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INTERNATIONAL JOURNAL OF MODERN POLITICAL ECONOMY

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Farmer-Herder Conflicts and Agricultural Productivity in Kogi State, Nigeria, 2015-2024

Mbaeze Netchy C. & Yahaya, Paul M.

Abstract

Farmer-herder conflicts in Nigeria have escalated into one of the most severe rural security challenges, with fatalities in some years comparable to those of organized insurgencies. In 2016 alone, approximately 2,500 deaths were recorded nationwide, while over 300 fatalities occurred in the first quarter of 2018, underscoring the intensity of the crisis. This study examined the impact of farmer-herder conflicts on agricultural productivity in Omala Local Government Area (LGA) of Kogi State between 2015 and 2025. The specific focus was on how internal displacement of farmers undermines crop production, how loss of lives and property contributes to declining livestock production, and how competition over land and water resources constrains aquatic agricultural activities. The study is anchored on the Eco-violence theory, which explains how environmental scarcity and resource competition generate violent conflict and undermine livelihoods. A survey research design was adopted, drawing data from both primary and secondary sources. Data were analyzed using qualitative and quantitative descriptive methods. Findings indicate that persistent farmer displacement has significantly reduced active cultivation, while repeated attacks on rural households have weakened livestock production systems. Furthermore, intensified competition over land and water resources has negatively affected aquatic and irrigation-based agricultural activities. The study concludes that farmer-herder conflicts have severely undermined agricultural productivity and rural livelihood sustainability in Omala LGA. Policy

recommendations are directed toward strengthening rural security, promoting sustainable grazing systems, and improving conflict resolution mechanisms.

Keywords: Farmer-herder conflict, agricultural productivity, internal displacement, Omala LGA, food security.

Introduction

Farmer-herder conflicts have become a persistent feature of Nigeria's rural insecurity landscape, with profound implications for agricultural productivity and national food security. Although historically rooted in seasonal grazing movements, the conflict has intensified over the past decade due to expanding population pressure, land scarcity, climate variability, and increasing competition for natural resources. Nomadic herders, largely of Fulani origin, have extended their migratory routes from northern Nigeria into the Middle Belt and southern regions, where they increasingly come into violent confrontation with sedentary farming communities (Chukwuma, 2020).

This evolving conflict reflects a broader struggle over access to land and water resources, which are essential for both crop cultivation and livestock rearing. Obi et al. (2021) observe that the crisis represents a structural tension between two economically interdependent livelihoods that have increasingly become adversarial. The consequences have been severe, including widespread displacement, destruction of agricultural assets, and loss of lives. Reports estimate that thousands of deaths have occurred over the years, with fatalities in some periods rivaling those associated with insurgent violence in northeastern Nigeria (International Crisis Group, 2017; Sahara Reporters, 2018).

The violence is not only widespread but also increasingly militarized, characterized by the use of sophisticated weapons and organized attacks. Okoli and Addo (2018) note that the conflict has

contributed significantly to deteriorating human security in rural Nigeria, resulting in farmer displacement, livestock theft, and destruction of farmlands. These developments have further weakened agricultural systems that already depend heavily on smallholder farmers, who account for over 90% of Nigeria's agricultural output (Salau, 2013).

In Kogi State, particularly in Omala LGA, the situation is especially critical. The area, which is predominantly agrarian, has experienced recurrent violent clashes that have disrupted farming activities and reduced agricultural output. According to Obi et al. (2021), agriculture in Omala is largely subsistence-based, with over 80% of the population engaged in farming. However, repeated conflicts have destabilized this economic structure, leading to food insecurity and declining rural livelihoods.

The crisis has also produced multidimensional impacts, including destruction of crops by livestock, burning of settlements, and displacement of rural households. These developments have significantly reduced productivity in crop farming, livestock production, and aquatic agriculture. The persistence of these challenges demonstrates that the farmer–herder conflict is no longer merely a social issue but a structural threat to rural economic sustainability in the region.

Statement of the Problem

Pastoralism remains a vital component of Nigeria's agricultural economy, with Fulani pastoralists controlling a significant proportion of the nation's livestock population. Despite this economic importance, increasing competition over land and water resources has intensified violent conflicts between herders and farming communities, particularly in rural agrarian areas.

In Omala Local Government Area of Kogi State, the farmer–herder conflict has become a recurring security and developmental

challenge. The area has witnessed repeated cycles of violence, resulting in loss of lives, displacement of rural populations, and destruction of farmlands. A notable incident in 2024 involved a retaliatory attack that claimed multiple lives and further escalated tensions between farmers and herders in the region (Reuters, 2024).

Beyond human casualties, the conflict has severely disrupted agricultural production systems. Farmers have increasingly abandoned their farmlands due to fear of attacks, leading to reduced crop output and declining rural incomes. Livestock production has also been affected through theft, killings, and destruction of herding assets, while irrigation and aquatic farming activities have suffered from restricted access to water resources and unsafe farming environments.

Although existing studies have examined the general causes and national implications of farmer-herder conflicts in Nigeria, including climate change, population pressure, and land-use competition (Tonah, 2003; Onuoha, 2010; Akov & Asua, 2022), there remains limited empirical focus on how these conflicts specifically affect agricultural productivity at the local level. In particular, studies on Kogi State and Omala LGA have largely emphasized insecurity and displacement without providing a detailed analysis of how crop production, livestock output, and aquatic farming systems have been directly affected.

This gap is significant because agricultural productivity is central to rural livelihoods, food security, and economic development. A sustained decline in agricultural output in Omala LGA therefore has implications not only for household welfare but also for regional food systems. It is against this backdrop that this study investigates the impact of farmer-herder conflicts on agricultural productivity in Omala LGA between 2015 and 2025.

Internal Displacements of Farmers and Crop Farming

Displacement occurs when a person or a group of people leave their home forcefully, due to natural or man-made disaster. Although displacement does not occur at gun-point, victims of displacement do so for safety, in other words, for fear that if they do not relocate to another place, their lives will be taken away. Displacement is all over the world. Internal displacement was progressively acknowledged through the late 1980s, and in the 1990s it gained prominence on the global agenda. The main causes of this focus were the rise in internal displacement brought on by conflicts, following the end of the Cold War and the tightening of international migration regulations. However, internal displacement is not a recent phenomenon. When talking about internal displacement, it's simple to use instrumental language and limit the conversation to concepts, definitions, and classifications (Hartnack, 2009).

Over the past thirty years, the topic of internal displacement has become more well-known worldwide, although there is still no universally accepted definition of the term. There is much dispute over who should fall under the category, if it is helpful, and what happens if it is used in humanitarian efforts. Developed by Francis Deng, the previous UN Secretary-General's Representative on Internally Displaced Persons, and utilized in the Guiding Principles on Internal Displacement (GP), the definition below is the one that is most frequently used: Internally displaced persons are persons or groups of persons who have been forced or obliged to flee or leave their homes or places of habitual residence, in particular as a result of, or in order to avoid the effects of armed conflict, situations of human rights or natural or human-made disasters, and who have not crossed an internationally recognised state border (OCHA 1999:6).

The reasons for relocation and the experience of displacement are frequently comparable for both internally displaced people (IDPs) and refugees, despite the distinctions in legal status and eligibility for relief from the international humanitarian community. Like refugees, internally displaced people frequently feel alienated in their new home, where locals may speak a different language or belong to a different ethnic or religious group. As a result, even if they have the same citizenship as the host community, IDPs cannot feel accepted (George & Adelaja, 2021).

Due to a number of issues, including conflict, insecurity, and climate change, displacement trends have been increasing globally (Osman & Abebe, 2023). The global food system has been significantly impacted by this surge in human displacement. According to Morina, Akhtar, Barth, and Schnyder (2018), the United Nations High Commissioner for Refugees (UNHCR) reported in its 2017 Global Trends Report that there were an estimated 10.3 million newly displaced persons, with Syria being the most affected, and 65.6 million people who had been forcibly relocated globally. Although the number of out-of-country refugees has somewhat stabilized during the past ten years, the number of internally displaced people (IDP) has increased to previously unheard-of levels, accounting for over 65% of the world's displaced population. 6.9 million new IDPs were created by conflict and violence in 2016 alone, with a disproportionate number of them coming from LMICs.

According to United Nations High Commissioner for Refugee (2019), as of 2018 a total of 70.8 million persons were displaced worldwide. Out of this number majority of them were internally displaced. Internal displacement means that the victims did not cross any national border. The United Nations High Commission for Refugees (UNHCR) reports that the number of

people who have been forcibly displaced worldwide is still increasing and will reach 80 million in 2020 (UNHCR, 2020). Of these, around 46 million (58 percent) were internally displaced people (IDPs), the great majority of whom will never be able to return home because of ongoing hostilities or nearly permanent natural disaster destruction.

Because African is ridden with crisis, the continent is known for its large number of displaced persons. The continent is known for rising rate of internally displaced persons (Oguonu & Ezeibe, 2014; Oyefara & Alabi, 2016). This, according to Getanda (2015), is because the crisis situations continue to increase the level of vulnerability across the continent. Africa has a high incidence of daily displacement, with 75% of all displacement being forced internally (Osman & Abebe, 2023). Conflicts forced more than 2.7 million Africans to leave their homes in 2017. Osman and Abebe (2023) claim that At least 75% of population relocation in Africa is caused by conflict, with the most affected nations being Ethiopia, South Sudan, the Central African Republic, Somalia, the Democratic Republic of the Congo, Sudan, and Nigeria. Population displacement directly threatens political, social, and economic stability and development, as evidenced by data on internally displaced people in Africa. The bulk of displaced people live in host towns and tent cities in nearby nations, however some are housed in refugee camps.

Outside of conflict, or crisis induced displacement, which is the very common one in Africa, there is the issue of development induced displacement. This kind of displacement occurs when individuals are compelled to relocate because of development initiatives like building roads, factories, dams, and airports. According to Demeke (2017), communities and individuals are evicted from their homes, frequently their homelands, as a result of development-induced displacement (DID). It is defined as the

uprooting of individuals from their home land. Displacement includes both the expropriation of rural farmers' most productive fields and the actual physical removal of individuals from their natural homes.

It is important to comprehend how developments-imposed shocks, such as those brought on by displacement, relate to household vulnerability (Downing & Garcia-Downing, 2009). Some people, particularly the weak and impoverished, are made more vulnerable by the negative effects in the majority of developing nations (Prencel and Vancaly 2014). The authority and laws of nations frequently oppress the people who deal with and suffer from such infrastructure development (Terminiski 2011).

All forms of development are fundamentally spatial in nature. All development programs entail rearranging the meaning and control of space, from the largest megaproject involving armies of development experts to the tiniest community-based resource management plan. Even the supply of essential infrastructure, like roads, schools, healthcare, or credit, is a spatial activity; certain places have access to these services while others do not (Mohamed, 2020). The question of what constitutes population displacement can lead to messy arguments about whether it means coercion, neglect, “push” and “pull” factors, and so on. For this purpose, Vandergeest (2003) defined the term broadly to include both direct and indirect forms of displacement because development is fundamentally about reorganizing space. However, all development has the potential to cause displacement.

Indirect relocation happens when people choose to relocate, apparently of their own free will, rather than when they are physically compelled to do so. This happens when development planning and regulations threaten or limit livelihoods. On a broader scale, however, development rules limit their options for a living. Many things can cause this. According to Mohamed (2020), People

may be placed in areas where the state will not provide resource tenure security, for instance, due to zoning regulations. Another possibility is that services and infrastructure are dispersed so that people must relocate in order to access them. When we connect these theories of development and displacement, we can see the various ways that development can lead to displacement.

Knowing societal vulnerability may be the first step in reducing susceptibility to the effects of an occurrence, like widespread development-induced displacement and resettlement (Marshall et al. 2014). Cernea (1990, 2000, 2005, and 2009) found a number of dangers related to development-induced displacement in his numerous research, such as food insecurity, homelessness, unemployment, landlessness, loss of access to resources on common property, a rise in diseases, and social disintegration. The model provides a useful tool for evaluating the many hazards associated with relocation brought on by development (Rajagopal 2000). Aboda et al. (2019) looked at the many dangers associated with development-induced displacement in developing nations caused by roads, highways, dams, and industrial building.

The concepts currently used in refugee studies have therefore frequently had the effect of producing far from nuanced representations of displaced people and their experiences. On the one hand, policymakers and humanitarian organizations have attempted to categorize and label the internally displaced for legal and humanitarian purposes, and on the other hand, the international media has developed standardized representations of IDPs (Hartnack, 2009). Seldom have the people who have been placed into the category of IDPs themselves been able to contribute to their representations in these discourses. Turton (2006) posits that the issue with current classifications like internally displaced persons, refugees, and development-induced displaced persons is that they

are products of political and policy considerations rather than sociological study and actual observation.

Morina *et al* (2018) studied the psychiatric disorder in refugee and displaced persons after forced displacement. For the first time, a comprehensive study looked at the prevalence of common and unusual psychiatric diseases among refugees and internally displaced people (IDPs) in LMICs as a result of armed conflicts. The findings imply that following displacement and armed wars, PTSD, depression, and anxiety disorders are very common. The different psychosocial vulnerabilities of IDP and refugee populations help to explain this connection.

The findings support a long-standing trend in mental health research that focuses on anxiety, sadness, and PTSD in situations with complicated emergencies. Given the well-established links between these mental illnesses, displacement, and widespread forms of violence, public mental health research over the past 20 years has mostly concentrated on the immediate psychological effects of armed conflicts. Long-term conflict situations, economic instability, and migration—particularly internal displacement—are all substantially linked to poor mental health outcomes. These demographic and socioeconomic features of displaced populations are recognized to be powerful moderators of mental health.

The above study follows the study by Makhashvili *et al* (2014) on mental disorders and disability among internally displaced persons and returnees in Georgia. Comparing the prevalence of mental illnesses and how they affect disability in IDPs and returnees in the Republic of Georgia was the goal of the study. Makhashvili *et al.* (2014) presented the inaugural representative data concerning the mental health status of adult Internally Displaced Persons (IDPs) in Georgia. The investigation documented the prevalence rates of presumed Post-Traumatic Stress Disorder (PTSD), depression, and anxiety at 23.3%, 14.0%, and

10.4%, respectively, within the aggregated study population. These rates are significantly lower than those of depression (70%) and anxiety (73%) observed in a prior investigation involving elderly IDPs in Georgia conducted by the Johns Hopkins Bloomberg School of Public Health/Institute for Policy Studies (2012), although older age was found to be correlated with mental disorders in that analysis.

The prevalence of mental disorders reported among IDPs and refugees worldwide exhibits considerable variability; however, the estimated global averages for PTSD and depression within conflict-affected civilian populations are approximately 30%. The disparities in prevalence among various studies can be attributed to factors such as the extent of exposure to traumatic experiences, daily stressors, temporal contexts, demographic characteristics, sampling methodologies, instrument selection, and diagnostic thresholds, as corroborated by the research of Porter & Haslam (2005) and Steel et al. (2009). Furthermore, Makhashvili and colleagues underscored several determinants associated with mental disorders, encompassing gender, age, educational attainment, trauma exposure (notably cumulative exposure), and daily stressors such as inadequate household income and substandard community conditions; these findings are consistent with those from other studies examining conflict-affected civilian populations (Miller & Rasmussen, 2010; Porter & Haslam, 2005; Steel et al., 2009).

A study aside from displacement brought on by violence or conflict, Cohen and Bradley (2010) concentrate on internally displaced people (IDP) based on environmental disasters. The experts claim that some NGOs and international organizations who do acknowledge catastrophe displaced people as IDPs have occasionally chosen to concentrate primarily on "conflict IDPs." For instance, it wasn't until the fall of 2009 that the UNHCR suggested extending its mandate as the primary coordinating organization for

the protection of "conflict IDPs" to encompass individuals displaced by natural disasters.

Environmentally displaced people may flee their countries for a number of reasons, such as the fact that it's their only means of escape, that their own government's disaster response capabilities have run out, or that they're hoping to find greater protection and support outside of their home country. Cohen and Bradley (2010) discovered that, Limited legal protection and the issue of definitional clarity are strongly related. According to the Guiding Principles on Internal Displacement, international human rights law (HRL) provide a strong legal foundation for protection in the case of internally displaced people (IDPs) who have been displaced by sudden-onset disasters. However, as it is commonly believed that those displaced by slow-onset disasters have no special protection needs beyond those covered by HRL, there is no particular normative framework for them. The Guiding Principles won't apply to them and they won't receive the particular consideration provided to IDPs unless their movement may be considered forced.

Nigeria, in particular, has experienced a great level of increase in the number of displaced persons. According to Nwangwu and Ezeibe (2019) between 2013 and 2018, the number of internally displaced person increased from 470,500 to 2.5 million. In far too many nations, internal displacement has become the norm, frequently in areas with the highest rates of violence and the lowest development indicators. In many of these countries, unresolved political, religious, or ethnic tensions fuel and maintain internal displacement (Dooshima et al, 2022). The threat is continually growing despite several attempts both domestically and internationally to slow the rate of internal displacement.

Boko Haram in the northeastern region of the country, farmers and headers' crises in many states, agitations for the emancipation of the Republic of Biafra in the southeast, and

militants in the Niger Delta region are just a few of the conflicts that have erupted in Nigeria, resulting in flashes of armed attacks and silent killings at various locations. These crises have made it more difficult for people to exercise their fundamental right to free movement within the country. On their way to the farm, unwary villagers are attacked; isolated homes are overrun and reduced to ashes, leaving the residents homeless and displaced (Dooshima et al, 2022).

Conflicts invariably lead to widespread hunger and malnutrition, insecurity, relocation, disability, and mortality, as well as inadequate food production. Dooshima et al (2022) studied internal displacement of farmers and food losses in Benue state, Nigeria. The scholars suggested a multifaceted approach to peace-building that includes restoring law and order and security, rebuilding and rehabilitating the economy, fostering social reconciliation and rehabilitation, and making the political shift to more accountable institutions and governance structures. Although conflict has extremely detrimental effects on lives and social support, more affected individuals survive this period rather than die; demonstrating that victims of conflict typically find ways to survive in the face of threats (Ogbozor, 2016). The affected displaced persons are expected to engage in temporary modifications of their livelihoods in order to adjust to the unfolding changes which they encounter (Bello et al., 2014).

For fear of being assaulted by the herdsmen, the majority of farmers in the impacted states have given up farming. Agrarian is no longer the norm for the border settlements of Nasarawa and Taraba states, as well as the primarily agrarian communities of Benue. Armed individuals posing as Fulani herders have driven out and evicted a number of farmers from their fields (Eme, Ugwu, and Onuigbo, 2017). Kari and Ogbu (2018) made the case in Nasarawa that the ongoing conflicts between farmers and herdsmen are the

primary cause of the humanitarian crisis that has recently afflicted the middle belt. These conflicts have resulted in a significant number of displaced people, who have been poorly managed by NGOs and government agencies due to a lack of coordination and an inability to channel the numerous organizational interventions that are applied in an inconsistent manner.

Most communities have been displaced from their farmlands and have lost their primary source of income as a result of the massacres committed by Fulani herdsmen and farmers clashing. With the Fulani herdsmen constantly changing their ways and abandoning the farmers to their whims, this is getting intolerable (Udosen, 2021). Farmers view the herdsmen as a threat to their crops and agricultural products because they permit their cows to consume the farmer's crops, while herders blame religious differences for the crises' origins and the death of their cows.

Musa and Shabu (2014) state that the main consequences of confrontations between farmers and herdsmen in the region are the displacement of both farmers and herdsmen, the loss of lives and property, and a decline in output. In order for herders to transition from traditional to contemporary techniques of animal husbandry, the researchers suggested the establishment of grazing reserves. Internal displacement poses undoubtedly one of the most difficult humanitarian challenges of today. The impact on not just many millions of internally displaced persons (IDPs), but also on countless host families and local communities is hard, if not impossible, to measure (Kellenberger, 2009).

Both theoretically and empirically, the relationship between environmental changes, conflicts, internal displacement, and food security is complicated; however, addressing this complex relationship is crucial, especially in light of the 2030 Sustainable Development Goals, which call for eradicating hunger, achieving food security, and advancing sustainable agriculture (Committee of

World Food Security, CFS, 2016; Perez-Escamilla, 2017; Banik, 2019). Unfavorable environmental changes have a negative impact on conflicts, displacement, and food security in low-income countries with limited statehood, like Sudan (Liese, 2018). In addition, economic growth is insufficient to end hunger and achieve food security in situations of deteriorating environmental conditions and conflicts, including natural disasters, which are common causes of internal displacement (Internal Displacement Monitoring Center, IDMC, 2019).

Food security is impacted by displacement, which also creates an environment that is conducive to human rights violations like rape, torture, and murders, as well as forced migration, forced evictions, and cultural loss (Nwalie, 2017). Internal displacement poses a serious threat to food security, economic growth, and the sustainable way of life for agrarian communities (Ukamaka, Danjuma, Mbolle, Achonam, and Mbadiwe, 2017). The North-Central geopolitical zone of Nigeria experienced widespread hunger and malnutrition, insecurity, displacement, disability, and death as a result of the conflicts.

Human, health, climatic, and environmental shocks are becoming more common in many emerging nations, which makes stability more challenging and hinders the achievement of human development objectives. The effects of such shocks on members of the communities that are immediately impacted have been the subject of a substantial amount of literature. In particular, there is mounting evidence that significant aspects of development, including agriculture, incomes, wages, employment, food security, land use, and human displacement, are negatively impacted by extraneous shocks like terrorism, communal violence, farmer-herder conflicts, drought, desertification, and extreme temperatures. Such investigations could lead to the overall conclusion that severe shocks impair food security, disrupt markets, commerce, and

agriculture, reverse previous development gains, and exacerbate poverty and suffering.

However, despite the violent clashes between Nigerian farmers and nomadic herdsman, as well as other factors that have caused internal displacement of rural farmers, the implications of displacement on food security in general, and agricultural production in particular, have not received enough attention in social research. Given Nigeria's rapid population growth, this has created a threat to food security as farmers are forced from their farmlands.

Research has been done on the displacement of rural farmers, as well as numerous studies have been carried out to determine the effects of displacement. Most studies on the displacement of farmers or rural communities, focus on the humanitarian needs of the displaced persons themselves, and to their host communities. To these scholars, the long-term effects of herder-farmer violence can be better understood through research on the victimization and post-displacement challenges faced by the affected populations. Little has been done to understand the implication of the displacement to agriculture production, and especially crop production. For example, Abubakar et al. (2022) examined the psychological and emotional effects of displacement and found that PTSD symptoms were highly prevalent among the displaced agricultural communities.

The authors stress the importance of attending to the victims' mental health needs in order to promote their well-being and facilitate their reintegration into society, while Arokoyo and Onokala (2023) looked at the educational challenges faced by children in internally displaced person (IDP) camps, emphasizing the disruption of education and the need for targeted interventions to guarantee access to high-quality education for these vulnerable populations. Oyeoku et al. (2020) observed that displaced

populations resulting from farmer-herder crises are widespread throughout Nigerian states, and that internal displacement resulting from these conflicts has serious implications for the life chances of the displaced populations. In other words, the challenges associated with being a victim of the ongoing conflict between farmers and herders are numerous, and the growing number of internally displaced persons (IDPs) is one of the unpleasant consequences of this conflict.

Abusharaf (2004) posits that internally displaced people experience hardship and have a difficult time reestablishing viable livelihood; the author describes how victims come up with alternate ways to survive their precarious situation. Daoud (2005) describes the conditions of internally displaced Dafur women when they first arrive in Khartoum, where they face a variety of problems, including life-threatening poverty, deteriorating health conditions, and a lack of necessities. Achem and Aderinto (2023) also studied the predicament of internally displaced agricultural communities in North central Nigeria. According to the scholars, the substantial loss and suffering that occur in this victimization environment serve as triggers for additional violent acts and aid in the development of post-displacement stressors. The scholars outlined the challenges faced by displaced farmers to include, hunger, poor living condition, lack of work or livelihood, out-of-school children, health issues, poor security, and emotional challenges.

Yikwab and Tade (2021) were interested in how farming communities cope with displacement arising from farmer-herder conflicts. According to the scholars, Relocation to safer regions was determined as a tactic to keep away from conflict zones, away from where they were displaced. At the make-shift camp, the concern of insecurity led to the development of vigilance units that watched over the entire region on a shift basis. This made it possible for mothers and children, who are the most vulnerable groups, to sleep.

All these studies reviewed above were not concerned with the implication of this displacement on agricultural production, especially crop production. Although in their study, some of the studies interviewed farmers, but only on how they are surviving on themselves. Thus, the study was concerned with the humanitarian needs of the displaced persons. According to some of the research, the government should make sure that conflict triggers are eliminated before they escalate into violent conflict, which could result in internal displacement, while IDPs are equipped with skills that will help them deal with the difficulties of life after camp.

In a study conducted by George and Adelaja (2021), the implications of forced displacement on host communities were examined, with particular emphasis on agriculture. The study highlights that the burden placed on host communities is not primarily due to a decline in agricultural output caused by displaced persons abandoning farming, but rather the pressure they exert on the agricultural systems of host areas. According to the scholars, host communities face several challenges as a result of the influx of internally displaced persons (IDPs).

First, these communities often require assistance from both public and private humanitarian organizations. Second, the majority of IDPs reside within the community—either in makeshift housing or with relatives and friends—while only a small proportion live in camps managed by government agencies or non-governmental organizations (NGOs). Third, host communities frequently lack the capacity to absorb new populations or adequately meet their needs in terms of employment, healthcare, education, and humanitarian support. Fourth, the demand for jobs, housing, healthcare, and other essential services increases, at least in the short term. Fifth, even when humanitarian organizations intervene, their efforts are often concentrated on formal IDP camps, leaving host communities to cope with increased competition for limited resources and

opportunities. Sixth, market and financial constraints reduce the ability of host communities to adjust to the sudden population increase, especially as they are often affected by the same regional crises that caused the displacement. Finally, seventh, the influx of IDPs intensifies existing pressures on agriculture, particularly because many displaced persons settle in predominantly agrarian economies. As a result, the agricultural systems of host communities become significantly strained.

There is no question that being displaced frequently makes civilians more vulnerable; in fact, displaced people are frequently cruelly deprived of their normal living conditions, including security, shelter, food and water sources, livelihood, and social support networks, which severely impairs their capacity to meet their most basic needs. But in the other hand, displacement of farmers has implication to agricultural production of their area they used to reside in. In relation to the effect, or impact of displacement on agriculture output on crop production, Akpaeti and Umoh (2013) investigated how conflict affected the output of agricultural resources in Nigeria's Akwa Ibom State. The study was done outside the study area of this present study. But they suggest that a community's level of conflict may have an impact on its agricultural productivity.

In another closely related study, Osman and Abebe (2023) studied the implications of rural development on livelihood and food insecurity in inter-riverine communities in Somalia. According to this study, when there is low crop production or agricultural productivity, it is evidently a threat to food security. The destructive effects of natural catastrophes like droughts and floods on crops and cattle, which deprive people of their means of subsistence, have been the main cause of the recent sharp increase in rural displacement in Somalia. Thus, there is low food production in the affected areas due to displacement.

In another study, Ayantoye et al (2024) argued that internal conflict affects agricultural output, particularly in Nigeria's rural villages, which are the country's primary food production areas. According to the scholars, the farmers-herders crisis affects food crop production. The area of their study is rural areas in Oyo State. As a result of farmers being displaced and losing interest in farming, the growing farmer-herder conflict lowers the production of arable crops, which inevitably causes young men to migrate into agriculture. Of course, this migration mentioned in their study is a forced one, which links their study to internal displacement affecting crop production. But the study is outside the study area of this present study, thereby making the rom to study the same in Omala LGA of Kogi State. The outcome of their study showed that, that conflicts have a major impact on the productivity of farmers growing arable crops in the study area because land disputes and herder encroachment—a type of conflict between farmers and herders—have a major impact on these farmers' output.

Scholars focused on the study of other factors on crop production, like the impact of climate change on cereal crop production (Farooq et al, 2023; Zabel et al, 2021; Abbas, 2021; Liu et al, 2017). According to this group of scholars, the primary cause of the anticipated adverse effects of climate change on yields is rising temperatures. Others studied the effect of bad soil on crop production (Kopecka et al, 2023; Shaheb et al, 2021), to this group of scholars, Drought, salinity, heat, and cold are some of the key abiotic stresses that crop plants are impacted by. Thus, there is very limited study on the impact of displacement on crop production, especially in Omala LGA of Kogi State, Nigeria.

Loss of Property and Human Beings and Livestock Production

What is crisis without loss of lives and properties? One major aspect of every conflict, crisis, or war, especially when arms

is involves is the loss of lives. And where there is loss of lives, there is loss of properties also. According to Blattman and Miguel (2010), internal civil conflicts—defined as disputes with 25 or more annual deaths—or full-fledged civil wars—defined as conflicts with 1,000 or more battle deaths annually—have impacted over half of all countries during the past 50 years. The number of wars and battle deaths has decreased in recent decades after peaking in the late 1980s and early 1990s, but many people still suffer and must deal with the death and destruction brought on by violent conflict, particularly in poorer nations and regions (World Bank 2011).

Conflict is hard to quantify, since it usually happens in poor nations with inadequate infrastructure and institutions. These nations also have limited pre-conflict statistics and limited data collection capabilities. Nonetheless, there have been increasing attempts to record the effects of conflict empirically. Compared to physical capital, these initiatives have had longer-lasting effects on human capital. While economies may rebound, people frequently do not (Burini et al, 2013).

Multinational enterprises (MNEs) involved in international ventures may find themselves in situations where they must respond to violent conflict in order to minimize investment risk and to promote stability in countries where they operate, given the prevalence of these conflicts, the incapacity of some governments to resolve them, and the reluctance of multilateral institutions to intervene. Conflict has been treated as a uniform issue in research on how businesses respond to violent conflict, but in reality, conflicts differ in a number of ways (Getz & Oetzel, 2010). In international management, the question of how MNEs should react to violent conflict and, more generally, to political hazards has persisted. Current studies in this field have made significant contributions to our knowledge of the different kinds of risks that can result from the acts or inactions of a host nation's government,

as well as how these risks have evolved over time (Boddewyn and Brewer, 1994; Henisz, 2000; Henisz and Zelner, 2004). The host government has typically been considered to have the ability, resources, and motivation to influence operations within its borders, despite the fact that this line of research has produced a plethora of insights into MNEs' strategic responses to political risks.

Sadly, this isn't always the case, especially in nations where there is bloody conflict. It's possible that the government lacks the ability, means, and/or will to control or end a war. Intrastate conflicts are particularly likely to result in governmental weakness (Hironaka, 2005). MNEs face a potentially serious issue because over 90% of recent active conflicts have taken place within states rather than between them (Harbom, 2004; Wenger and Mockli, 2003). This is because violent conflict is a seemingly intractable problem in many countries in which MNEs operate.

In a global context, Evoy and Hideg (2017) reported that in the year 2016, a minimum of 560,000 individuals succumbed to violent deaths, which equates to approximately 7.50 violent fatalities per 100,000 individuals in the population. This figure represents a marginal decrease from the rates observed in 2015 (7.73) and 2014 (8.12). Approximately, 385,000 acts of intentional homicide were documented on a global scale in 2016. These fatalities constituted over two-thirds (68 percent) of all individuals who fell victim to lethal violence. The year 2016 marked the inaugural increase in the global homicide rate since 2004. From 2015 to 2016, the rate experienced an elevation from 5.11 to 5.15 homicides per 100,000 individuals. Deaths resulting from direct conflict comprised 18 percent of all violent fatalities in 2016, affirming that a significant majority of victims of lethal violence continue to perish outside of combat zones. Among the 23 nations exhibiting the highest violent death rates in 2016, nine were embroiled in armed conflict. Worldwide, 99,000 individuals lost

their lives due to armed conflict in 2016. This statistic is lower than that of 2015 (119,000), subsequent to a peak in 2014 (143,000), yet remains more than double the figures recorded in 2004 (42,000). The five countries with the highest levels of violence in 2016, as measured by recorded violent death rates, were Syria, El Salvador, Venezuela, Honduras, and Afghanistan.

In addition to causing immediate and direct casualties, armed conflict can lead to long-lasting political instability, demolish health and welfare systems, and worsen homelessness, unemployment, and poverty, all of which have a significant impact on population health (Jawad et al., 2017). Clean water and food supplies can be negatively impacted by the loss of vital infrastructure during armed conflict as well as general environmental toxicity, which increases the risk of communicable diseases. Shocks connected to conflicts are probably going to have a big impact on households' poverty levels. People are killed and injured in wars, acts of violence, and genocides; infrastructure, services, assets, and livelihoods are destroyed; populations are uprooted; social cohesiveness, institutions, and norms are broken; and fear and mistrust are fostered. Even though some of these households were not initially impoverished, these effects are likely to force the worst-impacted households into extreme forms of poverty and destitution (see Alderman, Hoddinott, and Kinsey, 2004; Verwimp, 2005; Bundervoet and Verwimp, 2005; de Walque, 2006; Shemyakina, 2006; Justino, 2006).

According to Alderman, Hoddinott, and Kinsey (2004) and Bundervoet and Verwimp (2005), violence frequently results in the simultaneous destruction of assets and significant declines in the nutritional status of both individuals and households. This could force a home into poverty and perhaps lead to poverty traps because there would be no opportunity for the household to use constructive measures to raise their financial standing. The household would

only be able to resume its recovery with a significant windfall, such as help (Dasgupta and Ray, 1986).

Among the most obvious consequences of violent conflicts are deaths and injuries, which necessitate considerable family modification. Using self-reported coping mechanisms discussed in interviews with 1500 rural homes, Donovan et al. (2003) investigate the impact of adult mortality on Rwandan households. They discovered that some households hire extra workers, change the crop mix, change the area farmed, or sell assets. The impact on the supply of farm labor was significant: five out of ten households reported a decrease in farm labor as a result of a female adult death, and six out of ten households reported a decrease in farm labor as a result of a male adult death. When a male died, half of the households said it had no impact on other sources of income, whereas 80% said it had an impact on other revenue-generating activities when a female adult died.

Beegle (2005) examined how adult mortality affected Tanzanian families' labor supply and found that while surviving household members did not farm more hours following an adult death, they did cultivate less maize, cassava, and beans. She highlights the fact that households that experience a decline in income or farm output following the death of an adult do not necessarily see a decline in per capita income, production, or consumption. Beegle makes a connection between the low marginal labor productivity in agriculture and the survey area (Kagera, which is in northern Tanzania and borders Rwanda). Another finding by McKay and Loveridge (2005) is that when a farm household switches from cash crops to food crops, a decrease in income does not always indicate a decline in nutritional standards.

The humanitarian and economic costs of farmer-herder conflicts rise in tandem with their frequency, severity, and geographic reach. FAO (2005) states that the following are general

features of the post-conflict environment: destruction of housing and infrastructure, hunger and starvation, displacement of people, negative social and psychological effects, changes in values and expectations, limited government capacity, limited funding, and limited national "ownership" of recovery plans.

In every instance of post-conflict, the war machines scuttle across the terrain, destroying houses, infrastructure, properties, and the lives of survivors (Lewis, 2004). For thousands of years, war has involved the destruction and preservation of cultural assets; throughout the past 20 years, this issue has drawn more attention from around the world. While cultural heritage is at risk in times of peace, social unrest and conflict cause the most harm because they not only cause the loss of something special and irreplaceable but also have a psychological impact on the communities that are connected to it and may even lead to an increase in violence (Cunliffe, Muhesen, & Lostal, 2016).

According to Eme, Ugwu, and Onuigbo (2017) Homes and food storage facilities have been destroyed, and individuals have been killed or maimed in violent conflicts between Fulani herdsmen and farmers over grazing pastures. The scholars investigated the financial toll that the Fulani-Farmers Conflicts have on the country's economy in particular and the population in general.

Recent studies by Okereke (2012) and Kasarachi (2016) have demonstrated that serious conflict erupts between Fulani herdsmen and farmers, leading to the loss of lives, valuable properties, and destruction of vast expanses of arable agricultural farmlands, posing a serious threat to food security since farmers are afraid of being attacked and are unable to go to farm and harvest their farm produce. The conflicts in most of Nigeria, particularly the Fulani herdsmen and farmers clash, are largely uncalled for.

Although a dispute is an argument between two or more people or groups, a violent conflict results from a dispute and

involves mayhem, the damage of property, and the death of people and animals. To support that assertion that conflict leads to loss of lives and properties, properties in this sense also includes people's home. Thus, displacement of people due to destruction of their home is also socio-economic implication of conflict. Perez-Murcia (2020) made the case that relocation leads to the loss of a place known as home, drawing inspiration from Arendt's concept of home for those European refugees who were compelled to relocate and sent to Nazi concentration camps during World War II.

Their loss of home was largely felt as the loss of a place where their lives were complete with existential significance, rather than just the loss of a physical shelter and its monetary value. The majority of the displaced emphasized the sense of alienation within their own nation, even though they were able to find new housing. For instance, Cernea (2000) and Holtzman and Nezam (2004) have demonstrated that displacement raises the risk of poverty for both the individual and their family, and Ibáñez and Moya (2010) have presented empirical data indicating that displacement results in a notable decline in consumption, labor income, and asset accumulation. The significance of livelihoods and poverty traps in comprehending the tangible effects of displacement has been highlighted by these testimonies.

To further support the claim of loss of lives and properties in conflict areas, Cunliffe, Muhesen, and Lostal (2016) studied the destruction of cultural property in the Syrian conflict. Syria has some of the Mediterranean's most significant and diverse cultural legacies; throughout many millennia, religion and material and intangible heritage have converged. According to the scholars, Many Syrians have been killed and displaced as a result of the long-running conflict in Syria, which has also severely damaged and destroyed the nation's cultural legacy. Although their study focuses on the destruction of not just lives, but cultural properties, the study

still add to this present study, as it support that in conflict are, there is destruction of not just lives, but properties and assets.

In another study, Unruh and Corriveau-Bourque (2011) noted that, One of the main and persistent barriers to rehabilitation and growth in developing nations damaged by war is the severity of the explosive remnants of war (ERW) issue. In addition to the obvious effects on death and morbidity, ERW denies a population access to vital forestry, pastoral, and agricultural resources that are required to rebuild livelihoods. Although the study went straight to impact of explosive remnants of war, it is also true that in areas where there is no full-blown war, there is also loss of lives. The farmer-herder conflicts are not yet a war scenario, and might not have involved explosion, but it's still a conflict area, that is prone to experience explosion. And even though, the conflict have not experience explosion, the conflict have recorded more deaths in some area, than in an explosive environment.

As noted by Ibanez and Moya (2010), certain groups of the civilian population may suffer significant asset losses as a result of internal conflicts. The primary victims of war during internal conflicts are civilians who are singled out by armed groups looking to increase their control over territory, fortify their strongholds, and/or grab key resources. Armed groups illegally seize, destroy, or abandon physical assets (Matowu and Stewart 2001; Brück 2004); war-related activities may disrupt financial markets, making it harder for certain households to access them; and informal risk-sharing mechanisms are typically undermined. Thus, there are significant losses in human, financial, social, and physical capital.

According to Ibanez and Moya (2010), internal conflict, just like the farmers-herders crisis can bring structural poverty. This structural poverty is the poverty caused by social factors, and not just that the individual is poor. When people lose their valuables and assets due to conflict, it can bring them down to experience

hardship, which they do not bargain for. Their study was on the effect of the armed conflict in Colombia. From Colombia also, Franco et al (2006) supports that the armed conflict has caused so much on the lives and health of the people. Following the argument of the scholars, the conflict had a major influence on the Colombian people's quality of life, and the health sector itself was negatively impacted by the violence and progressively became a direct victim of the many conflict actors.

Internal conflicts can therefore leave a legacy of structural poverty that is challenging to remove. Households at the lowest end of the income distribution are rarely likely to regain their assets following a shock, and the unfavorable circumstances brought on by conflict only make matters worse. Along with losing tangible possessions, conflict victims also risk the death of family members, limitations on access to financial markets, the disintegration of social networks, and frequently insurmountable barriers to entering metropolitan labor markets.

On a similar note, Dingba, Plang, and Wika (2025) captured that Due to property devastation and displacement brought on by the conflict in Northern Senatorial Zone of Plateau State, Nigeria, the households were forced into a housing crisis. Individuals that live together, pool some or all of their income and assets, and collectively use specific goods and services—primarily housing and food—in their communities all of a sudden find they homeless.

On the farmers-herders crisis, Ofuoku and Isife (2009) reported that conflicts between crop farmers and nomadic cattle herders in Nigeria typically result in significant losses in terms of material, agricultural, and human resources. Therefore, knowledge of the origins and consequences of conflict between farmers and nomads in host communities is a crucial prerequisite for achieving the objectives of agricultural development policies that extension agents and research professionals are professionally dedicated to.

Other scholars like Adeoye (2017); Ngwoke and Ituma (2020), and others accepted that the conflict has led to loss of lives and properties. This loss of lives and properties has also affected livestock farming.

In underdeveloped nations, raising livestock creates jobs, steady food supplies, and chances for income growth. Local production will supply a large portion of the demand for animal products. Consumers are growing increasingly worried about the detrimental effects of livestock production on the environment, public health, and animal welfare, despite the expanding population and need for animal protein. Land and water will become more scarce resources, thus livestock farmers will have to use their limited resources sustainably while maximizing output. By 2050, the European Union wants to achieve carbon neutrality. Furthermore, there is a significant shift in cultural views, particularly among consumers, which encourages responsible research and innovation to address urgent issues in cattle production in sustainable and circular methods (Adeoye, 2017).

In the first place, landed property is also part of the causes of the farmer-herder conflicts, and the conflict is still at the expense of land, and other valuables of the farmers. Thus, scholars have written extensively and accepted that the conflict have causes loss of lives and properties, but what is scarcely seen in the literature is how these loss of lives and properties have affected livestock production. Although, Through field observations during the crisis and a review of the literature, Meaza, Hishen, and Gebrehiwot (2024) investigated the effects of war and siege on farmers' livelihoods in Tigray (2020–2022), Ethiopia, and they discovered that the primary causes of hunger in vulnerable farming communities were military actions and strategies combined with institutional reforms, which resulted in crop devastation, property damage, and livestock slaughter. Same field observation should be

carried out in Omala LGA of Kogi state, to not just ascertain how the loss of lives and properties, but on how it has affected livestock production in the area.

Livestock husbandry occupies a pivotal position within the global food system, furnishing billions of individuals with premium sources of protein and essential nutrients (Neethirajan & Kemp, 2021). The livestock industry underpins the economic well-being of over one billion individuals globally and represents a substantial fraction of the worldwide Gross Domestic Product (GDP), particularly within developing nations. The escalating international demand for livestock-derived products has precipitated a rise in production levels, thereby amplifying the sector's ecological footprint. These challenges are further compounded by the persistent climate crisis and, specifically in the context of Ukraine, the deleterious repercussions of military conflicts, which exacerbate the pollution of natural resources and significantly augment the already substantial environmental ramifications associated with livestock husbandry.

In Ukraine, this predicament has emerged as particularly urgent in recent years, attributable to military operations impacting the nation's agricultural landscapes. In light of these adversities, livestock husbandry confronts a multitude of environmental challenges, encompassing land degradation, biodiversity loss, scarcity of water resources, and emissions of greenhouse gases. Furthermore, conflicts intensify competition over natural resources, thereby disrupting the delicate equilibrium between agricultural methodologies and ecological sustainability.

In contemporary decades, the ecological ramifications of livestock production have garnered heightened scrutiny from researchers and global organizations. The investigations undertaken by both Ukrainian and European scholars underscore the imperative for the formulation of sustainable livestock management

methodologies that mitigate adverse environmental repercussions while enhancing food security. One of the pioneers in underscoring the detrimental environmental consequences of livestock proliferation was Henning Steinfeld and his colleagues at the Food and Agriculture Organization of the United Nations (FAO, 2021). In their seminal publication, "Livestock's Long Shadow" (2006), they provided a comprehensive examination of the livestock sector's contributions to climate change, land degradation, and the decline of biodiversity.

This report elucidated that livestock serves as a principal catalyst of global environmental transformations, precipitating a multitude of subsequent investigations that corroborated these conclusions. Climate change exerts considerable influence on livestock farming practices, necessitating the modification of production methodologies. As indicated by the IPCC (2019), climate change affects the productivity and well-being of livestock, thereby necessitating the adoption of innovative technologies and strategies. Rojas-Downing et al. (2017) accentuate the necessity for adaptation through suitable interventions, such as feed optimization and the integration of resilient plant varieties.

Livestock represent significant assets and constitute a fundamental component of the agricultural and farming systems in Africa (Maass *et al*, 2012; Lebacqz *et al*, 2013). The practice of livestock farming engages a minimum of 60 million individuals while contributing a substantial portion (8-15%) to the gross domestic product (GDP) of several West African economies (FAO, 2021). Within this region, the livestock sector's contribution to agricultural GDP approximates 44%, a figure that could potentially rise to 50% when incorporating the value of labor (i.e., animal traction) and manure into livestock product evaluations (IPCC, 2019). Moreover, livestock production is responsible for 34% of the income generated by rural communities, thereby serving as a pivotal

factor in ensuring food and nutritional security within this area (FAO, 2021).

West Africa harbors the largest livestock population and genetic diversity within Sub-Saharan Africa. This region accounts for 25% of the continent's cattle, 33% of sheep, 40% of goats, and 20% of camels, while also supporting the cultivation of other livestock species, albeit in smaller numbers, such as pigs, poultry, camelids, horses, and donkeys (Neethirajan et al, 2021). A recent assessment by the Food and Agriculture Organization (FAO) indicates that West Africa is home to an estimated livestock population of approximately 103 million tropical livestock units (TLUs), reflecting a trend of growth in animal numbers (FAO, 2021). The contributions of this sector to the livelihoods of individuals in the region encompass milk, meat, eggs, manure, traction, emergency cash reserves, and various sociocultural functions. Nevertheless, according to Eeswaran et al (2022), a recent forecast suggests that the demand for red meat in the region is projected to rise to 6–7 million metric tons (MT) per year by 2030, thereby exceeding the supply by an average of approximately 1.7 million MT per year. This underscores the critical necessity of enhancing local production via suitable management practices, policy frameworks, and investment initiatives.

In conclusion, a number of obstacles presently prevent the West African region from realizing the full production potential of livestock husbandry. In the meantime, a thorough analysis of the traits of the various livestock farming systems in the area is required, along with a presentation of the opportunities and difficulties associated with utilizing the production capacity to guarantee food security. Even though there is a wealth of research and project reports on livestock systems in West Africa, each country's geographic, demographic, and socioeconomic circumstances differ significantly. Furthermore, each nation will be more or less resilient

to the effects of global change. Nonetheless, Senegal is a suitable example for crop-livestock agricultural systems in the region since it accurately reflects the agroclimatology of West Africa.

Specifically, the prevalence of conflicts between farmers and herders within the agro-pastoral regions of West Africa can be attributed to a seasonal discord between these two subsistence practices. This discord manifests following the conclusion of the rainy season, during which farmers endeavor to harvest their crops while simultaneously safeguarding them from livestock incursions. Concurrently, herders are engaged in ensuring that their livestock have access to sufficient water and forage before the onset of the annual dry season. In the agro-pastoral zone of West Africa, this situation has become increasingly challenging, as the temporal overlap between the maturation of crops in fields and the movement of livestock in the same vicinity has extended over several months, a phenomenon driven by both alterations in environmental conditions and evolving livelihood strategies.

In numerous locales, impediments to resource access and crop destruction have transitioned into the prevailing norm for herders and farmers, respectively. These underlying conflicts intermittently escalate into more overt and violent confrontations when one faction perceives a deficiency in justice or respect from the other. For farmers, this generally occurs when they do not receive financial compensation for crop damage or when such damage is regarded as a deliberate act. Conversely, herders perceive the relentless encroachment of agricultural lands into their grazing territories and around their water sources as an equally unjust and provocative endeavor (Traoré 2002). Individual confrontations between farmers and herders sporadically escalate into the type of communal strife that is increasingly recognized as a more likely consequence of climate change than civil or interstate conflict (Fjelde and von Uexkull 2012).

Recognizing some of the challenges faced by livestock farming, Neethirajan and Kemp (2021) tried to find a solution by looking at digital livestock farming. According to the study, Significant advancements have been made in the past ten years, such as automated feeding systems, milking robots, manure management, and the optimization of production efficiency through nutrition, genetics, animal breeding, and instrumentation. Despite these advancements, there are still many obstacles to overcome. To fulfill the growing demand for animal products, intensive livestock management is required; however, farmers find it challenging to constantly monitor the health and welfare of their animals due to the cramped and confined nature of livestock housing.

The twentieth century saw the intensification and specialization of animal production systems due to advancements in agriculture. However, animal disease crises and their negative impacts on farm profitability, animal welfare, and the environment have raised doubts about these systems' long-term sustainability (Rigby et al. 2001; ten Napel et al. 2011; van Calker 2005). More sustainable cattle farming systems—that is, ones that are profitable for farmers, ecologically benign, and socially acceptable—are in demand as a result of the decreased social acceptance of such intensive and specialized systems (Boogaard et al. 2011; ten Napel et al. 2011).

Every year, transhumant herders prefer to visit the same villages, graze their animals in the same locations, and try to schedule their moves to accommodate the demands of the farmers who house them during the dry season. These routine travels are represented by a transhumance shed that covers the entire geographic area of the seasonal movements of certain pastoral groups or herds (Brottem 2013a). A more accurate evaluation of the relationship between herd mobility, crop damage, and conflict that takes into account the environmental changes occurring throughout

dryland West Africa is made possible by the transhumance shed, which offers a helpful geographic scale between the individual village territory and the regional agro-pastoral belt.

Since the mid-1990s, smallholder farmers in the Democratic Republic of the Congo's (DRC) South Kivu province have faced increased difficulties due to armed conflicts and inadequate security provided by the central government (Vlassenroot et al. 2003; Van Acker 2005; Cox 2011). Extreme poverty, a concerning nutritional state, and a high rate of food insecurity plague the peasant population (Rossi et al. 2006; Kandala et al. 2011). Maass et al (2012) studied challenges and opportunities for smallholder livestock production in post-conflict eastern side of DR Congo. According to the study, TLU is a good way to compare the relative wealth of South Kivu's livestock producers who are extremely impoverished and those who are somewhat better off. Small livestock, particularly those that do not compete with humans for food, like cavies and rabbits, are more crucial for wealth recovery in the current post-conflict scenario than large animals.

Resource Competition and Aquatic Production

At the heart of major conflict is land or other resources. Competition has fueled national and international wars and conflict. And this resource competition has led to so many consequences. Resource competition simply means the contestation over limited resources. As land and other resources are limited in quantity, and also highly unavoidable to many, and even so lucrative; it has created conflict over ownership and possession. At the heart of this conflict is greed and selfish interest of individuals. For instance, Sabogu, Nasse, and Osumanu (2020) studied the impact of land conflict in Dorimon Ghana. And like other researchers, they find out that the conflict has affected food security in the areas. This is just one of the impacts of resource competition.

Schama (1996) asserts that a society's development, upkeep, and projection of socioeconomic strength depend heavily on its land, crops, animals, water supplies, and vegetative resources. Therefore, since the beginning of time, disputes between humans have arisen over resource ownership and use. Of all the resources described above, land has continued to be the principal cause of contention between different user groups and people. In other words, the intensification and expansion of production activities required by the growing human population in Nigeria is primarily to blame for the fierce and widely dispersed conflict between Fulani herdsmen and farmers over the use of agricultural land (Gefu and Kolawale, 2005, Fasona and Omojala, 2002).

Land conflict particular has topped the chart on resource competition and has its socio-economic implications. For instance, Orunonye (2012) studied the socio-economic impact of land resource conflict, the study supported that Land disputes were the root cause of the majority of ethnic and communal conflicts in Nigeria. Land ownership, land use rights, and transferability are major issues. The study discovered that these land resource conflict had caused a huge socioeconomic impact since it caused property damage, human displacement, and the loss of lives. The battle for land is about more than just access to resources; it's also about controlling territory in order to influence politics. Powerful actors now use violence to enter marketplaces, conduct business, and influence decisions (Osman & Abebe, 2023).

But land is not the only resource that stirs up competition and conflict. Water is another resource that also causes conflict. Particularly in areas that are facing desertification and climate change, Fulani ranchers usually face competition from other groups, notably farmers, for scarce water and grazing resources. Many herders have been forced to relocate south in search of grassland and water for their herds as a result of drought and desertification, which

have also destroyed pastures and dried up several natural water sources in Nigeria's far-northern Sahelian belt. A growing number of herders are migrating south due to insecurity in many northern states, which is a result of the Boko Haram insurgency in the northeast and of less well-reported rural banditry and cow rustling in the north-west and north-central regions. Herders no longer have access to grazing reserves set aside by the post-independence government of the former Northern region (now divided into nineteen states) due to the growth of human settlements, the expansion of public infrastructure, and the purchase of land by large-scale farmers and other private commercial interests (Dan-Azumi, 2025).

Access to water has been one of the causes of conflict, from the Saharah areas, the Sahel region to North-Central Nigeria. Water is one of the things that drive the Fulani herdsman to scattered around Nigeria. The World Bank claims that 75% of the Sahel is currently too dry for herders of sheep to reside in one area. Thus, they move searching for water. Water is also a valued resource to the host communities, both for their farming and other use.

People are forced to relocate due to climate change, which also generates the pressure needed for conflict to arise. Mitigating climate change is the only way to prevent migration to areas where water and agricultural resources are already limited (Dan-Azumi, 2025). However, the government's shortcomings have been a major contributor to the increase in violence. Therefore, it is equally necessary to address Nigeria's political opportunity structure. Ethnic links serve as the foundation for government contracts, political positions, and penalties for criminal activity throughout Nigeria and much of the Sahel. The ethnic groups of the ruling class are frequently given more political opportunities in these nations.

The two groups' competitiveness, which is fueled by climate change, is a major contributing factor to victimization and violence.

Achieving durable peace requires addressing the underlying issues, such as land disputes and resource competition (International Crisis Group (ICG), 2017). For example, Idris and Adamu's (2021) study examined the fundamental causes of the conflict, highlighting competitiveness for limited resources, shifting land-use patterns, and ethno-religious elements. The authors contend that a more thorough comprehension of these causes is necessary to create long-lasting peace building plans.

The farmers have repeatedly refuted the herdsmen's claim that they are the original owners of the land in the agrarian areas and that the natives sold it to them so that their cows could graze on it. This situation has repeatedly occurred in Guma, Makurdi, Gwer West, Agatu, Logo, Kwande, Buruku, and parts of Kastina-Ala local government areas of Benue State. It is also typical in Enugu, Delta, Taraba, and Plateau states. Eme et al. (2017) state that this pattern of insecurity challenges is harmful to the general well-being of the people. The research makes the following recommendations: the Nigerian government and security services should respond more quickly, enhance their methods for obtaining intelligence and promoting peace, and better equip and inspire their security troops. Eme and the others did not concern themselves with the developmental effects of the farmer-herder conflicts, nor did they make any recommendation on how to reduce the adverse effects of the conflict on factors like the agricultural productivity.

Research on the ongoing resource-based disputes between farmers and herdsmen that continue to erode the effectiveness of agricultural extension services in Nigeria was conducted by Adisa (2013). In order to determine the role that Extension plays in managing farmer-herdsman conflict, the study focuses on how farmers and herders perceive conflict and coping mechanisms.

Conflicts between farmers and herders in northern Nigeria have historically been driven by competition over land and water

resources; however, in recent decades, these conflicts have intensified significantly, reaching alarming and often violent levels (Musa et al., 2014; Okoli & Atelhe, 2014; Benjaminsen & Ba, 2019). This escalation is closely linked to environmental stressors, population growth, and changing land-use patterns, all of which have increased pressure on already scarce natural resources.

Land and water remain fundamental to food production systems. Agricultural productivity depends not only on access to arable land for crop cultivation and grazing but also on the availability of healthy freshwater and marine ecosystems that support aquatic production (Strzepek & Boehlert, 2010; Smith et al., 2010; FAO, 2020). Food systems require a complex mix of renewable and non-renewable resources, including fertile soils, clean water, biodiversity, and ecosystem services, all of which are increasingly under strain in conflict-prone regions.

In areas inhabited by Fulani pastoralists, competition over water resources has important implications for aquatic production. Aquatic production—defined as the cultivation and harvesting of fish, shellfish, algae, and other aquatic organisms for commercial, subsistence, recreational, and scientific purposes—relies heavily on stable and uncontaminated water systems (FAO, 2020; Béné et al., 2016). Both freshwater and marine ecosystems are vital sources of food, livelihoods, and economic value, and their importance continues to grow, particularly in developing regions.

Resource competition, especially over water bodies, can disrupt aquatic ecosystems through overuse, contamination, and physical degradation caused by livestock activities such as trampling and nutrient loading. These disruptions reduce the productivity and sustainability of aquatic systems, thereby affecting local food security and livelihoods (Allan et al., 2005; Béné et al., 2016).

Furthermore, ecological interactions between terrestrial and aquatic systems play a crucial role in maintaining ecosystem balance. While gravity-driven processes typically transport nutrients and organic matter from terrestrial to aquatic ecosystems, there are also significant reciprocal flows. Flooding, hydrological variability, and the movement of organisms facilitate the transfer of aquatic-derived nutrients into terrestrial environments (Polis et al., 1997; Baxter et al., 2005). These aquatic subsidies are often richer in nutrients and energy compared to terrestrial inputs, although they occur in smaller quantities.

Although such subsidies generally extend only a limited distance into riparian zones, they play a disproportionately important role in supporting terrestrial food webs. As a result, terrestrial consumers frequently concentrate along aquatic boundaries to exploit these high-quality resources, highlighting the ecological interconnectedness of land and water systems (Baxter et al., 2005; Richardson et al., 2010). Disruptions caused by human activities—including conflict-driven migration and resource competition—can therefore have cascading effects across both terrestrial and aquatic ecosystems.

Marine fisheries play a critical role in global food systems, particularly in developing countries where they contribute significantly to food security, nutrition, employment, and economic development (FAO, 2014, 2018; Béné et al., 2016). As a major source of affordable animal protein and essential micronutrients, fisheries are central to achieving key global development priorities, including the Sustainable Development Goals (SDGs) related to zero hunger, good health and well-being, and poverty reduction (FAO, 2020; HLPE, 2014).

In Nigeria, the fisheries sector is an important component of the national economy, supporting millions of livelihoods through direct and indirect employment, while also contributing to food

security and income generation (Federal Ministry of Agriculture and Water Resources, 2008; WorldFish, 2018). Fish constitutes a significant proportion of animal protein intake in Nigeria, making the sustainability of fisheries crucial for national nutrition outcomes (Béné et al., 2016).

Across West Africa, concerns about the sustainability of fisheries have intensified. For example, in Ghana, fisheries scholars, resource managers, fishing communities, and international development organizations have raised alarms over declining fish stocks, overfishing, weak regulatory frameworks, and environmental degradation, suggesting that the sector may be facing a serious crisis (World Bank Group, 2015; Finegold et al., 2010). These challenges are not unique to Ghana but reflect broader regional pressures on aquatic ecosystems.

Although existing literature has extensively examined competition over land as a key driver of farmer–herder conflicts in Nigeria (Okoli & Atelhe, 2014; Benjaminsen & Ba, 2019), there remains a relative paucity of research focusing on competition over water resources as a significant dimension of these conflicts. This gap is particularly evident in regions such as Kogi State, where water bodies serve multiple competing uses, including livestock watering, fishing, and domestic consumption.

Moreover, limited scholarly attention has been paid to how such water-based resource competition affects aquatic production systems. Given the dependence of fisheries on stable and uncontaminated aquatic environments, increased pressure from competing users—such as pastoralists and local fishing communities—may lead to ecosystem degradation, reduced fish productivity, and heightened livelihood vulnerability (Béné et al., 2016; FAO, 2020). It is this critical gap in the literature—linking water resource competition within farmer–herder conflicts to its impacts on aquatic production—that this study seeks to address.

The review of extant literature showed that displacement and loss of lives and properties are effects of conflict generally and everywhere, we also reviewed studied that backed up our claim that farmers-herders crisis has led to mass displacement loss of lives and properties. But there is limited studied on the effect of displacement on crop production, the available materials have studied it based on food security, that is the availability and accessibility of food. But not on what it has done to people whose career is agriculture and farming.

Also, there are limited studied that link the loss of lives and properties to livestock production. The study reviewed few studied that agreed that competition over resources, especially land and water has persisted in areas occupied by the Fulani herdsmen, but there is scarcely studied that investigated the impact of this to aquatic production like fisheries.

Theoretical Framework

This study adopted the Eco-violence theory as the basis of analysis. The theory was propounded by Thomas F. Homer-Dixon in his work, “*Ecoviolence*”, in the 1990s. Some notable contributors include Jessica Blitt (1998), Homer-Dixon (1994), Kimberly Kelly and Valene Percival (1999), Peter Gizewski and Philip Howard (2001). This theory is built on complex causes which could move “from the most local to the most global” types of causes of conflict. Environmental scarcity has “a variety of critical social effects, including declining food production, general economic stagnation or decline, displacement of population, and the disruption of institutions and traditional social relations among people and groups” (Homer-Dixon, 1998). In his own contribution, Benjaminsen (2008) argued that scarcity is believed to be the rapidly increasing in many marginal environments, in particular, owing to

ongoing process of environmental degradation principally by escalating population growth.

According to Eco-violence theorists, there are three main dimensions of the theory: Supply-induced scarcity, demand-induced scarcity, and structural scarcity (Homer-Dixton, 1994). Supply-induced scarcity emerges when resources are reduced and degraded faster than they are replenished. Demand-induced scarcity arises out of population growth as against its source of livelihood; while structural scarcity exist because of inequitable distribution of resources due to their concentration in the hands of a few, while the rest of the population suffer from resource inadequacy (Homer-Dixton, 1999).

The basic assumptions of this theory hold that:

- ⇒ Competition over scarce ecological resources engender violent conflict.
- ⇒ Environmental scarcity of key renewable natural resources such as cropland, grasses, forests, and fresh water leads to violent rebellion and ethnic clashes among communities in developing countries.
- ⇒ Environmental degradation and migration can lead to clashes and conflicts between two or more opposing forces.
- ⇒ Demographic factors such as drought and famines are potential causes of violent conflict between famers and herders.
- ⇒ Population pressure and depletion of essential resources such as arable land and fresh waters could lead to violent conflict.
- ⇒ Local groups experiencing scarcity may migrate or be expelled to a new land.
- ⇒ Migrating groups often trigger ethnic conflict when they move to new areas, while also putting pressure on the limited

resources that reproduce the political economy of the host population.

The adoption of the Eco-violence theory is important in explaining the farmers/herders crisis like every structural conflict, structural violence creates structural conditions for the emergence of serious social conflicts and fuels conditions such as environmental scarcity, struggle for limited resources, and unhealthy competition within communities.

Application of the Theory

The question now is, how does this theory appropriately explain the effect of the farmer-herders crisis on agricultural productivity in Omala LGA in Kogi State, Nigeria? Put differently, does the Eco-violence theory serve as the appropriate tool for analysing the effect of the farmers/herders crisis on agricultural productivity in Omala LGA of Kogi State, Nigeria?

First and foremost, the internal displacements of communities which undermine crop productivity in Omala LGA of Kogi State due to the farmers' quest to advance and protect themselves, livelihood and interests in the face of intrusion caused by the ever-shrinking ecological spaces characterized by resource scarcity, competition, etc. engendered by climate change. In other words, the influx of herdsmen into Omala LGA could be linked to different factors which include, insecurity in many northern states resulting from Boko Haram insurgency, banditry, cattle rustling; environmental scarcity of key renewable natural resources such as arable/cropland, grasses, forests, fresh waters as well as population pressure and depletion of essential resources such as desertification from their traditional home place of far-northern part of the country, which compelled them to migrate to areas with relatively good ecological and climatic conditions in search for their cattle.

Therefore, the consequence of the above made the cattle herdsmen to migrate to North-Central/Southwards in search of greener pastures for their herds which brought them into direct confrontation with the crop farmers in Omala LGA leading to prevalent crisis that rendered many of their victims homeless. This downward movement/migration resulted in population growth and acrimonious competition over shrinking natural resources in the host communities of Omala LGA which also fueled violent crisis in these communities. Secondly, the killing of Omala farmers due to the vicious competition over scarce ecological resources, violent crisis, killings of the people, undermines livestock productivity in Omala LGA and by extension, Kogi State, Nigeria as a whole. This has also been linked to the increasing arm proliferation and illegal use of small-cum-light weapons among herders/farmers which leverage the ground for any minor disagreement or provocation into violent clashes, resulting in widespread killing, destruction of properties and human casualties.

Analysis of Findings

Farmer-herder conflicts have become a major driver of food insecurity in Omala LGA of Kogi State. Between 2015 and 2024, the area has experienced recurring violence linked to competition over land and water resources, resulting in widespread disruption of agricultural livelihoods. This study examines how these conflicts affect crop production, livestock production, and aquaculture development in the area. The evidence shows that insecurity has systematically weakened food production systems through displacement, loss of lives and property, and intensified resource competition.

One of the most significant impacts of the conflict is the internal displacement of farmers, which has severely undermined crop production. In many communities in Omala LGA, farmers

have been forced to abandon their homes and farmlands due to persistent attacks, destruction of houses, and loss of livelihood assets. This forced migration has disrupted normal farming cycles and reduced the availability of agricultural labour. As farmers flee affected areas, large portions of farmland remain uncultivated, while those who remain are unable to farm effectively due to fear of attack. Consequently, there has been widespread abandonment of farmland, increased crop damage during violent incidents, and a noticeable decline in crop yields. Over time, many farmers have also altered their farming patterns, shifting from cash crops to less demanding subsistence crops as a survival strategy. These changes collectively demonstrate a clear decline in crop production linked directly to displacement caused by conflict.

The loss of lives and property has also had a severe effect on livestock production in Omala LGA. Violent clashes have led to the killing of villagers and the destruction of rural infrastructure, including farms, livestock pens, and storage facilities. A notable example includes reported attacks in April 2024 in Agojeju Odo and Abejukolo communities, where multiple lives were lost. Such incidents create an environment of fear and insecurity that discourages households from engaging in animal husbandry. Livestock rearing, which requires stability and sustained investment, becomes increasingly risky under these conditions. Thus, many households either reduce their livestock holdings or abandon it altogether, thereby contributing to a decline in poultry production and a scarcity of meat in local markets, indicating a broader weakening of the livestock value chain and reduced access to animal protein for the population.

In addition to displacement and violence, competition over land and water resources has further worsened the agricultural situation by undermining aquaculture development. In Omala LGA, fertile land and water bodies are increasingly contested between

farmers and herders. Farmland is not only used for crop cultivation but is also encroached upon for grazing and temporary settlement by herders, leading to constant tension. Similarly, water bodies that could support fish farming are also used for livestock watering and other competing needs. This intense competition has created insecurity around water-based agricultural activities. Fish farmers often face difficulties in accessing and maintaining ponds, while some abandon aquaculture projects entirely due to fear of conflict or destruction of facilities. As a result, fish production has declined, and the development of aquatic farming systems remains limited, further constraining food diversification in the area.

The evidence from Omala LGA demonstrates that farmer-herder conflicts have a deep and multidimensional impact on food security. Crop production is weakened through farmer displacement and farmland abandonment, livestock production declines due to insecurity and loss of assets, and aquaculture development is constrained by competition over land and water resources. These interconnected effects have reduced food availability, disrupted rural livelihoods, and increased vulnerability among households. The situation in Omala between 2015 and 2024 therefore reflects a broader pattern in which insecurity directly translates into agricultural decline and worsening food insecurity.

REFERENCES

- Abbas, S. (2021). Climate change and major crop production: Evidence from Pakistan. *Environmental Science and Pollution Research*, 21(1), 1–15.
- Abode, C., Mugagga, F., Byakagaba, P., & Nabanoga, G. (2019). Development-induced displacement: A review of risks faced by communities in developing countries. *Sociology and Anthropology*, 7(2), 100–110.
<https://doi.org/10.13189/sa.2019.070205>
- Abubakar, A., Iliyasu, Z., & Ibrahim, M. S. (2022). Post-traumatic stress disorder symptoms among internally displaced persons in Nigeria: Prevalence and risk factors. *Journal of Mental Health and Human Behaviour*, 27(2), 95–103.
- Achem, V. O., & Aderinto, A. A. (2023). “I lost over 700 tubers of yam...”: Implications of victimhood and displacement on conflict management in North Central Nigeria. *International Review of Victimology*.
<https://doi.org/10.1177/026975802311>
- Achoba, F., & Ura, A. M. (2023). Farmers and herders conflict: The case of Omala LGA. *Wukari International Studies Journal*, 7(3), 25–33.
- Adebayo, O. O., & Olaniyi, O. (2008). Factors associated with pastoral and crop farmers conflict in Oyo State, Nigeria. *Journal of Human Ecology*, 23(1), 71–74.

- Adeoye, N. O. (2017). Land use conflict between farmers and herdsman in northern Nigeria. *Ghana Journal of Geography*, 9(1), 127–151.
- Adisa, R. S. (2013). Management of farmer–herdsman conflicts in North-Central Nigeria. *Journal of International Social Research*, 6(18), 54–65.
- Afolayan, T. T., et al. (2024). Herdsman–farmer conflicts and agricultural productivity. *International Journal of Agricultural Science*, 14(4), 261–273.
- Ajibefun, M. B. (2018). Socio-economic effects of Fulani herdsman crises in Nigeria. *Journal of Educational and Social Research*, 8(2), 133–139. <https://doi.org/10.2478/jesr-2018-0024>
- Akinrinde, O. O., Osuwa, A. A., & Olawoyin, K. W. (2021). Farmer–herder conflicts and food security in Nigeria. *Journal of Digital Food, Energy & Water Systems*, 2(2), 35–54. <https://doi.org/10.36615/digitalfoodenergywatersystems.v2i2.731>
- Allan, J. D., Palmer, M. A., & Poff, N. L. (2005). Climate change and freshwater ecosystems. In T. E. Lovejoy & L. Hannah (Eds.), *Climate change and biodiversity* (pp. 274–290). Yale University Press.
- Alston, J. M., Beddow, J. M., & Pardey, P. G. (2009). Agricultural research and food prices. *Science*, 325(5941), 1209–1210. <https://doi.org/10.1126/science.1170451>

- Bamidele, S. (2019). 'Land bandits' or 'land grabbers': Fulani herdsman conflicts in Nigeria. *Brazilian Journal of African Studies*, 3(6), 7–15.
- Banik, D. (2019). Achieving food security in a sustainable development era. *Food Ethics*, 4(1), 117–121. <https://doi.org/10.1007/s41055-019-00057-1>
- Bassett, T. J. (1988). The political ecology of peasant–herder conflicts. *Annals of the AAG*, 78(3), 453–472.
- Bassett, T. J. (1993). Land use conflicts in Côte d'Ivoire. In T. J. Bassett & D. Crummey (Eds.), *Land in African agrarian systems* (pp. 131–154). University of Wisconsin Press.
- Baxter, C. V., Fausch, K. D., & Saunders, W. C. (2005). Reciprocal flows linking streams and riparian zones. *Freshwater Biology*, 50(2), 201–220. <https://doi.org/10.1111/j.1365-2427.2004.01328.x>
- Béné, C., et al. (2016). Fisheries and food security. *World Development*, 79, 177–196. <https://doi.org/10.1016/j.worlddev.2015.11.007>
- Benjaminsen, T. A. (2008). Resource scarcity and conflict in Mali. *Journal of Peace Research*, 45(6), 819–836.
- Benjaminsen, T. A., & Ba, B. (2019). Pastoral conflicts in the Sahel. *Journal of Peasant Studies*, 46(1), 1–20.
- Blattman, C., & Miguel, E. (2010). Civil war. *Journal of Economic Literature*, 48(1), 3–57.

- Boogaard, B. K., et al. (2011). Sociocultural sustainability of livestock farming. *Animal*, 5(9), 1458–1466. <https://doi.org/10.1017/S1751731111000371>
- Cabot, C. (2017). *Climate change, security risks and conflict reduction in Africa*. Springer. <https://doi.org/10.1007/978-3-319-49520-0>
- Caspary, G. (2007). Development-induced displacement and human security. *Human Security Journal*, 4, 70–81.
- Cernea, M. M. (1997). Risks and reconstruction model. *World Development*, 25(10), 1569–1587. [https://doi.org/10.1016/S0305-750X\(97\)00054-5](https://doi.org/10.1016/S0305-750X(97)00054-5)
- Cernea, M. M. (2000). Risks, safeguards and reconstruction. In M. Cernea & C. McDowell (Eds.), *Risks and reconstruction* (pp. 11–55). World Bank.
- Cohen, R., & Bradley, M. (2010). Disasters and displacement. *Journal of International Humanitarian Legal Studies*, 1(1), 1–35.
- Dimelu, M. U., et al. (2017a). Herdsmen–farmers conflict in Kogi State. *African Journal of Agricultural Research*, 12(24), 2105–2115.
- FAO. (2018). *The state of world fisheries and aquaculture 2018*. FAO.
- FAO. (2020). *The state of world fisheries and aquaculture 2020*. <https://doi.org/10.4060/ca9229en>

- Fasona, M. J. & Omojola, A. S. (2005) Climate Change, Human Security and Communal Clashes in Nigeria, Paper Presented at International Workshop in Human Security and Climate Change.
- Fjelde, H., & von Uexkull, N. (2012). Climate variability and conflict. *Political Geography*, 31(7), 444–453.
- George, J., & Adelaja, A. (2021). Forced displacement and agriculture. *Sustainability*.
<https://doi.org/10.3390/su130311>
- Harbom, L. (2004), States in Armed Conflict 2004 (Uppsala University, Uppsala, Sweden) Henisz, W. J. and B. A. Zelner: (2004b), ‘Political Risk Management: A Strategic Perspective’, in T. Moran (ed.), International Political Risk Management: The Brave New World (World Bank Group Press, Washington, DC), pp. 154–170.
- HLPE (High Level Panel of Experts). (2014). Sustainable fisheries and aquaculture for food security and nutrition. Rome: FAO.
<https://doi.org/10.1016/j.worlddev.2015.11.007>
- Homer-Dixon, T. F. (1999). *Environment, scarcity, and violence*. Princeton University Press.
- Ibanez, A. M., & Moya, A. (2010). Conflict and poverty traps. *World Development*, 38(4), 647–663.
- Internal Displacement Monitoring Centre. (2016). *Global report on internal displacement*. <https://www.internal-displacement.org>

IPCC. (2019). *Climate change and land*. <https://www.ipcc.ch/srccl/>

Jimoh, Y. (2024, April 12). Save us now Kogi community plundered from constant herdsmen attack cries out. *Nigerian Tribune*. <https://tribuneonlineng.com/save-us-now-kogi-community-plundered-from-constant-herdsmen-attacks-cries-out/>
Accessed 24/02/2025.

Musa, S. D., Shabu, T., & Igbawua, T. (2014). Resource use conflict between farmers and Fulani herdsmen in Guma Local Government Area of Benue State, Nigeria. *International Journal of Sciences*, 3(7), 1–8.

Nwosu, C. (2017). Between Fulani herdsmen and farmers (National Security under Buhari). www.republic.com.ng.

Obi, S.E. (2019). Farmers'-Pastoralists Conflict in Omala Local Government Area of Kogi State: An examination of Its Impact on Rural Development. Unpublished M.Sc Dissertation submitted to the Department Political Science, Ibrahim Badamasi Babangida University, Lapai, Niger State.

Ogbozor, E. (2016). Resilience to Violent Extremism: The Rural Livelihood Coping Strategies in the Lake Chad Basin. HiCN Working Paper 237.

Okereke, D. (2012, May 19). The Remote Immediate Cause of Crimes, Insecurity, Terrorism and Instability in Nigeria and Solution. Retrieved from: <http://www.nairand.com/1027585/remoteimmediatecauses-crimes>

- Okoli, A.C., & Atelhe, G.A. (2014). Nomads against natives: A political ecology of herder/farmer conflicts in Nasarawa State, Nigeria. *American International Journal of Contemporary Research*, 4(2), 76–88.
- Polis, G. A., et al. (1997). Spatially subsidized food webs. *Annual Review of Ecology*, 28, 289–316.
- Richardson, J. S., et al. (2010). Land–water resource subsidies. *River Research and Applications*, 26(1), 55–66. <https://doi.org/10.1002/rra.1283>
- Smith, P., et al. (2010). Competition for land. *Philosophical Transactions B*, 365(1554), 2941–2957. <https://doi.org/10.1098/rstb.2010.0127>
- Strzepek, K., & Boehlert, B. (2010). Competition for water. *Philosophical Transactions B*, 365(1554), 2927–2940. <https://doi.org/10.1098/rstb.2010.0139>
- Terminski, B. (2012). Mining-induced displacement and resettlement: social problem and human rights issue (a global perspective).
- Vlassenroot, K., Ntububa, S. and Raeymaekers, T., (2003). Food security responses to the protracted crisis context of the Democratic Republic of the Congo. International workshop on food security in complex emergencies: Building policy frameworks to address longer-term programming in complex emergencies, 23-25 Sep., Tivoli, Italy, FAO.

Wenger, A. and D. Moćkli (2003), *Conflict Prevention: The Untapped Potential of the Business Sector* (Lynne Rienner, Boulder, CO).

World Bank Group. (2015). *Ghana fisheries sector review*.

World Bank. (2011). *World development report 2011: Conflict, security and development*. <https://doi.org/10.1596/978-0-8213-8439-8>

WorldFish. (2018). *Fish and food security in Nigeria*.

Wudaba, L. M. & Ishaku, N. (2017). Pattern and impact of conflict between farmers and herders. www.ideas.repec.org