

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Pattern and Impact of Conflicts between Farmers and Herders in Riyom Local Government Area, Plateau State, Nigeria

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Abstract:

This study examined the pattern and impact of conflicts between farmers and herders in Riyom local government area of Plateau State from 2011 to 2016. The study also assessed the effectiveness of measures employed for managing the conflicts. The study employed a cross sectional survey method and a multi-stage purposive sampling method. The sample comprised four hundred (400) respondents. Questionnaire and interview were administered in collecting data. Findings revealed that herders-farmers conflict is prevalent in Riyom Local government Area and has impacted negatively on the socio-economic livelihood of the people. It argued that farmers-herder's conflicts in Riyom are caused by a combination of factors such as crops damage by cattle, land encroachment, encroachment of grazing reserves, lack of access to water point and pollution of water points, killing of stray cattle, cattle rustling, indiscriminate bush burning and disregard to rules and regulations. It recommended among many the enactment of a law to ban open grazing and a law to establish enclosed grazing (ranches), arrest and prosecution of offenders, improved training for the police and other law enforcement agencies, the involvement of traditional rulers who are the custodian of culture in conflict resolution, enhanced public information and education on the need for citizens to respect and obey the law and engage in dialogue to promote peaceful and harmonious co-existence.

Keywords: *Farmers, Herders, Conflicts*

1. Introduction

One major problem confronting world peace today is the manifestation of conflicts in different dimensions across the globe. From Europe to America, Africa to Asia, conflicts are common phenomena (Marshall and Gurr 2005 in Jeong, 2008). Nigeria has experienced and is still experiencing conflicts of grave proportions among several ethnic and religious communities across the states. These conflicts significantly vary in dimension, process and the groups involved. Momale (2003) observed that while some conflicts arise between same resource user group such as between one farming community and another, others occur between different user groups such as between herders and farmers or between foresters and farmers. Adisa (2012) noted that the farmers-herdsmen conflict has remained the most preponderant resource-use conflict in Nigeria. Blench (1996:1) asserts that the rise in natural resource conflicts is as a result of human population increase and the globalisation of the economy. According to Egwu, (2011:12) Nigeria has experienced and is still experiencing conflicts of grave proportions among several ethnic and religious communities across the states. These conflicts significantly vary in dimension, process and the groups involved.

Writing on the causes of herders-farmers conflicts, Olayoku (2016) identified climate changes, the migration further south, the growth of agro-pastoralism, the expansion of farming on pastures, the invasion of farmlands by cattle, assault on non-Fulani women by herders, blockage of stock routes and water points, freshwater scarcity, burning of rangelands, cattle theft, inadequate animal health care and disease control, overgrazing on fallow lands, defecation on streams and roads by cattle, extensive sedentarization, ineffective coping strategies, ethnic stereotyping, and the breakdown of conflict intervention mechanisms as some causes. Abbass (2012) suggested that the major source of tensions between pastoralists and farmers is basically economic, with land related issues accounting

for the majority of the conflicts. Blench (2010) attributed these conflicts to the decimation of pastures and the destruction of farmlands by the herders occasioned by seasonal weather conditions which forces pastoralists to move from the semi-arid areas in search of pastures further south, which results in competition over access to available land for crop cultivation and grazing pastures for the cattle.

Olayoku (2014) observed that regardless of the causes, conflicts between farmers and herders have taken heightened dimension as the total figures of reported casualties have continued to rise. These conflicts have also constituted serious threats to the means of survival and livelihoods of both the farmers and pastoralists. Fasona and Omojola (2005) corroborated the above when they noted that herders-farmers' conflict in Nigeria accounted for 35% of all reported crises between 1991 and 2005. This heightened frequency and intensity of competition among various land users does not only bring quantum destruction of properties but a negative impact on rural development. These conflicts have demonstrated high potential to exacerbate the insecurity and food crisis particularly in rural communities where most of the conflicts are localized, with reverberating consequences nationwide.

Plateau State in particular had witnessed a great share of these conflicts which have culminated into loss of lives and properties. These conflicts have negatively affected the socio-economic and political development of the State and have negatively impacted on the country's national security, stability and integration. The manipulation of herders and farmers has been a major obstacle to the country's efforts towards attaining greater height and as a force to be reckoned with, in Africa.

The task here is to examine the underlying factors responsible for the conflicts and also examine the roles played by institutions in managing the conflicts in Riyom Local Government Area of Plateau State where more than 1,000 people were killed and several hundred remained displaced including female and children (Human Right Report 2010), hence this investigation will focus on the pattern of these conflicts and their impact on the socio-political life of the people.

2. Manifestation of Herders-Farmers Conflicts in Nigeria

The herders — farmers' conflict in Nigeria has become so pervasive and has led to loss of lives and properties. Nweze (2005) also stated that, many farmers and herders have lost their lives and herds while others have experienced dwindling productivity in their herds. In most of these encounters, citizens are regularly killed and the destruction or loss of property leaves an already endangered populace even poorer. According to Olayoku, (2016) during the past eight years, the Nigeria Watch database has recorded 615 violent deaths related to cattle grazing, out of a total of 61,314 violent fatalities in Nigeria. In 2007, the number of deaths resulting from cattle conflicts doubled to 54, spread across the months of January (Zamfara, Delta, and Osun), February (Jigawa), March (Cross River), June (Kebbi), July (Rivers), and December (Borno and Zamfara). Different weapons were used, from guns in Delta to bows, arrows, charms, cutlasses, and spears in Borno. Taraba State recorded a round of attack by suspected herdsmen in 2013, when the Christian communities in Southern Taraba Senatorial District and those on the fringes of the Central Senatorial District, especially in Gassol and Bali local government areas, were attacked (Adamu and Ben, 2015:23). Today, the dimensions of these conflicts have changed with more parties now involved and sophisticated weapons being used leading to counter and reprisal attacks of high magnitude. Although the Local, States and the Federal Government of Nigeria have employed different mechanisms in order to end the menace, these conflicts between Fulani herdsmen and farmers have continued unabated.

Similarly, Olayoku (2016) noted that these conflicts have been most rampant in the middle belt zone noting that in Southern Kaduna for example, particularly in the local government areas of Jama'a, Kachia, Kagarko, Kaura and Sanga, Kaduna States have been subjected to a series of attacks from suspected Hausa-Fulani Muslim herdsmen since 2011. The attacks have suddenly increased in a manner of arithmetic progression as Nigeria approaches another election year in 2015. Sanga local government area of Kaduna State, with an estimated land expanse of 78 square kilometers and a population of 149,333 going by the 2006 National Population Census, has also witnessed many attacks that killed thousands and dislodged almost a quarter of the population from their original abodes. A reliable source confirmed that in Kobin village, 49 people were killed while 107 houses were burnt in the neighboring village of DogonDaji in a single attack (Adamu and Ben 2015: 17). Adamu and Ben (2015) further noted that in Benue State following a bitter rivalry between the Tiv and Fulani ethnic groups, a total of 853 people lost their lives since June 2014. While the Fulani herdsmen claimed to have lost 214 people in addition to 3200 cows, the Tiv people reportedly killed are estimated to be 633 excluding children and women who died in ramshackle camps last year.

Ibanga & Adekunle (2016) reported that attacks by Fulani in Benue in 2016 has led to the killing of at least 1, 269 persons. Out of the 23 local government areas in the state, the rampaging herdsmen invaded and occupied 14 local government areas. Six soldiers attached to the 72 battalion in Makurdi were killed in the cross-fire that ensued between the two groups during this period. Five of the soldiers were killed in Agatu in January this year while one captain, was beheaded in Guma local government area of Benue state. The Tiv people in Guma, Gwer, Gwer-West, Makurdi and other towns at the border with Taraba state have recorded about 458 deaths and over 350 communities have been sacked and are now living in refugee camps (Adamu and Ben, 2015:19).

In Taraba State Since 2013, the Christian communities in Southern Taraba Senatorial District and those on the fringes of the Central Senatorial District, especially in Gassol and Bali local government areas, have come under attack from the HausaFulani Muslim herdsmen; killing women and children (Adamu and Ben, 2015:23). Haruna, (2014:9) also noted that in Gassol local government of Taraba State for instance, villages such as Borno-Kurukuru, Nyamtsav, Orga, Igboough, Tyougese, Orshio, Ukuusu, among many others have been ransacked by Hausa-Fulani Muslim herdsmen, destroying farms, burning homes and churches. In Dinya, Catholic Diocese of Jalingo, both the church and the priest's residence were burnt.

Abugu and Onuba, (2015) captured the incidences in 2009, and noted that the number of fatalities more than doubled the figures of the previous year, with 83 deaths spread over the months of April (Benue), June (Plateau and Jigawa), July (Jigawa and Benue), September (Borno), October (Kebbi), November (Imo), and December (Nasarawa, Oyo, and Zamfara). June, July, and December had

the highest occurrence per month, while 11 of the 13 reported cases took place in the North. According to the International Crisis Group, (2010) the 2010 incidents related to cattle grazing then dropped to thirty-nine (39) fatalities during the months of January (Adamawa and Oyo), February (Ogun), April (Plateau), May (Benue), June (Niger), July (Plateau), August (Adamawa), and October (Plateau). The highest number of reported incidents was two in January, while Niger State had the highest number of casualties. Out of a total of nine cases, seven occurred in the North. In Adamawa, where the international cattle market of Mubi attracted foreign robbers, the violence lasted for seven days. This particular case involved suspected Cameroonian armed bandits with sophisticated weapons. The International Crisis Group, (2010) also reported the use of sophisticated weapons and the portrayal of the Fulani as victims was also noted in a report on Plateau State by the spokesperson of (Miyyeti Allah Cattle Breeders Association (MACBAN), when the Fulani clashed with Berom farmers and lost a young Fulani in addition to 30 cows.

Similarly, the International Crisis Group, (2010:12) noted that the year 2011 saw a meteoric rise to 116 in the number of deaths resulting from cattle conflicts. These clashes occurred in January (Cross River and Plateau), February (Benue and Plateau), April (Abuja), May (Plateau), June, (Nassarawa and Benue), July (Imo), August (Plateau and Nasarawa), November (Kastina), and December (Zamfara). The highest number of incidents was in February and June, with states in the North accounting for the majority of the reported cases. The highest number of fatalities was recorded in Benue, with 38 in June and 27 in February.

However, of the fifteen (15) reported cases in that year, Plateau State accounted for the highest number of occurrences with four incidents, while Benue and Nasarawa had three each. The most sustained violence lasted for five days in Benue, as against three in Nasarawa. The highest number of deaths resulting from cattle conflicts was recorded in 2012, with the total number put at 128 during the months of January (Delta), February (Enugu, Taraba, and Nasarawa), March (Benue, Borno, and Delta), April (Nasarawa and Abuja), May (Nasarawa and Cross River), June (Taraba and Abuja), November (Jigawa), and December (Ogun). The highest number of incidents was four in February, while the highest number of fatalities was recorded in Cross River, with 40 casualties in May, though Benue had a total of 30 deaths in March (International Crisis Group, 2010:12).

In Plateau State, the conflicts between these two communities have impacted negatively on the economy and other areas of life. The government had also invested a lot on security the funds that should have gone into developmental projects. Education has been hard hit as very few children go to school for fear of being attacked. This study is intended to examine the causes and impact of these conflicts with a view to proffering solution to address the menace.

3. Causes of Herders-Farmers Conflict in Nigeria

There are divergent views on the causes of herders-farmers conflicts in Nigeria. Some Scholars have seen colonial policies as cause of the historical rivalry among farmers and herders in some parts of Africa, which are induced by the environment. Abbass (2012) contends that the major source of tensions between pastoralists and farmers is basically economic, with land related issues accounting for the majority of the conflicts. This can then be situated within the broader context of the political economy of land struggle, traceable to a burgeoning demography in which there is fierce competition for fixed space to meet the demands of the growing population (Olabode & Ajibade 2010).

De Haan (2002) contends that while farmers cite destruction of crops by cattle and other property by the pastoralists as the main direct causes for conflicts cited, burning of rangelands and Fadama and blockage of stock routes and water points by crop encroachment are major direct reasons cited by the pastoralists. Similarly, inadequate social amenity, like pipe borne water, was also observed to be the cause of nomads/farmers conflicts. For example, Joseph (2008:8) observes that in Orkpe village of Benue State, pastoralists and sedentary farmers' conflict resulted from the herdsman contamination of a dam, the only source of drinking water for the sedentary farmers.

Adekunle, & Adisa, (2010) emphasize information gap with respect to the stock routes was a major factor contributing to farmer-herdsmen conflicts. Depleting soil fertility, inadequate supply of fertilizer, and the need to increase scale of operation by both groups were also found to indirectly precipitate conflict, as farmers confirmed that they sought for virgin lands to farm. By so doing they might move into stock routes inadvertently.

Blench (2006) attributes farmers-herders conflict to competition over natural resources and over access to grazing and water resources and suggests that, because herders now farm and farmers have herds, competition for the same natural resources has increased. The semi-arid zone has always been more populous than the Middle Belt, and the initial expansion of cultivation was in this zone. As the pressure on arable land in the semi-arid zone increased, soil fertility decreased and farmers were obliged to move to regions of uncleared bush or to increase their holding size. As a consequence, more and more farmers began to settle further and further south in the lightly settled subhumid zone, (Blench, 2006:8).

According to environmental experts the conflict between farmers and herders is environmentally-induced, that is, a consequence of environmental degradation and possibly climate change. For example, the Building Nigeria's Response to Climate Change (BNRCC)/Nigerian Environmental Study Team (NEST), observed that Nigeria is vulnerable to the impacts of climate change and environmental degradation. The experts observed that: "Climate change will significantly affect vulnerable groups because of a variety of factors, including low adaptive capacity, limited resources, and poverty. In general, climate change tends to exacerbate differences among various groups" (Building Nigeria's Response to Climate Change [BNRCC] Project, 2011: 4).

This above view is corroborated by the National policy on Environment which acknowledged the vulnerability of the entire semi-arid zone of Nigeria to desertification: The entire semi-arid zone of Nigeria lies approximately between latitude 110N and 140N and is affected by desertification. This zone has consistently and adversely been affected by all recorded droughts in the country's recent history. The situation is aggravated by the activities of an increasing human population over-grazing, over-cultivation, and

deforestation, which severely stress the natural support system. In many areas, sustainable-yield threshold of the vegetation and soils have been breached. (National Policy on Environment, 1999: 27).

Nyong, (2010) observed that the expansion of population can be seen as a cause of the herders-farmers conflicts in Nigeria. With the expansion of population, the rate of food production would naturally increase and to meet that increasing demand, it is natural for the farmers to encroach into marginal lands that had been the traditional pasture routes for the cattle. This has therefore heightened struggle between livestock and agricultural production which, more often than not, result in the escalation of conflicts. Hence, as population grows, more land is being cultivated and less is available for pasture; forcing Fulani to migrate and tramp on crops cultivated by farmers.

The expansion of both fadama and horticulture also had a negative consequence for pastoralists. The southern dry season movement characteristic of Nigerian pastoralism depended on unimpeded access to riverbanks, where grass could be found when the surrounding land was largely devoid of nutrition. Horticulture has expanded rapidly and there has been no process of negotiation with herders over migration routes, drinking and grazing access; indeed, farmers preferentially farm where cattle have grazed, because the land is particularly fertile. As a consequence, there have been increasing numbers of incidents between cultivators and herders in these areas. Similarly, Blench (2010) have attributed the causes of these conflicts to increased migration from the North to the South. For example, Over the years, the Lake Chad Basin, considered one of Africa's largest, covering an average area of 22,000 square kilometers, today represents the 'diminished remains' and a skeletal shadow of itself. This has pushed many migrants to cross the border from Chad, Niger and Cameroon into northern Nigeria, settling in cities such as Plateau, Benue, Niger, Nasarawa and Kogi.

Yahaya, (2011) also view religion as a cause of conflict between herders and farmers in Nigeria. While pastoralists were confined to the semi-arid zones, they shared common religious practice with the farming communities among which they moved principally the Hausa and Kanuri. The spread of Islamic hegemony was clearly an important factor in encouraging pastoral settlement. As the Jihad pushed towards the ocean, polities such as Borgu, Shaki, Raba [among the Nupe] and Ilorin were established or converted, thereby providing a non-hostile environment for the herders.

The gradual adoption of the Shari'a legal code in many northern states after 1999 has exacerbated the situation still further. This has drawn in several states with a Muslim political elite but a large proportion of non-Muslims in rural areas, such as Kaduna and Borno. Ingawa, Ega, and Erhabor (1999) in reported that the key underlying causes of farmers-herdsmen conflict in Nigeria are:

- i. Changing resource access rights, whereby traditional access rights to communal grazing and water resources are being obstructed by the individual tenureship of arable farmers. This is particularly severe on the traditional trek routes, which become favourite cropping sites because of their better soil fertility resulting from the concentration of animal manure from the trekking herds in these areas. Within the fadama areas, this is exacerbated by the fragmented nature of the crop plots, which makes prevention of animals straying in the crop plots difficult;

- ii. Inadequacy of grazing resources, as increasing crop cultivation (and increasing commercialization of the crop-residues) and poor management of the existing grazing reserves have resulted in a significant reduction in available livestock feed resources, in particular in the Northern States. Moreover, the high value crops introduced by National Fadama Development Programme NFDP (tomatoes and onions) produce almost no crop-residues for livestock feeding.

- iii. Decline in internal discipline and social cohesion, as the adherence to the traditional rules regarding grazing periods, and the authority of the traditional rulers is broken down. Land tenure system or ownership of land was also regarded as a cause of the conflicts. In most societies in Nigeria, farmers are regarded as those that own the land, and therefore determine how it is used; while the nomadic cattle herders are regarded as the landless group, who do not own land to use and settle on (Baba in Abubakar, 2012). Government policies can also be seen as a cause of nomads/farmers conflicts. For example, Hoffman *et al.* (2008) further explained that the conflicts do occur as the size of the existing reserve shrink due to encroachment and government approved expansion of farmlands. This leads to the conversion of water points and stock routes into farmlands. Finally, Egwu (2011) contend that cattle rustling contributes in no small measure to the herders –farmers conflicts in Nigeria. All these have exacerbated chronic insecurity that has encouraged the conflicting parties to take responsibility for their own security and to defend themselves, which is a threat to the sustainability of the federation.

4. The Effects of Herders-Farmers Conflicts in Nigeria

Herders - farmer's conflict has far reaching implications for the states concerned. The first concern according to Abba & Usman (2008) is that of food security. In all the states under consideration, particularly Taraba and Benue states, the majority of those displaced are women and youths who make up substantial part of the farming community, just like in Nasarawa, Kaduna (Southern Kaduna) and Plateau States. The instability caused by the incessant conflict, will likely lead to food shortages for the communities that depend on subsistence farming. Conflicts resulting from the use of Fadama land may also jeopardize huge financial investment by government, Africa Development Bank and World Bank in the Fadama projects nationwide (Ardo 2004:6).

Also, Adebayo and Olaniyi, (2008) noted that the impact of the herders-farmers conflict has been observed to lead to the displacement of the farmers from their places of origin. They have thus become Internally Displaced Persons (IDPs) with a far-reaching impact on farming activities. Because the people displaced are peasant farmers they often depend on others to give them land to plant crops on a smaller scale than what they have cultivated before. This has often led to low agricultural yield mainly to support their existence at a subsistence level. Their economic well-being is thus tempered with because of this conflict. Their cash crops production has reduced, their subsistence level also has dropped.

According to Adebayo and Olaniyi (2008:5) reduced standard and levels of education has been noticed during violent conflicts such as herders and farmers. Their unhealthy looks were also visually observed. This last conflict has led their children to be out of school for about one year, as their parents cannot afford the school fees. The low capital base leads them to poor health. They are unable to purchase drugs prescribed in the clinics available around where they are. This will definitely lead to very low Human Capital Development Index if it is to be measured on them.

Abass (2012) maintains that the socio-economic consequences of herders-farmers conflicts are usually eminent. Conflicts between the crop farmers and nomadic famers or grazers create some mistrust, tension and open confrontations between the opposing groups. Reduction in income and output of crop farmers occur as a result of indiscriminate bush burning and destruction of crops by cattle which lead to either partial or total loss of crops by the farmers. The effect on crop yield therefore has negative impact on the affected farmer's income with its summary impact on the overall agricultural income. This tends to negatively affect farmer's savings, credit repayment ability, as well the food security and economic welfare of urban dwellers that depend on these farmers for food supply, thus, farming and rural/agricultural development is discouraged.

Nyong and Fiki (2005) pointed out that resource-related conflicts are responsible for over 12 percent declines in per capita food production in sub-Saharan Africa. The conflicts have not only heightened the level of insecurity, but have also demonstrated high potential to exacerbate the food crisis in Nigeria and other affected countries due to loss of farmer lives, animals, crops and valuable properties (Cotula, Toulmin and Hesse 2004:4). Chukwuma and Atelhe (2014) observed that the effects of herders –farmer's conflict for Nigeria's national security cannot be over emphasized. The humanitarian, economic, and social consequences of conflicts have been manifold and telling. The attendant security and livelihood crises threaten the collective subsistence and survival of the affected populations. There are also other externalities, such as diminution of agricultural productivity and decline in household capital, all of which do not augur well for societal and national sustainability.

Herders- farmer's conflicts according to Ibrahim, Abdurrahman, Belel, and Umar (2015) also disrupt and threaten the sustainability of pastoral production and agriculture in West Africa (Moritz, 2010). These conflicts reinforce circles of extreme poverty and hunger, and destroy social status, food security and affect mostly the most marginalised groups that include women and children.

This affects education of children leading to obstacles in their development and mass displacement. Consequentially, this debilitates the once mutually existing farmer-pastoralist relationships. This awful situation becomes worst, especially when either the farmer or the pastoralist is categorised into a group relating to religion, tribe or region. These conflicts have caused a sharp and substantial increase in prices for key northern agricultural crop exports such as cowpeas, maize, millet, rice and sorghum, to the rest of Nigeria, Niger and Cameroon. This rise in prices is mainly due to a decrease in agricultural output, uncertainties at markets and an increase in transportation costs (Ibrahim, Abdurrahman, Belel and Umar 2015:9)

This reduction in the output of crops is due to a combination of factors. First, there has been reduction in the availability of labour due to the threat of attacks on farmers on their way to their fields. Both farmers and farm labourers are afraid of attacks on the farms or bombs planted on the roads to farms. The lack of labour has caused inadequate and improperly timed weeding and harvesting. Second, the four farmers have experienced increased prices, lower availability and farther distances travelled to obtain fertilizer, herbicides and improved seeds. Subsequently, the farmers used lower applications of inputs after the start of the conflict.

Lederach in Audu, (2013) further identified three different effects of herders-farmers conflict in a deeply divided society: Firstly, cohesion and identity in a contemporary conflict tend to form within increasingly narrower lines than those that encompass national citizenship. In a conflicting society, people seek security by identifying with something close to their experience and over which they have control. In today's settings that unit of identity may be clan, ethnicity, religion, geographic or regional affiliation, or a mixture of these.

Secondly, one of the complexities found in many conflicting societies is the multiplicity of groups and collectivities vying for recognition and power, often in the form of armed movements. Thirdly, conflicts create a long-term nature of the conflicting groups' animosity, perception of enmity, and deep-rooted fear. This is coupled with the immediacy of having the enemy living virtually next door as in many areas of Bosnia, Somalia, Azerbaijan, Rwanda and Colombia (Audu, 2013:12).

Another effect herders-farmers conflict can cause among conflicting communities is a possibility of unnecessary competition such as religious competition, power and so on. Among other effects are destruction of property and environment, loss of lives, displacement of the citizens and migrants in the affected areas. The more visible consequence has been violent clashes in the towns, burnings of churches and mosques and a large-scale migration of southern traders back to their home areas or to places with a more supportive administration. However, in rural areas, the effect has been to draw natural resource conflict into the politico-religious arena (Yahaya 2011:36).

Bello (2013) identified some causes of herdsman-farmers conflict to be:

- i. destruction of crops by cattle and other property (reservoirs, irrigational facilities and infrastructure) by the herdsman themselves are the main direct causes for conflicts cited by the farmers;
- ii. Burning of rangelands, fadama and blockage of stock routes and water points by crop encroachment are important direct reasons cited by the herdsman;
- iii. Increasing rate of cattle theft which is often accompanied by violence;
- iv. Antagonistic perceptions and beliefs among farmers and herdsman could compound conflict situation, especially due to failing institutions and fierce competition for resources.

5. Theoretical Framework

The environmental scarcity theory is applied in the study in trying to situate the phenomenon of farmers-herders conflict across Nigeria. This theory is built on complex causes which could move 'from the most local to the most global' types of causes of conflict. Thomas Homer-Dixon is one of the proponents of this theory, which proposes that environmental scarcity could produce violent conflicts. Such conflicts range from local environmental degradation, to ethnic clashes, to civil strife (insurgencies), scarcity induced wars out of a loss of sources of livelihoods and the negligent behaviour of the state and elite class (Homer-Dixon, 1999).

Lending support to the environment and conflict argument, Brunborg and Urdal (2005:371) specified that "demographic factors may, however, also be potential causes of conflict", with factors like "high population pressure" making negative impact on scarce resources such as arable land and fresh waters which could lead to violent conflicts.

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, 1998:346). In his own contribution, Benjaminsen (2008:819) argues that 'scarcity is believed to be rapidly increasing in many marginal environments, in particular, owing to ongoing processes of environmental degradation primarily by escalating population growth'.

Accordingly, the environmental scarcity theory has three main dimensions: Supply-induced scarcity, demand-induced scarcity, and structural scarcity (Homer-Dixon, 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 exists because of inequitable distribution of resources due to their concentration in the hands of a few, while the rest of the population suffers from resource inadequacy (Homer-Dixon, 1999).

Hauge and Ellingsen (1998:301) agreed that "increased environmental scarcity caused by one or more of these factors is assumed to have several consequences, which in turn may lead to domestic armed conflict," with intervening variables such as decreased agricultural production, decreased economic activity, migration and a weakened state helping to build up the environmental scarcity and violent conflict. As people's quality of life diminishes due to decrease in environmental resources such as fertile land, there is the tendency that competition may ensue over the scarce resources, such competition if unchecked could turn fierce, may result into violent conflict. This theory is adopted in this study to provide support to structural conflict theory because of diverse meanings and explanations it brings to environmentally linked- resource conflicts. Unlike ecological balance which is linked directly to ecological degradation, resulting to human degradation as structural violence. Environmental scarcity in the case connotes the limited supply of grazing land, farmland and water.

Such environmental scarcity generates 'severe social stresses within countries, helping to stimulate sub national insurgencies, ethnic clashes and urban unrest' (Homer-Dixon, 1999:12). This assumption helps the research to demonstrate how and why farming communities who depend mainly on these environmental resources such as fishing water and farming land fight to control the farming land. It also provides explanation on the structural violent nature of environmental scarcity, as the social crises it causes consequently fuels non-state conflict among affected oil communities.

However, this theory was criticised for ignoring the more direct linkage between economic and political factors and domestic armed conflict, thereby reducing the understanding of the causal pathway to domestic armed conflict. For instance, 'Structural scarcity, which concerns unequal distribution of resources (especially land), is mainly a consequence of politics' (Hauge and Ellingsen, 1998:302). Again, notwithstanding the initial acceptance given to the theory and its findings, but like other environmental security literature, its 'environmental and resource related issues are connected to conflict in a state-centric sense' (O'leary, 2003:129).

Furthermore, Salehyan (2008:317) argues that 'while environmental degradation or climate change is certainly not a necessary condition for armed conflicts, neither is it a sufficient one, since states play a key role in containing or aggravating violence'. This flaw in the theory has been noted and is complemented by structural conflict theory, in order to build a direct linkage between economic and political factors, and domestic armed conflict. This is one of the reasons why this theory is not adopted as a single theory but as a component of the structural conflict theory.

The adoption of the environmental scarcity theory in explaining the herders-farmers conflicts in Plateau State is predicated on the fact that the conflicts are primarily viewed as a structural violence. 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. The low rainfall and fragile soils in the far North limit agricultural potential. After repeated cultivation, organic matter is rapidly lost and the soil is easily eroded. This imbalance, combined with other natural resource limits - including weak soils and poor rains - has resulted in extensive environmental scarcities in the homelands thereby pushing the pastoralist into seasonal movement in search for forage. This has therefore brought about a rapid population growth of both crop and nomadic farmers while land remains fixed.

Farmers-herder's conflicts in Plateau State can thus be understood by the increasing competition over diminishing renewable resources, such as land and water. This is being further aggravated by environmental degradation, population growth and climate change which has continuously pushed the herders to move from one location to the other in search of forage for livestock. The mismanagement of land and natural resources by government is contributing to new conflicts and obstructing the peaceful resolution of existing ones.

Thus Herders -farmers Conflicts in Riyom Local Government Area can be seen as one over natural resources which arise when parties disagree about the management, ownership, allocation, use and protection of natural resources and related ecosystems. The Conflict has become problematic because government mechanisms and institutions for managing and resolving conflict break down, giving way to violence. Government's weak institutions, fragile political systems and divisive societal relations had been drawn into cycles of

conflict and violence. Increasing scarcity of renewable resources, or grievances over their governance and/or transboundary nature, had driven, reinforce or compound existing stress factors and play a contributing role in the decision to resort to violence.

In this regard, the competition to control or gain access to natural resources (land) had contributed to the outbreak of violent conflict in Plateau State. During these conflicts, individuals and groups had exploited natural resources as part of the conflict economy creating incentives to undermine efforts to build peace thereby creating a continuous cycle of violent conflicts.

6. Research Design

This study employed the cross-sectional survey design. The approach enables the researcher to study a group of people in the population, by collecting and analyzing data from only a few people or items considered to be representative of the entire group (population). Thus, rather than obtain data from the whole population being studied only a sample is selected from the whole through a sampling process.

6.1. The Study Area

Riyom local government area (LGA) is located between Latitude 90 19' to 90 39' North and Longitude 80 19' to 80 39' East. It is bounded by Barki Ladi area on its south-eastern border while Kaura and Sanga areas of Kaduna state are found on its north-western and south-western border respectively. The study area covers a landmass of 768.75 sq km. It is bounded by Bassa and Jos South areas to the north-east, Barki-ladi to the south-west and Kaduna State to the west.

The relief and drainage of this area, just like any other areas in the Jos plateau lies on the gentle undulating highland of the Jos Plateau on an average height of about 1220 meters (4000ft above the sea level). Riyom area is surrounded by hills and inselbergs; this gives the study area the typical plateau landscape of treeless, grassy plains from which rises scattered groups of low rocky hills.

The study area is characterized by a modified temperate climate which is typical of northern part of Plateau State. There are two distinct seasons in the study area; they are the dry and the rainy seasons. The former starts from April and ends in November of each year, while the later starts from November and ends in March every year. Usually, the cold harmattan wind dominates February to March annually. An annual average temperature ranges between 6^o C for the cold month (February) and 32C for the hottest month (March) (Riyom LGA Information Unit, 2005).

There are two distinct seasons in the study area; they are the dry and the rainy seasons. The rainfall is between 1250mm-1500mm per annum. The rainy season last for seven months from April to November while the dry season lasts for four months from November to March of every year. The rainy season is characterized by conventional rains which often occur as thunderstorms especially during the beginning of the rainy season.

The study area is inhabited by three major ethnic groups namely; Attakar, Berom and Ganawuri. However, due to western civilization and quest for national unity coupled with the hospitable nature of the people, other ethnic nationalities have taken permanent residence in the area. Some of these include Hausa-Fulani, Igbo, and Yoruba etc. (Riyom LGA Information Unit, 2005). There are a number of cultural festivals which have existed since time immemorial in the area as a whole. The different ethnic groups in Riyom celebrated one form of festival or other signifying cultural rites. The Berom for instance engage in Vwana and Mandieng. 'Vwana' in Berom culture signifies the beginning of the rainy season as such it is celebrated in April of every year.

The major occupation is agriculture due to the vast land available and fertile nature of the soil. There is abundance of agricultural output which could serve as raw materials to food and beverage industry. The production of these raw materials is made possible due to the fertility of their soil, good vegetation cover, adequate rainfall which is considered heaviest on the plateau. These factors are just equitable for both crop production and animal husbandry (Riyom LGA Information Unit, 2005).

Among the crops produced in Riyom LGA are: - Grains comprising 'Acha', Maize, Rice and Millet; Tubers comprising Sweet-Potatoes, Irish Potatoes, Yam, Cassava and Cocoa-yam; Legumes comprising Groundnuts, Beans, Soya-beans, and lastly vegetables comprising Tomatoes, Cabbage, Carrot, Cucumbers etc. As a result of the area's blessing in agriculture coupled with its strategic location on the plateau as gate-way to and from 'Abuja' the federal capital territory to the North-Eastern part of Nigeria, the local government have become one of the food baskets of the country (Riyom LGA Information Unit, 2005).

6.2. Sample Size Determination and Sampling Techniques

A multi stage purposive sampling was used to select the respondents of this study. The selection was randomly based so as to give each member of the population the same chance of being selected. The target populations for this study are the cattle herders and crop farmers. The first stage involved the purposive selection of the existing three (3) districts, that is, Riyom, Bachit and Ganawuri districts. This selection was based on the frequency of occurrence of farmer herder conflict in the state. The second stage involved purposive sampling of nine (9) communities from the districts namely Riyom, Hoss, Weren, Tom/Gangare, Sharubutu, Fang, Bum, Fangoroi, Tse/ Gura Ganawuri in the third stage, villages were selected from the districts based on their experience of the conflicts. Lastly, the fourth stage was the random selection of the households based on their occupation as farmers or herders to form part of the sample. A total of thirty-nine (39) respondents were sampled from each of the ten communities. In determining the sample size, the Taro Yamane's formula was adopted having determined the population of local government Area, the Taro Yamane's, formula (2001) was applied to determine the sample size.

The Taro Yamane's Formula state thus:

$$n = \frac{N}{1 + N(e)^2}$$

Where

n = Is sample size

N = Total Population

1 = Statistical Constant

e = the assume error of margin or level of significance which is taken as 0.05 i.e. 95% confidence level.

In calculating the sample size, the result is as follows:

$$n = \frac{131,778}{1 + 131,778 (0.05)^2}$$

$$\frac{131,778}{1 + 131,778 \times 0.0025}$$

$$\frac{131,778}{330.445} = 398.7895$$

$$n = 399.$$

6.3. Methods of Data Collection and Analysis

Questionnaire and the interviews were used to obtain relevant information. Questionnaire was developed to obtain information from respondents. The questionnaire was structured in line with the research objectives. Information collected included those based on the socio-economic characteristics of respondents, causes of the conflicts, institutions involved in managing conflicts and mechanisms employed by these institutions. Interview was also conducted with the key informants drawn from representatives of security agencies, faith based organisations, and other Non-government organisations in the local government area. Secondary data was obtained from texts such as unpublished theses, official documents, journal papers, textbooks, newspapers and so on. The aim of the secondary source was to interpret, offer commentary, document analysis and draw conclusions. The data obtained from the questionnaire were analysed using simple percentage statistic to enable the researcher ascertain weights of opinion to particular questionnaire. Also, utilised for example are cross-tabulation and charts.

7. Data Presentation and Analysis

7.1. Socio-Economic Characteristics of Respondents

The socio-economic characteristics of respondents in the study area are presented in Table 1. Data were collected from a sample comprising 80% (304) male respondents while 20 % (76) are female. With regard to respondents ages, a significant proportion of respondents with 27.9 % (106) are between the ages of 31 and 39 while 28.4% (108) are between the ages of 50 and above years. This implies that a good number of respondents are within the active and economic age bracket. Also, the elderly believed to have vast experience of the conflicts in Riyom are adequately represented. Analysis of years of residence in Riyom shows 14.8% (56) settled for 10-14 years, 26% (99) respondents lived for 15-19 while 45% (171) have lived for 20 years and above. This goes to show that a good number of respondents have resided in Riyom long enough to have a reasonable knowledge of conflicts.

The education level of respondents was as follows: respondents with non-formal education constituted 31.5% (120), followed by those with tertiary education having 25.6% (97). More than a quarter 76 % (20) of respondents received formal education at varying levels. The result implies that respondents in the study area are divided between those who are educated and the uneducated. Analysis of occupation of respondents varies sharply in frequency and percentage. Results shows a majority of respondents representing 32.4% (123) are farmers while 8.9% (34) respondents are cattle rearers. This goes to show that there are more farmers in Riyom than cattle rearers. The result of marital status showed that majority 35.8% (136) are married, while 31.3% (119) are widowed. This implied that a high proportion of respondents had family responsibilities and would likely use land more intensely.

Gender	Frequency	%
Male	304	80
Female	76	20
Age		
20 – 29	68	17.9
31 – 39	106	27.9
40 – 49	98	25.8
50 and above	108	28.4
Years of Residence	Frequency	%
0-4	22	5.8
5-9	32	8.4
10-14	56	14.8
15-19	99	26
20 and above	171	45
Education	Frequency	%
Non-formal Education	120	31.5
Primary	76	20
Secondary	87	22.8
Tertiary	97	25.6
Occupation	Frequency	%
Farmers	123	32.4
Cattle rearing	34	8.9
Farming and cattle rearing	35	9.3
Trading	102	26.8
Artisans	86	22.6
Marital status	Frequency	%
Single	102	26.9
Married	136	35.8
Widow	119	31.3
Divorce	10	2.6
Separated	13	3.4
Total	380	100

Table 1: Social –Economic Background of Respondents

7.1.1. Incidence of Conflicts

Data in Table 2 below show a majority of male and female respondents representing 41.4 % (126) and 48.7% (37) identified that farmers-herder's conflicts occurred frequently. The older respondents between 50 years and above representing 33.3% (36) and 40-49 representing 35.7%(35) also affirmed that conflicts occurred frequently and sometimes. Respondents who resided in Riyom for 20 years and above representing 49.7% (85) noted that conflicts occurred frequently. Similarly, 52.9%(65) respondents who are farmers noted that conflicts occurred frequently while 50%(17) respondents who are herders noted that conflicts occurred sometimes.

These findings are in line with the submissions of Majekodunmi, Fajinmi, Dongkum, Shaw, APM & Welburn, (2014), Solagberu, and Oluwasegun (2010) who in separate studies noted the prevalence of and disturbing impacts of farmers –herder's conflicts in North-Central Nigeria with particular focus on Plateau States. IFRA (2014) also captured the rising cases of conflicts on the Plateau. These reports attributed the surge to the increasing farming and cattle rearing activities which are predisposed to mutual conflict because farmers cultivate crops that are attractive to cattle, which pass through their farmlands and trample on crops.

Gender	Frequency					
	Always %	Frequently %	Sometimes %	Rarely %	Never %	Total %
Male	34.2 (104)	41.4 (126)	18.4 (56)	6 (18)	0 (0)	100 304
Female	31.6 (24)	48.7 (37)	13.2 (10)	6.5 (5)	0 (0)	100 76
Age	Always	Frequently	Sometimes	Rarely	Never	Total
50 and above	23.2 (25)	33.3 (36)	33.3 (36)	10.2 (11)	0 (0)	100 (108)
40-49	17.4 (17)	35.7 (35)	33.6 (33)	13.3 (13)	0 (0)	100 (98)
30 – 39	24.6 (26)	33.9 (36)	41.5 (44)	0 (0)	0 (0)	100 (106)
20 – 29	20.6 (14)	38.2 (26)	35.3 (24)	5.8 (4)	0 (0)	100 (68)
Years of residence	Always	Frequently	Sometimes	Rarely	Never	Total
20 and above	20.5 (35)	49.7 (85)	28 (48)	1.8 (3)	0 (0)	100 (171)
15-19	17.1 (17)	39.4 (39)	43.5 (43)	0 (0)	0 (0)	100 (99)
10-14	19.7 (11)	39.3 (22)	41 (23)	0 (0)	0 (0)	100 (56)
5-9	28.2 (9)	31.2 (10)	40.6 (13)	0 (0)	0 (0)	100 (32)
0-4	22.8 (5)	31.8 (7)	45.4 (10)	0 (0)	0 (0)	100 (22)
Occupation	Always	Frequently	Sometimes	Rarely	Never	Total
Farmers	26 (32)	52.9 (65)	21.1 (26)	0 (0)	0 (0)	100 (123)
Traders	26.5 (27)	19.6 (20)	53.9 (55)	0 (0)	0 (0)	100 (102)
Herders	29.5 (10)	20.5 (7)	50 (17)	0 (0)	0 (0)	100 (34)
Farming/ Herding	17.2 (6)	34.2 (12)	48.6 (17)	0 (0)	0 (0)	100 (35)
Artisans	26.8 (23)	29 (25)	44.2 (38)	0 (0)	0 (0)	100 (86)
Education	Always	Frequently	Rarely	Sometimes	Never	Total
Non-formal Education	19.1 (23)	38.4 (46)	15.8 (19)	26.7 (32)	0 (0)	100 (120)
Primary	14.4 (11)	42.2 (32)	15.7 (12)	27.7 (21)	0 (0)	100 (76)
Secondary	13.8 (12)	25.4 (22)	12.6 (11)	48.2 (42)	0 (0)	100 (87)
Tertiary	15.5 (15)	44.4 (43)	5.2 (5)	31.9 (31)	3 (3)	100 (97)
Marital Status	Always	Frequently	Rarely	Sometimes	Never	Total
Married	15.5 (21)	38.9 (53)	8.8 (12)	36.8 (50)	0 (0)	100 (136)
Widow	19.4 (23)	31.9 (38)	10 (12)	38.7 (46)	0 (0)	100 (119)
Single	12.7 (13)	34.2 (35)	11.5 (12)	41.6 (42)	0 (0)	100 (102)
Divorce	20 (2)	50 (5)	0 (0)	30 (3)	0 (0)	100 10
Separated	23 (3)	38.5 (5)	0 (0)	38.5 (5)	0 (0)	100 13

Table 2: General perception of incidence of farmers –herders' conflicts

7.1.2. Causes of Conflicts

Data in Table 3 below shows respondents differ in their submission on the causes of conflicts. While majority of male and female respondents with 51.3 % (156) and 40.8% (31) viewed crop damage and land encroachment as a common cause of conflicts. The older population between 50 years and above representing 38% noted that crop damage had been a major cause of conflicts. Respondents who resided in Riyom for 20 years and above comprised 38.65% (66) said disregard to rules and regulations are major causes of encroachment. On the other hand, 67.6 % (23) of respondents who are herders see killing of cattle and cattle rustling as a major cause of conflicts while 53% respondents constituting the farming population noted crop damage by cattle as a major cause of conflicts.

Interview held with respondents further shows other causes of farmers-herders conflicts in Riyom which involved negligence on the part of both groups. For example, while the pastoralists often left a large number of cattle in the care of children who usually do not care about the consequences in the event of destruction of farm produce. The farmers also left their harvested crops on their farm unprotected. Thus, one of the reasons why the pastoralists inevitably damaged crops according to a pastoral respondent was due to encroachment of grazing routes.

The variations of the causes of conflicts between herders and farmers has also received currency in literature as buttressed by Adisa (2011), Adekunle, and Adisa, (2010), Abba and Usman, (2008), Abass, (2012), Adamu, and Ben, (2015). It was evident that variations in the causes of the conflicts as noted by respondents was informed by the differences in gender, occupation, age, years of service and so on. For example, while farmers readily adduced crop damage, water contamination as a prominent cause of the herders-farmers conflicts, cattle rearers on the other hand attributed conflicts to encroachment on grazing land, killing of cattle and cattle rustling and so on.

Gender	Frequency					Total %
	Crops damage by cattle and grazing land encroachment	Disregard to rules and regulations	Killing of cattle and cattle rustling	Pollution of water points	Others	
Male	51.3 (156)	27.4 (83)	16.1 (49)	5.2 (16)	0 (0)	100 (304)
Female	40.8 (31)	15.7 (12)	11.9 (9)	31.6 (24)	0 (0)	100 (76)
Age	Crops damage	Killing of cattle/cattle rustling	Pollution of water points	Disregard to rules and regulations	others	Total
50 & above	40.7 (44)	29.6 (32)	18.6 (20)	11.1 (12)	0 (0)	100 (108)
40-49	34.6 (34)	31.7 (31)	22.4 (22)	11.3 (11)	0 (0)	100 (98)
30 – 39	34.9 (37)	32 (34)	20.8 (22)	12.3 (13)	0 (0)	100 (106)
20 – 29	48.6 (33)	13.3 (9)	7.3 (5)	30.8 (21)	0 (0)	100 (68)
Years of residence	Crops damage	Killing of cattle/cattle rustling	Disregard to rules and regulations	Pollution of water points	others	Total
20 and above	25.7 (44)	22.3 (38)	38.6 (66)	13.4 (23)	0 (0)	100 (171)
15-19	45.5 (45)	5 (5)	42.5 (42)	7 (7)	0 (0)	100 (99)
10-14	35.7 (20)	23.3 (13)	41 (23)	0 (0)	0 (0)	100 (56)
5-9	46.8 (15)	12.5 (4)	40.7 (13)	0 (0)	0 (0)	100 (32)
0-4	40.9 (9)	22.7 (5)	36.4 (8)	0 (0)	0 (0)	100 (22)
Occupation	Killing of cattle/cattle rustling	Crops damage	Pollution of water points	Disregard to rules and regulations	others	Total
Farmers	29.3 (36)	35.8 (44)	13 (16)	21.9 (27)	0 (0)	100 (123)
Traders	13.7 (14)	45 (46)	18.7 (19)	22.6 (23)	0 (0)	100 (102)

Gender	Frequency					Total %
	Crops damage by cattle and grazing land encroachment	Disregard to rules and regulations	Killing of cattle and cattle rustling	Pollution of water points	Others	
Herders	67.6 (23)	14.7 (5)	0 (0)	17.7 (6)	0	100 (34)
Farming/ Herding	34.2 (12)	37.2 (13)	8.6 (3)	20 (7)	0 (0)	100 (35)
Artisans	26.7 (23)	38.4 (33)	10.4 (9)	24.5 (21)	0 (0)	100 (86)
Education	Killing of cattle/cattle rustling	Crops damage	Pollution of water points	Disregard to rules and regulations	others	Total
Non-formal Education	21.6 (26)	41.7 (50)	10 (12)	26.7 (32)	0 (0)	100 (120)
Primary	11.8 (9)	42.1 (32)	5.3 (4)	40.8 (31)	0 (0)	100 (76)
Secondary	24.1 (21)	49.5 (43)	5.8 (5)	20.6 (18)	0 (0)	100 (87)
Tertiary	23.7 (23)	46.4 (45)	4.1 (4)	25.8 (25)	0 (0)	100 (97)
Marital Status	Killing of cattle/cattle rustling	Crops damage	Pollution of water points	Disregard to rules and regulations	Others	Total
Married	17.6 (24)	40.5 (55)	8 (11)	33.9 (46)	0 (0)	100 (136)
Widow	19.4 (23)	38.7 (46)	10.9 (13)	31 (37)	0 (0)	100 (119)
Single	11.7 (12)	56.8 (58)	8.9 (9)	22.6 (23)	0 (0)	100 (102)
Divorce	20 (2)	40 (4)	20 (2)	20 (2)	0 (0)	100 (10)
Separated	15.4 (2)	46.2 (6)	15.4 (2)	23 (3)	0 (0)	100 (13)

Table 3: Causes of Farmers –Herders Conflicts.

7.1.3. Impact of Conflicts

Data in Table 4 below show that a majority of respondents representing 68.6% (261) observed that farmers-herder's conflicts in Riyom Local Government Area had very often characterized with loss of lives, destruction of farms, loss of cattle and loss of crop yield. Another 50% (190) said strained relationship and loss of trust had been the most felt impact of the conflicts. 48.5% (184) respondents observed the destruction of places of worship, houses, schools, and health care facilities sometimes had notable impact. 52.7% (200) noted that rise in farm/job abandonment was experienced very often.

Respondents interviewed further lamented the effects of these conflicts noting that the pastoralist and farmers' conflict has led to the deaths of hundreds of people and destruction of properties. These findings are consistent with the result of the study on the effects of farmers-herder's conflicts by Adisa (2011) who noted that such effects range from economic effects (such as loss of income/resources/yield) to physical (such as home/farm destruction, bodily injury or death of family member) and socio-psychological effects such as emotional exhaustion, abandonment of farm and so on.

Options	Frequency					Total %
	Very Often	Often	Sometimes	Rarely	Never	
Loss of lives, destruction of farms, loss of cattle and loss of crop yield	68.6 (261)	25.4 (96)	6 (23)	0 (0)	0 (0)	100 (380)
Strained relationship and loss of trust	37.4 (142)	50 (190)	11.3 (43)	1.3 (5)	0 (0)	100 (380)
Destruction of places of worship, houses schools, health care facilities	41 (156)	6.6 (25)	48.5 (184)	3.9 (15)	0 (0)	100 (380)
Farm/job abandonment	52.7 (200)	43.9 (167)	2.9 (11)	0.5 (2)	0 (0)	100 (380)

Table 4: Impact of Herders – Farmers Conflicts.

7.1.4. Measures Employed in Managing Conflicts

Data in Table 5 below shows a majority of respondents representing 47%(234) noted that the deployment of joint task forces comprising the police, military and others is the commonest measure employed in managing the conflicts between farmers and herders in Riyom Local Government. 41.6% (158) respondents observed that provision of relief materials, payment of compensation, relocation and rehabilitation of victims is sometimes provided. 49.7% 189 said the issuance of verbal warning is another measure employed very often. 48.2 % (183) respondents noted that arrest and prosecution of offenders is rarely employed.

Options	Frequency					
	Very often	Often	Sometimes	Rarely	Others	Total
Deployment of security forces	47 (234)	31 (112)	6 (43)	16 (11)	0 (0)	100 (380)
Provision of relief materials, Payment of compensation, relocation and rehabilitation of victims	22.9 (87)	9.8 (37)	41.6 (158)	25.7 (98)	0 (0)	100 (380)
Verbal warning.	49.7 189	32.7 124	11.3 43	6.3 24	0 (0)	100 380
Arrest and prosecution of offenders	8.5 (32)	3.1 (12)	48.2 (183)	40.2 (153)	0 (0)	100 380

Table 5: Measures employed in managing conflicts

7.1.5. Effectiveness of Measures Employed in Managing Conflicts

Data in Table 6 below shows the effectiveness of measures employed in addressing the conflicts in Riyom. Looking at the table respondents differ remarkable in their assessment of effectiveness of measures employed in managing the conflicts. Data show 35.3% (134) respondents observed that the deployment of security forces is ineffective while another 32.8 % (125) said it is effective. 35.3% (134) respondents observed that the provision of relief materials, payment of compensation, relocation and rehabilitation of victims is very effective. 46 % (175) noted that the issuance of verbal warning is ineffective. 37.6% (143) respondents also noted that the arrest and prosecution of offenders was ineffective while another 25.8 % (98) said it is effective.

It is note-worthy that respondents interviewed expressed remarkable disappointment with government efforts and strategies aimed at addressing the conflicts in the past. Respondents expressed an overwhelming level of frustration occasioned by the rising spate of farmer-herdsmen and the inability of government to decisively deal with the crisis. During the interviews, respondents attributed and castigated government for partly responsible for most of the conflicts in the state by not responding promptly, and if they do, not effective enough.

Respondents interviewed further affirmed that: “the State government often delays in intervening in crises situations, and if they do, they send forces that do not make peace but shoot to kill even at innocent people. Also, the government has not implemented most of the findings from the commission of enquiries constituted to look into most of these crises, besides not sending relief items to them”. The government was also blamed for not always dispatching the Nigeria security operatives on time, and that the team arrives at the scene most often when the situation is already out of hand, leading most at times to high death toll and massive destruction of property.

Options	Frequency					
	Effective	Very effective	Ineffective	Very Ineffective	Others	Total
Deployment of security forces	32.8 125	13.9 53	35.3 134	17.9 68	0 (0)	100 380
Provision of relief materials, Payment of compensation, relocation and rehabilitation of victims	35.3 (134)	16.9 (64)	27.8 (106)	20 (76)	0 (0)	100 (380)
Verbal warning.	5 (19)	4.5 (17)	46 (175)	44.5 (169)	0 (0)	100 (380)
Arrest and prosecution of offenders	25.8 (98)	20 (76)	37.6 (143)	16.6 (63)	0 (0)	100 (380)

Table 6: Effectiveness of measures employed in managing Conflicts

8. Conclusion and Recommendations

This study concludes that herders-farmers conflicts are prevalent in Plateau State and Riyom Local Government in specific. It argued that the conflicts are caused by a combination of factors such as crops damage by cattle, land encroachment, inadequate grazing reserves, lack of access to water point and pollution of water points, killing of stray cattle, cattle rustling, indiscriminate bush burning, disregard to rules and regulations and so on. This study established that these conflicts have far reaching effects on the people and polity such as destruction of farms, loss of cattle and loss of crop yield, farm\job abandonment, and destruction of places of worship, destruction of houses, schools, health care facilities, and strained relationship and loss of trust, loss of lives. Based on the findings of

this study, the following recommendations are made to stem the rising cases of herders-farmers conflicts in Plateau State and Nigeria in general.

1. Plateau State government should enact a law to provide for the establishment of ranches (restricted grazing).
2. Government should intensify efforts in arresting, trial and persecution of perpetrators of violence in the State,
3. The law enforcement agencies should be trained and equipped to combat the rising and continuous spate of herders'-farmers' clashes in the State. The employment of intelligence gathering should be encouraged to nip possible conflicts in the bud.
4. The traditional rulers who are the custodian of culture of the people should be adequately engaged in conflict resolution conflicts between herders-farmers. They should be engaged in educating the people about the importance of peaceful coexistence and the effects of violence on the people with a view to preventing the eruption of conflicts. Also, their involvement will facilitate the identification and reporting of residents with criminal tendencies and disposition. Such information will enable the police act on time in preventing an explosive tension or crisis.
5. There should be enhanced public information and education on the need to respect the law. Such enlightenments should focus on propagating the dangers of violence and the gains of peaceful co-existence within the communities.

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