

# Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints

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## Abstract

*Incessant conflicts between farmers and herdsmen in Nigeria have claimed many lives and properties and a number of conflict resolution meetings and solution-based researches have taken place. But it appears not much has been achieved with regard to identifying the originator of the conflict and the most effective methods of resolving the conflict. Attempts were made in this study, using a questionnaire survey, to elicit information from the herdsmen on the cases, causes and the most effective methods of conflict resolution. One hundred and twenty copies of questionnaire were purposively administered among pastoralists in thirteen communities, selected randomly from six (6) Local Government Areas (LGAs) in the study area. The result showed that 28.3% never engaged in any conflict with farmers while 32.5% had violent conflicts with farmers between one and five times and 18.3% clashed with farmers not less than fifteen (15) times. The result also showed that intrusion on the grazing reserves (31.7%) and encroachment on waterholes for cattle (9.2%) were farmers' actions that caused skirmishes while deliberate grazing of cattle on crops (23.3%) and herder's indiscriminate bush burning (20.8%) often infuriated the farmers. Going by these findings, while the actions of farmers constituted 40.9%, herder's actions amounted to 44.1%, which implies that herdsmen were sometimes the instigators of farmers-herders conflict. Again, the study discovered that the intervention of local chiefs and religious leaders in such conflicts was more effective than that of law enforcement agents, which means that in conflict resolution, dialogue is more valuable than coercion. In conclusion, the study generated a synthesis of information on the cases, causes and mechanisms of conflict resolution and affirms the need for proper control of the resources that is the source of the conflicts.*

**Key Words:** Farmers; conflict; herdsmen; northern Nigeria

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## **Introduction**

In Nigeria, the National Population Commission (NPC, 2006) considers nomads as persons who migrate from place to place in search of pasture for their animals. They are people who do not settle in any place for longer than one or two years. Nomadism implies movement and nomads have been defined in various ways, as a “traveling population”, a “migratory group”, an “itinerant group”, a wondering group” and better still, as members of a tribe who wonder from place to place with no fixed homestead.

There are two major categories of nomads in Nigeria: the pastoralists and the artisanal migrant fishermen. The pastoralists are made up of the Fulbe or Fula, the Shuwa, the Koyam, the Badawi, the Buduma and the Dark Buzzu. The Fulbe [Fulani] are said to have originated from Senegambia and then spread across some 20 states in West Africa and the Sahel, up to Western Sudan and the Central African Republic (Blench 1994; Shehu and Hassan 1995; Blench 2010; McGregor 2014). They are described as the unitary group of people with a unitary culture. In Nigeria, they are found in 31 out of 36 states of the Federation. They are the mainstay of the meat and milk industry, accounting for about 90% of cattle herd ownership (Abass 2012; Koster and de Wolff 2012). They rear different species of cattle, such as the Keteku, Muturu, and Kuri, but the Zebu is identified as the most common (Awogbade 1987; Iro 1994). They also supply skins, bones, and horns as complementary products. Other pastoralist groups in Nigeria are the Koyam, the Shuwa, the Badawi, the Buduma and the Dark Buzzu who are mainly found in the Borno plains and on shores of Lake Chad and have remained in the semi-arid zone around Lake Chad (Daramola, 2007; Adeoye, 2008). With a very few exceptions, they do not come into contact with cultivators, except for their own people, cultivating in river valleys or catch-cropping at the foot of dunes. More recently, the desiccation of Lake Chad in the 1990s has created a vast new grazing area on the former lake bed (Blench 1991b).

Generally, the pastoralists are constantly in motion from place to place searching for better grazing ground and indeed they are commonly found in various rural settlements within the northern, middle belt and southern parts of Nigeria. The major pre-occupation of these people is to take very good care of their herds. This largely involves the search for good grazing grounds in respect of pastures and water for the cattle. They also resist any area that could be hazardous to the health of their herds, such as tsetse fly infested environments (Ayeni and Efosa, 2010).

Conflict between pastoralists and farmers has existed since the beginnings of agriculture (Daramola, 2006; Tonah, 2006), but the prevalence of tsetse and low settlement densities kept the incidence of clashes at a low frequency until the twentieth century (Blench and Dendo 2003). In West Africa, the introduction of cheap trypanocides and other veterinary drugs has increased herd sizes to levels that have compelled

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

herders to seek pastures outside their traditional ecological range. Besides, improved human health has increased overall population and thus pressure on arable land. Nonetheless, the persistence of slash and burn agriculture typical of much of semi-arid and sub-humid West Africa has allowed the two groups to co-exist, especially through the exchange of crop residues for manure. However, the marked expansion of riverine and valley-bottom (*fadama*) cultivation since the 1980s has meant that herders and farmers are now competing very keenly for access to river banks, with a consequent increase in conflict (Blench and Dendo 2003).

In recent times, pressure on land has constantly brought the pastoralists and the arable farmers into violent conflict, which has claimed many lives and properties. In the Demsa Local Government area of Adamawa State, Nigeria, 28 people were feared killed; about 2,500 farmers were displaced and rendered homeless in the hostilities between cattle rearers and farmers in the host community in July 2005. Besides, in another location in the same state, many farmers and herders lost their lives and herds, while others experienced dwindling productivity in their herds (Nweze, 2005). Again, Ajuwon (2004), cited in Nweze (2005), discovered that in Imo State, Nigeria, between 1996 and 2005, 19 people died and 42 people were injured in the farmers-herders conflicts. In addition, Integrated Regional Information Network (IRIN), (2009) reported that the two days of fighting between farmers and nomads in June 2009 left 3 dead and a number of pastoralists' settlements burned in Plateau State. Similarly, on December 22, 2009, following a violent conflict between pastoralists and farmers in central Nigeria's Nasarawa State, 32 people were left dead, scores of houses burned, and several farms destroyed.

The causes of farmers-herdsmen conflicts were investigated by scholars. Ayeni, (1983) discovered that the continuous overlap of interests within the Kainji Lake Basin, Nigeria, resulted in conflicts between land users such as the nomadic Fulanis, peasant farmers and wildlife/forestry conservation authorities, which jeopardized agricultural development in the area. Ingawa et al. (1999) reported that the key underlying causes of farmers-herdsmen conflict in Nigeria are changing resource access rights, inadequacy of grazing resources and a decline in internal discipline and social cohesion. De Haan, (2002) opined that there appears to be no consensus among farmers and herdsmen as to the causes of their conflicts. As expressed by the farmers, the destruction of crops by cattle and other property (irrigation equipment and infrastructure) by the pastoralists were the main direct causes of the conflicts. On their part, the pastoralists traced the causes of the conflict to the burning of the rangelands and the blockage of stock routes and water points by crop encroachment. Besides, an increasing rate of cattle theft was another cause of the conflicts. De Haan, (2002) also noted that antagonistic perceptions and beliefs among

farmers and herdsmen could compound the conflict situation, especially due to failing institutions and fierce competition for resources.

Moreover, IRIN (2009) observed that over a third of land that was cultivable 50 years earlier is now desert across 11 of Nigeria's northernmost states: Borno, Bauchi, Gombe, Adamawa, Jigawa, Kano, Katsina, Yobe, Zamfara, Sokoto and Kebbi, a situation which consequently posed constraints to farmers. In addition, Nigeria officially has 415 grazing reserves, but only one-third are in use, while the remaining 270 have been built on or farmed, and this has aggravated farmers-herdsmen conflicts. Moreover, Adisa, (2011a) attributed such conflicts to inequitable access to land, diminishing land resources, antagonistic values among user groups, policy contradictions, and non-recognition of rights of indigenous people. Abass (2012), however, argued that the major source of tensions between pastoralists and farmers is 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 and Ajibade 2010; Solagberu 2012).

The persistence of tensions between farmers and herdsmen portends grave socioeconomic consequences for the nation. Although there is no clear consensus on which group experiences greater hardships, the plight of arable crop farmers, who constitute the bulk of Nigeria's agricultural production population, continues to attract research attention. Adisa and Adekunle (2010) investigated the socioeconomic variables associated with farmers-herdsmen conflicts from the perspective of farmers in Kwara State, Nigeria. The study showed that farmers most widely experienced material losses, such as loss of crop yield and farm income, while job status and self esteem were the main non-material losses that were experienced. These losses might contribute to the prevalence of poverty among farmers. The negative effects of farmers-herdsmen conflicts as analyzed range from economic effects (such as loss of income/resources/yield) to physical loss (such as home/farm destruction, bodily injury or death of family member) and socio-psychological effects (such as emotional exhaustion or job dissatisfaction) (Adisa, 2011a; Adisa, 2012).

The farmers/herdsmen conflicts in Nigeria have demonstrated a high potential to exacerbate insecurity and food crisis, particularly in rural communities where most of the conflicts occur, with reverberating consequences nationwide. To curb the often deadly clashes between farmers and nomads over pasture, IRIN (2009) opined that the creation of grazing reserves become imperative. In response to this challenge, the national government marked out grazing reserves across Katsina and Bauchi states in northern Nigeria, as well as in the capital, Abuja. The three planned reserves, intended to serve about 15

## *Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

million pastoralists, involve demarcating 175,000 ha of grazing land, building veterinary service centres, and constructing settlements for nomads to use en route, at a cost of US\$247 million. The government also demarcated a 1,400 km livestock route from Sokoto state in the northwest to Oyo state in the southwest; and another 2,000 km route from Adamawa state in the northeast to Calabar in the delta region.

In spite of the Federal government's efforts to curb incessant conflicts between farmers and the nomadic herdsmen, Al Chukwuma & Atelhe, (2014) reported that the conflicts remain unabated as an estimated 300 people lost their lives between January and May, 2013 in a face-off between farmers and the herdsmen at different locations in northern Nigeria. Since the studies on conflicts between farmers and pastoralists are inconclusive, this study examined cases, causes, factors and effective method(s) of conflict resolution between these parties, considering the opinions of the nomads. Studies have shown that the nomads reside in secluded homesteads and are sometimes portrayed as aggressors and instigators of farmers-herders conflicts, a situation which needs further investigation (Adisa and Adekunle, 2010; Odoh and Chigozie 2012; Audu 2013; Olayoku 2014). Olayoku, (2014) asserted that from a methodological point of view, conflict between farmers and herders is not well reported and there is a need for further studies. A major reason adduced for this inadequate attention may be the location of the occurrence of incidents in rural and, sometimes, border areas that are neither easily accessible nor attractive to reporters or researchers. Based on these scenarios, the study set out to examine the instigators of the conflicts; the drivers of persistent conflicts and the most effective method of conflict resolution between farmers and herders.

## **Theoretical clarifications**

### ***Arable farming***

Arable farming deals mainly with cultivating crops on viable land. Crops grown in arable farming include cereals and plants that produce cloth or oils as well as food crops. Arable farming is influenced by physical and human factors. Crops such as wheat or oats require a warm climate and fertile soil to flourish. They also require flatland that allows the use of combine harvesters and other machinery. Most arable farmers use crop rotation to maximize their yields. Crop rotation involves moving crops between fields for a given period to help prevent depletion of the soil's nutrients. Given that different crops require different nutrients, crop rotation maintains the productivity of the fields and the health of the soils for a long time. Advancements in agricultural technology, the introduction of new crops and the application of current crops to new uses help arable farmers to farm easily and realize reasonable profits from their farms. Farmers use the profits to expand their farms and improve their production. Many large companies

practice arable farming today due to its profits and benefits. As a result, agribusiness is becoming more profitable with time. Arable farming is less demanding than livestock farming. Therefore, areas that practice arable farming have more crops than animals.

### ***The historical, political and socio-economic context of pastoralist-farmer conflicts in Nigeria***

According to Azarya (1996), the Fulani pastoralists of West and Central Africa trace much of their current political, religious, and socio-cultural identity from the eighteenth and nineteenth century *jihad* which sedentarized them within conquered communities. The Fulani are said to have originated from Senegambia and then spread across some 20 states in West Africa and the Sahel, up to Western Sudan and the Central African Republic (Blench 1994; Shehu and Hassan 1995; Blench 2010; McGregor 2014). In Nigeria, they are the mainstay of the meat and milk industry, accounting for about 90% of cattle herd ownership (Abass 2012; Koster and de Wolff 2012). They rear different species of cattle, such as the *Keteku*, *Muturu*, and *Kuri*, but the *Zebu* is identified as the most common (Awogbade 1987; Iro 1994). They also supply skins, bones, and horns as complementary products.

The pastoralist system involves young men who tend the herds while the women cook and sell animal products in the market. The elders, in their turn, are in charge of developing and managing resources at the levels of the community and domestic units (Awogbade 1987; Iro 1994). Despite the development and the centralisation of the state dating back to the colonial era, these informal governing mechanisms have been the key to understanding the challenges the pastoralists face with farmers, explaining their social stratification and their seemingly egalitarian nature (Dyson-Hudson 1990; Bradburd 1996; Okello et al. 2014). From a historical point of view, certain scholars refer to the fact that conflicts resulting from cattle grazing have existed for as long as the practice of agriculture (Blench 2010; Abbass 2012). In the Nigerian context, however, colonization, together with the fall of the Sokoto Caliphate and the introduction of *jangali* (cattle tax), marginalized the Fulani and dispersed them further towards the South (Azarya 1996; Okello et al. 2014). According to Ofuoku and Isife (2009), the advancement of farming through irrigation and the increased decimation of pasture across the savannah also extended the scope of conflicts, through transhumance, to the coastal zones which were more ecologically viable (Blench 2010). This evolution was complemented with the provision of affordable trypanocides, which provided a coping means for the herders in the tsetse-infested humid regions of southern Nigeria (ibid.). Thus, the period from May to September, during the rainy season, has been identified as the intense period of clashes between pastoralists and farmers over arable land, when the Fulani return northwards with their

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

cattle as the vegetation begins to appear. These clashes result from the invasion of the arable land by the cattle during this peak season of crop production (Adisa and Adekunle 2010; Abass 2012).

The recent study by Olayoku (2014) revealed that Northern Nigeria records more fatal incidents (83 of 111), especially in Benue, Kaduna, Plateau, Kogi, Niger, and Nasarawa. These locations are mainly populated by the 'Middle Beltans', whose religious identity is often contrasted with that of Fulani Muslims. This historical and ethno-religious dimension makes the stakeholders in cattle conflicts vulnerable to manipulation by politicians, both during elections and while such politicians are in office.

The failure of the government to mediate such conflicts and set up judicial commissions cannot be underestimated because it pushes communities to take the law into their own hands. After the initiation of the first national livestock development project (NLDP) and the enactment of a grazing law by the Northern Nigeria Legislative Assembly in 1965, the authorities tried to provide grazing lands in order to make the nomadic Fulani sedentary (Awogbade 1987). Established in collaboration with organisations such as the International Livestock Research Institute (ILRI), the objective of this legal instrument was to enhance productivity and to demarcate 4,125 grazing lands across Nigeria, covering about 4.3 million ha, some of the lands being equipped with boreholes, fences, fire breaks, veterinary services, access roads, and dams (Awogbade 1987; Abass 2012; Koster and de Wolff 2012). The predominant types of ranches were to be individually owned by farmers with large investments; there were few options for cooperatives and a collective management of the herds. Since 2009, grazing routes have also been marked out through Nasarawa, Benue, Plateau, Kastina, Bauchi, Abuja, Sokoto, and Adamawa. According to Abass (2012), only 270 of these official grazing lands are functional.

### ***The Eco-violence Theory***

This paper adopts the theory of eco-violence as its analytical framework. The theory of eco-violence is an emerging theoretical construct that seeks to elucidate the relationship between environmental factors and violent conflicts. Developed by Homer-Dixon (1999), the theory holds thus: a decrease in the quality and quantity of renewable resources, population growth, and resource access act singly or in various combinations to increase the scarcity, for certain population groups, of cropland, water, forests, and fish. This can reduce economic productivity both for the local groups experiencing the scarcity and for the larger regional and national economies. The affected people may migrate or be expelled to new lands. Migrating groups often trigger ethnic conflicts when they move to new areas, while decreases in wealth can cause deprivation conflicts (Homer-Dixon, 1999). Implicit in the eco-violence theory is the

assumption that competition over scarce ecological resources engenders violent conflict. This trend has been aggravated in contemporary times owing to the impacts of climate change, which has exacerbated ecological scarcity across the world (Blench, 2004; Onuoha, 2007). In effect, ecological scarcity raises the competitive stakes and the premium that the various societal groups may place on available ecological resources. This condition tends to precipitate violent conflicts. Applied to the present discourse, the theory of eco-violence offers insights into the nature and dynamics of the herdsmen/farmers conflicts in Nigeria. In this regard, it is to be observed that the conflicts have been driven by the desperation of the affected groups to protect and advance their livelihood interests in the context of an ever shrinking ecological space, characterized by resource-scarcity, a livelihood crisis, population explosion, and resource competition. The crux of the theory of eco-violence is that the desperate quest for survival by groups in a competitive and resource-scarce ecological sphere (eco-survivalism) is likely to precipitate violent conflict.

### ***Eco-survivalism and Eco-violence***

The theory of Eco-survivalism and its analytical framework Eco-violence, help to understand the rising militancy of herders. Militancy is the belief in, and resort to the use of aggression in the pursuit of a group cause (Okoli and Atelhe 2014). The manifest militant posture of the Fulani pastoralists must be understood with reference to their individual and collective worldviews vis-à-vis group subsistence and survival; this has a lot to do with pastoralism. For the average Fulani-herdsman, pastoralism is a way of living, which is reckoned with as a mark of common heritage. In effect, any threat to his herd amounts to a threat, not only to his survival but also to his common destiny. This way of thinking is encapsulated in the following citation which is credited to a Fulani-nomad: “Our herd is our life because, to every nomad, life is worthless without his cattle. What do you expect from us when our source of existence is threatened? The encroachment of grazing field and routes by farmers is a call to war” (Abbas, 2000).

The implication of the preceding citation is that to a typical Fulani-pastoralist life will be worthless if the survival and sustenance of his herd comes under serious threat. This explains the magnitude of aggression and vindictive violence that the Fulani pastoralists often manifest in their disputes with settled farming communities (Young and Sing’Oei, 2011). The point being emphasized here is that the rising wave of militancy among the Fulani herdsmen in Nigeria is principally driven by a dire struggle for survival in an environment that is competitive and hostile to their collective sustainable livelihood. Applying this theory to this study reveals that the attempt by the settled native farmers to displace, disinherit, victimize, or marginalize the herdsmen in their common ecological domain has been adjudged by the latter as an

invitation to war. The inevitable outcome of this pattern of inter-group relations in Nigeria has been a vicious cycle of eco-violence and vendetta (Okoli and Atelhe, 2014).

## **The Study Area**

The study was carried out in three Northern States of Nigeria: Kano, Yobe and Borno, which are areas in northern Nigeria that favour nomadism due to the presence of the savanna vegetation. The choice of the study area was guided by the report of incessant conflicts between nomads and the arable farmers in most parts of Nigeria, especially in the north. The areas are situated within latitudes 9° and 14° north of the Equator and longitudes 8° and 15° east of the Greenwich Meridian (Iloeje, 1976). Politically, Kano State is located in the North-central geo-political zone of Nigeria while Yobe and Borno are in the north-east zone. While Kano State is bounded by the national communities, Yobe and Borno States share boundaries with international communities like the Niger, Chad and Cameroun republics (Figure 1).

The study area experiences low rainfall with a short duration and is characterized by acute dryness of the soil, conditions which hardly support luxuriant growth of grass and other flora biodiversities. However, there is luxuriant growth of trees around riverbeds, mountains and highlands, which supports arable and animal husbandry. The region's population is made up of both sedentary arable farmers and migratory herdsmen, mainly of the Fulani ethnic group. There are about 200 ethnic groups in this zone, among which are the Hausa, Fulani, Tiv, Bachama, Kutep, and Jukun (TEE-REX, 2003). The study area falls within the Sudan savanna zone and has continuous grass cover of the short and feathery grasses on a large scale. The grass vegetation is interspersed with farms and thick bush trees such as shea (*Butyrospermum parkii*) and *Acacia albida*. Also found in the zone are locust bean (*Parkia filicoidea*), tamarind (*Tamarindus indica*) and mango (*Mangifera indica*) trees. A large portion of this zone falls within the tsetse fly free belt of West Africa and it is excellent for the rearing and breeding of ruminant livestock (cattle, goats, sheep, donkeys, horses and camels). The nomadic Fulani roam about this zone in search of fodder and water for their livestock (Iloeje, 2001). In recent times, due to increased human population and increasing demands for residential area and food, there has been a constant struggle for cultivated areas and grazing lands, which has consequently brought arable farmers and herdsmen together in violent conflict.

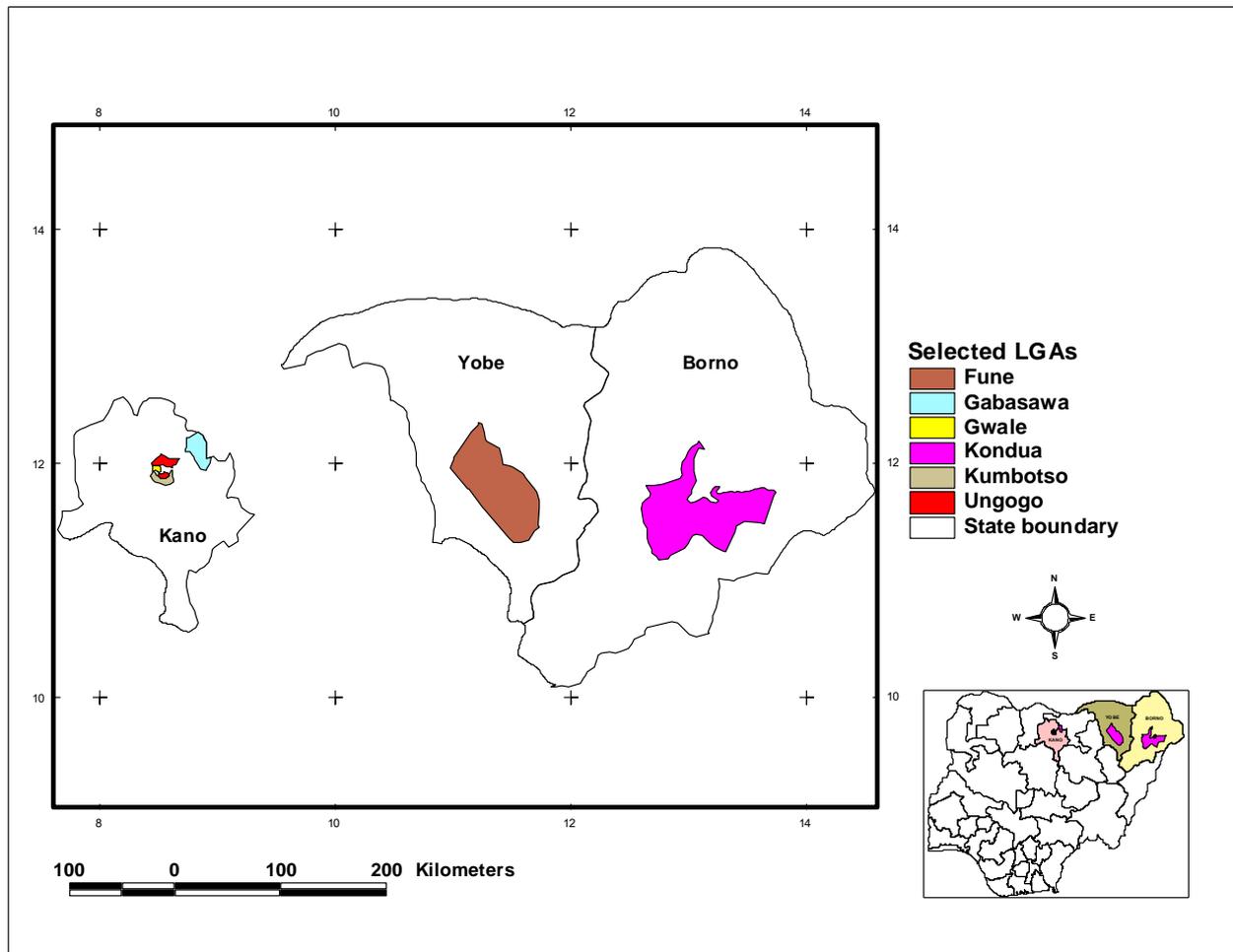


Figure 1: The Study Area

## Materials and Methods

The study relied mainly on primary data, obtained from a questionnaire survey which was used to elicit information on socio-economic characteristics of respondents (mainly the herdsmen), incidences of conflict with arable farmers, causes and strategies adopted to resolve the crisis, among others. A total of one hundred and twenty (120) copies of questionnaire were administered to pastoralists. The sample size was dictated by the peculiarity of the nomads. They live in secluded areas, in scattered settlements and in small units. They do not live in large communities; thus their population is always sparse.

Thirteen (13) settlements were randomly selected for the survey in six (6) Local Government Areas (LGAs) of the selected States. All the selected settlements were the native lands of the nomads where both farming and pastoralism were being practiced; therefore there were no adjacent farmlands belonging to the strangers. However, cattle were taken for grazing in other locations outside their vicinity where sometimes they were considered as intruders by the residents. In Kano State, four (4) LGAs were selected for the study, which include Gwale, Nasarawa, Ungogo and Kumbotso. But because of the fear of the

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

insurgent (i.e. the Boko Haram), only one (1) LGA each in Yobe and Borno States was selected for the study; these were Fune and Konduga respectively. The coordinates of all the communities of the study location were obtained through a handheld Global Positioning System (GPS) receiver to support the originality of the research (Table 1).

The pastoralists were targeted in their communities early in the morning and in the evenings; the period when they were found in their communities and when their attention was easily secured. Staff of the National Population Commission (NPC) who had friends among the nomads in the selected communities, who were of the Fulani ethnic group and proficient in Fultude language, were recruited as research assistants. They were trained, after which they led the principal researcher to the selected communities. This was done for the purpose of easy communication, safety and acceptability. While questionnaires were administered to the pastoralists by the research assistants, an in-depth interview was conducted among the opinion leaders by the principal researcher to complement the findings of the questionnaire survey. The opinion leaders were aged pastoralists who were no longer going to the field but had sons or relations keeping cattle for them.

In all the study locations, the community heads were first consulted for their consent. Thereafter a meeting was convened with the heads of household to properly brief them about the research. The exercise started with the counting and listing of the houses/huts in each community and then determining the number of households. From the total number of houses/huts, a k value was determined and a systematic random sampling technique was adopted. Every third house was selected for questionnaire administration and the head of household was selected for interview.

Table 1: Selected communities of the study

S/ N O	STATE	LGA	SELECTED COMMUNITIES	SAMPLE SIZE PER SETTLEMENT	COORDINATES		UTM	
					LAT.	LOG.	X COOR	Y COOR
1.	Borno	Konduga	Njimtilo	18	11.8479	13.02388	1312783.11	938621.21
			Auno	15	11.84617	12.93404	1312451.34	928816.58
			Malbukar	07	11.84714	12.92377	1312543.02	927694.00
2.	Yobe	Fune	Koraji	18	11.63693	11.59269	1287581.59	782704.80
			Shiduwa	10	11.70822	11.57714	1295455.77	780936.33
			Shiduwa 2	07	11.71095	11.58455	1295765.29	781741.84
			Shiduwa 6	05	11.63586	11.60071	1287471.18	783580.93
3.	Kano	Gwale	Dugar Ardo Lawan	14	11.96249	8.46155	1322344.04	441374.77
			Nasarawa- Ungogo	Wuro Bagga (Hotoron Arewa)	09	11.99872	8.58734	1326326.47
		Ungogo	Rimin Gata	08	11.96041	8.40975	1322125.56	435734.23
			Unguwa Fulani	03	11.95742	8.40544	1321795.95	435264.24
		Kumbotso	Kwarin Adiya	04	11.95754	8.40930	1321808.32	435684.56
					Bokin Watari (Tsohuwa Gada)	02	11.95524	8.40675
			Total	120				

## Results and Discussion

### *Socio-economic characteristics of the respondents*

In the three states where the study was conducted, the responses of the herdsmen to the research were positive, as they saw it as an opportunity to express their feelings to the government and/or government agents about different challenges they had been facing. The age of respondents was between 15 and 90, but 90.8% were between the ages of 15 and 60, which are regarded as the active years among the nomads. 9.2% were between 61 and 90 years (Table 2). The pattern of marital status which pertains among other ethnic groups in Nigeria was also found among the nomads. The composition of respondents reveals 20% single, 69.2% married, 3.3% divorced, 3.3% separated and 4.2% widowed. As regards the number of wives married by the respondents, those who had married one wife constituted 37.5% while 21.7% had two wives and 19.2% had more than two wives. There were a few respondents (21.7%) who declined to disclose the number of wives they had (Table 2).

Across the LGAs where the survey was carried out, it was obvious that an average nomad gives birth to many children. This is shown in Table 2: 29.2% of the respondents had between four (4) and seven (7) children while 20.8% had 3-5 children and 16.6% had 8-12 children. Only 14.2% had 13-20 children while a few declined to respond to the question.

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

The large number of children per household may be related to the number of wives they marry and perhaps the religion they practice, which permits polygamy. The respondents did not disclose their monthly income, as they stated that they were not working for monthly payment, neither were they selling their cattle on a monthly basis; indeed, they derived more joy in keeping large herds than in having large purses. However, the estimated annual income in Table 2 shows that 39.2% earned between fifty and three hundred thousand Naira annually (₦50,000-₦300,000 or \$250-\$1,500), with the exchange rate \$1=₦5,000. 13.3% disclosed an annual income of three hundred to four hundred thousand Naira (₦300,001-₦400,000 or \$1,500-\$2,000). Only 10.8% confessed that they realized more than one million Naira (₦1 million or \$5,000) annually.

There were two extreme cases on the education of the respondents. While the majority had elementary education (50.8%), about 39.2% claimed they could not read or write and never had any formal or informal education. This number is still large, especially in the 21<sup>st</sup> century, and this could have a negative impact on the national development. Moreover, 10% of the respondents who were literate had acquired the knowledge from either relations or friends. This is regarded as informal education in this study. It is instructive to note that the Nigerian government had established nomadic schools across the country, which could afford them an opportunity to acquire formal education while carrying out their daily activities.

Table 2: Socio-economic characteristics of the respondents

Socio-Economic Characteristics	Borno State	Yobe State	Kano State				Total	(%)
	Konduga	Fune	Gwale	Nasarrawa-Ungogo	Ungogo	Kumbotso		
Age								
15-25	12	09	05	01	02	02	31	25.8
26-40	13	14	03	05	03	01	39	32.5
41-60	12	13	04	03	05	02	39	32.5
61-90	03	04	02	-	01	01	11	9.2
Total	40	40	14	09	11	06	120	100
Marital status								
Single	09	02	05	04	02	02	24	20.0
Married	24	32	09	05	09	04	83	69.2
Divorced	02	02	-	-	-	-	04	3.3
Widow	03	02	-	-	-	-	05	4.2
Separated	02	02	-	-	-	-	04	3.3
Total	40	40	14	09	11	06	120	100

No. of Wife								
1	11	16	08	02	06	02	45	37.5
2	10	09	-	02	03	02	26	21.7
3	07	04	-	01	-	-	12	10.0
4 and above	02	06	01	02	-	-	11	9.1
No response	10	05	05	02	02	02	26	21.7
Total	40	40	14	09	11	06	120	100
No. of children								
1-3	02	15	03	01	02	02	25	20.8
4-7	15	10	02	02	05	01	35	29.2
8-12	09	06	02	02	01	-	20	16.6
13-20	04	07	02	02	01	01	17	14.2
No response	10	02	05	02	02	02	23	19.2
Total	40	40	14	09	11	06	120	100
Annual Income (₵)								
50,000-100,000	03	03	03	04	03	01	17	14.2
100,001-200,000	02	06	05	01	02	-	16	13.3
200,001-300,000	06	04	02	-	01	01	14	11.7
300,001-400,000	05	05	02	01	01	02	16	13.3
400,001-500,000	08	10	01	01	01	02	23	19.2
500,001-1,000,000	10	08	-	01	02	-	21	17.5
Above 1,000,000	06	04	01	01	01	-	13	10.8
Total	40	40	14	09	11	06	120	100
Education								
Formal education	09	37	06	02	03	04	61	50.8
Informal education	06	02	02	01	01	-	12	10.0
None	25	01	06	06	07	02	47	39.2
Total	40	40	14	09	11	06	120	100

Note: \$100 = ₵20,000 i.e \$1 = ₵5,000

## Conflict Experiences of Nomadic Herdsmen

### *Incidence of herdsmen-farmers violence*

Cases of farmers-herders conflict are widespread in Nigeria in recent times. This incidence was investigated in the study. Table 3 reveals that a large proportion of the respondents had been involved in violent conflict with farmers on at least one occasion. While 32.5% had engaged in violent conflict between one and five times, 18.3% confessed that they clashed with farmers not less than fifteen (15) times during the period of their animal husbandry; 28.3% had never engaged in any conflict with farmers. A close examination of Table 3 shows that each of the local government areas in which the study was conducted had experienced some violent conflict between herdsmen and arable farmers, though the frequency varied from one area to another. This confirms the claim of Nweze (2005) and IRIN (2009) who reported hostilities between cattle rearers and farmers during which lives were lost and properties worth millions of Naira destroyed.

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

Table 3: Number of times involved in violence

Number of conflicts	Borno State	Yobe State	Kano State				Total	(%)
	Konduga	Fune	Gwale	Nasarrawa-Ungogo	Ungogo	Kumbotso		
1-5	9	5	8	7	6	4	39	32.5
5-10	13	6	2	-	-	2	23	19.2
10-15	9	12	1	-	-	-	22	18.3
15 +	1	1	-	-	-	-	2	1.7
None	8	16	3	2	5	-	34	28.3
<b>Total</b>	<b>40</b>	<b>40</b>	<b>14</b>	<b>9</b>	<b>11</b>	<b>6</b>	<b>120</b>	<b>100</b>

### **Causes of conflict**

The reasons for conflict between nomadic herdsmen and arable farmers were investigated in the study. While 31.7% of the respondents claimed that farmers' intrusion on the grazing reserves was the cause of the conflict, 23.3% cited deliberate grazing of cattle on crops. But 9.2% declared that farmers' encroachment on waterholes for cattle was sometimes the reason for the conflict, and 20.8% confessed that herders' indiscriminate bush burning, which often destroyed farmlands, was the reason for the conflicts (Table4). It is obvious from this study that pressure on land and struggle for survival in an environment that is competitive are the major causes of conflict between herdsmen and farmers. This corroborates the assertion of Homer-Dixon (1999), who attributed violent conflict between herders and farmers to competition over scarce ecological resources.

Table 4: Causes of conflict with farmers

Causes of Conflicts	Borno State	Yobe State	Kano State				Total	(%)
	Konduga	Fune	Gwale	Nasarrawa	Ungogo	Kumbotso		
Farmers' encroachment on grazing reserves	15	8	6	4	3	2	38	31.7
Farmers' encroachment on water holes	2	7	1	1	-	-	11	9.2
Farmers' encroachment on cattle paths	2	5	3	2	3	3	18	15
Deliberate grazing of cattle on crops	13	13	1	-	-	1	28	23.3
Indiscriminate bush burning	8	7	3	2	5	-	25	20.8
<b>Total</b>	<b>40</b>	<b>40</b>	<b>14</b>	<b>9</b>	<b>11</b>	<b>6</b>	<b>120</b>	<b>100</b>

### **Hot spots**

The zone of violent conflict was inquired from the herders. 60% of the respondents revealed that most of the conflicts took place in the bush, especially on the farmlands. Other information gathered during the field survey revealed that most of these conflicts were not planned, but often resulted from reprisal attacks by either of the two parties who felt cheated or ill-treated. Other respondents, who constituted 17.5%, confessed that the conflicts had taken place on the grazing reserves, while 15% declared that there were times when the herders had to take the battle to the villagers inside the latter’s settlements (Table 5). This study upholds the report of the (IRIN) (2009) that a number of pastoralists’ settlements were burned down in Plateau State, leaving 32 people dead, scores of houses burned, and several farms destroyed in violent conflicts between pastoralists and farmers in central Nigeria’s Nasarawa State.

Table 5: Hot spots

Places of conflict	Borno State	Yobe State	Kano State				Total	Percentage (%)
	Konduga	Fune	Gwale	Nasarrawa-Ungogo	Ungogo	Kumbotso		
On Farmlands	21	19	13	7	6	6	72	60
Grazing reserves	4	11	1	2	3	-	21	17.5
On Routes	5	1	-	-	-	-	6	5
Inside Settlements	9	9	-	-	-	-	18	15
Water holes	1	-	-	-	2	-	3	2.5
<b>Total</b>	<b>40</b>	<b>40</b>	<b>14</b>	<b>9</b>	<b>11</b>	<b>6</b>	<b>120</b>	<b>100</b>

### **Weapons used during violent conflicts**

During skirmishes, various weapons of war were used to confront opponents. This was verified by the herdsman who revealed various weapons they had used during conflict. Table 6 shows that a combination of charms, spears, swords and guns (34.1%) were mostly used, but arrows/spears (20.8%), Dain guns (26.7%) and cutlasses (6.7%) were also deployed whenever there was conflict with arable farmers. All the respondents in all the States and LGAs where the study was conducted denied the use of modern weapons such as AK-47 rifles, chemical weapons and acid during violent conflicts with farmers.

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

Table 6: Weapons of war

Weapons	Borno State	Yobe State	Kano State				Total	Percentage (%)
	Konduga	Fune	Gwale	Nasarrawa	Ungogo	Kumbotso		
Arrow/Spear	5	3	6	2	6	3	25	20.8
Dain gun	10	15	3	2	2	-	32	26.7
Charm	9	4	-	1	-	-	14	11.7
Cutlasses/sword	2	6	-	-	-	-	08	6.7
AK-47/Acid/chemical	-	-	-	-	-	-	00	0.0
Charm/spear/sword/gun	14	12	5	4	3	3	41	34.1
<b>Total</b>	<b>40</b>	<b>40</b>	<b>14</b>	<b>9</b>	<b>11</b>	<b>6</b>	<b>120</b>	<b>100</b>

### Conflict resolution strategies

The study discovered that various categories of stakeholders were involved as mediators before a crisis was resolved. Table 7 reveals that the role of religious leaders in conflict resolution is prominent as this constituted 35.8%, followed by the local chiefs or community leaders (30.8%) and the youth leaders (21.7%). However, the impact of law enforcement agents and sometimes the military, which were often brought to the scene whenever there was conflict, only constituted 4.2% and 7.5% respectively. As revealed by the opinion leaders during the fieldwork, the intervention of law enforcement agencies and the military have not brought about any permanent solutions to the conflicts; it has only induced a temporary stop to the mayhem. This shows that in conflict resolution, dialogue is more effective than coercion.

Table 7: Conflict resolution strategies

Agents of conflict resolution	Borno State	Yobe State	Kano State				Total	Percent age (%)
	Konduga	Fune	Gwale	Nasarrawa	Ungogo	Kumbotso		
Law enforcement agents	4	-	1	-	-	-	5	4.2
Religious leaders	14	14	5	5	3	2	43	35.8
Local Chiefs/heads	7	18	3	2	3	4	37	30.8
Military intervention	6	1	2	-	-	-	9	7.5
Youth leaders	9	7	3	2	5	-	5	21.7
<b>Total</b>	<b>40</b>	<b>40</b>	<b>14</b>	<b>9</b>	<b>11</b>	<b>6</b>	<b>120</b>	<b>100</b>

## Discussion

### *Conflict Experiences of Nomadic Herdsmen*

In this study, a large percentage of the respondents had experienced at least one conflict with farmers in their search for pasture for their cattle. But those who had never engaged in any clash with farmers might

have kept their herds within the approved grazing fields. Further studies on this omission are necessary as this could give an insight into the strategies of maintaining peaceful co-existence between farmers and the herdsmen. However, all the local government areas of the states where the study was carried out had records of violent conflicts between farmers and the herdsmen. Some adults among the respondents revealed that in between three and four decades of their pastoral farming, they had engaged in more than ten violent conflicts with farmers. This corroborates the claim of Blench & Dendo (2003), who discovered that since the 1980s, the frequency of violent clashes between farmers and pastoralists in Nigeria has increased, with a further acceleration since the introduction of democracy at the end of the 1990s. Also, Sunday Trust (2013), cited in Al Chukwuma and Atelhe (2014), reported not less than sixteen (16) cases of violent conflict between arable farmers and pastoralists in northern Nigeria between January and May, 2013, with the casualties numbering three hundred.

The present study also discovered that whenever there were conflicts, dangerous weapons such as spears, swords, dain guns and even charms were used, but the source of the weapons was not disclosed by the respondents. The existing studies revealed that the widespread availability of modern automatic weapons and improved communications have exacerbated the intensity of conflicts in recent times (Gefu & Kolawole 2002; Blench & Dendo, 2003; Fiki & Lee 2004; Ofuoku & Isife, 2009). Gundu (2012) revealed that the Fulani used sophisticated weapons against unsuspecting farmers in places like Plateau, Nasarawa, Taraba and Benue States in recent conflicts.

### ***Reasons for conflicts***

Some of the reasons for conflicts discovered in the study were similar to the findings from the existing studies. While 23.3% stated deliberate grazing of cattle on crops, particularly cereals, as the reason for conflicts, 31.7% cited the intrusion of farmers on the grazing reserves and 9.2% blamed farmers' encroachment on waterholes. IRIN, (2009) shed light on the reason for increasing violence between arable farmers and pastoralists in Nigeria. The latter attributed the current level of tensions to the increase in human population; continued felling of trees for fuel wood and desertification across 11 of Nigeria's northernmost states: Borno, Bauchi, Gombe, Adamawa, Jigawa, Kano, Katsina, Yobe, Zamfara, Sokoto and Kebbi, which have shrunk the grazing land and consequently threatened the livelihood of the herdsmen; and the uncooperative attitude of the host communities. Besides, the recent climate change, which led to shortage of water and pasture, escalated the disputes (Dietz, *et al.* 2001; Fasona and Omojola 2005; Nyong & Fiki 2005; Onuoha 2007; Audu 2013; Zoomers and van Noorloos 2013). According to a 2008 National Meteorological Agency study, the rainy season in northern Nigeria has dropped to an

*Land use conflict between farmers and herdsmen in parts of Kano, Yobe and Borno States of Nigeria: nomads' viewpoints*

average of 120 days, down from 150 days 30 years ago, cutting crop yields by 20 percent. This situation has worsened the plight of the pastoral farmers (IRIN, 2009).

Ofuoku & Isife (2009) revealed that destruction of crops, contamination of streams by cattle, zero grazing of land, disregard for local traditional authorities, female harassment, harassment of nomads by youth from host communities, indiscriminate bush burning, defecation of cattle on roads, cattle theft, and straying of cattle were the major factors responsible for farmers- herders conflicts in Delta State, Nigeria. Abass (2012), however, contended that the major source of tensions between pastoralists and farmers is economic, with land related issues accounting for the majority of the conflicts. This can 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 and Ajibade 2010; Solagberu 2012). Blench (2010) observed that ecological and economic determinism may not capture the complexities of the conflict contexts of these groups. Therefore, there is the need to overcome the socio-cultural stereotyping of the nomadic life (Gefu and Gilles 1990).

***Measures to mitigate farmer-nomad conflict***

Whenever there was conflict between farmers and pastoralists, many stakeholders were involved as mediators. In this study, community leaders, religious leaders, local heads/chiefs and law enforcement agents were involved in resolving the crisis between farmers and herdsmen. Scholars, however, observed that the efforts of the stakeholders as mediators have not completely stopped the crisis (Blench, 2004; Tonah, 2006; IRIN, 2009). This perhaps provoked the drive of the Federal Government of Nigeria to map out grazing reserves across Katsina and Bauchi States in northern Nigeria, as well as in the capital territory, Abuja. The three planned reserves, to serve about 15 million pastoralists, involve demarcating 175,000ha of grazing land, building veterinary service centres, and constructing settlements for nomads to use en route, at a cost of \$247 million. The government also demarcated a 1,400km livestock route from Sokoto State in the northwest to Oyo State in the southwest; and another 2,000km route from Adamawa state in the northeast to Calabar in the Delta region (IRIN, 2009). The effort of the Federal Government at creating grazing reserves across the country was applauded because it would boost livestock development, reduce the pastoral burden, check incessant migration of nomads and improve the strained relationship between famers and nomads.

But Gundu, (2012) argued that while these reasons may be laudable, they are entirely beside the issues that are material to the nomadic challenge in Nigeria. Two of these issues stand out. One is the rapid

desertification of the Sahara that has continued to encroach virtually unchecked on part of the country, while the other is the international character of the Fulani who are at the centre of nomadic pastoralism in Nigeria. Gundu, (2012) further argued that increased desertification is a driving force behind the push of nomads into other parts of Nigeria in search of pasture. This push is exacerbated by nomads from other West African countries who flood the Nigerian area in search of pasture, especially in the dry season. The Fulani who are at the centre of the nomadic challenge in Nigeria spread throughout West Africa. More than half of them are however in Nigeria, where their population has continued to grow due to immigration from neighbouring West African countries suffering from the incessant sahelian drought.

The nomadic challenge cannot be tackled successfully by creating grazing reserves. What the country needs more than anything else is to effectively check desert encroachment and discourage the nomadic push into and across the country, especially in areas inhabited by farmers whose attachment to the land is foregrounded by a different set of values from those of nomads. Given the international character of the Fulani, it is quite clear that many of those who have continued to move into different parts of the country are not even Nigerian citizens. Creating grazing lands in the country for the benefit of non Nigerians at the expense of Nigerian farmers is not only irresponsible; it is unpatriotic. Besides, the manner in which nomads crisscross national boundaries penetrating deep into countries like Nigeria could undermine national security at many levels. Arms and ammunition can be moved in and around countries without detection (Gundu 2012; Zoomers and van Noorloos 2013). Gundu (2012), however, suggested the development of a farm and ranches system for livestock farming in Nigeria. In this case, people with animals must reside, feed and keep their animals on farms. It was further revealed that institutions like the National Animal Production Institute (NAPRI) in Zaria have developed and tested varieties of pasture that can be produced in commercial quantities to support such farms. Contrary to the proposed grazing reserves bill, some think it is ranches and farms that can grow livestock production in the country.

Earlier, the All Farmers Association of Nigeria (AFAN), Kano chapter had posited that if the Federal Government's measures at curbing incessant conflict between farmers and herdsmen are to succeed, then farmers would need to be considered in the equation because of soil degradation, low-yielding seeds and high demand for large swaths of land to grow more. Besides, farmers need new farming techniques, high-yielding crop varieties and other farming tools and incentives to lift them out of the traditional subsistence farming and into modern mechanized farming (IRIN, 2009).

## **Conclusion**

It is evident from this study that the conflict between the nomadic herdsmen and farmers hinged on land resource control, which has been heightened by pressure on land from the two conflict actors and the absence or lack of clarity of land use boundaries. For instance, the study revealed that farmers' intrusion on the grazing reserves and herdsmen's deliberate grazing of cattle on crops were the main drivers of violent conflict. This phenomenon of herders-farmers conflict represents what can be called a 'land resource control conflict', which poses a threat to sustainable societal progress and national security. The study also discovered that whenever there was violent conflict between herders and farmers, dangerous weapons of war such as charms, spears, swords, and guns were used to confront the opponents, though the sources of the weapons were not disclosed. It was however gathered that the conflicts always affected the feuding parties in some ways. Sometimes lives were lost and properties including houses were destroyed. The study further showed that the interventions of the local chiefs and religious leaders, who often mediate using dialogue, produced better results than those of the law enforcement agents who sometimes use arrest and incarceration to quench crisis. This implies that in conflict resolution, dialogue is more effective than coercion. Thus, as a matter of utmost importance, governments, traditional and religious leaders, and other local institutions should be more responsive to the plight of victims of farmers-herdsmen conflicts and use appropriate mechanisms at their disposal for effective resolution and management of conflicts. If these are vigorously pursued, they will go a long way to solving the incessant deadly imbroglios in our modern society. Finally, this study, which focused exclusively on the herdsmen, has shown that the pastoralists, though they wander about with their cattle, can still be accessible for research. Again, the fact that there was little difference between the results of this study and the findings of existing studies demonstrates that the truth about a matter can be established from a party or both parties involved in the situation in question using available body of knowledge as a balance.

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