p < 0.01$), followed by climate stress ($\beta = 0.311$, $p < 0.01$). Conversely, governance capacity exhibited a significant negative relationship with conflict intensity ($\beta = -0.294$, $p < 0.01$), indicating that stronger institutions substantially reduce the likelihood of violent conflict. Foreign actor influence ($\beta = 0.188$, $p < 0.05$) and agricultural transformation initiatives ($\beta = 0.205$, $p < 0.05$) were also found to significantly influence conflict outcomes. The regression model explained approximately 64% of the observed variation in conflict intensity ($R^2 = 0.64$), indicating strong explanatory power.

Survey findings further revealed that respondents ranked land pressure (mean = 4.62/5) as the most significant conflict driver, followed by climate change (4.49/5), population growth (4.35/5), and weak governance structures (4.27/5). The stakeholder analysis demonstrated that farmers constituted 40.7% of respondents, pastoralists 33.9%, and governance and development actors 25.4%, ensuring balanced representation of the principal actors involved in conflict and agricultural transformation processes.

The qualitative findings reinforced these statistical patterns. Ethnographic evidence revealed that both farmers and pastoralists perceive conflicts as consequences of shrinking resource availability, changing land-use systems, and exclusion from decision-making processes. More importantly, respondents consistently described ongoing disputes as contests over alternative agricultural futures, including ranching systems, grazing reserves, climate-smart agriculture, and hybrid production systems. These findings support the argument that farmer–herder conflicts are not merely resource disputes but manifestations of broader struggles over the direction and governance of agricultural transformation.

A key contribution of the study concerns the role of foreign actors. The findings indicate that international organizations such as the World Bank, FAO, IFAD, USAID, and the European Union were identified by between 54% and 82% of respondents as significant influences on agricultural modernization policies, livestock transformation initiatives, and conflict-management programs. While these interventions have contributed to agricultural development, climate adaptation, and institutional capacity building, the study found that they also shape governance priorities, influence policy agendas, and affect the distribution of development benefits. This confirms that agricultural transformation is not a politically neutral process but a contested arena characterized by unequal power relations and competing development interests.

The study's principal novelty lies in its development of an Integrated Gramscian Political Ecology

Framework of Agricultural Transition Conflicts, which advances existing scholarship in three important ways. First, it shifts the analytical focus from environmental scarcity toward transition-related contestation over agricultural futures. Second, it systematically incorporates foreign actors as active governance agents rather than treating them solely as external development partners. Third, it operationalizes Gramscian concepts of economic, political, institutional, and discursive power into a measurable framework capable of explaining how actors influence conflict dynamics and transition outcomes. To the best of the author's knowledge, few studies have integrated political ecology, transition conflict theory, and international political economy within a single empirical model of farmer–herder conflicts in Africa.

Despite the overall consistency of the findings, several noteworthy anomalies emerged. Contrary to expectations in parts of the conflict literature, ethnic identity was ranked lower (mean = 3.96/5) than structural factors such as land pressure and climate stress, suggesting that identity-based explanations may overstate ethnicity as an independent driver of violence. Similarly, while agricultural modernization programs are frequently promoted as conflict-reduction mechanisms, the positive coefficient associated with agricultural transformation ($\beta = 0.205$) indicates that modernization efforts may initially generate new tensions by altering existing resource access arrangements and power structures. These findings suggest that transition policies can produce unintended consequences if local governance realities are insufficiently considered.

Overall, the study concludes that sustainable conflict mitigation cannot be achieved solely through technical interventions such as ranching schemes, grazing reserves, or climate adaptation projects. Rather, successful agricultural transformation requires inclusive governance systems capable of managing competing development visions, addressing power asymmetries, strengthening institutional capacity, and ensuring equitable distribution of transition benefits. By reconceptualizing farmer–herder conflicts as socio-ecological transition conflicts, this research provides a novel theoretical and empirical foundation for understanding conflict and agricultural change in Nigeria and other regions undergoing rapid socio-economic and environmental transformation.

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