

Climate Change, Population Drift and Violent Conflict Over Land Resources in North Eastern Nigeria

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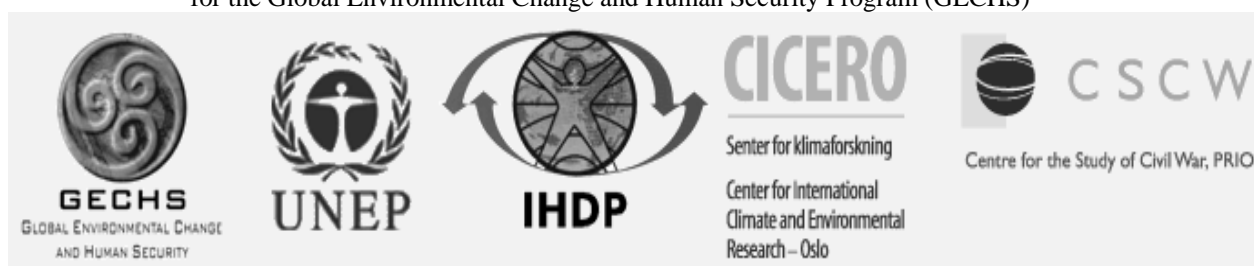
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Abstract

In the recent times, due to the increasing rate of global warming, the northeast region of Nigeria has been experiencing continuous climatic change characterized by drastic reduction in rainfall, increase on the rate of dryness and heat, which makes it a fast growing arid environment, with depletion on the amount of water, flora and fauna resources on the land. In response to the pastoral and arable farm occupational needs of the people, there has been continuous population drift southward where there are more fauna, flora and water resources. Following the above, an important question that needs to be addressed is, how has the pressure over scarce resources consequent to climatic change led to violent conflict in the area? And what have been the patterns over the years? Against this background, this paper focuses on investigating the chain of interactions between climatic change, population drift and pressure, and conflict over land resources. Specifically the paper addresses the nature of violent conflicts in the northeast area of Nigeria, the extent to which continuous climatic change has contributed to the scenario, the patterns of the climatically induced violent conflicts, the major actors and the security implications of the conflict in the sub region.

Key Words: Climatic Change, Population Drift, Violent Conflict, and Land Resources

I. Introduction

Climatic conditions throughout the whole world have been constantly changing. The world had gone through series of climate epochs, which include the ice age, and consequently, the ice recessions among others. The constantly changing climatic conditions may be a function of one or combination of the following factors – natural, and anthropogenic¹. In the recent times, intergovernmental Panel on climate change (IPCC), World Meteorological Organization (NMO) and United Nations Environment Programme (UNEP) established that the earth has become warmer over the last century. According to them, the average surface temperature of the earth has increased during the twentieth century by about $0.6\pm 0.2^{\circ}\text{C}$. It is warmer presently around the world than at any time during the past 1000 years, with possibilities of warmest years of the previous century occurring within the past decades, when there were increasing rate of release of carbon dioxide into the atmosphere which increased the “green house effect:”. There is no doubt that the presence of “green house

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¹ Human activities – primarily the burning of fossil fuels have increased the “greenhouse gas” content of the earth’s atmosphere significantly over some period.

gases”² including water vapour and carbon dioxide keeps the average temperature of the planet at a hospitable³ range, usually between 14°-15°C.

However, the excessive release of the greenhouse gases strengthens the greenhouse effect to the extreme, resulting to temperature changes that may lead to ozone depletion and human vulnerability. This change in temperature usually lead to lower ozone levels near the earth’s surface, and significant increase of Smog problems in the cities where the release of carbon dioxide is greater. Generally, small increases in atmospheric temperatures could also change the way clouds form and dissipate. Warmer temperatures near the ground could cause lower clouds to evaporate, letting heat rise farther into the atmosphere. As this heated air rises and cools, higher clouds form. But lower clouds usually reflect sunlight back into space while higher clouds tend to absorb more heat. Therefore more high cloud means more heat trapped near the earth’s surface, so small increases in temperature could set off a cycle in which the temperature holds more and more heat over time.

The earth’s constant warming and heating has affected many parts of Nigeria, especially those in the Northern fringes of the country, who are located far away from the cooling effect of the sea along the coastline down the south. As a result of this, the region has been experiencing continuous climate change characterized by reduction in rainfall, increase in the rate of dryness and heat. It has been reported that the north eastern Nigeria which was mainly a Sudan Savannah is increasingly becoming an arid environment at the receding rate of 6 meters per year occasioned by fast depletion on the amount of surface water, flora and fauna resource on the land.

The decreasing availability of physical, environmental and land resources such as clean water, good agricultural land for arable and animal husbandry could create a condition of “simple scarcity”, “group identity” and “deprivation” in the area, (Homer-Dixon, 1994) that could provoke violent conflicts of high magnitude due to population movements and scramble for the available resources. Previous study related to this proposed study has highlighted some aspects of conflict generation, conflict management, and self – organizing capabilities in drought – prone rural communities, but this present study seeks to integrate the scarcity of flora as the fulcrum of analysis. In other words, an attempt would be made to understand the role of scramble for flora in conflict generation among the sedentary arable farmers and the migratory herdsmen/pastoralists.

² Carbon dioxide from industrial elements is one of the most important green house gases, which trap heat near the planet’s surface.

³ Without green house effect, the earth’s average temperature would be relatively very low and inhospitable for human, fauna and flora habitation

In the light of the above, this discourse focuses on the chain of interactions between land resources scarcity, the scrambling and violent outbreaks in northeast Nigeria. The discourse utilizes secondary data sources for collection of information, which were analysed by “content analysis”. Prolonged observational study was also carried out in the study area over a period of time. The body of the discourse is presented in the following sections after the introduction, Nigeria and North East Nigeria in Climate Perspective; Theoretical framework of Analysis; Nature of violent conflicts; Environmentally induced Conflict over land resources North East Nigeria Emerging Pattern of Environmentally induced Conflict over land resources North East Nigeria and Human security Implications of violent conflict over land resources in the area of study.

II. Nigeria and North East Nigeria in Climate Perspective

In the past, the descriptions of the climate of Nigeria, and indeed North East Nigeria have been rather simplistic due paucity of data, but with the availability of data manipulation techniques, it is possible to discuss more fundamental features of the climate. Such is necessary at this point in time as recent droughts, water shortages, fauna and flora depletion have highlighted how important it is to understand weather phenomena (Oguntoyinbo, 1982) and how they affect human security. Nigeria is one of the countries in West African sub-region; it has an estimated population of about 120 million people spread over a land area of 932,768sqkm. Nigeria is bound by Cameroon to the east, Chad to the northeast, Niger to the north, Benin to the west, and the Atlantic Ocean to the south. (Fig.1)

The climate of Nigeria is tropical in nature, which is occasionally subjected to variations, depending on the rainfall. During summers, major portion of the country comes under the influence of moisture-laden tropical maritime air. Temperatures are high throughout the year, averaging from 25° to 28°C. In the higher elevations of the Jos Plateau, temperature is at an average of 22°C. Northern Nigeria experiences greater temperature extremes than the south. Rainfall varies widely over short distances from year to year. Nigeria can be divided into the sub-equatorial south, the tropical hinterland, the tropical continental north and the high plateaux. In comparison, there is pronounced long period of wet season in the south and longer period of dry season in the North. In Nigeria there is general increase in the sunshine hours from the Atlantic coast to the interior. The amount of sunshine ranges from a minimum of 1300 hours in the Niger Delta at the coastline to over 3200 hours in the extreme North East angle. Similarly, in terms of annual totals of global radiation, the radiation level in the north of Nigeria (190kg-cal,) is almost double the level in

the South (110 kg-cal.). The increase northwards is approximately parallel with the lines of latitude. (Ibid).

Fig 1: Map of Nigeria Showing Nigeria and Her Neighbours



Copied from www.theodora.com/map

Due to its location along the tropics of equator, Nigeria experiences high temperatures all the year round. Seasonal and latitudinal variations affect the seasonal ranges. Within Nigeria, the mean temperatures are determined by the location of a particular place in question. Observation indicates that mean maximum temperatures increase from the coast northward. The highest monthly mean of 32.2°C for the coastal region to a mean of 40.6°C in the extreme north, including the northeast axis is common. The Rainfall pattern in Nigeria is a good reflection of the seasonal variations of the surface location of the Inter-Tropical Discontinuity. The basic characteristics depict a decrease both in duration and amount from the coastline to the interior except where altitudinal effects create some breaks and alterations. The coastal areas receive more than 4000mm spread over 8-10 months, while the extreme north fringes of the country receives less than 250mm, which is spread over a shorter period of time between 3-4months. The implication of variation in the overall climatic condition is differentiation in the vegetative zones in Nigeria, which are tied to a combination of amount of rainfall and temperature. The ecology of the country varies from tropical forest in the south to dry savanna in the far north, yielding a diverse mix of plant and animal life. About two-thirds of Nigeria lies in the watershed of the Niger River, which empties in to the

Atlantic at the Niger Delta, and its major tributaries: the Benue in the northeast, the Kaduna in the west, the Sokoto in the northwest, and the Anambra in the southeast. The amount of vegetation cover on the soil decrease northwards, with the extreme north relatively bare compared to other zones. There are forests⁴, Savannah⁵, and *mountane* vegetation zones. In the low-lying coastal regions, mangroves are found while swamp forest are found where the water is fresh. Farther inland, this vegetation gives way to tropical forest, with its many species of tropical hardwoods, including mahogany, iroko, and obeche. The fauna of Nigeria includes elephants, buffaloes, lions, leopards, smaller animals such as antelope, monkeys, jackals, and hyenas, which are found in abundance. Hippopotamuses and crocodiles are still common in the largest rivers. Birds, including species that migrate seasonally between Africa and Europe, are also abundant in Nigeria.

The northeast zone which comprises of about one third of the countries land mass situates within 9°-14°N and 8°-15°E (Iloeje, 1976). Politically, the zone comprises of Bornu, Yobe, Adamawa, Taraba, Gombe, and Bauchi (six States). Most of these states share boundaries with international communities like Cameroun, and Chad Republics (*refer to* Fig. 1). It experiences acute dryness on the soil, 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 Fulani ethnic group. There are about 200 ethnic groups in this zone, among which are the Tiv, Fulani, Bachama, Kutep, Jukun, etc (TEE-REX, 2003).

III. Theoretical framework of Analysis

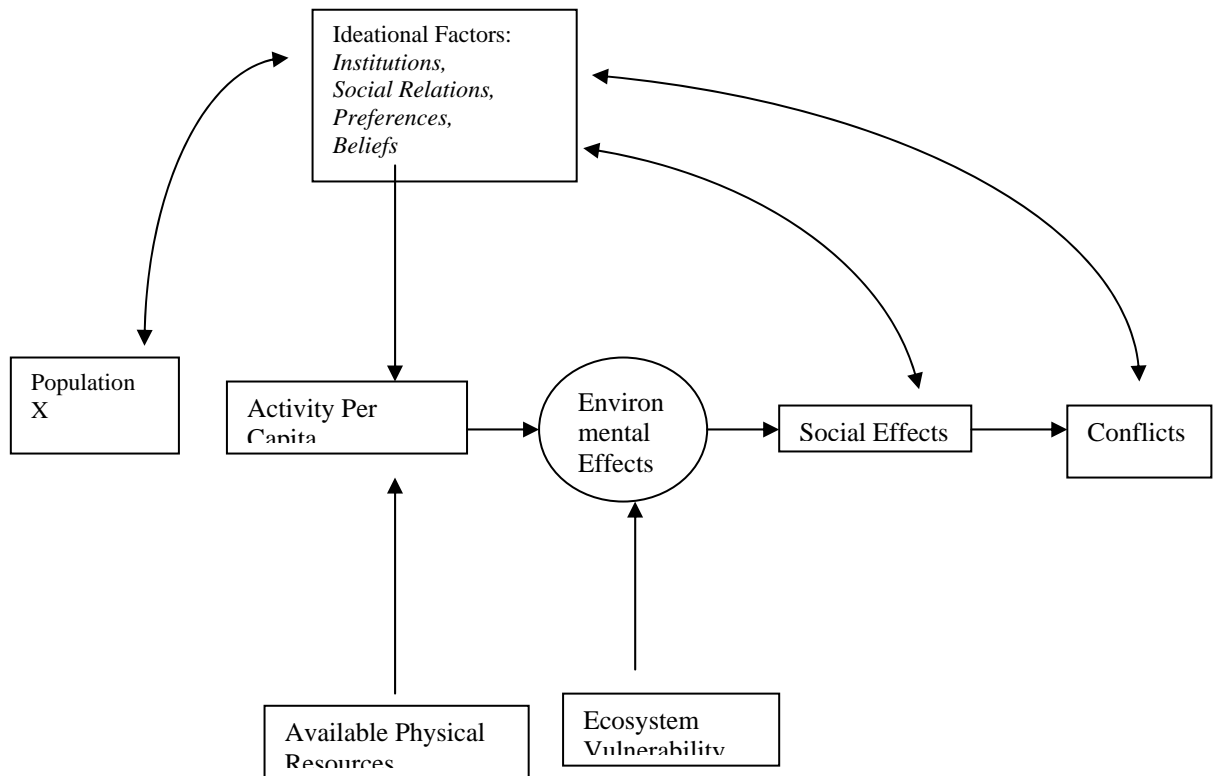
In this section the theoretical framework of analyzing inter-linkage between environmental changes and possible conflict situation is presented. Without the full understanding of the intervening factors, it may be difficult to grasp the true nature of the relationship between human activity, environmental change, social disruption and conflict in northeast, Nigeria. An illustration of a framework of analysis advanced by Homer-Dixon (1991) will be utilized in this paper as shown in fig. 2.

The illustration suggested by Horner-Dioxon implies that the total effect of human activity on the environment in a particular ecological zone is mainly a function of two

⁴ Main forest types are salt-water swamp, fresh water swamp, and high forest

⁵ Main savannah types are guinea savannah, Sudan savannah, sahel savannah

Fig: 2 Environmental Change and Acute Conflict Nexus Adopted from Homer-Dixon, (1991)



variables: first, the product of total *population in the region* and *physical activity per capita*⁶, and second, the vulnerability of the ecosystem in that region to those particular activities.

The figure also shows that environmental effects may cause “social effects” that in turn could lead to conflict. For instance desert encroachment on landmass may produce large-scale migration, which could create ethnic conflicts as migratory groups class with indigenous (settled) populations. Within this paradigm, we must be aware of the intervening role of population growth, demographic structure, and patterns of population distribution. (Simon, 1981; McNicoll, 1984; Ehrlich and Ehrlich, 1990). Similarly, researchers must understand the effect of the ideational-factors⁷ in conflict generation. The threshold beyond or within which given societies could respond effectively to the inbuilt stress induced by climate/environmental change differs. Particularly, if we wish to understand a society’s propensity towards conflict, given certain social effects due to the environmental stress, we need to understand the relationship, between the ideational factors and conflict. However, environmental stress and consequent conflict relation does not occur if environmental and resource scarcity threshold is not attained. The threshold of environmental scarcity could be attained as a result of interaction of sources of scarcity in a particular environment as proposed by Homer-Dixon (1994). According to him, the three sources of environmental scarcity often interact, in two distinct patterns “resource capture” and “ecological marginalization” (see fig. 3).

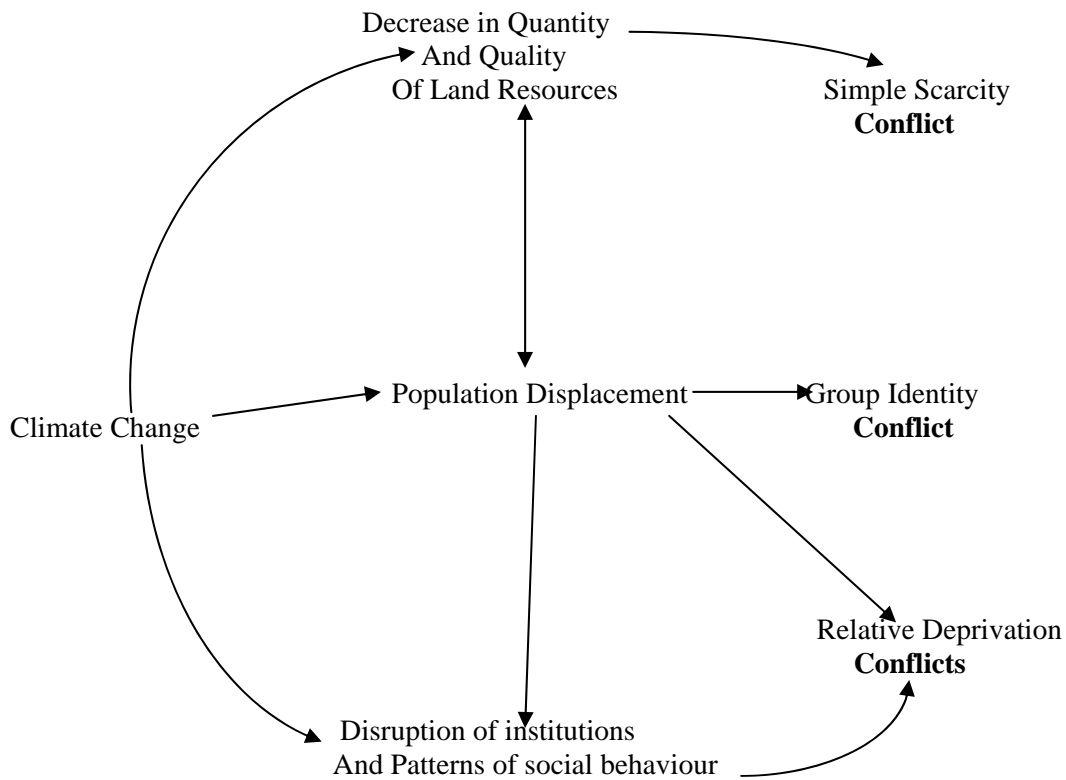
Resource capture depicts a situation where a fall in the quantity and quality of renewable resources can combine with population growth to encourage powerful or advantaged groups within a society to shift resource distribution in their favour. This usually produces acute environmental scarcity for poorer and weaker groups whose claims to resources are opposed by more powerful groups. On the other hand, unequal resource access can combine with population growth to cause migration to regions that are ecologically fragile, such as steep upland slopes, areas at risk of desertification, and tropical rain forests.

⁶ Activity per capita, in turn, is a function of available physical resource, which include non-renewable resources such as animals, and renewable resources such as water, forests, and agricultural land and ideational factors, including institutions, social relations, preferences and beliefs.

⁷ Ideational factors are broad and complex social and psychological context. It includes patterns of land distribution; family and community structure; the economic and legal incentives to consume and produce goods, including the system of property rights; perceptions of the probability of long-run societal stability; historically noted patterns of trade and interaction with societies; the distribution of coercive power within and among nations; the form and effectiveness of institutions of governance; and metaphysical beliefs about the relationship between humans and nature.

Simple-Scarcity conflicts, Group-Identity related conflicts, and Relative Deprivation induced conflicts (Fig. 4).

Fig 4: Types of Conflicts Likely to Arise from Environmental Change



Note: This model was proposed by Homer-Dixon (1991)

In examining the interaction between climate change, population drift and violent conflict over land resources in northeast Nigeria, these theoretical perspectives would be applied to determine the climate – social effect nexus and the pattern of conflicts that emerge in the area. Our analysis of what obtains in that part of Nigeria may not be restricted to the given paradigms already advanced by earlier scholars. Rather our scope of analysis would be determined by the amount of information gathered about the subject of study in the area.

IV. Nature of Violent Conflicts in Nigeria and North East Nigeria

Generally, like other concepts in social and human sciences, conflicts can be categorised in various ways depending on the type of criteria one uses. For example Salim (1999) classifies conflicts in Africa as follows: boundary and territorial conflicts, civil wars and internal conflicts having international repercussions, succession conflicts in territories decolonised, political and ideological conflicts, others including those related to transhumance and

irredentism. Similarly, Collier and Binswanger (1999) classify conflicts into loot seekers and justice-seekers, classification, which is, based more on value judgment rather than analytical criteria.

Ethnic conflicts in Nigeria have attained a situation of pervasive phenomenon. It has turned Nigeria's urban and rural communities into battlefields and killing grounds. For instance the Ife-Modakeke communal conflicts of Oyo/Osun States 1999; Hausa/Fulani and Kataf of Zangon Kataf in Kaduna State 1999; Ijaw and Istekiris of Warri in Delta State, 1999; Hausa/Fulani and Yoruba ethnic conflicts in Oyo and Lagos States respectively, 1999/2000; Jukun/Chamba and Kuteb, Jukun and Tiv in Taraba State, 1998/1999; Igbakwu-Omor, Aguleri and Umuleri communal conflicts of Anambra State 1999.

Majority of these ethnic conflicts have political, economic and religious roots and connotations. But it most often boils down to competition between those that see themselves as the true 'indigens' of an area, and those that are considered to be more recent 'settlers'. However, whatever the historical justifications, the conflict is always and everywhere about access to scarce resources (Obioha, 2000). This might be farmland, or employment, or access to political power. It could even be jealousy over the provision of water or electricity to one village but not its neighbour.

With particular reference to our area of study, violent conflicts that have taken place there over the years could be described according to scope, stake, actors and location as follows: -

Scope

- Inter Ethnic
- Intra Ethnic
- International

Stake

- Religious
- Political
- Resource control

Actors

- Indigenes (authochonous group)
- Settlers (non- authochonous group)
- The State

Location

- Urban
- Rural

However, what is important to us in this paper is identification of the types that are environmentally induced in the northeast fringes of Nigeria.

V. Environmentally induced Conflict over Land Resources in North East Nigeria

In North East Nigeria there are many conflicts, which are environmental induced. These are conflicts over grazing land, over cattle, over water points and over cultivable land. While there are conflicts over grazing land and over cattle amongst pastoral people, there are also conflicts over cultivable land amongst peasant farmers within the same ethnic group and also between ethnic groups. Such conflicts amongst pastoralists are common and widespread in Nigeria. This is similar to what happens in, the Karamajong of Uganda and the Pokot of Kenya who have been fighting over grazing land and over cattle for more than three decades (Bujra, 2000). Other examples of conflicts amongst pastoralists are many in other parts of Africa: among the Somalis, Oromos, Karamojong, Pokot, Masai, etc.

Similarly, conflicts for fertile and cultivable land have been taking place amongst many ethnic groups in the area like elsewhere in Africa⁸.

Most of these rural conflicts over land and cattle have been going on over a long period, with very little attention given to them. Even today most such conflicts go unnoticed and unreported – unless large-scale killing and injuries takes place and the state intervenes militarily. These conflicts go back a long way, in some cases to the pre-colonial period. However, major changes have been introduced in the countries' economies such as changes over land laws, which often contradict customary laws (Obioha, 2000; Obioha, 2002; Obioha, 2004), confiscation of large tracts of land for ranching and large-scale farming, and increase in population. Most important is the rise of rural inequalities – between rich and poor/landless farmers, between rich ranchers and poor cattle owners. These changes have led to a considerable competition for the scarce resources of land (cultivable and grazing, including water). Furthermore, environmental deterioration in land productivity and scarcity of water has contributed to the intensity of the competition. Amongst pastoral societies in particular, the system of grazing, which involves movement of large cattle herds to water points and in search of pasture, has created a serious problem. Private ownership of land has restricted these necessary movements of pastoralist and the impact has been serious and catastrophic on pastoralist societies (Bujra, 2000).

Different cases and examples of violent conflict over land resources in north eastern Nigeria in the recent time include those that have been occurring in different states of that region of Nigeria. The particular worrying situation is the ongoing conflict between the

⁸ Examples of large-scale conflicts over cultivable land (involving ethnic groups) are not, suspect, as frequent as those among the pastoralists. Nevertheless, there are recent examples of well-reported conflicts in Kenya (Rift Valley), Nigeria (Ife and Modakeke Yoruba communities), the DRC (between the Hema and Lendu, in Ituri District) and in Ghana.

Jukuns and the Tivs, and related tensions between other groups, in the central states of Benue, Taraba and Nasarawa. This conflict culminated in the killing of more than 200 civilians by the military in Benue in October 2001.

The case of Tiv-Jukun crises is deep rooted in the issue of traditional homelands, which is deep in Nigerian culture and it is a typical case of between two sedentary cultivator groups from different ethnic groups. There was once a Jukun kingdom over much of the area of the conflict, and there is much sentiment among the Jukun that this is their land. The Tiv diet staple is the yam, a nutritious root. The yam removes almost all nutrition from the soil, and yam fields must lie fallow for several years before reusing them. So each year, Tiv farmers must move to new plots of land, and after generations they began to feel this was their right. Jukun felt the Tiv were no longer respecting the rights of the traditional people of the area, but were taking new land without permission.

Similarly many parts of central and northeastern Nigeria have recorded many violent disputes between indigenous farming communities and nomads in recent years, due to increasing desertification and consequent population pressure over land on the country's northern fringes which forces grazers away from their original abode⁹. As a result, many pastoral people have started pushing southwards in search of grazing land, accounting to some extent for the conflict between Tivs and the pastoral Hausa-Fulani people in June 2001 (IRIN-WA 18 July 2001). Also in March 2003 many people were killed when a group of heavily armed men attacked the town of Dumne, Bornu state in northeastern Nigeria. The attackers, thought to be nomadic herdsmen from neighbouring Chad, attacked the rural town. According to reports from the area, some of the residents believed the attack were not unrelated to a violent dispute over grazing land in September 2002 between local people, who are mainly farmers, and nomadic herdsmen.

VI. Emerging Pattern of Environmentally induced Conflict over land resources North East Nigeria

More critical empirical examination of the emerging violent conflicts over land resources in northeast Nigeria indicates that about eleven types of conflict types could be identified and distinguished (Table 1). The various emerging conflict types in the northeast Nigeria fit into the earlier analysis of Homer-Dixon (1991), where he distinguished simple scarcity, Group

⁹ For instance similar conflict in the Mambilla plateau, which is in the same region, resulted in dozens of deaths and forced more than 25,000 Fulani herdsmen to flee across the border to Cameroon

identify and Relative deprivation conflicts. Simple scarcity conflicts are explained and predicted by general structural theories.

Table 1: Typologies of Climatically induced Violent Conflict Over land Resources in North East Nigeria

Type s	Level	Actors	Occupation	Stake	Dimension	Objective sort
TP1	Inter Ethnic	Indigene/settler	Cultivators/herdsmen	Vegetation and land	Domestic/international	Relief from scarcity/reinforcement of group identity
TP2	Inter Ethnic	Indigene/settler	Cultivator/cultivators	Arable land	Domestic	Relief from scarcity/reinforcement of group identity
TP3	Inter Ethnic	Indigene/settler	Herdsmen/herdsmen	Grazing land	Domestic/international	Relief from scarcity/reinforcement of group identity
TP4	Inter Ethnic	settler/settler	Cultivator/cultivators	Arable land	Domestic	Relief from scarcity/reinforcement of group identity
TP5	Intra Ethnic	indigene/indigene	Cultivator/cultivators	Arable land	Domestic	Distributive Justice
TP6	Intra Ethnic	Indigene/indigene	Herdsmen/herdsmen	Grazing land	Domestic	Relief from scarcity
TP7	Intra Ethnic	Settler/settler	Herdsmen/herdsmen	Grazing land	Domestic	Relief from scarcity
TP8	Intra Ethnic	Settler/settler	Cultivator/cultivators	Arable land	Domestic	Distributive Justice
TP9	Inter Personal	Settler/settler	Cultivator/cultivators	Arable land	Domestic	Distributive Justice
TP10	Inter Personal	Settler/indigene	Cultivator/cultivators	Arable land	Domestic	Distributive Justice
TP11	Inter Personal	Indigene/indigene	Cultivator/cultivators	Arable land	Domestic	Distributive Justice

Obioha, 2005, Classifications of Conflict in North East Nigeria

These are conflicts where actors rationally calculate their interests in a zero-sum or negative-sum situation such as might arise from resource scarcity. As a result of this they became land shortage and unable to practice what is their subsistence occupation, and on the extreme they are made poor because of their inadequate land or landlessness (Obioha and Odumosu, 2001). Such conflicts have erupted several times in the northeast axis of Nigeria, which usually arise over the scramble of some types of resources in particular: river water and agricultural productive land. These renewable resources by implication seem particularly likely to spark conflicts because their scarcity is increasing rapidly without commensurate replenishment.

Evidently, as has presented above, there is a positive feedback relationship between conflicts in the northeast Nigeria and increasing quest by competing interests to control the available scarce resources in the area. For instance, the need more food has led to serious interpersonal conflict over land. The peasant populations often clash with one another when there is scramble for possession of irrigable land near water sources in the sahel Savannah. Violent conflicts involving different typologies we identified in the area of study is very recurrent. In most cases simple scarcity conflict are usually of both domestic and

international dimension, involving people with settler/settler and indigene/indigene status who are usually of the same ethnic group. The major stake for this kind of conflict is usually cultivatable land.

Another type of conflict within which we can find various sub-types of conflict that are prevalent in the area is Group-Identity conflict. Group-identity conflicts are explained and predicted by group identity theories. Such conflicts are likely to arise from the large-scale movements of population brought about by environmental change as different ethnic and cultural groups are propelled together under circumstances of deprivation. In this particular case, there are usually inter-group hostility, whereby a group would emphasize its own identity while denigrating, discriminating against, and attacking others.

From empirical situation in northeast Nigeria, this kind of conflict usually involve groups from different ethnic groups, which may be of domestic or international dimension. The cases of the clash over grazing land by pastoralist Fulani herdsmen and the sedentary indigenous cultivators in many rural areas in the sub-region are typical examples. The conflicts are usually sparked-off by southwards population drift of the herdsmen who move in search of pastures for their flock. In this process they come in contact with settled population who take to crop cultivation on particular “fertile land” that produce good vegetation. The scramble for this piece of land by both Fulani nomads and the sedentary cultivators explains the cause of this type conflict. Environmental scarcity and consequent migration of people to where there is a greener pasture is the strong inclination of this conflict pattern.

Similar to the above conflict types, Relative – deprivation theories indicate that as developing societies produce less wealth because of environmental degradations. Their citizens will probably become increasingly discontented by their inability to grasp their own share in the process of scramble for available resources. In practice, at some point, the discontent and frustration of some groups may cross a critical threshold, and they will act violently against other groups perceived to be the agents of their economic misery. The Fulani herdsmen invasion of many arable lands, which had led to series of communal conflict in various parts of northeast Nigeria, is a typical example of the scenario. Usually, the sedentary cultivators perceive the Fulani migrants whose flock invade and destroy their farmland as the agents of their economic misery, which translates in low agricultural and crop production from the farms. On the other hand, the Fulani pastoralists also believe that the cultivators monopolize the whole land areas with prospects of “green” vegetation for their

farming, with little or no space left for grazing of their flock. Our various typologies that involve the migratory herdsmen/sedentary farmers fit into this description.

VII. Human Security Implications of Violent Conflict Over Land Resources in North East Nigeria

From a broad perspective, human security involves the protection of the individual from sudden violent attack on one's person or property, the security being the most important prerequisite for a successful and opulent society. It can be seen as incorporating a long list of possible threats, from traditional security threats to more development-oriented threats such as health poverty and environment. Human security has been described as having two principal aspects: the freedom from chronic threats such as hunger, disease and repression, coupled with the protection from sudden calamities, and a number of significant harms that go unmitigated. Seven components of human security are: economic, food health, environmental, personal, community and political security (United Nations Development Programme (1994). In a more analytically useful manner, Owens, (2004) defined human security as protection of the 'vital core'¹⁰ of all human lives from 'critical and pervasive' environmental, economic, food, health, personal and political threats.

Discussing the human security implication of violent conflicts over land entails examining the extent to which the "vital core" of human living is affected by "critical and pervasive environmental threats" due to climate change. In assessing this, an analysis of the local level data on significant disruption on the "vital core" will be very important.

In Northeast Nigeria, various violent conflicts over land resources have led to decreased agricultural production and hunger. The clashes between various ethnic, occupational and resident groups usually result to destruction of farmland. With the destruction of farm crops, and in some cases retaliation by the cultivator to killing livestock owned by the herdsmen hampers the overall food production, both in crops and meat, which implies increased hunger, disease and malnutrition. Another important potential human security effect of environment-conflict linkages in Northeast Nigeria is economic decline, which further impoverishes that region of Nigeria. Economic productivity may be influenced directly by the environment-conflict disruption of valuable property, or stagnation of productive activities during the civil strife or indirectly via other economic related effects such as decreased agriculture.

¹⁰ The vital core as commission on Human security (2003) points out, is what constitutes a minimum level of survival, while reference to "critical and pervasive threats" establishes both severity and immediacy.

In Northeast Nigeria, various environmentally related conflicts have brought about population displacement, which produce vast number of “environmental refugees” in the area. This pattern of movement does not guarantee personal safety and right to life as the whole condition is unpredictable and precarious. Where people of different ethnic groups cohabit and are pressured into constant conflict in quest of scramble for scarce resources, such conflicts bring about threat to human life, likely to endure for a long time as it is the case in many settlements in various states of northeast Nigeria axis.

Effect on human security in terms of disrupted institutions and social relations is a relevant outcome in the connection between environment change and acute conflict. In northeast Nigeria, observation has shown that persistent conflict over land resources have turn the fabric of custom and habitual behaviour. The inter-linkage could be seen from an example, that a drop in agricultural output may weaken rural communities by causing malnutrition and disease, and by inducing people to leave; economic decline may corrode confidence in the national purpose, and also upset the traditional balance of economic and political authority between ethnic groups in the area.

It is also interesting to note that various conflicts overland have caused instances of insecurity even at household level in northeast Nigeria. In some households, a combination of other human insecurity conditions such as hunger, poverty, economic decline, and disruption of institutions and social relations have led to domestic violence. Women and children have been beaten, wounded and sometimes killed in their households due to reactions, counter reactions and over reactions arising from continual conflict over land resources in this area.

VIII. Conclusion

In the North East Nigeria, like most parts of the northern axis of the country, environmental scarcity occasioned by lowering amount of rainfall has caused tremendous damage to human life through incessant conflict in the quest for scramble and domination of scarce existing land resources. Rivers have almost dried up and vegetation scanty and bare in many instances. This phenomenon affects every aspect of agricultural activity, but the magnitude of negative effect on animal husbandry is greater than in any other sector. The quest for greener pasture by the herdsmen usually brings them in contact with sedentary population who are involved in crop production. In most cases, this contact results to invasion of the cropland of the sedentary group by the livestock of the migratory group. Conflicts that usually arise in this process are usually violent and long lasting, which may have some international repercussions around borders. Conflict types resulting from scramble for land resources in the

North East Nigeria are classified in to eleven types that have varying dimensions. From all observations human security implication of the conflict is enormous, because other areas of human needs are usually in danger whenever there is conflict. Thus the spill over effect may extent to varying magnitude that usually snowball into ethnic, religious and other types of conflicts in the Northern axis of Nigeria. Efforts to address the issue of conflicts resulting from scramble for land resources, which is usually induced by climate change, have to be strengthened. The government and various stakeholders should not only to stop conflicts whenever they arise, but also to put a permanent and sustainable structure to address it. The campaign for re-afforestation that is ongoing in all parts of Nigeria particularly in the drought prone areas of North East Nigeria needs to be boosted. When this is done the it will create a lasting solution to the problem of southwards movement of the Fulani cattle herdsman, which usually spark off a number of violent conflict in that area, they would be encouraged to sit tight on a particular land hence the vegetation remains luxuriant to support their livestock.

IX. References

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