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# Freshwater scarcity: A threat to peaceful co-existence between farmers and pastoralists in northern Nigeria

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## Abstract

This paper argues that present diminishing freshwater resources constitutes a threat to the centuries old peaceful co-existence between farmers and pastoralists in Nigeria. The phenomenon in Nigeria is a subset of growing concerns around the world on threats certain populations face as a result of the effects of climate change on the environment. There are several conflicts between farmers and pastoralists that are ongoing over competition for access to diminishing freshwater and pastures. The paper gleans occurrences of violent clashes between farmers and pastoralists in the northern part of Nigeria over a ten year period. A disturbing pattern is observed in view of the increasing frequency of the conflicts. The negative trend portends a threat to food security and sustainable development in the country.

**Key Words:** Farmers; Pastoralists; Freshwater; Conflict; Food Security

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## 1. Introduction

Freshwater scarcity is an unpleasant phenomenon that affects both farmers and pastoralists negatively in northern Nigeria and induces conflict on some occasions. There are two major agricultural practitioners in northern Nigeria; farmers who produce farm crops and pastoralists who carry out livestock production. Amidst global concerns of freshwater scarcity exacerbated by climate change, the region sees an increasing diminishing of its freshwater resources, affecting the large population of farmers and pastoralists. Their dependence of freshwater resources for survival becomes threatened when it becomes scarce. The farmers and pastoralists who have co-existed peacefully or with minimal conflicts for several centuries are finding themselves in serious deadly conflict in recent times due to competition for access to diminishing freshwater sources. For northern Nigeria, a region that has suffered decades of crippling poverty, drought, and religious conflict, freshwater scarcity constitutes a major threat to an already tense security situation. This paper explores the phenomenon and the threats it portends in five parts. The first serves as the introduction. The second part discusses the nexus between freshwater scarcity and human security. The third part examines the reality of freshwater scarcity as it affects farmers and pastoralists in their vocations. The fourth highlights some specific farmers-pastoralists conflicts in northern Nigeria in recent times. The fifth part forms the conclusion.

## 2. Freshwater scarcity within the larger context of human security

Within the context of this paper, freshwater scarcity has a concomitant implication on human security. It may be safe to surmise that an understanding of this link will lead to a greater appreciation of the threats involved. Concern about human security is an ancient phenomenon (Alkire, 2003). Through the ages, societies have grappled with security threats that included famines, wars, droughts, floods, wild animals, diseases and plagues, and even enslavement. Continually, security is a major concern to people and nations.

### 2.1. The concept and dimensions of human security

The end of the Cold War in the early 1990s saw the increasingly wide usage of the term “human security” in the global community. The term is most associated with the United Nations Development Program (UNDP, 1994) Human Development Report on Human Security. The Report simply highlighted in a systematic manner, security threats that have been around humans. It emphasized that security is not a concern with weapons but rather with human life and dignity. It argued that the concept of security has for too long been interpreted narrowly, relating it more to security of nations and states than of people. To delineate the various threats facing humankind, the Human Development Report developed a definition in relation to seven dimensions of human security which include threats in food security (which is threatened when there is water scarcity), Environmental Security, (protecting people from the ravages of nature and deterioration of the natural environment diminishing water resources is one of the greatest environmental threats). A

perusal of environmental security literature shows that there is a causal relation between scarcities of natural resources and violent conflict (Lecoutere et al., 2010).

## 2.2. Growing concerns over farmers-pastoralists conflicts in northern Nigeria

Northern Nigeria is known as a region that has been involved in various types of crises. Fasona and Omojola (2005) carried out a study of conflicts and other forms of unrest in the northern region between 1991 and 2005 and found that farmers-pastoralists conflicts accounted for 35% of the major clashes reported. Casualties of such confrontations usually went beyond the farmers and pastoralists. For example, in July 2012 some 200 people including a Nigerian Senator became victims as they were attacked and killed during a funeral for some people also killed earlier by suspected Fulani herdsmen. Conflicts between farmers and Fulani pastoralists in Benue State, left two soldiers, some 50 men, women, and children dead (Daka, 2011). Binniyat (2011) reported clashes between Fulani herders and local farmers in some communities in Kaduna which left some dead and many others fleeing. In Benue and Nasarawa States, at least 5,000 people fled villages following clashes between nomadic Fulani cattle herders and sedentary farmers (Ibrahim, 2011). In another encounter attacks on local farmers led to the expulsion of about 700 pastoralists from Borno state in 2009, and another 2,000 from Plateau State in the same year. Suspected reprisal attacks by the pastoralists were claimed to have resulted in the killing about eight people in four villages of Plateau State (Abdulsalami, 2012).

In the conflict prone areas, palpable fear and anxiety have enveloped the residents as conflicts have resulted in the destruction of lives and properties; Fulani herdsmen had lost many lives and an estimated number of 3.5 million heads of cattle, while the farmers have also lost lives, houses, and crops worth millions of naira. According to Bello (2013), "the 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 repercussions nationwide". Homer-Dixon (1994) opined that "increasing scarcity of resources is expected not only to provoke internal or interstate conflicts, but also to induce large population movements which will feed group identity conflicts." In another instance, he added that the inability to address and solve those problems may increase grievances and the level of violence (Homer-Dixon, 1999).

## 3. How freshwater scarcity affects farmers and pastoralists

Freshwater scarcity affects farmers in many different and sometimes the same ways. Konczacki (1978) and Jacobs (1980) posited that freshwater scarcity and insufficient rainfall are causes of social and economic ruins, conditions that leave the pastoralists at the mercy of the sedentary society of predominantly farmers. The same scarcity makes rain-fed farmers to expand their farms into cultivable pastoral land, which, according to Catterson (1990), brings about displacement of pastoralists. Because of limited land, the pastoralists and the farmers are constantly competing for the scarce resources as a result of several intense and recurring droughts (Shanmugaratman, 1992; Bonfiglioli, 1993; Perrings, 1993), especially on the transition zone between the Sahel and the Guinea Savannas. Periodic droughts take a heavy toll on livestock

where they die from thirst, hunger, and exhaustion (Niamir, 1990). The same concerns were recorded by Murray (2007) from opinion leaders who lament the encroachment of the desert as a threat to the farmers in the region.

Recent findings showed that approximately 3,500 square kilometers of Nigerian land turns to desert each year, forcing both farmers and herdsmen to abandon their lands (Campbell et al., 2007). This was corroborated by Oyetade (2007) who reported that in 10 northern states of Nigeria, each year the desert advances another 600 meters further south. According to him, this has resulted in displacing thousands of both farmers and pastoralists from their communities.

#### **4. Confrontational engagements between farmers and pastoralists**

Concerning conflicts among pastoralists and farmers, Abbass (2011) asserts that they have existed since the beginning of agriculture and increased or decreased in intensity and frequency depending on economic, environmental, and other factors. The environmental factors especially, may include variations in the climate, which in turn affects rainfall patterns. Rainfall, especially in northern Nigeria, seems to control the rhythm of activities especially among farmers and pastoralists as it affects the availability of surface water resources. In a study by Raleigh and Urdal (2009) they found that freshwater scarcity appears to exert a somewhat stronger effect, increasing the risk of conflict to six percent for areas with very high levels of scarcity. Certain parts of northern Nigeria have been experiencing continuous reduction in rainfall and an increase on the rate of dryness and heat, which makes it a fast growing arid environment, with depletion on the amount of water and vegetation. So, for the herders and farmers to meet their needs they have to migrate southward where there is more water and pasture (Obioha, 2005). Hence, with this pattern of movement existing or occurring there will be pressure over scarce resources which if not managed well will increase the risk of conflict.

##### **4.1. Causes of conflicts**

The increasing conflicts between farmers and pastoralists may be attributed to many factors key among which may be the irrigation schemes instituted by the government. The irrigation schemes become more effective during the dry season which makes water more precious to both farmers and herders. Blench (2003) is of the view that competition for access to this precious resource increases conflict. The schemes allow farmers to take water and more of the river banks for dry season farming. They come into conflict with the other users, especially the cattle herders who have been using same location for many years as grazing and water points. In a field work carried out by Olabode and Olajide (2010), they found that where there is competing use of resources, conflict may emerge. They highlighted the following as causes of farmers-pastoralists conflict.

- i. **Water scarcity:** The only source of water for the cattle during dry season is to lead them to any available water point, which is an often low-land area. Farmers at this time, often engage in nursing their crops at the same water points because of dryness in the upland areas.

- ii. Control over scarce resources: The struggle by different parties to appropriate perceived scarce resources in order to guarantee self or group survival often engenders conflict. Pastoralists for example, do move away from locations that lack sufficient pasture to more favorable locations. The most frequent cause of conflict between farmers and herdsmen in the study area is the destruction of crops by cattle. This is often a result of herdsmen leaving cattle unattended to and thus, making them to wander to cultivated fields.
- iii. Incompatible values: It was observed that the crops grown by the farmers are at the feeding path or stock route of the cattle; this causes interference of cattle on crops, especially those ones at the nutritious value of the cattle. In most cases, this results into crop destruction and thereby engenders conflict.
- iv. Search for Grazing Land: Cattle herders look for where there is sufficient grass or crop residue for their animals to eat. In a situation where leftover crops get eaten it creates conflict with the farmer.
- v. Proximity to Stock Routes: Farmers who have their farms very close to the road or animal path are liable to have their crops destroyed whenever there is a loose control on the cattle. This shows that such closeness often leads to real threat on farming system.

In explaining the causes of conflicts, Kimani (2008) saw as key factors population pressure and competition over resources especially during droughts, vicious cycles of settling of scores in attacks and counter-attacks and poor dialogue between the different over range resources, mainly water and pastures. According to him, the pastoralists see the survival and well-being of their livestock as paramount because they represent more than just economic assets but are also social, cultural and spiritual assets that define social identity. A Fulani herder was quoted by Abbass (2011) as saying: "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 fields and routes by farmers is a call to war."

#### 4.2. An outline of conflicts over a ten year period

Incessant clashes between Fulani herdsmen and farmers in Nigeria have claimed many lives in the past. These confrontations have assumed a regular pattern in terms of frequency in the last ten years (Abbah, 2013). There are many of the conflicts that occurred in remote areas and therefore went unreported. This paper only gleaned a few of those that made headlines over the stated period of ten years.

**Table 1. Some Farmers-Pastoralists Conflicts in Northern Nigeria**

December 2012	<ul style="list-style-type: none"> <li>• Clashes between Gbagyi farmers and Fulani nomads near Abuja left two people dead, five injured, and over 1,500 people displaced from about 27 settlements that were wrecked.</li> </ul>
July 2012	<ul style="list-style-type: none"> <li>• About 200 persons, including a serving federal senator, GyangDantong, were killed in Matse and Kakuru villages during a funeral for some people killed earlier by suspected Fulani herdsmen.</li> </ul>

June 2012	<ul style="list-style-type: none"> <li>At least six people were killed, houses burnt, and several farmlands were destroyed in Ngandum Village, Adamawa State as pastoralists and farmers engaged in a fierce battle. These occurred after Herdsmen led their cattle into rice fields resulting in the death of a farmer.</li> </ul>
May 2012	<ul style="list-style-type: none"> <li>A clash between farmers and herders in Gwer West area in Benue State left five people dead and many others displaced</li> </ul>
April 2012	<ul style="list-style-type: none"> <li>April 2012 One person was killed and several others were injured in a Fulani-Hausa Clash in Sokoto.</li> </ul>
March 2012	<ul style="list-style-type: none"> <li>Sixteen people were reported killed in a clash between Tiv farmers and Fulani herdsmen in Kadarko community, Giza Local Council of Nasarawa State. About 5,000 residents fled the community to safer areas in nearby towns.</li> </ul>
.March 2012	<ul style="list-style-type: none"> <li>Conflict between Fulani pastoralists and sedentary farmers in Gwer West Local Government Area of Benue State left over 30 people dead.</li> </ul>
November 2011	<ul style="list-style-type: none"> <li>Fulani/ farmers clash in Kirikasamma Local Government area of Borno State left one person was killed and over 17 people from the farmers' side seriously injured. The clash was triggered when farmers in the area took measures to protect the perennial destruction of their yet-to-be-harvested farm produce and incessant attacks on them by the Fulani pastoralists.</li> <li>Conflicts between farmers and Fulani pastoralists in Benue State, left two soldiers, some 50 men, women, and children dead.</li> </ul>
March 2010	<ul style="list-style-type: none"> <li>Fulani herders invaded three villages of Dogo Na Hauwa, Ratsat and Jeji in Jos South Local Government Area of Plateau State killing many people including mostly children and women in a barbaric manner.</li> </ul>
December 2009	<ul style="list-style-type: none"> <li>32 people were killed, scores of houses burned, and several farms destroyed following clashes between pastoralists and farmers in Nassarawa State.</li> <li>About 700 pastoralists were expelled from Borno State and another 2,000 from Plateau State after attacks on local farmers.</li> </ul>
February 2005	<ul style="list-style-type: none"> <li>Dozens of people were killed in Adamawa state when Fulani herdsmen alleged to come from Chad and Niger attacked farming communities in a dispute over grazing land.</li> </ul>
February 2004	<ul style="list-style-type: none"> <li>49 farmers were killed as they flee nomad attacks by Nomads in the farming town of Yelwa, Plateau State.</li> </ul>
May 2003	<ul style="list-style-type: none"> <li>Cattle herders attacked and burned 34 farming villages in Adamawa and Gombe States resulting in 63 dead and over 500 injured The attackers, thought to be nomadic herdsmen from neighbouring Chad, attacked the rural town</li> </ul>
February 2003	<ul style="list-style-type: none"> <li>About 100 people were killed in clashes over the past days between Fulani and the Yungar ethnic groups in Adamawa State.</li> </ul>

January 2002	<ul style="list-style-type: none"> <li>• Conflict in the Mambilla plateau in Taraba State between Fulani herders and farming communities which resulted in dozens of deaths forced more than 25,000 Fulani herdsmen to flee across the border to Cameroon.</li> <li>• At least 30 people were killed in clashes between farmers and pastoralists over grazing land in BarkinLadi local council area of Plateau State.</li> </ul>
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Compiled by Audu, S.D. (2013).

The table above presents a disturbing trend. Within a ten year period, several lives have been lost, whole communities have been affected, and properties worth millions were destroyed. In most cases, the conflicts that started in the farmlands extend into the villages with destructive effects on innocent persons.

#### 4.3. Effects of the conflicts both parties

The conflicts affect farmers and pastoralists differently. In many situations, the pastoralists simply move away since they are nomadic. The sedentary farmers however, do not have that option. So, the problems caused by the conflict stay more with resident farming populations since they cannot move with their land, while the mobile populations may not be affected in the same manner. Both situations create a climate of tension and make both the herders and farmers unwilling to invest for the future. If one has fears that herders are going to destroy crops, one may be unwilling to expand his farmland. On the other hand, if the herder has fears that farmers will attack his cattle, more effort will be used in guarding his animals rather than improving stock production. In an interview, the National Secretary of the Miyetti Allah Cattle Breeders Association in Nigeria, Saleh Bayari had lamented the pastoral Fulani's plight. He said, "There is nobody who rears animals that wants conflict. Conflicts destroy lives, including the lives of animals. So, it is always very difficult for the Fulani person to go into any agitation that will at the end of the day hurt his livestock. He would prefer to suffer deprivation of all kinds than engage in armed conflict that" (Abbah, 2013).

## 5. Conclusion

This paper discussed the conflicts between farmers and pastoralists in northern Nigeria as a result of freshwater scarcity. The root problem of most conflicts lie in the perceived threat to loss of livelihoods among farmers and pastoralists caused by diminishing freshwater and land resources. The competition and resultant unequal access to the resources combined with the ethno-religious differences, thus become the proximate causes of the conflicts.

Beyond the occurrences of these conflicts, a wider implication involves a threat to security in general and food security in particular. As climate change intensifies freshwater scarcity, conflicts of this nature are expected to increase in the future, not only in the north but further south in the country. Considering the experiences of the middle-belt in Nigeria that has a relatively more favorable climatic condition than the far north, and the clashes that occur there as a result of the influx of displaced pastoralists from the far north,

better climatic conditions that guarantee freshwater availability in the southern parts of the country will make the south more vulnerable to future clashes. The overall impact of these will result in instability and would undermine any meaningful and sustainable development in the country. To minimize the imminent threats, this paper makes the following recommendations:

- a. Being aware of these threats, government, civil society, interest groups and traditional authorities should set up a platform for dialogue between leaders of the farmers and pastoralists groups.
- b. A reporting system should be instituted for early detection of conflict situations especially at the flashpoints.
- c. A platform for dialogue must also be provided to address the grievances of the pastoralists as infringements on stock routes and grazing portions for them usually go unreported, and only damages done to farmers' crops receive publicity.
- d. As farmers and pastoralists know their limits and bounds and penalties for infringement are objectively enforced, there will be a reduction of the conflicts even in the face of diminishing freshwater resources.

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